# Alternatives Update
## *3rd Quarter 2017*

The "Great Moderation" is the name attached by economists to the late 1980s through 2007 to describe a period of declining volatility in the business cycle and directly contrasts the preceding period of "Great Inflation." The term was coined by James Stock and Mark Watson in their paper "Has the Business Cycle Changed and Why?" Their findings were presented in April 2002 at an NBER conference and published as a working paper later that year. Stock and Watson put forth 3 possible explanations as to the causes of declining economic volatility: luck, technological and structural changes, or improved monetary policy. In February 2004, Ben S. Bernake, apparently able to scotomize the Dotcom bubble, brought the concept of the Great Moderation to the forefront. Not surprisingly, he made the case that it was improved economic policy that played the dominant role. In the late 1990s, well before Stock and Watson released their paper, there was plenty of talk about how Alan Greenspan, aka the Maestro, had defeated the business cycle. Plenty of irony there to go around for everyone. Last year, Chris Waller and Jonas Crews published a paper titled "Was the Great Moderation Simply on Vacation?" which speculates that the Great Recession of 2007-2009 was a temporary blip and that the Great Moderation has returned. Let's hope they have slightly better timing than Stock and Watson, Greenspan or Bernake.

Why is this relevant? Are we forecasting a stock market crash? No we are not. It is relevant as volatility continues to vacate the capital markets and returns to risk assets have been very robust. Goldilocks never had it so good. There is plenty of evidence as to why this should be the state of things and why it should continue: accommodative monetary policy, strong domestic corporate earnings, reawakening of global growth, a pro-business Congress and White House to name a few. However, prudent investors should weigh the counter arguments objectively, guard against seeing what one wants to see, and focus not just on maximum notional returns but the risk to achieve those, i.e. risk adjusted returns.

Alternative Investment ("Alternatives") returns were modest by comparison to very strong returns for traditional long-only risk assets. For the 3rd quarter, 10 of the 11 alternative categories had positive returns. Hedged equity was the best performing category and short bias was the worst (see Figure 2). Exposure to equity beta seems to be a major driver of returns in the tails of performance; however, the alignment between correlation with the S&P 500 and returns, has broken down a bit. Specifically, lower correlation strategies such as volatility, market neutral and commodities all had reasonably positive returns (see Figure 3). Real assets (commodities, real estate, gold), did well across the board in the 3rd quarter with an average return of 2.25%. Gold led the way, up 3.11% and posted a healthy 11.10% return year-to-date (see Figure 4). Although commodities are negative YTD, the positive performance in the 3rd quarter, coupled with the year-long ascent of gold and real estate may portend a strengthening of inflation.

Managed futures, commodities, and macro strategies have historically shown low correlation and beta to stocks and bonds, thus they serve as potentially strong portfolio diversifiers, in our view. Strategies such as credit arbitrage, event driven, hedged equity, et al., which have higher correlations with equities and bonds, may provide attractive risk/return profiles through lower volatility. We believe these characteristics may allow investors to broaden their investment choices and create more efficient portfolios.

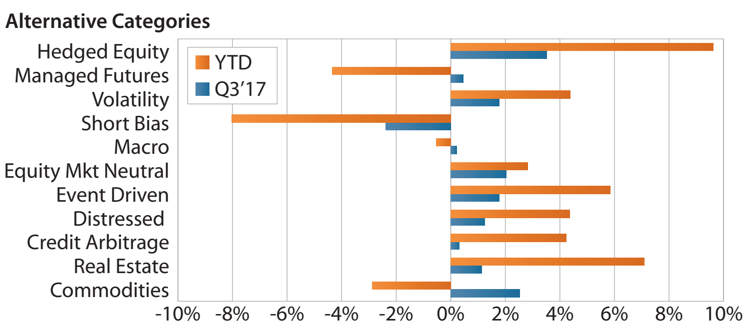
The 3rd quarter was excellent for holders of global equities despite another attempt at healthcare reform failing, feuding between the White House and both parties of Congress potentially jeopardizing tax reform, 3 devastating hurricanes causing hundreds of billions of dollars of damage, as well as earthquakes and continued unrest in Asia due to North Korea. Markets seemed to be accepting that the Federal Reserve's (Fed) balance sheet unwind would be slow and steady and that the Central Banks being engaged in the capital markets are now a permanent part of the landscape.

