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INVESTMENT INSTITUTE

Investment Strategy

WEEKLY GUIDANCE FROM OUR INVESTMENT STRATEGY COMMITTEE

September 11, 2017

Active Diversification

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Global Alternative Investment Strategist

Key Takeaways

» *Diversification goes beyond asset classes and can include a discussion around diversifying with active and passive strategies.*

» *Active strategies may be better positioned later in the cycle, when security selection becomes more important.*

What It May Mean for Investors

» *Returns for several hedge fund strategies have improved significantly over the past 12 months, and their correlation to the broader equity market has decreased.*

An overwhelming body of academic analysis supports the idea that, over a full market cycle, a diversified portfolio can generate better risk-adjusted returns than a non-diversified portfolio[1]. While many investors are comfortable diversifying across asset classes (such as equities, fixed income, and real assets), diversifying portfolios with alternative investments, or incorporating both active and passive strategies, may be more challenging for some qualified investors—presenting questions that may be harder to answer today. Indeed, the performance of alternative investments in recent years is leading some to question the diversification benefits of active management, specifically, hedge funds. In other words, these investors are having difficulty understanding the incremental benefit of diversifying with hedge funds when a passively managed portfolio has outperformed a portfolio with an allocation to actively managed hedge funds since late 2010.

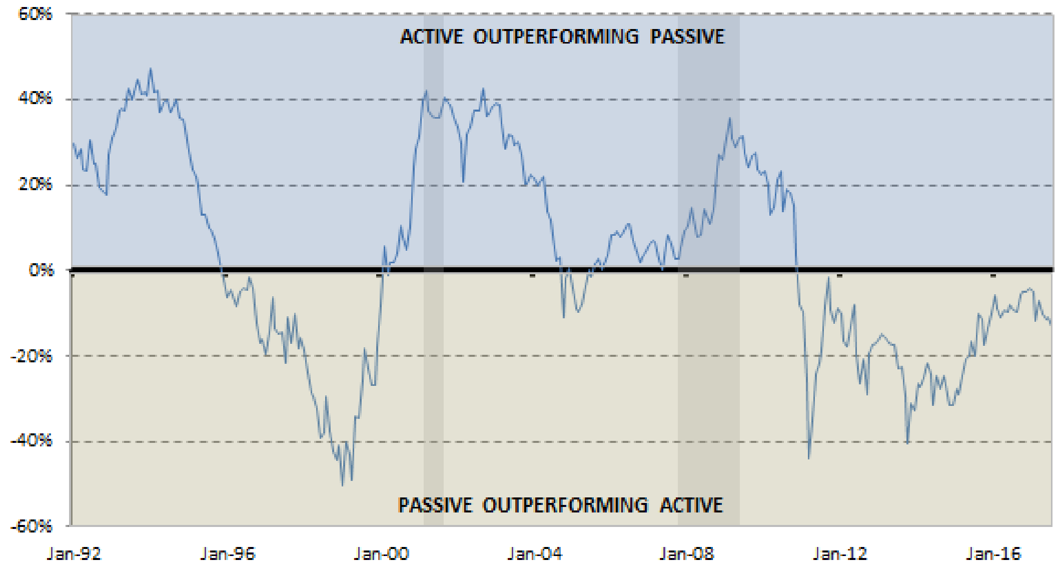
It is important to consider that there is cyclicality for active investing. The most essential requirement for active management is the ability to distinguish between fundamentally strong and weak companies (and their securities), and for positive returns to be generated from taking long and short positions in those companies. Differences in capital structures, revenue, margins, and growth trajectories, for example, become more apparent later in the cycle, when both interest rates and inflation historically have risen. This is a key reason why active strategies have historically outperformed passive strategies leading up to, and during, recessions (Chart 1).

Asset Group Overviews

[1] Source: Markowitz, Portfolio Selection, Journal of Finance, 1952

Active Diversification

Chart 1. The Cyclicality of Active and Passive Investing



Sources: Hedge Fund Research, Inc., Bloomberg, Wells Fargo Investment Institute, 9/17. Data from January 1992 through July 2017. *This chart is for illustrative purposes only. It shows the historical performance trends between active investing in hedge funds. Performance is calculated by taking the rolling two year return of the HFRI Fund Weighted Composite Index minus the rolling two year return of the S&P 500 Index as represented by the HFRI Fund Weighted Composite Index and passively investing in an index fund as represented by the S&P 500. Gray bars represent recessions as defined by the National Bureau of Economic Research (NBER).* **Past performance is not a guarantee of future results.** Please see the end of the report for the description of the risks associated with these asset classes and for the definitions of the indices.

