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# US & International Economic Update

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Together we'll go far



## Today's Discussion Topics

**US** Economy & Markets

Global Economy & Markets

Guidance for Investors

What's On Your Mind?

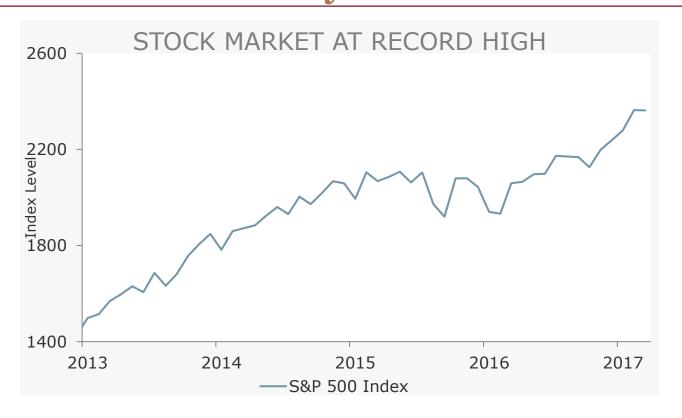
## US Economy & Markets

## The Nature of Anxiety

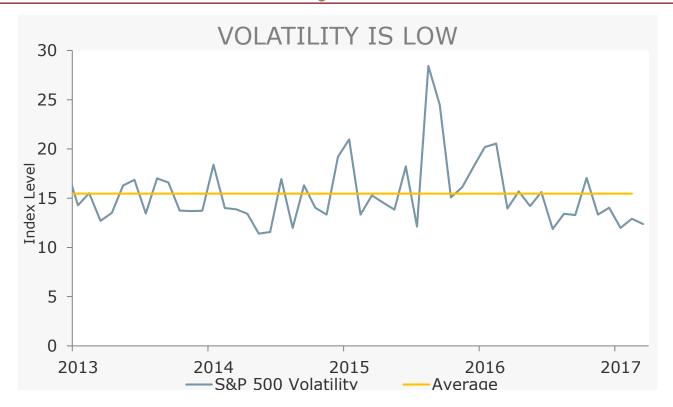
"The biggest big business in America is not steel, automobiles or television.

It is the manufacture, refinement and distribution of anxiety"

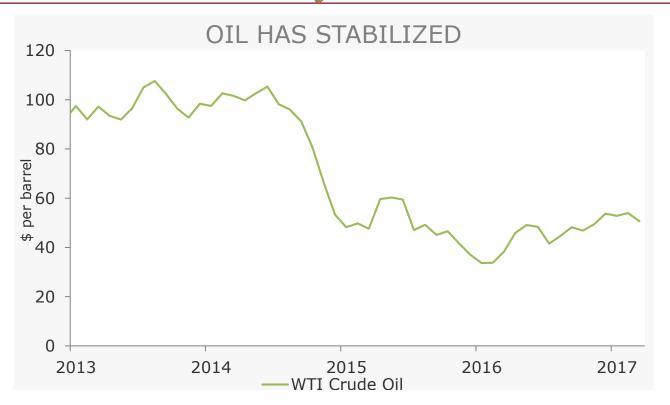
Eric Sevareid CBS, 1974



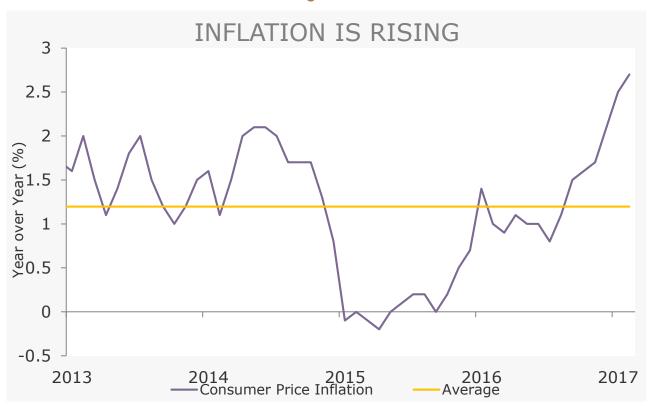
Source: Bloomberg, Wells Fargo Investment Institute. 3/31/2017. **Past performance is no guarantee of future results.** An index is unmanaged and not available for direct investing.



Source: Bloomberg, Wells Fargo Investment Institute. 3/31/2017. S&P 500 Volatility measured by CBOE Volatility Index® (VIX®) is a key measure of market expectations of near-term volatility conveyed by S&P 500 stock index option prices. Past performance is no quarantee of future results. An index is unmanaged and not available for direct investing.

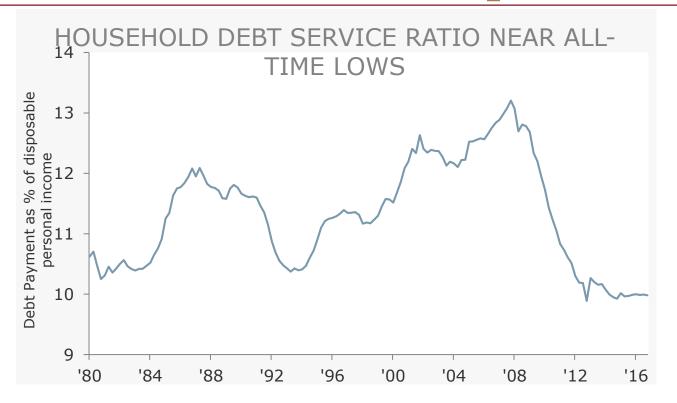


Source: Bloomberg, Wells Fargo Investment Institute. 3/31/2017. West Texas Intermediate (WTI) is a grade of crude oil used as a benchmark in oil pricing. Past performance is no guarantee of future results. An index is unmanaged and not available for direct investing.