Figure 1: **Asset Class Returns**

| | 3Q17 |
|---|---|
| S&P 500 | 4.48% |
| MSCI EAFE | 5.40% |
| MSCI Emerging Markets | 7.89% |
| U.S. Treasury | 0.57% |
| Real Estate | 1.13% |
| Commodities | 2.52% |
| High-Yield Bonds | 1.83% |
| Aggregate Bonds | 0.85% |

*Source: Bloomberg, 9/30/17. Past performance is no guarantee of future results. An investor cannot invest directly in an index.*

Figure 2: **2017 Performance**




*Source: Bloomberg, 9/30/17. Past performance is no guarantee of future results. An investor cannot invest directly in an index.*

Figure 3: **Correlations (2-Year) & Returns**

| | S&P 500 | 3Q17 |
|---|---|---|
| Hedged Equity | 0.88 | 3.52% |
| Event Driven | 0.77 | 1.78% |
| Real Estate | 0.67 | 1.13% |
| Credit Arbitrage | 0.54 | 0.32% |
| Distressed | 0.54 | 1.25% |
| Equity Market Neutral | 0.43 | 2.04% |
| Volatility | 0.35 | 1.78% |
| Commodities | 0.21 | 2.52% |
| Macro | -0.07 | 0.22% |
| Managed Futures | -0.31 | 0.45% |
| Short Bias | -0.66 | -2.38% |

*Source: Bloomberg, 9/30/17. Past performance is no guarantee of future results. An investor cannot invest directly in an index.*

Figure 4: **Real Assets**

| | 3Q17 | 2Q17 | 1Q17 | YTD |
|---|---|---|---|---|
| Real Estate | 1.13% | 2.59% | 3.22% | 7.09% |
| Commodities | 2.52% | -3.00% | -2.33% | -2.87% |
| Gold | 3.11% | -0.62% | 8.43% | 11.10% |
| ***Average*** | ***2.25%*** | ***-0.34%*** | ***3.10%*** | ***5.11%*** |

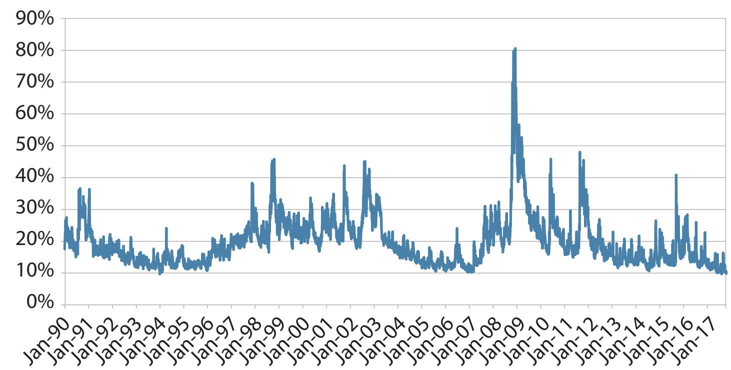
*Source: Bloomberg, 9/30/17. Past performance is no guarantee of future results. An investor cannot invest directly in an index.*