If hedge funds cannot consistently generate positive returns from both long and short positions, they likely will underperform passive strategies. Investors concerned about hedge fund performance in recent years might not be considering how an environment characterized by historically low interest rates and massive injections of liquidity would hinder the ability of hedge funds to generate returns from their short positions. Once investors concede that the post-crisis era was not only abnormal, but also a perfect storm for active investing, they then can understand why our conviction in the return and diversification potential of hedge funds is the strongest it has been in years. We believe that a regime change is taking place, defined not only by the gradual increase in interest rates and inflation, but also by a return to a "normal" market cycle that coincides with a much better environment for security selection— and therefore, a greater potential for active managers to generate returns from both long and short positions.

Now is the Time to Consider Diversifying with Active Management

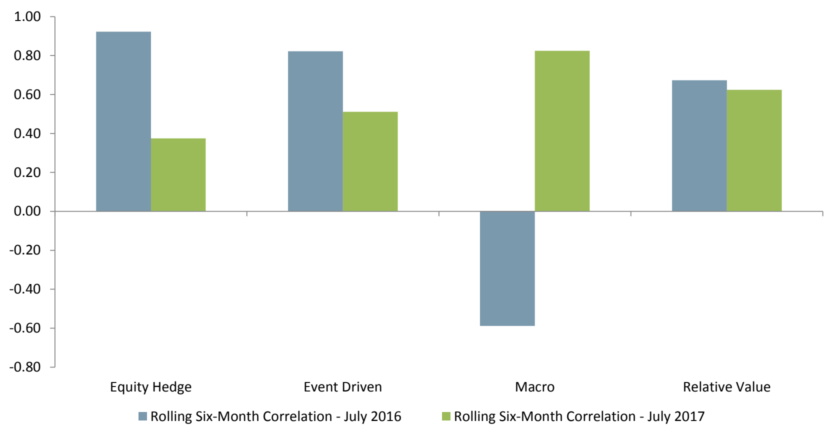
In our opinion, framing the diversification debate as *either* active *or* passive falls short of truly understanding how the two approaches interact with each other. Instead, we believe, the decision should be around what percentage of a portfolio should be active relative to passive, given where we are in the market cycle. One can certainly acknowledge that the recent market environment has been more conducive to passive strategies than active management, but the critical question is whether that scenario is sustainable as the cycle matures and whether diversifying with alternative investment strategies such as those employed by hedge funds potentially become more valuable for a portfolio going forward.

Active Diversification

From our perspective, both the return and diversification potential of hedge funds is increasing, making now time to be investing with active managers. Analysis that compares the rolling one year performance of various hedge fund strategies with the correlation of these strategies to the S&P 500 Index is quite encouraging. For instance, the HFRI Equity Hedge Index returned 11 percent over the 12 months ended on July 31, 2017. This compares to a 16 percent return for the S&P 500 Index over the same time period. Importantly, the rolling six-month correlation between the two indices decreased from 0.92 to 0.37. (Falling positive correlation means that the two investments are not moving in the same direction as much as they did before.) A similar, yet less-extreme case, can be seen with the HFRI Event Driven Index, which also returned over 11 percent during the trailing 12 months, but has seen its rolling six-month correlation to the S&P 500 Index decline from 0.82 to 0.51. Capturing approximately 70 percent of the S&P 500 Index return, but doing so while reducing the correlation, is a positive development for hedge funds, and active management in general[2].

One area of concern for us is Macro strategies, where we have seen the opposite dynamic— significant underperformance coupled with a notable increase in the correlation to the S&P 500. For a strategy that is positioned as a diversifier, we have concerns that a sharp equity correction would be acutely painful for Macro managers.

Chart 2. Hedge Fund Correlations to S&P 500 Index Generally Are Declining



Source: Hedge Fund Research, Inc., Bloomberg, 7/17. Correlation measures the degree to which two investments move in relation to each other. **Past performance is not a guarantee of future results.** It does not measure the magnitude of that movement. Correlation represents past performance. An index is unmanaged and not available for direct investment.

We believe that most investors will want to become more diversified as the cycle matures. Acknowledging that the environment for much of the post-crisis period has been more conducive to passive strategies than active management is important, because it forces investors to question and develop a deeper understanding of the differences between the two approaches. We also are seeing indications that the environment for active management is improving, and while performance on an absolute basis has not yet surpassed that of passive strategies, it is among the best we have seen in years. Finally, and most importantly, our work shows that most hedge fund strategies have reduced their correlation to the S&P 500 Index over the past six months, improving the diversification potential and making a stronger case for active management in the alternative investment space.