Source: Bloomberg, Wells Fargo Investment Institute. 3/31/2017. CPI data is as of 2/28/2017 and is measured by the Consumer Price Index which measures the average price of a basket of goods and services. Past performance is no guarantee of future results. An index is unmanaged and not available for direct investing.

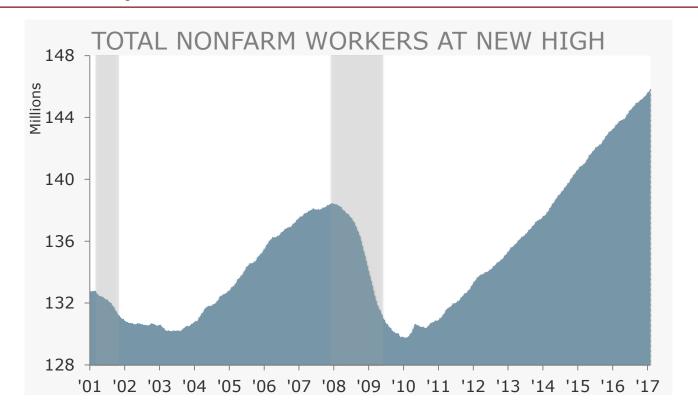
## U.S. Consumer in Good Shape

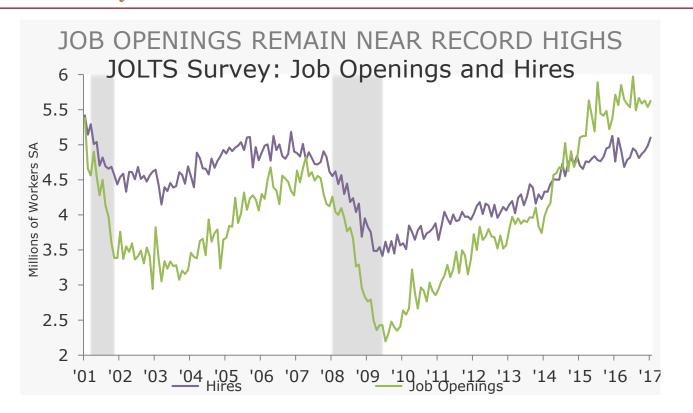


Source: Federal Reserve Board, Factset, Wells Fargo Investment Institute. 12/31/2016.

# Steady Job Gains Have Been the Backbone of the U.S. Economic Recovery



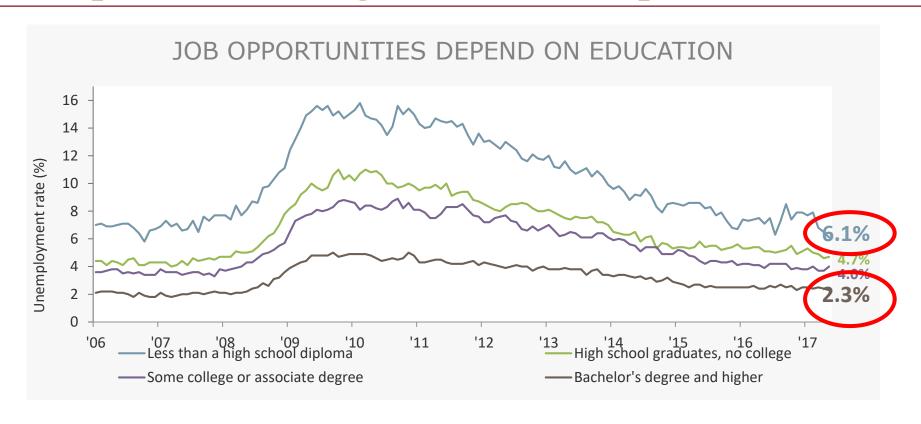




Source: Bloomberg, Wells Fargo Investment Institute, 2/28/2017. JOLTS data as of 1/31/2017. JOLTS= Job Openings and Labor Turnover Survey. Shaded area represents a U.S. economic recession.

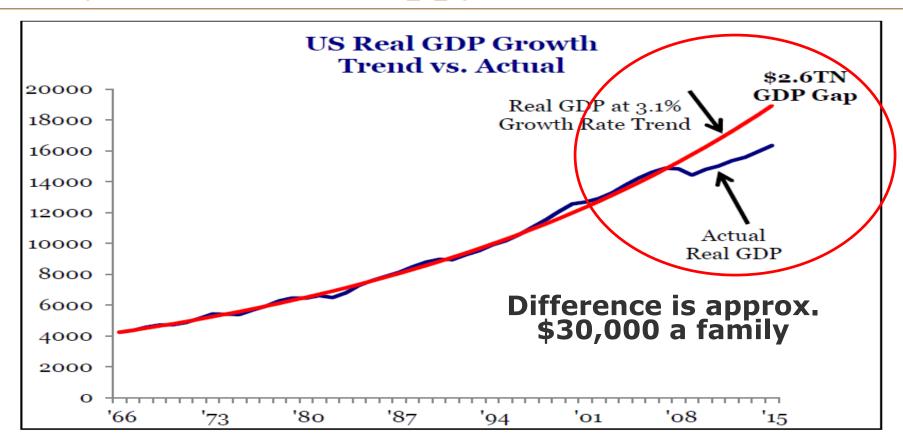
## Companies Favoring Labor Over Capital





Source: Bloomberg, Bureau of Economic Analysis, Bureau of Labor Statistics, Factset, Wells Fargo Investment Institute. 5/31/2017.

