WELLS FARGO
Investment Institute

Market Overview

August 2021

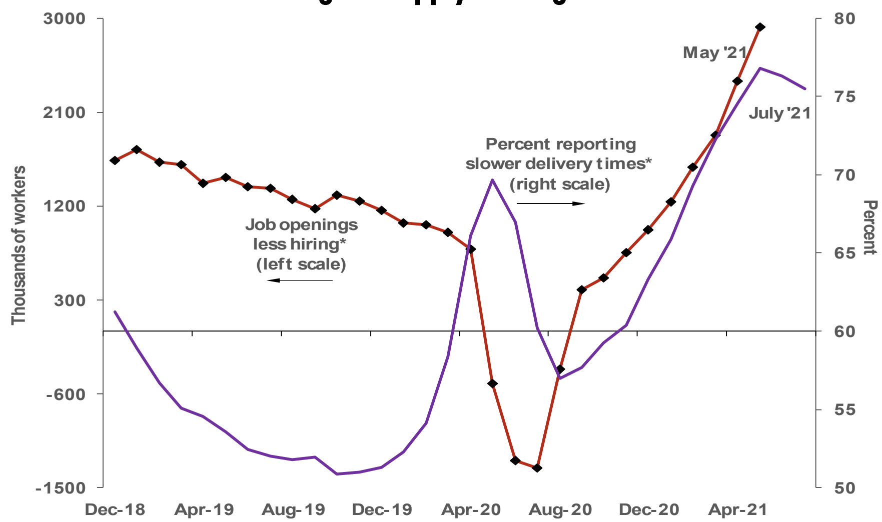
U.S. economic overview

The economy overcomes restraints aided by labor

- Two intertwined messages have emerged from recent economic data: inflation stoked by supply shortages restraining an already impressive "boom" created headwinds for housing and consumer demand by squeezing home "affordability" and households' purchasing power. Supply shortages apparent in recent economic data included a sizeable drawdown in business inventories behind slower-than-expected second-quarter growth of 6.5%. Additional evidence came from a July survey of manufacturing and services firms revealing slow delivery times and a surge in order backlogs. A widening gap between job openings and hiring through the spring signaled labor shortages capable of restraining growth. Nonetheless, the survey also showed the economy's reopening overcame those restraints by propelling strong growth in labor-intensive services activity last month.

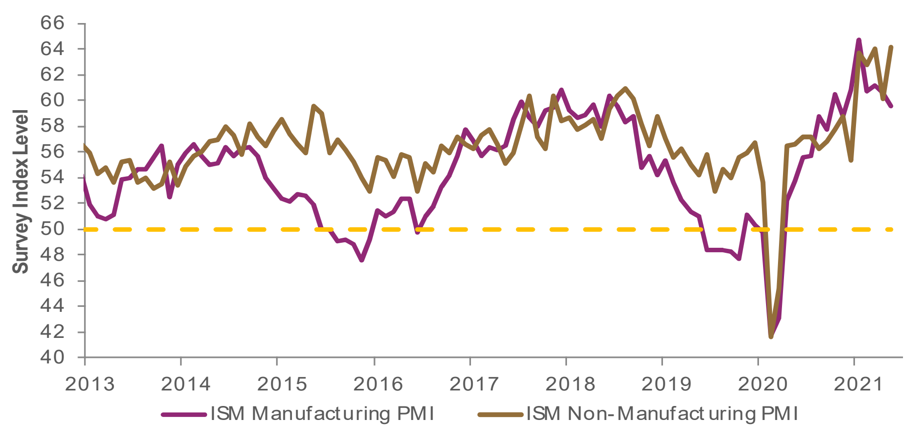
- Growth may be slowing now that economic activity has entered a mature expansion phase of the growth cycle, after exceeding its prerecession peak in June. That typically marks the transition from a high-powered recovery to a more sustainable expansion-phase pace. The difference with this cycle is that growth remains well above its norm, supported by the release of pent-up demand for services hit hard during the pandemic. Unusually early support also is coming from traditionally late-cycle business investment, countering a slowdown in housing construction. Solid, consumer-led growth is overcoming pressure on inflation-adjusted incomes, financed by still-ample credit, excess savings, and double-digit gains in household wealth thanks to rising home and stock prices. Businesses have sidestepped disruptions from shortages and bottlenecks typical of a highly charged growth cycle with risks compounded by a robust financial market. Risks aside, a powerful U.S. rebound is fueling global growth, with a helping hand from a European recovery that appears nearly as strong.