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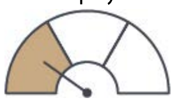
[2] **Past performance is no guarantee of future results.** Index returns reflect general market results and are for illustrative purposes only. They do not represent the return of any investment or the return an actual investment might achieve. Hedge funds trade in diverse complex strategies that are 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 fund and the investor. Stock markets are volatile. Stocks may fluctuate in response to general economic and market conditions, the prospects of individual companies, and industry sectors. An index is unmanaged and not available for direct investment.

Scott Wren
Senior Global Equity Strategist



Underweight
U.S. Small Cap Equities

Evenweight
U.S. Large Cap Equities

Evenweight
U.S. Mid Cap Equities

Evenweight
Developed Market Ex-U.S. Equities

Evenweight
Emerging Market Equities

The VIX is of Limited Use

Often called the "fear gauge," the CBOE Volatility Index® (VIX®)[3]) is frequently quoted in the financial media whenever stock-market volatility increases, especially downside volatility as the market pulls back.

But lately, the VIX has been in the news because it is so low. Recent readings have been in the 10-12 area versus a 25-year average of 19.6. The daily negative correlation between this index and the S&P 500 Index has proven to be rather high over time. According to the CBOE, when the S&P 500 Index trades higher on any given day, the VIX has fallen more than 82 percent of the time, since 1990.

The VIX attempts to isolate the volatility component of an option's price. Theoretically, the higher the expected volatility, the more expensive the option, since there is a higher perceived probability that the option will finish "in the money." Options buyers need the price of the underlying security to move in order to make money.

But history also helps investors to understand the limitations of using the VIX as a gauge of where the market might be going. The VIX is a gauge of how the market feels right now; this instant. This index tends to fall quickly on equity rallies or when the market is locked in a range.

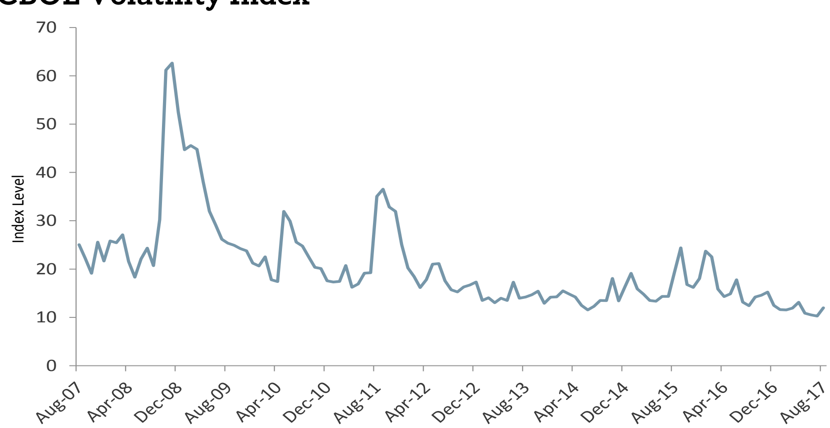
In our opinion, the VIX is of limited use. It is a coincident, not a leading, indicator. In the current market environment, where the major indices have been trapped in relatively narrow ranges for months, one would expect the volatility portion of an option's price to be low.

Key Takeaways

» The VIX continues to hover at levels well below its historical average.

  » In our opinion, the VIX is not a good predictor of what might happen down the road. It is a coincident, not a leading, indicator—whose value is limited.

CBOE Volatility Index



Sources: Haver Analytics, Wells Fargo Investment Institute; 9/5/17. **Past performance is not a guarantee of future results.**

[3] Reflects a market estimate of future volatility, based on the weighted average of the implied volatilities for a wide range of strikes.

Brian Rehling, CFA
Co-Head of Global Fixed Income Strategy

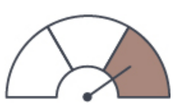
Underweight
High Yield Taxable Fixed Income

Underweight
Developed Market Ex.-U.S. Fixed Income

Evenweight
U.S. Short Term Taxable Fixed Income

Evenweight
U.S. Long Term Taxable Fixed Income

Evenweight
Emerging Market Fixed Income



Overweight
U.S. Taxable Investment Grade Fixed Income

Overweight
U.S. Intermediate Term Taxable Fixed Income

Bond Market Complacency Grows

Recently, the 10-year Treasury yield hit its lowest level of the year as investors (who were concerned with geopolitical risks and hurricane impacts) moved assets into less-risky investments. This was a continuation of a declining rate trend that began in March with the 10-year Treasury yield moving steadily off its 2017 high of 2.63 percent. Over that same period, credit spreads have maintained their lofty levels—as unfazed municipal and corporate-debt investors have been willing to accept ever lower yields. Investors seem to have little fear of any part of the bond market today.