## Why Aren't We Happy?



## Regulatory policy has increased business costs.

13%

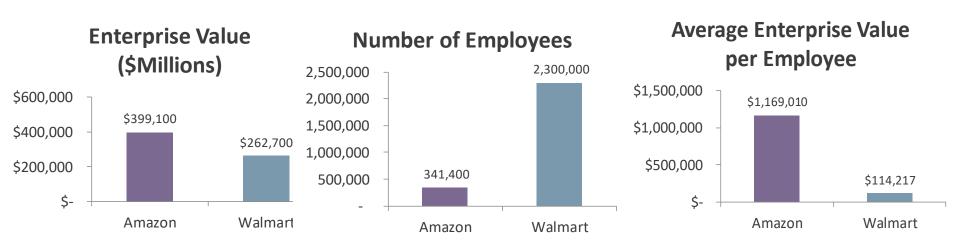
3x

Increase in regulatory cost for all businesses (2008 – 2012)

The cost of regulation per employee (Small manufacturers vs. all businesses)

## The Divided Recovery

Technology has a tremendous impact on a firm's need for labor.



Source: FactSet; as of 3/15/2017.

## The Divided Recovery-The "Forgotten Person"

"Winners and Losers" – After two decades of globalization (from 1988 – 2008).



Source: Lakner, Christoph and Milanovic, Branko, Global Income Distribution: From the Fall of the Berlin Wall to the Great Recession (December 1, 2013). World Bank Policy Research Working Paper No. 6719. Page 33, Figure 1(a). Available at SSRN: <a href="https://ssrn.com/abstract=2366598">https://ssrn.com/abstract=2366598</a>

## Key Points-U.S. Economy

#### In our view:

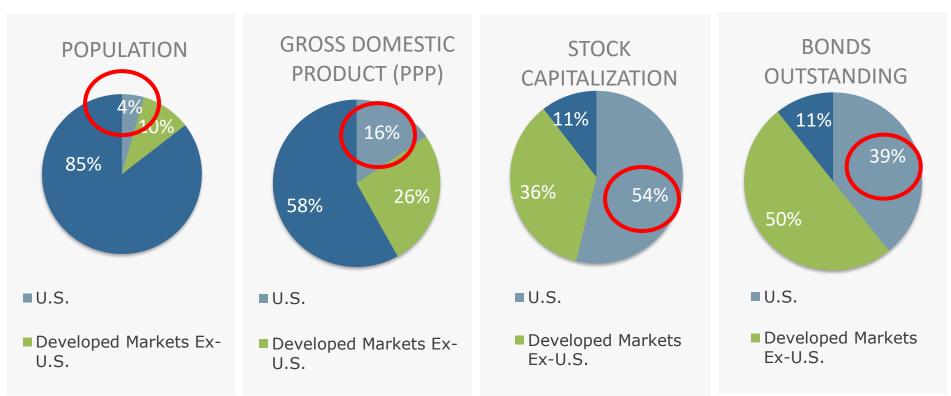
- Slow but steady US growth-2.4% for 2017
- Lack of skilled labor leading to bifurcated expansion
- Modest but rising inflation
- One rate hike this year, two next
- Rates to continue to rise-Fed balance sheet
- Small probability of recession in next 18 months
- Tax reform/ACA repeal and replace

## Global Economy & Markets

## Global Concerns Abound

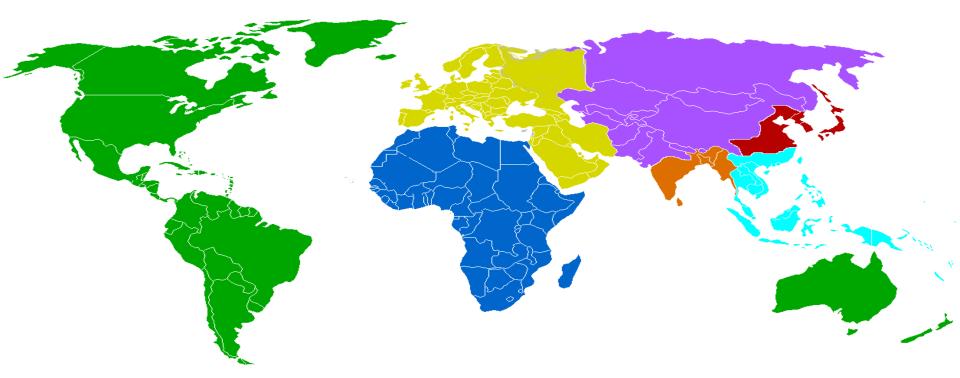
- 1) North Korea
- 2) European Union (Brexit, Eurozone, etc.)
- 3) Refugees
- 4) Slowing China
- 5) Cybersecurity
- 6) Middle East
- 7) Terrorism
- 8) Russian Ambitions
- 9) Other...

## And Yet Capitalism is Breaking Out All Over World!



Sources: IMF Global Economic Outlook Database 2016, Bank of International Settlements as of 9/30/2016, MSCI as of 12/31/2016. Emerging markets includes Frontier markets. Purchasing power parity (PPP) is a theory which states that exchange rates between currencies are in equilibrium when their purchasing power is the same in each of the two countries. Stock capitalization is based on country weightings in the MSCI All Country World Index.