No shortage of supply shortages



*Three-month moving average data
Sources: U.S. Labor Department, Institute of Supply Management, IHS Markit, Inc. and, Wells Fargo Investment Institute. Data as of July 31, 2021.

Divergence between manufacturing and services in July



Sources: Bloomberg and Wells Fargo Investment Institute. Data as of July 31, 2021. PMI=Purchasing Managers' Index. ISM=Institute for Supply Management, see slide 10 for definitions. A reading above 50 indicates expansion, below 50 indicates contraction.

International economic overview

Europe in the midst of an economic recovery

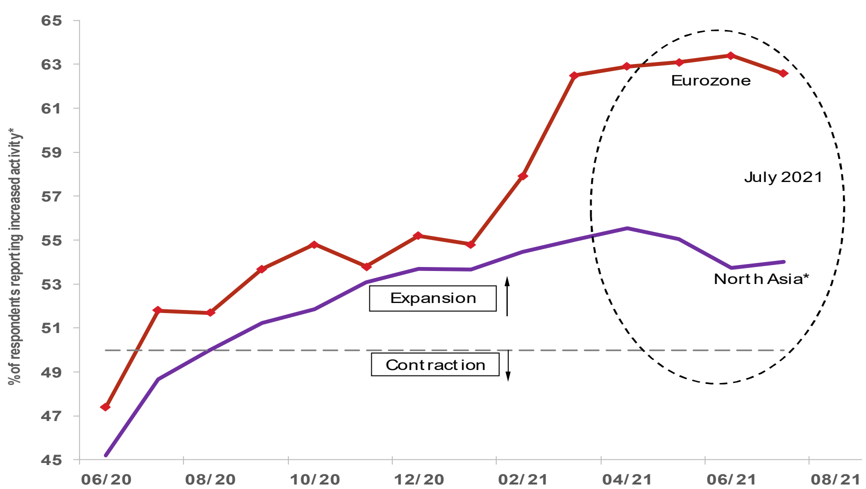
Europe

- Second-quarter data for the eurozone showed a solid recovery from its "double dip" recession earlier this year. The eurozone's 8.3% top-line growth rate bested an understated U.S. rate, propelled by the release of pent-up demand. German and other regional exporters managed to overcome supply-chain disruptions, benefiting from the powerful recovery of world trade even as growth in China moderated. Southern Europe was supported, as well, by a partial reopening during the spring, before prospects were clouded, again, by the latest wave of coronavirus infections. Eurozone business surveys showed more momentum in July, building on solid readings in manufacturing and services industries, and led by German manufacturing. At issue through year-end is the extent to which coronavirus caseloads disrupt the reopening otherwise expected to return European growth to pre-pandemic highs later this year or early next year.

Asia

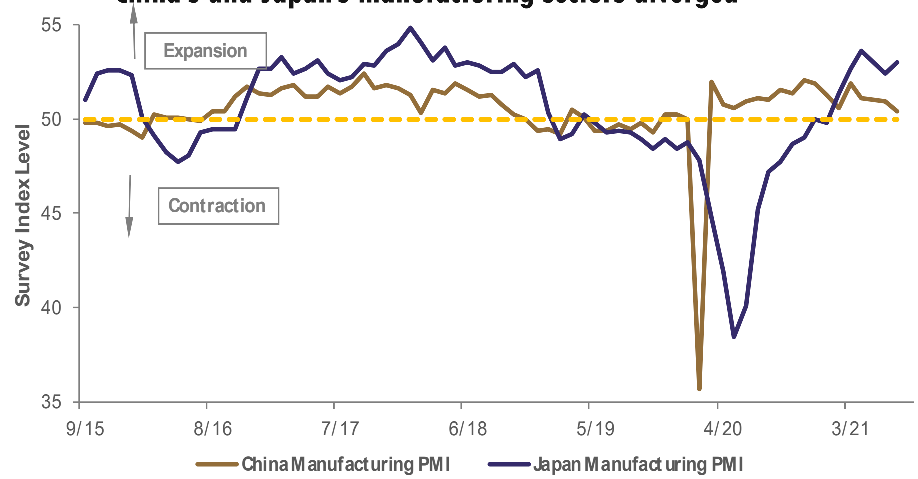
- Asian economies struggling with the pandemic's latest wave at the start of the third quarter left North Asia's manufacturing powerhouses in the uncommon position of lagging European factory growth. Taiwan and South Korea were supported by strong global demand for semiconductors and, in the case of South Korea, for autos cushioning the local economy from deleterious effects of the lockdown on domestic spending. China's slowdown in July was largely due to a further export-led decline in manufacturing, despite the solid recovery in world trade. Rising coronavirus caseloads are having an even more noticeable impact on Japan, where moderate growth in manufacturing in July was overshadowed by lockdowns steepening the decline in frontline services activity. And Southeast Asia suffered a double whammy from the pandemic's latest wave on both domestic spending and the tourist industry.