Rate Trends

Meaningful interest-rate moves generally are the result of changes in economic-growth expectations, changes in inflation expectations or unexpected events that lead to a "risk-off trade." We suggest that the current lower interest-rate trend is primarily one of falling inflation expectations; the recent risk-off trade is merely an exclamation point on the longer-term trend.

Credit Trends

Credit risk represents the added risk an investor assumes by purchasing an issue with lower credit quality and/or a higher likelihood that any issuer will default on its obligation. A trigger that may cause the bond market to reprice credit risk is often difficult to pinpoint before an actual event. Such a trigger could come from geopolitical concerns, a weakening economy that makes it more difficult for borrowers to pay back their obligations, a natural disaster, a terrorist attack or an event that adjusts market sentiment, such as a major bankruptcy.

Risks

A number of factors currently are limiting the potential for a major sell-off in fixed-income assets; low international yields, low inflation expectations, and strong investor demand for fixed-income investments. It is possible that the current environment may persist for a time.

In our opinion, lofty high-yield credit valuations present investors with an asymmetric risk profile, one in which upside returns are limited to current yield levels, while potential downside price-driven returns (if they materialize) could be significantly greater in magnitude. In the current fixed-income environment, we caution investors to guard against complacency.

Key Takeaways

» It is important to avoid the temptation to reach for yield by over-concentrating allocations in low-credit-quality or long-duration debt instruments.

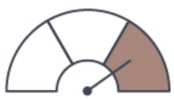
» Despite the potential for continued stability in credit markets, we recommend an underweight position in high-yield debt as we believe that the potential rewards do not properly compensate an investor for the risk they are taking.

» We strongly recommend that investors globally diversify their portfolios while avoiding excessive concentrations in individual credits, sectors or yield-enhancing strategies.

Austin Pickle, CFA
Investment Strategy Analyst

Underweight
Commodities

Evenweight
Private Real Estate



Overweight
Public Real Estate

"All negative energy is looking for resolution."
-- *Adyashanti*

Gold, Fear, and the Dollar

Gold has broken out of its recent trading range and is currently priced in the mid $1,300s. Ask investors what is to blame, and most will say, "fear." And we agree. But the U.S. dollar needs to be given its fair share of the credit as well.

The "fear" that we reference involves the deeply concerning situation with North Korea. Couple that with a U.S. stock market at all-time highs (and without a correction for what seems like an eternity), and it is no wonder why investors have been bidding up "perceived safe-haven assets" (as evidenced by declining Treasury yields and rising gold prices).

Yet, the recent decline in the dollar certainly has helped to fuel gold's rise. Out of all commodities, gold has had the strongest, and most consistently negative, correlation to the dollar through time (negative correlation means when one goes up, the other goes down). The strong link between the dollar and gold seems appropriate—as gold was considered money for thousands of years. The chart below shows this connection.