## Capitalism Is Breaking Out All Over!



## World Population – 1 Billion per Color

Source: United Nations, Wells Fargo Investment Institute, Population Prospects Division, 03/04/2014

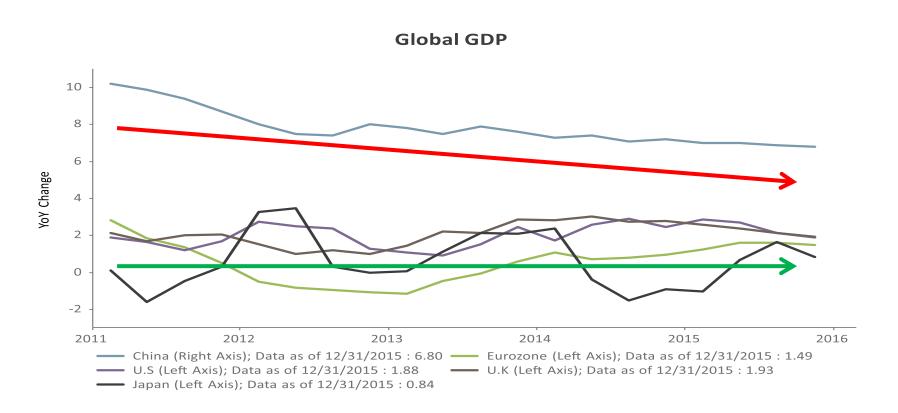
## Capitalism Is Breaking Out All Over!



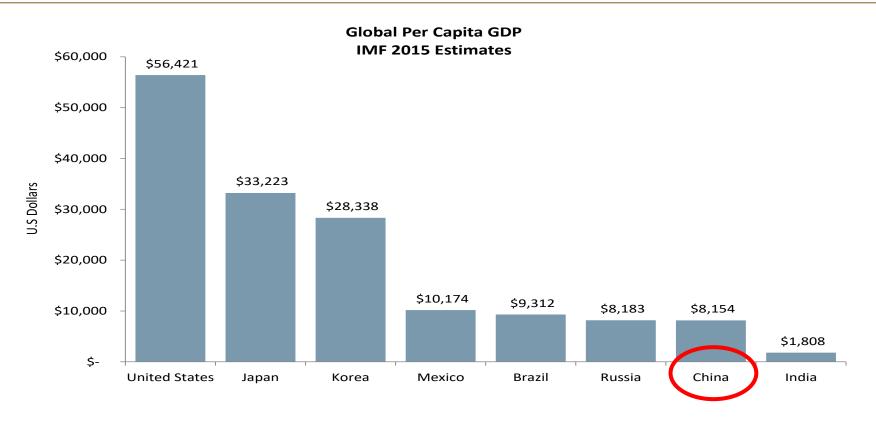
## Poverty Levels are Decreasing!

- Global Extreme Poverty (< \$1.90/day) Has Fallen to 9.6%</li>
- Trajectory to Eliminate Extreme Poverty By 2030

## Slowing Global Growth (esp. China)

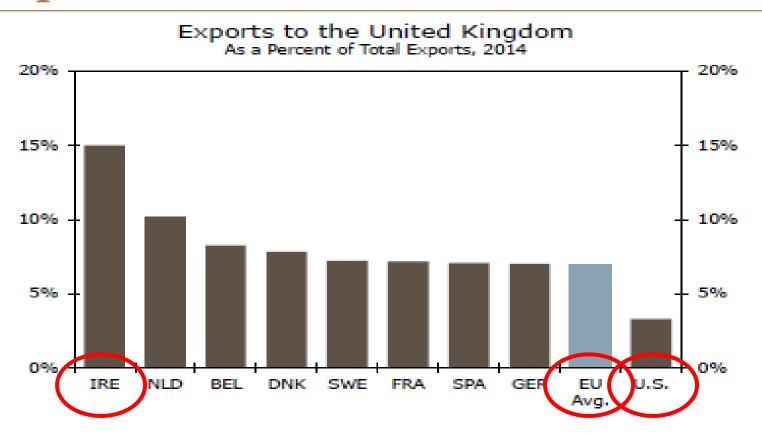


## Slowing Global Growth (esp. China)



Source: International Monetary Fund World Economic Outlook, April 2015; IMF estimates of annual growth gross domestic per capita product for selected global regions.

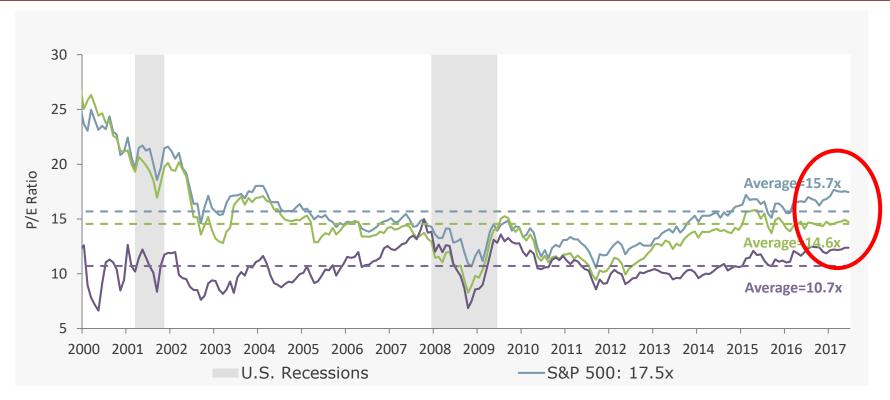
## Europe Union (Brexit and Eurozone)



## Europe Union (Brexit and Eurozone)

- Brexit
- Frexit
- Grexit
- Outstria
- Beljump
- Swedone
- Quitaly
- Departugal...
- Czech-Out.

### **International Valuations Look Attractive**



Sources: Factset, Wells Fargo Investment Institute, 6/30/2017. P/E ratios represent the total price of the index divided by its total earnings. **Past performance is no guarantee of future results**. An index is unmanaged and not available for direct investment. S&P 500 Index is a market-value weighted index consisting of 500 stocks chosen for market size, liquidity, and industry group representation. The MSCI EAFE (DM) and Emerging Markets (EM) Indices are equity indices which capture large and mid cap representation across 21 DM countries (excluding the US and Canada) and 23 EM countries around the world.