The era of the "Great Volatility Suppression" continued with U.S. equity volatility (as measured by closing values of the VIX Index) touching a low of 9.36 in mid-July before ending the 3rd quarter at 9.51 (see Figure 5). The average daily VIX level in the 3rd quarter is now the lowest reading since the creation of the VIX Index (see Figure 6) supplanting the prior low reading in the 4th quarter of 2006. Further illustrating how low equity volatility was in the 3rd quarter, sorting all daily VIX closing levels since inception and then examining the lowest 1% readings by year, one will find the most daily readings (44), occurred in 2017. That is an increase from the 2nd quarter analysis in which 2017 had 27 of the lowest readings (all of which arose in the 2nd quarter at the time). With the additional readings for the 3rd quarter factored into the analysis, 30 of the lowest readings in 2017 are now from the 3rd quarter, with the balance of 14 of the lowest readings occurring in the 2nd quarter. In other words, the 3rd quarter generated a historic number of new lows for the VIX Index (see Figure 7). Credit spreads continue to tighten (10 basis points (bps) from the end of the 2nd quarter) (see Figure 8) and spreads are now in the lower half of historical decile rankings, though still away from the readings posted in the mid-1990s or 2004-2007 (see Figure 9).

Sentiment (the overall attitude of investors and their willingness to risk capital) in the 3rd quarter was overall upbeat in tone. The ratio of New Highs to New Lows for the NYSE and for the NASDAQ moved higher in the quarter reversing a medium-term downward trend that began in late 2016 (see Figure 10). In our opinion, this may reflect a broadening of leadership. The current levels, as compared to a lengthier history, are not at an extreme and do not indicate sentiment being a concern at the moment (Figure 11).

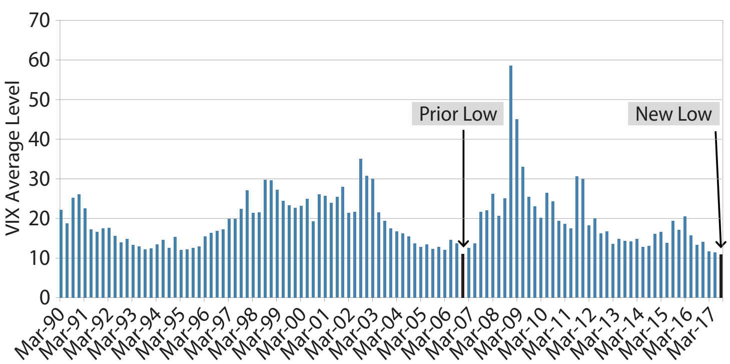
The Federal Open Market Committee (FOMC) did not raise rates in the quarter but at the September 20th meeting, the Fed announced its intent to begin normalizing its balance sheet. Starting in October, the Fed will cut

Figure 5: **U. S. Volatility Benchmark**



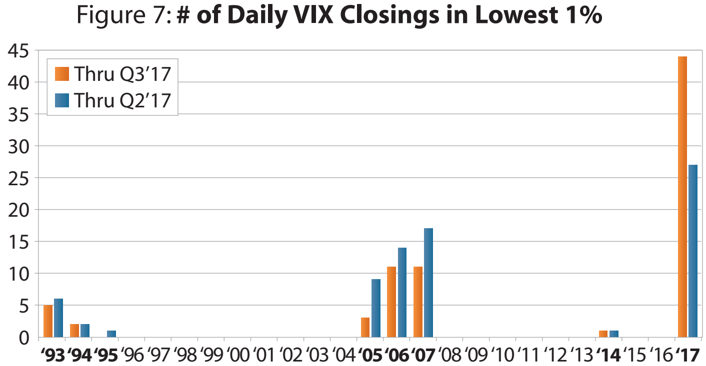
*Source: Bloomberg. Data through 9/30/17.*