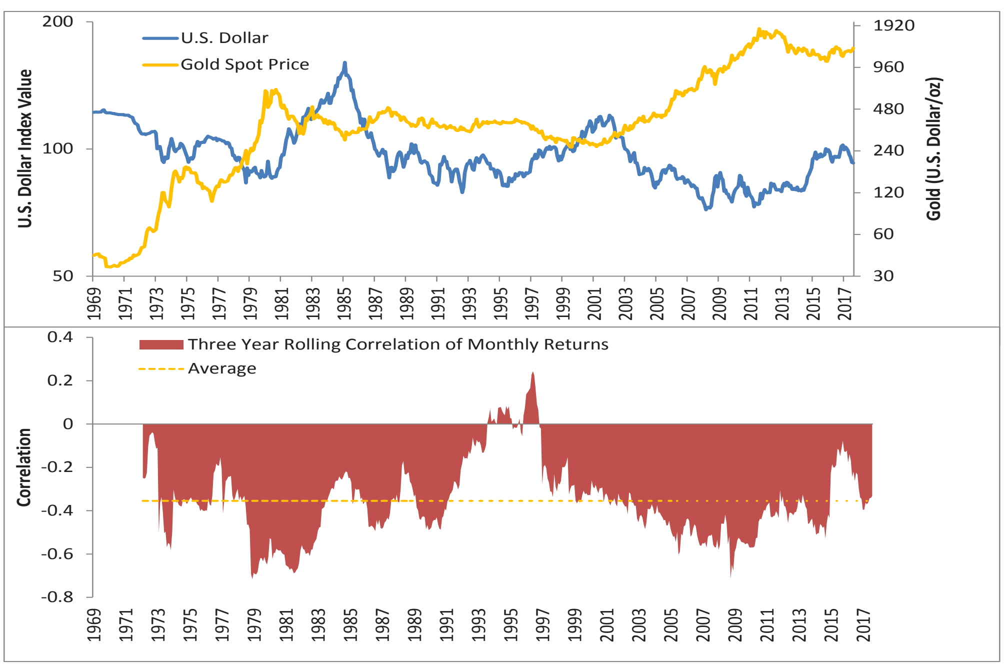
The dollar has reached lows not seen in more than two and a half years. And if the U.S. dollar continues its decline, gold likely would benefit. This (and fear) are the two biggest risks to our gold target. If, as Wells Fargo Investment Institute forecasts, the dollar strengthens (and if fears ease), gold should find its way back to our year-end 2017 target range of $1,150 - $1,250.

Key Takeaways

» Gold prices have benefited from recent geopolitical tensions and U.S. dollar weakness.

» Our year-end 2017 gold price target range remains $1,150 - $1,250.

U.S. Dollar versus Gold



Sources: Bloomberg, Wells Fargo Investment Institute. Monthly Data: 1/31/1969 - 8/31/2017. Top panel shown in log scale. Dates selected to show all available data from source. **Past performance is not a guarantee of future results.** Correlation represents past performance.

Jim Sweetman
Senior Global Alternative Investment Strategist

The Return of the Stock Picker

The primary debate entering 2017 centered on the merits of an active versus passive investment approach, which directly affects alternative investments, and more specifically, the Equity Hedge strategy. Year to date (YTD) through August 31, the HFRI Equity Hedge (Total) Index was up approximately 8.5 percent—ranking as the strongest return for the Equity Hedge strategy since 2009. Performance has been driven by the strength of concentrated long positions in, and high exposure to, the Information Technology sector, which has outperformed the broad equity markets. It also has been fueled by idiosyncratic short positioning. Over this time period, the Goldman Sachs Hedge Fund VIP Index[4] (GSVIP) returned 21.4 percent, outperforming the S&P 500 Index by 948 basis points (100 basis points equals one percent). This continued the positive momentum from the second half of 2016. As the chart shows, this reverses a difficult period for the GSVIP, and active hedge fund management in general, that was experienced in late 2015 and the first half of 2016. We believe it is an encouraging sign for the strategy going forward.

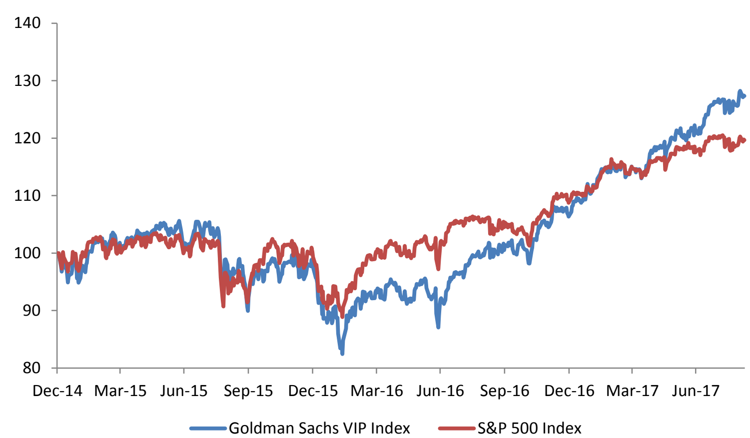
Key Takeaways

» The Equity Hedge strategy has delivered the strongest YTD return since the first eight months of 2009, reversing the trend seen in the first half of 2016.

» High conviction long hedge fund positions have outperformed equities in 2017. This may reflect a better fundamentally-based "stock-picking" environment.

» We remain overweight Equity Hedge and believe that it can help to diversify traditional long-only portfolio exposures.