### Global Dividend Yields Look Attractive

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Sources: FactSet, Wells Fargo Investment Institute, 6/30/2017. Yields represent past performance. **Past performance is no guarantee of future results.** Yields may be lower or higher than that quoted above. Yields fluctuate as market conditions change. An index is unmanaged and not available for direct investment. Cash and sovereign bond yields represented in green; equity dividend yields represented in blue. Cash is represented by 3-Mo LIBOR and sovereign bond yields is represented by 10-Yr U.S. Treasury. The LIBOR USD 3 Month rate is an average derived from the quotations provided by the banks determined by the ICE Benchmark Administration.

Note: The MSCI Developed and Emerging Market Country Indices are designed to measure the performance of the large and mid-cap segments of the individual country markets and cover approximately 85% of the free-float-adjusted or equity universe in each country.

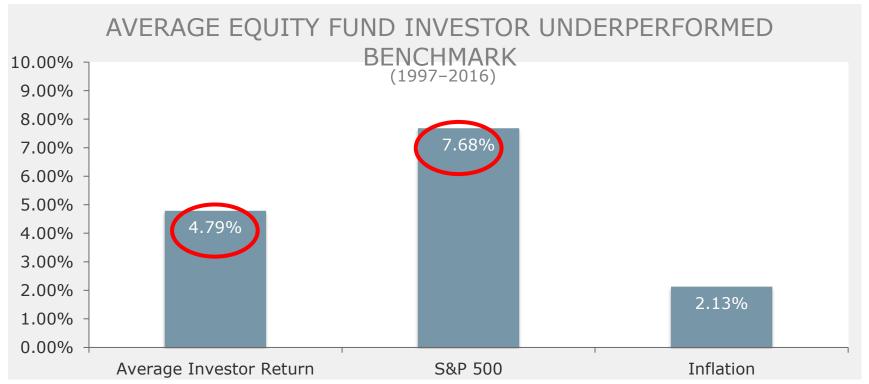
## Guidance for Investors

## **Investing For Humans**

"Döhodlowldwuy Haarteart!"

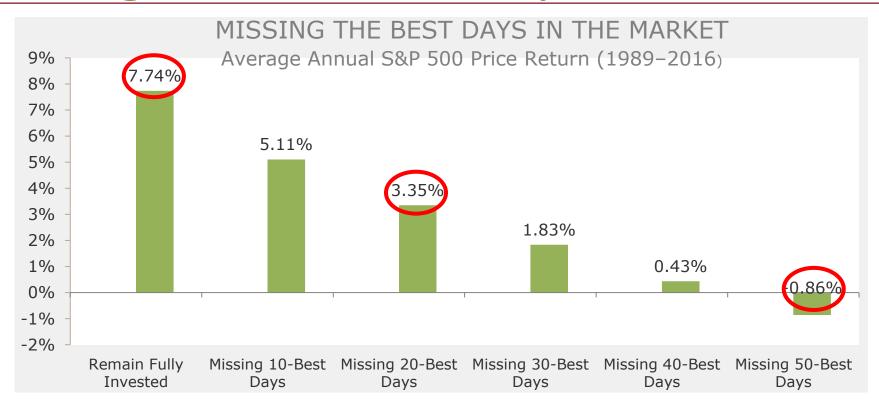
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## Timing the Market is Risky



Source: Dalbar, Inc. 2017, 20 years from 1997-2016; "Quantitative Analysis of Investor Behavior" by Dalbar, Inc. (4/20/2017) and Lipper. Dalbar computed the "average stock fund investor return" by using industry cash flow reports from the Investment Company Institute. The "average stock fund return" figure represents the average return for all funds listed in Lipper's U.S. Diversified Equity fund classification model. All Dalbar returns were computed using the S&P 500 Index. Returns assume reinvestment of dividends and capital gain distributions. The fact that buy and hold has been a successful strategy in the past does not guarantee that it will continue to be successful in the future. The performance shown is not indicative of any particular investment. **Past performance is not a guarantee of future results.** 

## Timing the Market is Risky



Source: Morningstar Direct, Wells Fargo Investment Institute. 12/31/2016. For illustrative purposes only. Past performance is no quarantee of future results. An index is unmanaged and not available for direct investment.

## Four Steps To Successful Investing

- 1. Make a Plan . . . Match Investment Strategy to Financial Goals
- 2. Construct Your Portfolio . . . Diversified and "All-Weather"

3. Globalize Your Portfolio

4. Maintain Alignment To Your Plan . . . "Buy and Manage"

"Attention is the rarest and purest form of generosity."

Simone Weil

## Thank You!!

"Attention is the rarest and purest form of generosity."

Simone Weil

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## **Index Definitions**

Performance results for the MGI 4AG w/o private capital and 60/40 Portfolios are hypothetical and for illustrative purposes only. Hypothetical results do not represent actual trading and the results achieved do not represent the experience of any individual investor. In addition, hypothetical results do not reflect the impact of any fees, expenses or taxes applicable to an actual investment. Unlike most asset class indices, HFR index returns reflect fees and expenses. The indices reflect the historical performance of the represented assets and assume the reinvestment of dividends and other distributions. An index is unmanaged and not available for direct investment. Hypothetical and past performance do not guarantee future results. Definition of the indices and description so f the risks associated with investment in these asset classes is provided follow.