Figure 6: **Daily VIX Level - Quarterly Average**



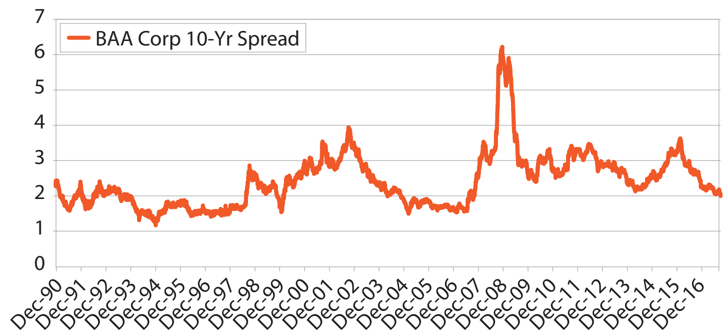

*Source: Bloomberg. Data from 1/2/90-9/30/17.*

Figure 7: **# of Daily VIX Closings in Lowest 1%**



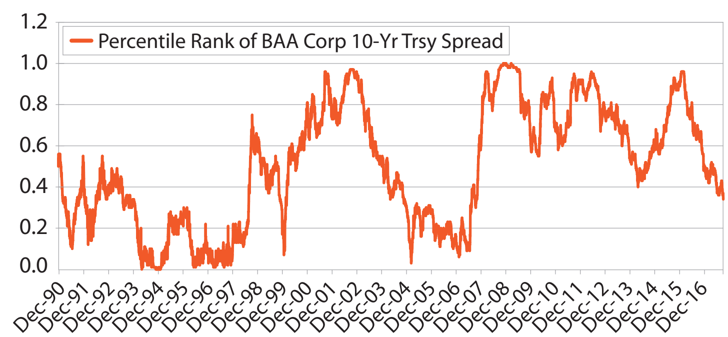

*Source: Bloomberg. Data from 1/2/90-9/30/17.*

Figure 8: **Credit Spread vs. 10-Year U.S. Treasury**



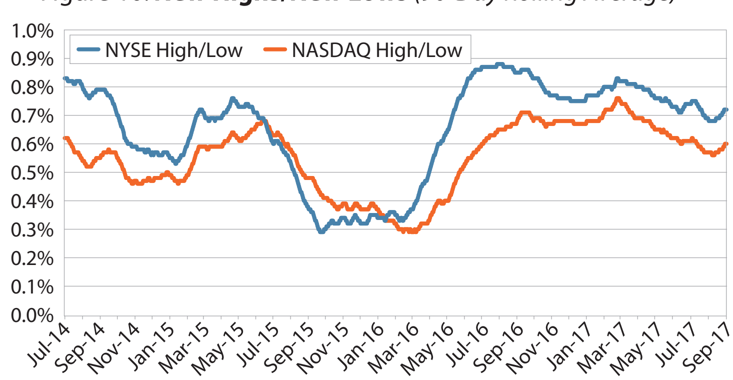

*Source: Bloomberg. Data through 9/30/17.*

Figure 9: **Credit Spread Percentile Rank**




*Source: Bloomberg. Data through 9/30/17.*

Figure 10: **New Highs/New Lows** *(90-Day Rolling Average)*

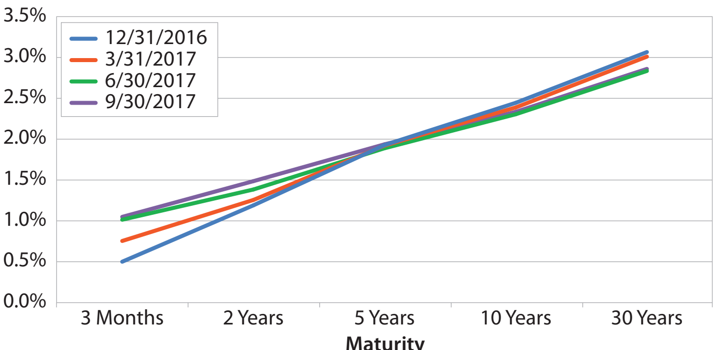



*Source: Bloomberg, 9/30/17.*

$10 billion each month from the amount of maturing securities it reinvests gradually raising that figure quarterly until it hits $50 billion a month. Not unnoticed by the financial press or investors was the fact that "normalizing" in this case meant that by late 2019 the balance sheet would still be around $2.5-$3.0 trillion. That would be 2 to 3 times the amount prior to 2007. To paraphrase *The Princess Brides'* Inigo Montoya, "You keep using that word normalization, I do not think it means what you think it means." The ultimate impact of the unwind remains to be seen but the fixed income markets sold off slightly and 10 year yields spiked on the news going from 