A struggling North Asia no match for the pandemic



*Simple average of manufacturing surveys from China, Japan, South Korea and Taiwan.
Sources: IHS Markit, Inc. and Wells Fargo Investment Institute. Data as of July 31, 2021.

China's and Japan's manufacturing sectors diverged



Sources: Bloomberg and Wells Fargo Investment Institute. Data as of July 31, 2021. PMI=Purchasing Managers' Index. A reading above 50 indicates expansion, below 50 indicates contraction.

Stock market review and strategy

Equities were mixed for July

U.S. equities:

- The S&P 500 Index posted seven new closing highs in July before ending the month up 2.4% and +18.0% year-to-date (YTD). Market breadth improved for the month as 290 issues gained.
- U.S. large-cap equities outperformed U.S. mid-cap and U.S. small-cap equities for the month (+0.8% and -3.6%, respectively). Nine out of the 11 S&P 500 Index sectors ended positive for July. Health Care and Real Estate were the outperformers (+4.9% and +4.6%, respectively). COVID-19 Delta variant concerns contributed to the lift in the defensive Health Care sector, while Real Estate outperformance was supported by lower interest rates. Energy and Financials were the worst performers for the month (-8.2% and -0.4%, respectively).

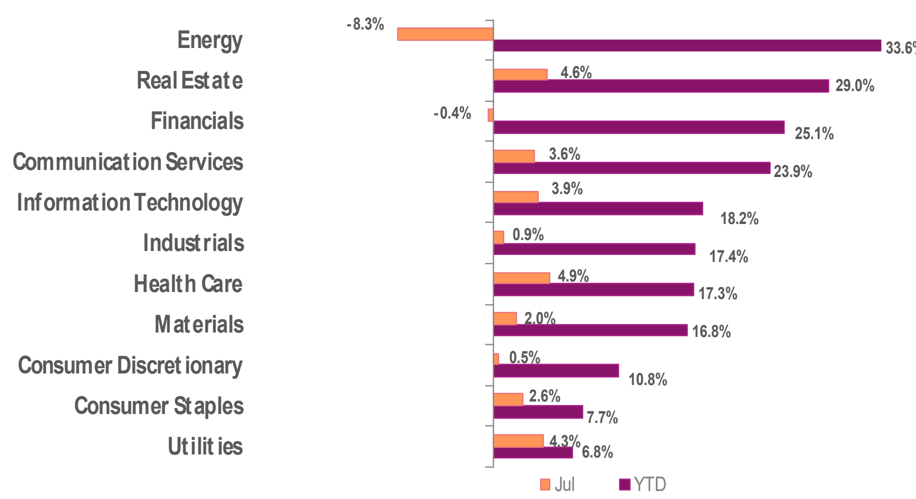
International equities:

- U.S. dollar-denominated developed market (DM) equities (0.8%) outperformed emerging market (EM) equities (-6.7%), as earnings revisions improved across Europe. The strongest DM equity markets were MSCI Israel and MSCI Sweden Indexes, which returned +4.9% and +4.8%, respectively. The weakest DM equity market for the month was MSCI Hong Kong Index (-2.9%).The market suffered as regulators in Beijing increased restrictions on technology companies.
- MSCI Turkey Index was the best-performing EM index, returning +6.6%. The worst EM performer was the MSCI China Index (-13.8%) as investors grew concerned that government regulation may strain firms' profitability.

Stock market total returns Period ending July 31, 2021**

Equity indexes	July	QTD	YTD	1 Year	3 Year*	5 Year*
Global Market	0.7%	0.7%	13.4%	33.7%	14.3%	14.4%
Large Cap	2.4%	2.4%	18.0%	36.4%	18.2%	17.3%
Large Cap Growth	3.3%	3.3%	16.7%	36.7%	25.3%	23.3%
Large Cap Value	0.8%	0.8%	18.0%	39.3%	11.3%	11.4%
Mid Cap	0.8%	0.8%	17.1%	42.6%	15.8%	14.8%
Small Cap	-3.6%	-3.6%	13.3%	52.0%	11.5%	14.3%
Developed ex.U.S. (USD)	0.8%	0.8%	10.0%	30.9%	8.2%	9.9%
Developed Small Cap (USD)	1.7%	1.7%	11.2%	39.2%	9.2%	11.5%
Emerging Markets (USD)	-6.7%	-6.7%	0.4%	21.0%	8.3%	10.8%
Frontier Markets (USD)	-0.3%	-0.3%	14.9%	39.4%	7.7%	9.3%

S&P 500 sector returns



Sources: Bloomberg and Wells Fargo Investment Institute. Data as of July 31, 2021.
*Annualized returns **Index returns do not reflect the deduction of fees, expenses or taxes. **Past performance is no guarantee of future results.** Please see disclosures at the end of the report for index definitions.