60% 40% Portfolio: 60% S&P 500 Index and 40% Bloomberg Barclays US Aggregate Bond Index

Moderate Growth & Income w/o Private Capital: 3% Bloomberg Barclays US Treasury Bill 1-3 Months, 11% Bloomberg Barclays US Aggregate (5-7Y), 6% Bloomberg Barclays US Aggregate (10+Y), 6% Bloomberg Barclays US Corporate High Yield Index, 3% JPM GBI Global Ex-US TR USD Index, 5% JPM EMBI Global TR USD Index, 20% S&P 500 Index, 8% Russell Mid Cap TR USD Index, 6% Russell 2000 Index, 5% MSCI EAFE GR USD Index, 5% MSCI EM GR USD, 5% FTSE EPRA/NAREIT Developed TR USD Index, 2% Bloomberg Commodities Index, 3% HFRI Relative Value Arbitrage Index, 6% HFRI Macro Index, 4% HFRI Event Driven Index, 2% HFRI Equity Hedge Index.

- Investment Grade Fixed Income: Bloomberg Barclays U.S. Aggregate Bond Index is composed of the Barclays U.S. Government/Credit Index and the Barclays U.S. Mortgage-Backed Securities Index and includes Treasury issues, agency issues, corporate bond issues, and mortgage-backed securities.
- High Yield Fixed Income: Bloomberg Barclays U.S. Corporate High-Yield Bond Index covers the U.S. dollar-denominated, non-investment grade, fixed-rate, taxable corporate bond market. Securities are classified as high-yield if the middle rating of Moody's, Fitch, and S&P is Ba1/BB+/BB= or below. Included issues must have at least one year until final maturity.
- Cash Alternatives/Treasury Bills: Bloomberg Barclays U.S. Treasury Bills (1-3M) Index is representative of money markets.
- Commodities: Bloomberg Commodity Index is a broadly diversified index of commodity futures on 20 physical commodities, subdivided into energy, U.S. agriculture, livestock, precious metals, and industrial metals sectors. Commodity weights are derived in a manner that attempts to fairly represent the importance of a diversified group of commodities to the world economy.
- Public Real Estate: FTSE EPRA/NAREIT Developed Index is designed to track the performance of listed real-estate companies and REITs in developed countries worldwide.
- Hedge Funds: HFRI Fund Weighted Index is a fund-weighted (equal-weighted) index designed to measure the total returns (net of fees) of the approximately 2,000 hedge funds that comprise the Index. Constituent funds must have either \$50 million under management or a track record of greater than 12 months. Sub-strategies include: HFRI Event-Driven, Distressed/Restructuring Index, and HFRI Event-Driven (Total) Index.
- Developed Market Ex-U.S. Fixed Income: JP Morgan Global Ex United States Index (JPM GBI Global Ex-US) is a total return, market capitalization weighted index, rebalanced monthly, consisting of the following countries: Australia, Germany, Spain, Belgium, Italy, Sweden, Canada, Japan, United Kingdom, Denmark, Netherlands, and France.
- Emerging Market Fixed Income: JPM EMBI Global Index is a U.S. dollar-denominated, investible, market cap-weighted index representing a broad universe of emerging market sovereign and quasi-sovereign debt. While products in the asset class have become more diverse, focusing on both local currency and corporate issuance, there is currently no widely accepted aggregate index reflecting the broader opportunity set available, although the asset class is evolving. By using the same index provider as the one used in the developed-market bonds asset class, there is consistent categorization of countries among developed international bonds (ex. U.S.) and emerging market bonds.
- Developed Markets Ex-U.S. Equities: MSCI EAFE Index (Europe, Australasia, Far East) Index (MSCI EAFE GR) is a free float-adjusted market capitalization index designed to measure the equity market performance of developed markets, excluding the U.S. and Canada. The index consists of the following 21 developed-market country indexes: Australia, Austria, Belgium, Denmark, Finland, France, Germany, Hong Kong, Ireland, Israel, Italy, Japan, the Netherlands, New Zealand, Norway, Portugal, Singapore, Spain, Sweden, Switzerland, and the United Kingdom.
- Emerging Market Equities: MSCI Emerging Markets Index (MSCI EM GR) is a free float-adjusted market capitalization index designed to measure equity market performance of emerging markets. The index consists of the following 23 emerging market country indexes: Brazil, Chile, China, Colombia, Czech Republic, Egypt, Greece, Hungary, India, Indonesia, Korea, Malaysia, Mexico, Peru, Philippines, Poland, Qatar, Russia, South Africa, Taiwan, Thailand, Turkey, and United Arab Emirates.

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## Index Definitions continued

- U.S. Small Cap Equities: 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.
- U.S. Mid Cap Equities: 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.
- U.S. Large Cap Equities: S&P 500 Index consists of 500 stocks chosen for market size, liquidity, and industry group representation. It is a market-value-weighted index with each stock's weight in the index proportionate to its market value.
- Inflation-CPI: IA SBBI U.S. Inflation Index is a custom unmanaged index designed to track the U.S. inflation rate
- 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.
- HFRI Equity Hedge 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 Macro Index is composed of 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.
- HFRI Event Driven Index maintains 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.

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.

## **Risk Considerations**

Asset allocation and diversification are investment methods used to help manage risk. They do not ensure a profit or protect against a loss. All investing involve risks, including the possible loss of principal. There can be no assurance that any investment strategy will be successful. Investments fluctuate with changes in market and economic conditions and in different environments due to numerous factors some of which may be unpredictable. Each asset class has its own risk and return characteristics. Some of the risks associated with the representative index asset classes shown in the charts include:

Alternative Investments: The alternative investments, including hedge funds and private capital funds, are speculative and entail significant risks including those associated with potential lack of diversification, restrictions on transferring interests, no available secondary market, complex tax structures, delays in tax reporting, valuation of securities and pricing. They 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. An investment in these funds involve the risks inherent in an investment in securities and can include losses associated with speculative investment practices, including hedging and leveraging through derivatives, such as futures, options, swaps, short selling, investments in non-U.S. securities, "junk" bonds and illiquid investments.