2.04% in early September to 2.33% at the end of the quarter. The long end of the Treasury curve showed little reaction to the news and ended up 2.5 bps higher in yield versus the end of the 2nd quarter (see Figure 12). The T-bills to 30-Yr Treasury spread was essentially unchanged in the quarter, though the Treasury curve has flattened 75.6 bps since the beginning of the year with a long rates down 20.6 bps and short rates up 55 bps (see Figure 13). Since September of 2012 the Treasury curve has shifted sharply up and flatter. Long-term rates moved higher in the interim but have now settled almost unchanged versus 5 years ago (see Figure 14).

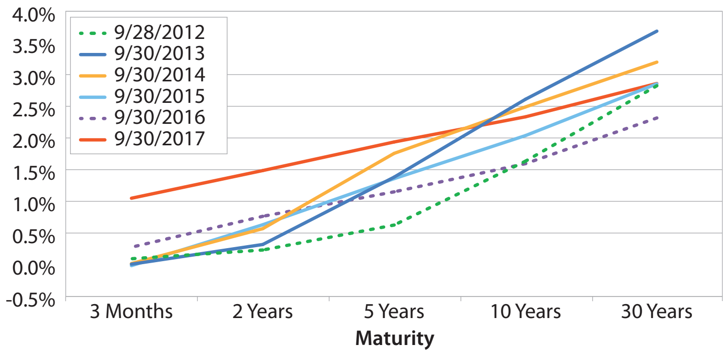
It was a strong quarter for "Risk On" assets (avg. return 2.86%) and slightly positive for "Risk Off" assets (avg. return 0.57%). Given the very calm environment and benign to positive economic news, it should not be a surprise that "Risk On" assets were in favor. Gold stands out in the "Risk Off" category with a solid 3.11% return and posting a double digit YTD return of 11.10% (see Figure 15). We continue to emphasize that Alternatives have historically provided significant diversification benefits when paired with a portfolio of traditional assets, in addition to both competitive absolute returns and attractive risk-adjusted returns.