Bond market review and strategy

Fixed Income returns were positive in July

U.S. market:

- Rising concerns about the COVID-19 Delta variant along with worries that economic growth may have peaked caused U.S. Treasury yields to decline. The 10-year Treasury yield fell below 1.20% by July 19 and was still hovering near those levels in early August. Although we expect yields to climb further in the second half, this will be a function of how the recovery continues to unfold coupled with periods of technical consolidation between supply and demand.

Developed markets:

- The decline in U.S. Treasury yields also sparked a decline in DM sovereign bond yields, and this was the defining influence on the month's returns, with unhedged DM bonds increasing 1.8% while hedged managed a 1.5% gain. In dollar terms, no market outperformed U.K. Gilts. Eurozone markets saw gains above 1.4% while Japanese government bonds also held up well at 1.7%. Australia's dollar bonds declined slightly.

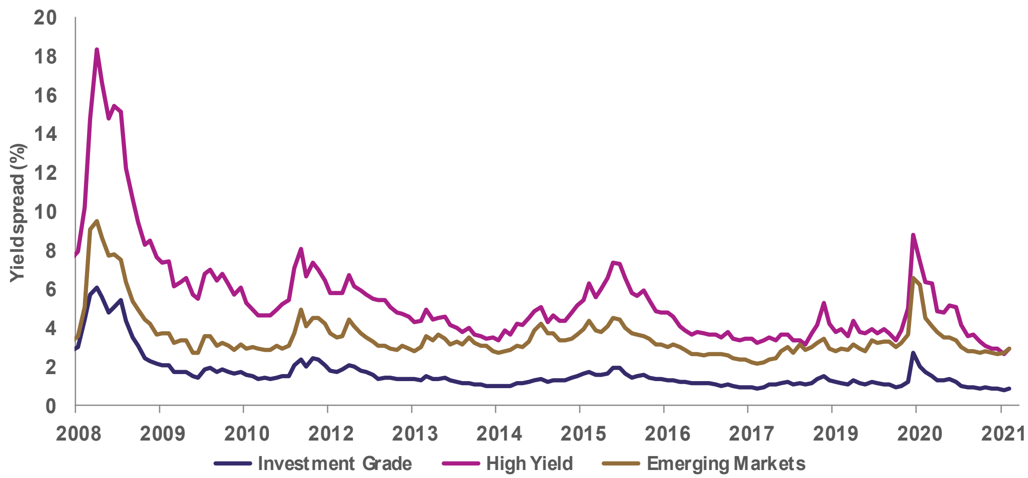
Emerging markets:

- The relatively flat dollar provided support to EM debt, taking monthly returns on local-currency-denominated debt to +0.2% in dollar terms (-1.5% YTD). Argentinian local bonds performed best during the month while Peruvian bonds struggled. Lower U.S. Treasury yields and a lack of currency exposure drove positive +0.5% monthly returns for USD-denominated EM debt, although this still left YTD returns at -0.5%. USD-denominated gains were once again broad-based, as larger index constituents such as Mexico, China, and Turkey, led the advance.

Fixed Income market total returns** **Period ending July 31, 2021**

Fixed Income indexes	July	QTD	YTD	1 Year	3 Year*	5 Year*
Global Multiverse	1.3%	1.3%	-1.7%	1.2%	4.8%	2.7%
U.S. Inv Grade Taxable	1.1%	1.1%	-0.5%	-0.7%	5.7%	3.1%
U.S. Treasury Bills	0.0%	0.0%	0.0%	0.1%	1.2%	1.1%
U.S. Short-Term Taxable	0.2%	0.2%	0.1%	0.4%	2.9%	1.9%
U.S. Interm-Term Taxable	1.0%	1.0%	-0.9%	-0.4%	5.4%	3.0%
U.S Long-Term Taxable	2.8%	2.8%	-2.0%	-4.2%	10.9%	5.5%
U.S. Treasury	1.4%	1.4%	-1.3%	-3.0%	5.3%	2.3%
U.S. Corporate	1.4%	1.4%	0.1%	1.4%	8.0%	4.9%
U.S. Municipal	0.8%	0.8%	1.9%	3.3%	5.3%	3.4%
U.S. TIPS	2.7%	2.7%	4.4%	6.9%	7.6%	4.5%
U.S. High Yield	0.4%	0.4%	4.0%	10.6%	7.2%	7.0%
Developed ex.U.S. (unhedged)	1.8%	1.8%	-4.3%	-0.4%	3.5%	1.4%
Emerging Market (USD)	0.5%	0.5%	-0.5%	3.6%	5.9%	4.2%