Indexed Total Return: S&P 500 Index versus GSVIP



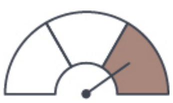
Source: Goldman Sachs Global Investment Research, 9/17. **Past performance is not a guarantee of future results.**

Evenweight
Private Equity

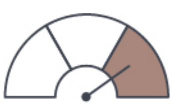
Evenweight
Private Debt

Evenweight
Hedge Funds-Macro

Evenweight
Hedge Funds-Event Driven



Overweight
Hedge Funds-Relative Value



Overweight
Hedge Funds-Equity Hedge

Alternative investments, such as hedge funds, private equity, private debt and private real estate funds are not suitable for all investors and are only open to "accredited" or "qualified" investors within the meaning of U.S. securities laws.

[4] Index returns are for illustrative purposes only. The Goldman Sachs Hedge Fund VIP Index (the "Index") is owned by Goldman Sachs Asset Management L.P. The Index consists of hedge fund managers' "Very-Important-positions," or the U.S.-listed stocks whose performance is expected to influence the long portfolios of hedge funds. Those stocks are defined as the positions that appear most frequently among the top 10 long equity holdings within the portfolios of fundamentally-driven hedge fund managers. The 50 stocks that appear most frequently in the resulting screened list of the top 10 holdings of the Hedge Fund Manager Universe are selected as Index constituents The Index is rebalanced on a quarterly basis to reflect changes in reported hedge fund manager holdings. **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. An index is unmanaged and not available for direct investment.

Risks Considerations

Each asset class has its own risk and return characteristics. The level of risk associated with a particular investment or asset class generally correlates with the level of return the investment or asset class might achieve. **Stock markets**, especially foreign markets, are volatile. Stock values may fluctuate in response to general economic and market conditions, the prospects of individual companies, and industry sectors. **Foreign investing** has additional risks including those associated with currency fluctuation, political and economic instability, and different accounting standards. These risks are heightened in emerging markets. **Small- and mid-cap stocks** are generally more volatile, subject to greater risks and are less liquid than large company stocks. **Bonds** are subject to market, interest rate, price, credit/default, liquidity, inflation and other risks. Prices tend to be inversely affected by changes in interest rates. **High yield (junk) bonds** have lower credit ratings and are subject to greater risk of default and greater principal risk. The **commodities** markets are considered speculative, carry substantial risks, and have experienced periods of extreme volatility. Investing in a volatile and uncertain commodities market may cause a portfolio to rapidly increase or decrease in value which may result in greater share price volatility. **Real estate** has special risks including the possible illiquidity of underlying properties, credit risk, interest rate fluctuations and the impact of varied economic conditions.

Investing in long/short strategies is not suitable for all investors. Short selling involves sophisticated investment techniques that can add additional risk, and involves the risk of potentially unlimited increase in the market value of the security sold short, which could result in potentially unlimited losses.

Alternative investments, such as hedge funds, private equity/private debt and private real estate funds, are speculative and involve a high degree of risk that is suitable 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. They entail significant risks that can include losses due to leveraging or other speculative investment practices, lack of liquidity, volatility of returns, restrictions on transferring interests in a fund, potential lack of diversification, absence and/or delay of information regarding valuations and pricing, complex tax structures and delays in tax reporting, less regulation and higher fees than mutual funds. Hedge fund, private equity, private debt and private real estate fund investing involves other material risks including capital loss and the loss of the entire amount invested. A fund's offering documents should be carefully reviewed prior to investing.

Hedge fund strategies, such as Equity Hedge, Event Driven, Macro and Relative Value, may expose investors to the risks associated with the use of short selling, leverage, derivatives and arbitrage methodologies. Short sales involve leverage and theoretically unlimited loss potential since the market price of securities sold short may continuously increase. The use of leverage in a portfolio varies by strategy. 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. 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.

Definitions

An index is unmanaged and not available for direct investment.

Chicago Board Options Exchange Volatility Index (VIX) reflects a market estimate of future volatility, based on the weighted average of the implied volatilities for a wide range of strikes.

HFRI Equity Hedge 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% exposure to, and may in some cases be entirely invested in, equities, both long and short. The HFRI Equity Hedge Index is a composite of the hedge funds that employ the alternative strategies and who report their performance figure to HFRI. The number of hedge funds reporting may vary between each reporting period.

HFRI Equity Hedge (Total) Index maintains 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.

HFRI Fund Weighted Composite Index is a global, equal-weighted index of over 2000 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.

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.

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.

U.S. Dollar Index (USDX) measures the value of the U.S. dollar relative to majority of its most significant trading partners. This index is similar to other trade-weighted indexes, which also use the exchange rates from the same major currencies.

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