Figure 13: **U.S. Treasury Yield Curve**



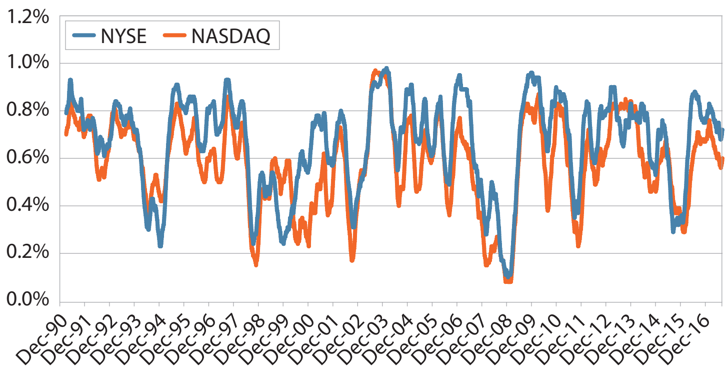

*Source: Bloomberg, 9/30/17.*

Figure 14: **U.S. Treasury Yield Curve**



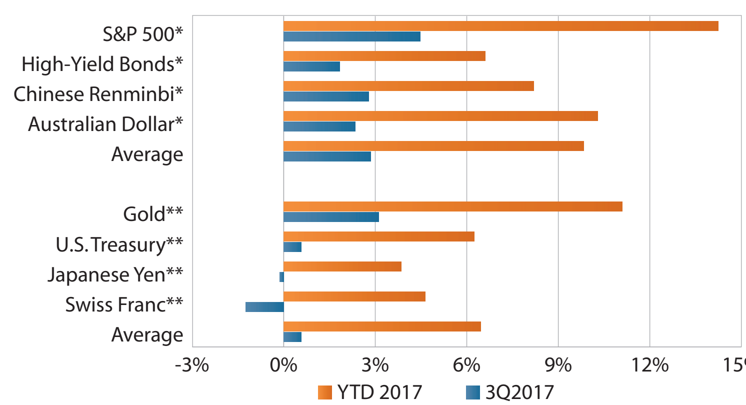

*Source: Bloomberg, 9/30/17.*

Figure 11: **New Highs/New Lows** *(90-Day Rolling Average)*




*Source: Bloomberg. Data through 9/30/17.*

Figure 15: **Risk Off vs. Risk On Asset Returns**




*Source: Bloomberg, 9/30/17.*
** Considered to be "Risk On" asset class. ** Considered to be "Risk Off" asset class.*

Figure 12: **U.S. 30-Yr. Treasury Yield**


*Source: Bloomberg, 9/30/17.*

# Definitions

**Correlation:** A statistical measure that quantifies the extent to which two or more data series fluctuate together. Values run from -1.0 to +1.0.

**Aggregate Bonds:** The Bloomberg Barclays US Aggregate Bond Index is a broad-based benchmark that measures the investment grade, US dollar-denominated, fixed-rate taxable bond market.

**Hedged Equity:** Hedge Fund Research HFRI Equity Hedge (Total) Index. Investment Managers who maintain positions both long (positions that are owned) and short (positions that are owed) in primarily equity and equity derivative securities. Hedged Equity managers would typically maintain at least 50%, and may in some cases be substantially entirely invested in equities, both long and short.

**Managed Futures:** BarclayHedge US Managed Futures Industry Top 50 (BTop 50) Index. The Index seeks to replicate the overall composition of the managed futures industry with regard to trading style and overall market exposure.

**Volatility:** Hedge Fund Research HFRI Relative Value Volatility Index. Volatility strategies trade volatility as an asset class, employing arbitrage, directional, market neutral or a mix of types of strategies, and include exposures which can be long, short, neutral or variable to the direction of implied volatility, and can include both listed and unlisted instruments. Directional volatility strategies maintain exposure to the direction of implied volatility of a particular asset or, more generally, to the trend of implied volatility in broader asset classes. Arbitrage strategies employ an investment process designed to isolate opportunities between the price of multiple options or instruments. Volatility arbitrage positions typically maintain characteristic sensitivities to levels of implied and realized volatility, levels of interest rates and the valuation of the issuer's equity, among other more general market and idiosyncratic sensitivities.

**Short Bias:** Hedge Fund Research HFRI Equity Hedge Short Bias Index. Short-Biased strategies employ analytical techniques in which the investment thesis is predicated on assessment of the valuation characteristics on the underlying companies with the goal of identifying overvalued companies.

**Macro:** Hedge Fund Research HFRI Macro (Total) 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.

**Equity Market Neutral:** Hedge Fund Research HFRI Equity Hedge Equity Market Neutral Index. Equity Market Neutral strategies employ sophisticated quantitative techniques of analyzing price data to ascertain information about future price movement and relationships between securities, select securities for purchase and sale. Equity Market Neutral Strategies typically maintain characteristic net equity market exposure no greater than 10% long or short.

**Event Driven:** Hedge Fund Research HFRI Event-Driven (Total) 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.

**Distressed:** Hedge Fund Research HFRI Event-Driven Distressed/Restructuring Total Index. Distressed/ Restructuring strategies employ an investment process focused on corporate fixed-income instruments, primarily on 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 proceeding or financial market perception of near term proceedings.

**Credit Arbitrage:** Hedge Fund Research HFRI Event-Driven Credit Arbitrage Index. Credit Arbitrage strategies employ an investment process designed to isolate attractive opportunities in corporate fixed-income securities; these include both senior and subordinated claims as well as bank debt and other outstanding obligations, structuring positions with little of no broad credit market exposure. These may also contain a limited exposure to government, sovereign, equity, convertible or other obligations but the focus of the strategy is primarily on fixed corporate obligations and other securities are held as component of positions within these structures.