Credit spreads to Treasury Securities



Sources: Bloomberg and Wells Fargo Investment Institute. Data as of July 31, 2021.
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Real Assets review and strategy

Real Assets were mostly positive in July

Master limited partnerships (MLPs):

- MLPs pulled back in July after an impressive first half of the year. MLPs are still one of the top-performing assets, posting a +38.5% YTD gain (as measured by the Alerian MLP Index). The group has benefited from encouraging pandemic developments; increasingly optimistic economic growth — and oil demand — outlooks; investor rotation into previously beaten-down areas of the market; and elevated oil prices.

Commodities:

- *Agriculture:* Agriculture commodities were down again in July but with wide dispersion in performance based on the individual commodity. Agricultural commodities have still had a good year, up over 19%, as demand improvements and some supply disruptions benefited prices.

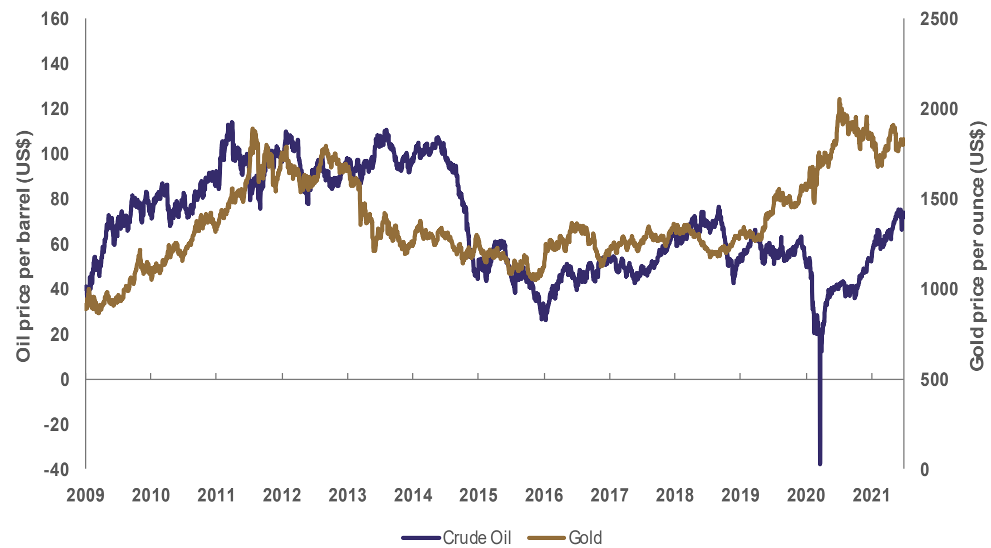
- *Energy:* Energy commodities ended July modestly higher after some weakness in the first half of the month. WTI (West Texas Intermediate) crude oil (+1.6%) lagged other energy commodities. Oil supplies have tightened, and strong demand for oil and its refined products, like gasoline, helped to support prices in the latter half of the month. Natural gas (+8.0%) led the way for energy commodities supported by increased weather-related cooling demand and tighter supplies.

- *Metals:* Precious metal prices were up modestly for July, led by gold (+2.3%), supported by dovish comments from the Federal Reserve. We expect gold and other precious metals to benefit from low real interest rates, accommodative monetary and fiscal policy, and a weaker U.S. dollar. Base metal prices also rose, led by copper (+7.3%) and nickel (+4.5%). China's announcement last month that it would be selling some of its copper and other base metals reserves capped gains, but the dollar weakness and pullback in interest rates provided support.