Commodities: The commodities markets are considered speculative, carry substantial risks, and have experienced periods of extreme volatility. Commodities may be affected by changes in overall market movements, commodity index volatility, changes in interest rates or other factors affecting a particular industry or commodity. Investing in physical commodities, such as gold and other precious metals, exposes a portfolio to other 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. In addition to the risks of investing in commodities generally, investing in base metals carries additional risks. These metals are highly levered to the relative strength of the U.S. dollar, economic growth and inflation. They cannot be held physically and are not easily converted to cash. Exposure to base metals is usually accessed through investments in stocks of mining companies, exchange-traded funds, mutual funds or futures trading.

**Currencies:** Currency risk is the risk that foreign currencies will decline in value relative to that of the U.S. dollar. Exchange rate risk between the U.S. dollar and foreign currencies may cause the value of the fund's investments to decline.

# Risk Considerations continued

**Equity Securities:** Stocks 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. The prices of **small/mid-company stocks** are generally more volatile than large company stocks. They often involve higher risks because of smaller and mid-sized companies may lack the management expertise, financial resources, product diversification and competitive strengths to endure adverse economic conditions.

**Fixed Income:** Investments in fixed-income securities are subject to market, 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. High yield fixed income securities are considered speculative, involve greater risk of default, and tend to be more volatile than investment grade fixed income securities. **Municipal bonds** offer interest payments exempt from federal taxes, and potentially state and local income taxes. Municipal bonds are subject to credit risk and potentially the Alternative Minimum Tax (AMT). Quality varies widely depending on the specific issuer. **U.S. government securities** are backed by the full faith and credit of the federal government as to payment of principal and interest if held to maturity. Although free from credit risk, they are subject to interest rate risk.

**Foreign/Emerging/Frontier Markets:** 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.

**Real Estate:** Investing in real estate investment trusts (REITs) have special risks, including possible illiquidity of the underlying properties, credit risk, interest rate fluctuations, and the impact of varied economic conditions.

**Treasury Inflation-Protected Securities (TIPS):** 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.

## Cash Alternatives/Treasury Bills:

Bloomberg Barclays U.S. Treasury Bills (1-3M) Index is representative of money markets.

#### Fixed Income

Bloomberg Barclays Corporate Bond BAA Index is a subset of the Barclays U.S. Corporates Index with an index rating of Baa1, Baa2 or Baa3.

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. Standalone indices such as the Euro Floating-Rate ABS Index and the Chinese Aggregate Index are excluded. The Multiverse Index family includes a wide range of standard and customized subindices by sector, quality, maturity, and country.

### Short Term Fixed Income Taxable:

**Bloomberg Barclays U.S.** Aggregate 1-3 Year Bond Index is unmanaged and is composed of the Barclays U.S. Government/Credit Index and the Barclays U.S. Mortgage-Backed Securities Index, and includes Treasury issues, agency issues, corporate bond issues, and mortgage-backed securities with maturities of 1-3 years.

## Intermediate Term Fixed Income Taxable:

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

## Long Term Fixed Income Taxable:

**Barclays U.S.** Aggregate 10+ Year Bond Index is unmanaged and is composed of the Barclays U.S. Government/Credit Index and the Barclays U.S. Mortgage-Backed Securities Index, and includes Treasury issues, agency issues, corporate bond issues, and mortgage-backed securities with maturities of 10 years or longer.

## **Investment Grade Fixed Income Taxable:**

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

## High Yield Fixed Income Taxable:

**Bloomberg Barclays U.S. Corporate High-Yield Bond Index** covers the U.S. dollar-denominated, non-investment grade, fixed-rate, taxable corporate bond market. Securities are classified as high-yield if the middle rating of Moody's, Fitch, and S&P is Ba1/BB+/BB= or below. Included issues must have at least one year until final maturity.

## **High Yield Municipal Fixed Income:**

Bloomberg Barclays U.S. Municipal High Yield Index measures the non-investment grade and non-rated US dollar-denominated, fixed-rate, tax exempt bond market within the 50 United States and four other qualifying regions (Washington DC, Puerto Rico, Guam and the Virgin Islands). The index allows state and local general obligation, revenue, insured, and pre-refunded bonds, however, historically the index has been comprised of mostly revenue bonds. The US Municipal High Yield Index is a stand-alone index with no crossover into other Barclays taxable indices, such as the US High Yield Index.

### **Investment Grade Corporate Fixed Income:**

Bloomberg Barclays U.S. Investment Grade Bond Index measures the performance of the investment grade corporate bond market.

#### Government Bonds:

**IA SBBI U.S. Long-Term Government Bond Index** is a custom unmanaged index designed to measure the performance of long-term U.S. government bonds which includes U.S. Treasury and U.S. Government Agency bonds with maturities of seven years or longer.

## **Emerging Market Fixed Income:**

JPMorgan EMBI Global Index (USD) is a U.S. dollar-denominated, investible, market cap-weighted index representing a broad universe of emerging market sovereign and quasi-sovereign debt. While products in the asset class have become more diverse, focusing on both local currency and corporate issuance, there is currently no widely accepted aggregate index reflecting the broader opportunity set available, although the asset class is evolving. By using the same index provider as the one used in the developed-market bonds asset class, there is consistent categorization of countries among developed international bonds (ex. U.S.) and emerging market bonds.

JPMorgan Emerging Markets Global Index (local currency) is a comprehensive global local emerging markets index, and consists of regularly traded, liquid fixed-rate, domestic currency government bonds.