**Real Estate:** The Dow Jones US Real Estate Index is designed to track the performance of real estate investment trusts (REITs) & other companies that invest directly or indirectly in real estate through development, management or ownership, including property agencies.

**Commodities:** The Bloomberg Commodity Index is made up of exchange-traded futures on physical commodities and represents 20 commodities, which are weighted to account for economic significance and market liquidity.

**Credit Spread:** The difference in yield between two fixed-income instruments with differing credit profiles.

**VIX:** Chicago Board Options Exchange SPX Volatility Index. The Chicago Board Options Exchange Volatility Index reflects a market estimate of future volatility, based on the weighted average of the implied volatilities for a wide range of strike prices.

**BAA Corp:** Moody's Bond Indices Corporate BAA. Moody's Long-Term Corporate Bond Yield Averages are derived from pricing data on a regularly replenished population of corporate bonds in the U.S. market, each with current outstandings over $100 million. The bonds have maturities as close as possible to 30 years; they are dropped from the list if their remaining life falls below 20 years, if they are susceptible to redemption, or if their ratings change. All yields are yield-to- maturity calculated on a semi-annual basis.

**10-Yr Treasury:** Yield of U.S. Treasury securities maturing in approximately 10 years.

**NYSE High/Low:** Bloomberg New Highs and New Lows Sentiment Index NYSE. The New Highs and New Lows indices represent the 52-week highs/lows for the securities on a specific exchange (NYSE) on a given day. New Highs divided by the sum of the new highs plus the new lows.

**NASDAQ High/Low:** Bloomberg New Highs and New Lows Sentiment Index NASDAQ Composite. The New Highs and New Lows indices represent the 52-week highs/lows for the securities on a specific exchange (NASDAQ Composite) on a given day. New Highs divided by the sum of the new highs plus the new lows.

**U.S. 30-Yr Treasury Yield:** Yield of U.S. Treasury securities maturing in approximately 30 years.

**S&P 500:** An unmanaged index of 500 stocks used to measure large-cap U.S. stock market performance.

**High-Yield Bonds:** The Bloomberg Barclays US High Yield Very Liquid Index (VLI) is a component of the US Corp High Yield Index that is designed to track a more liquid component of the USD-denominated, high yield, fixed-rate corporate bond market. The US High Yield VLI uses the same eligibility criteria as the US Corp High Yield Index, but includes only the three largest bonds from each issuer that have a min amount outstanding of USD500mn and less than five years from issue date.

**Chinese Renminbi:** The S&P Chinese Renminbi Index is designed as a tradable index that replicates the performance of the Chinese Renminbi versus the U.S. Dollar.

**Australian Dollar:** The return from selling the short currency (USD) to buy the long currency (AUD) and earning interest. The return is calculated by adding the spot return to the interest earned from the long currency position. It is designed to measure the performance of the Australian dollar vs. the U.S. dollar.

**Gold:** The return of the gold spot price as quoted as U.S. dollars per Troy Ounce.

**U.S. Treasury:** The ICE U.S. Treasury 20+ Years Bond Index is part of a series of indices intended to assess U.S. Treasury issued debt. Only U.S. dollar denominated, fixed-rate securities with minimum term to maturity greater than twenty years are included.

**Japanese Yen:** The return from selling the short currency (USD) to buy the long currency (JPY) and earning interest. The return is calculated by adding the spot return to the interest earned from the long currency position. It is designed to measure the performance of the Japanese yen vs. the U.S. dollar.

**Swiss Franc:** The return from selling the short currency (USD) to buy the long currency (CHF) and earning interest. The return is calculated by adding the spot return to the interest earned from the long currency position. It is designed to measure the performance of the Swiss franc vs. the U.S. dollar.

**MSCI EAFE:** The MSCI EAFE Index 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. The index is a free-float weighted equity index.

**MSCI Emerging Markets:** The MSCI Emerging Markets Index captures large and mid cap representation across Emerging Markets (EM) countries. The index covers 85% of the free float-adjusted market capitalization in each country.

**Beta:** A measure of price variability relative to the market.