Real Assets total returns** **Period ending July 31, 2021**

REIT/Commodity indexes	July	QTD	YTD	1 Year	3 Year*	5 Year*
Public Real Estate	3.9%	3.9%	20.6%	36.2%	8.4%	5.7%
U.S. REITs	4.4%	4.4%	26.6%	33.5%	13.3%	8.2%
International REITs	2.4%	2.4%	12.1%	30.2%	5.9%	5.8%
S&P GSCI Commodity	1.6%	1.6%	33.5%	54.0%	-1.0%	4.1%
Bloomberg Commodity	1.8%	1.8%	23.4%	40.3%	5.3%	3.9%
RICI Commodity	1.7%	1.7%	30.6%	53.9%	5.7%	6.6%
Global Infrastructure	1.0%	1.0%	6.4%	20.7%	5.3%	5.8%
MLPs	-6.3%	-6.3%	38.5%	59.3%	-4.5%	-2.4%

Crude oil versus gold



Sources: Bloomberg and Wells Fargo Investment Institute. Data as of July 31, 2021. REITs=real estate investment trusts.
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Alternatives review and strategy

Mixed performance for Alternatives in July

Relative Value:

- Convertible bonds are one area of increased focus for Relative Value managers. Though traders expect issuance to slow during the last weeks of summer, a robust pipeline is in place for the second half of the year, which should support valuations.

Macro:

- Systematic Macro saw positive performance in July, reversing June's losses. Currency trading was problematic, especially via short Yen, Franc, and Canadian Dollar positions, but trading in other sectors fared much better. Commodity trading continues to be a strong source of return for trend-following strategies, especially via long futures positions in the energy complex.

Event Driven:

- Record levels of merger and acquisition (M&A) volume coupled with the return of SPACs (Special Purpose Acquisition Companies) in July served as further fundamental support for Event Driven strategies. According to Dealogic, global M&A volume reached $3.4 trillion through July, marking the highest year-to-date level ever.

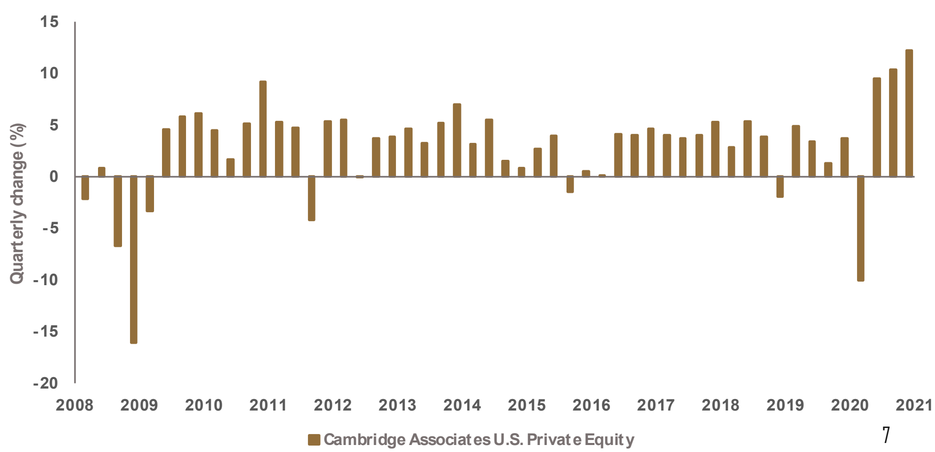
Equity Hedge:

- Though Equity Hedge funds posted positive returns in July, they still lag their equity benchmarks by a significant margin YTD. Shorting equities remains challenging, though we have seen modest improvement in short alpha (excess return) in recent weeks, which is encouraging as we head into the second half of the year.

Alternatives total returns Period ending July 31, 2021**

Alternative indexes	July	QTD	YTD	1 Year	3 Year*	5 Year*
Global Hedge Funds	-0.6%	-0.6%	9.4%	23.1%	8.3%	7.4%
Relative Value	-0.8%	-0.8%	5.7%	12.7%	4.4%	4.9%
Arbitrage	0.4%	0.4%	2.3%	7.0%	3.7%	3.9%
Long/Short Credit	0.2%	0.2%	6.9%	15.8%	6.8%	6.8%
Struct Credit/Asset Backed	0.1%	0.1%	5.6%	12.2%	3.5%	5.2%
Macro	-0.1%	-0.1%	8.2%	11.8%	5.9%	3.0%
Systematic	0.6%	0.6%	8.4%	11.3%	5.3%	1.3%
Discretionary	-1.0%	-1.0%	7.7%	15.0%	8.3%	5.4%
Event Driven	-0.8%	-0.8%	10.8%	27.1%	7.5%	7.8%
Activist	0.1%	0.1%	14.4%	39.2%	9.2%	8.6%
Distressed Credit	-0.3%	-0.3%	13.9%	30.7%	7.4%	8.3%
Merger Arbitrage	-1.8%	-1.8%	6.5%	18.3%	6.5%	5.8%
Equity Hedge	-0.8%	-0.8%	11.1%	30.4%	10.8%	10.1%
Directional Equity	0.9%	0.9%	14.5%	38.4%	14.5%	11.4%
Equity Market Neutral	0.7%	0.7%	5.8%	6.9%	2.0%	2.6%

Private Capital Index returns



[1] Source: Dealogic, July 2021
Sources: Morningstar, Cambridge Associates, and Wells Fargo Investment Institute. Data as of July 31, 2021. Cambridge data through December 31, 2020.
*Annualized returns **Index returns do not reflect the deduction of fees, expenses or taxes. **Past performance is no guarantee of future results.** Please see disclosures at the end of the report for index definitions.

Disclosures

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. 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.

Investments in fixed-income securities are subject to interest rate, credit/default, liquidity, inflation and other 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/or principal. This risk is heightened in lower rated bonds. 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.

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.

In addition to the risks associated with investment in debt securities, CLOs are subject to other risks, including, among others, the risk that the CLOs may have a limited trading market; the possibility that distributions from collateral securities will not be adequate to make interest or other payments; the quality of the collateral may decline in value or default; and the possibility that the investments in CLOs are subordinate to other classes or tranches.

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.

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.

Disclosures

Asset class risks (continued)

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.

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.

Sector risks

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. Risks associated with the **Consumer Discretionary** sector include, among others, apparel price deflation due to low-cost entries, high inventory levels and pressure from e-commerce players; reduction in traditional advertising dollars, increasing household debt levels that could limit consumer appetite for discretionary purchases, declining consumer acceptance of new product introductions, and geopolitical uncertainty that could affect consumer sentiment. **Consumer Staples** industries can be significantly affected by competitive pricing particularly with respect to the growth of low-cost emerging market production, regulation, the performance of the overall economy, interest rates, and consumer confidence. The **Communication services** companies are vulnerable to their products and services becoming outdated because of technological advancement and the innovation of competitors. Companies in the communication services sector may also be affected by rapid technology changes; pricing competition, large equipment upgrades, substantial capital requirements and government regulation and approval of products and services. In addition, companies within the industry may invest heavily in research and development which is not guaranteed to lead to successful implementation of the proposed product. **Energy** sector may be adversely affected by changes in worldwide energy prices, exploration, production spending, government regulation, and changes in exchange rates, depletion of natural resources, and risks that arise from extreme weather conditions. Investing in the **Financial** services companies will subject an investment to adverse economic or regulatory occurrences affecting the sector. Some of the risks associated with investment in the **Health Care** sector include competition on branded products, sales erosion due to cheaper alternatives, research and development risk, government regulations and government approval of products anticipated to enter the market. There is increased risk investing in the **Industrials** sector. The industries within the sector can be significantly affected by general market and economic conditions, competition, technological innovation, legislation and government regulations, among other things, all of which can significantly affect a portfolio's performance. **Materials** industries can be significantly affected by the volatility of commodity prices, the exchange rate between foreign currency and the dollar, export/import concerns, worldwide competition, procurement and manufacturing and cost containment issues. **Real estate** investments have special risks, including possible illiquidity of the underlying properties, credit risk, interest rate fluctuations, and the impact of varied economic conditions. Risks associated with the **Technology** sector include increased competition from domestic and international companies, unexpected changes in demand, regulatory actions, technical problems with key products, and the departure of key members of management. Technology and Internet-related stocks, especially smaller, less-seasoned companies, tend to be more volatile than the overall market. **Utilities** are sensitive to changes in interest rates, and the securities within the sector can be volatile and may underperform in a slow economy.

Index definitions

An index is unmanaged and not available for direct investment.

Economic indexes (slides 2-3)

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

The Institute of Supply Management (ISM) **Manufacturing Index®** is a composite index based on the diffusion indexes of five of the indexes with equal weights: New Orders (seasonally adjusted), Production (seasonally adjusted), Employment (seasonally adjusted), Supplier Deliveries (seasonally adjusted), and Inventories. An Index values over 50 indicate expansion; below 50 indicates contraction. The values for the index can be between 0 and 100.

The Institute of Supply Management (ISM) **Non-Manufacturing Index®** is a composite index based on the diffusion indexes for four of the indicators with equal weights: Business Activity (seasonally adjusted), New Orders (seasonally adjusted), Employment (seasonally adjusted) and Supplier Deliveries. An Index values over 50 indicate expansion; below 50 indicates contraction. The values for the index can be between 0 and 100.

PMI Surveys, such as the **Eurozone Manufacturing PMI**, track sentiment among purchasing managers at manufacturing, construction and/or services firms. An overall sentiment index is generally calculated from the results of queries on production, orders, inventories, employment, prices, etc.

Equities (slide 4)

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.

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.

Russell 1000 Index measures the performance of the 1,000 largest companies in the Russell 3000 Index, which represents approximately 92% 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.

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.

Developed Small Cap Equities: **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.

Index definitions (continued)

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. The MSCI Frontier Markets Index consists of 24 frontier market country indexes.

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.

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

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

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

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

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

Fixed Income (slide 5)

Global Multiverse Fixed Income: **Bloomberg Barclays 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.

Index definitions (continued)

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

***U.S. Treasury Bills Fixed Income*:** **Bloomberg Barclays 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 Barclays U.S. Aggregate Bond Index** is made up of the Bloomberg Barclays 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 Barclays U.S. Treasury Index** includes public obligations of the U.S. Treasury with a remaining maturity of one year or more.

U.S. Investment Grade Corporate Fixed Income: **Bloomberg Barclays 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 Barclays 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 Barclays Treasury Inflation Protected Securities (TIPS) Index** includes all publically 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 Barclays 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 (Unhedged): **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.

Developed ex. U.S. Fixed Income (Hedged): **JPMorgan GBI Global ex-U.S. (Hedged)** is an unmanaged index market representative of the total return performance, on a hedged basis, of major non-U.S. bond markets. It is calculated in U.S. dollars.

***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.

Emerging Market Fixed Income (Local Currency): **J.P. Morgan Government Bond Index-Emerging Markets Global (USD Unhedged)** is a comprehensive global local emerging markets index, and consists of regularly traded, liquid fixed-rate, domestic currency government bonds.

Real Assets (slide 6)

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.

Index definitions (continued)

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 GSCI Commodity**:** **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 is includes futures contracts on 24 physical commodities of which Energy represents nearly 70%.

Bloomberg Commodity Index is calculated on an excess return basis and reflects commodity futures price movements.

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).

Ag Commodities (BCOMAG): **Bloomberg Agriculture Subindex** is a commodity group subindex of the Bloomberg Commodity Index. It is composed of futures contracts on coffee, corn, cotton, soybeans, soybean oil, soybean meal, sugar and wheat. It reflects the return of the underlying commodity futures and is quoted in USD.

Energy Commodities (BCOMEN): **Bloomberg Energy Subindex** is a commodity group subindex of the Bloomberg Commodity Index. It is composed of futures contracts on crude oil, ultra-low sulfur diesel, unleaded gasoline, low sulphur gasoil, and natural gas. It reflects the return of the underlying commodity futures and is quoted in USD.

Industrial Metals Commodities (BCOMIN): **Bloomberg Industrial Metals Subindex** is a commodity group subindex of the Bloomberg Commodity Index. It is composed of futures contracts on aluminum, copper, nickel and zinc. It reflects the return of the underlying commodity futures and is quoted in USD.

Precious Metals Commodities (BCOMPR): **Bloomberg Precious Metals Subindex** is a commodity group subindex of the Bloomberg Commodity Index. It is composed of futures contracts on gold and silver. It reflects the return of the underlying commodity futures and is quoted in USD.

Index definitions (continued)

Alternative Assets (slide 7) – Hedge Fund Strategy definitions

Global Hedge Funds: **The 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: **The 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: **The HFRI Relative Value Fixed Income Sovereign Index:** Includes strategies predicated on realization of a spread between related instruments in which one or multiple components of the spread is a sovereign fixed income instrument. Strategies employ an investment process designed to isolate attractive opportunities between a variety of fixed income instruments, typically realizing an attractive spread between multiple sovereign bonds or between a corporate and risk free government bond. Fixed Income Sovereign typically employ multiple investment processes including both quantitative and fundamental discretionary approaches and relative to other Relative Value Arbitrage sub-strategies, these have the most significant top-down macro influences, relative to the more idiosyncratic fundamental approaches employed.

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 opposes to EH, in which the fundamental characteristics on the company are the most significant are integral to investment thesis.

Index definitions (continued)

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.

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.

Index definitions (continued)

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 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, LLC (HFR). 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.

Alternative Assets (page 7) - Private Capital Strategy definitions

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 2017. The index utilizes a modified private market equivalent (mPME) calculation as a way to replicate private investment performance under public market conditions. While traditional public market indices calculate an average annual compounded return (time weighted over specified time periods), private indexes measure performance using internal rates of return and multiples based on cash flows (money-weighted returns). 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.*