## **Developed Market Fixed Income**

- J.P. Morgan GBI Global ex-US Index (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.
- **J.P. Morgan Non-U.S. Global Government Bond Index (Hedged)** is an unmanaged market index representative of the total return performance, on a hedged basis, of major non-U.S. bond markets. It is calculated in U.S. dollars.

## **Equities**

## Global Equities:

MSCI World Index is a free float-adjusted market capitalization weighted index that is designed to measure the equity market performance of developed markets. The MSCI World Index consists of the following 23 developed market country indexes: Australia, Austria, Belgium, Canada, Denmark, Finland, France, Germany, Hong Kong, Ireland, Israel, Italy, Japan, Netherlands, New Zealand, Norway, Portugal, Singapore, Spain, Sweden, Switzerland, the United Kingdom, and the United States.

## Small Cap Equities:

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.

## Mid Cap Equities:

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.

## Large Cap Equities:

**S&P 500 Index** consists of 500 stocks chosen for market size, liquidity, and industry group representation. It is a market-value-weighted index with each stock's weight in the index proportionate to its market value.

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.

## **Emerging Market Equities:**

MSCI Emerging Markets Index (MSCI EM GR) is a free float-adjusted market capitalization index designed to measure equity market performance of emerging markets. The index consists of the following 23 emerging market country indexes: Brazil, Chile, China, Colombia, Czech Republic, Egypt, Greece, Hungary, India, Indonesia, Korea, Malaysia, Mexico, Peru, Philippines, Poland, Qatar, Russia, South Africa, Taiwan, Thailand, Turkey, and United Arab Emirates.

## Frontier Market Equities:

MSCI Frontier Markets Index (MSCI FM GR) is a free float-adjusted market capitalization index designed to measure equity market performance of world's least developed capital markets. The index consists of he following 30 frontier market country indexes: Argentina, Bahrain, Bangladesh, Burkina Faso, Benin, Croatia, Estonia, Guinea-Bissau, Ivory Coast, Jordan, Kenya, Kuwait, Lebanon, Lithuania, Kazakhstan, Mauritius, Mali, Morocco, Niger, Nigeria, Oman, Pakistan, Romania, Serbia, Senegal, Slovenia, Sri Lanka, Togo, Tunisia and Vietnam.

### Small Company Stocks:

IA SBBI U.S. Small Stock Index is a custom index designed to measure the performance of small capitalization U.S. stocks.

## Developed Market Ex-U.S. Equities:

MSCI EAFE Index (Europe, Australasia, Far East) Index (MSCI EAFE GR) is a free float-adjusted market capitalization index designed to measure the equity market performance of developed markets, excluding the U.S. and Canada. The index consists of the following 21 developed-market country indexes: Australia, Austria, Belgium, Denmark, Finland, France, Germany, Hong Kong, Ireland, Israel, Italy, Japan, the Netherlands, New Zealand, Norway, Portugal, Singapore, Spain, Sweden, Switzerland, and the United Kingdom.

**Nikkei 225 Index** is the leading and most-respected index of Japanese stocks. It is a price-weighted index comprised of Japan's top 225 blue-chip companies on the Tokyo Stock Exchange. The Nikkei is equivalent to the Dow Jones Industrial Average Index in the U.S.

**EURO STOXX 50 Index** is Europe's leading Blue-chip index for the Eurozone, provides a Blue-chip representation of supersector leaders in the Eurozone. The index covers 50 stocks from 12 Eurozone countries: Austria, Belgium, Finland, France, Germany, Greece, Ireland, Italy, Luxembourg, the Netherlands, Portugal and Spain.

Hong Kong Hang Seng Index is a market capitalization-weighted index of 40 of the largest companies that trade on the Hong Kong Exchange. The Hang Seng Index is maintained by a subsidiary of Hang Seng Bank, and has been published since 1969. The index aims to capture the leadership of the Hong Kong exchange, and covers approximately 65% of its total market capitalization. The Hang Seng members are also classified into one of four sub-indexes based on the main lines of business including commerce and industry, finance, utilities and properties.

## Volatility Indexes

VNKY Index: The Nikkei Stock Average Volatility Index is calculated by using prices of Nikkei 225 futures and Nikkei 225 options on the Osaka Securities Exchange. The real-time (every 15 seconds) calculation started from January 30th, 2012, Final confirmation value (KAKUHOU) is 15:20 JPT.

**VSTOXX Index** is based on a new methodology jointly developed by Deutsche Borse and Goldman Sachs to measure volatility in the Eurozone. VSTOXX is based on the EURO STOXX 50 Index options traded on Eurex. It measures implied volatility on options with a rolling 30 day expiry.

HSI Volatility Index aims to measure the 30 calendar-day expected volatility of the Hang Seng Index implicit in the prices of near-term and next-term Hang Seng Index Options which are now trading on the Hong Kong Exchanges and Clearing Limited's derivatives market.

VIX: 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 strikes. 1st & 2nd month expirations are used until 8 days from expiration, then the 2nd and 3rd are used.

**U.S. Dollar Index** (USDX/DXY) 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.

J.P. Morgan Emerging Market Currency Index tracks the performance of emerging-market currencies relative to the U.S. dollar.

MSCI All Country World Index (ACWI) is a free float-adjusted market capitalization weighted index that is designed to measure the equity market performance of developed and emerging markets. The Index consists of 46 country indices comprising 23 developed and 23 emerging market country indices.

MSCI U.S. Equity Indexes are a domestic only series - independent from MSCI's Global Equity Index family – which reflect the investment opportunities in the US equity markets by market capitalization size, by value and growth investment styles and by sectors and industries.

## **Commodities:**

**Bloomberg Commodity Index** is calculated on an excess return basis and reflects commodity futures price movements. The index rebalances annually weighted 2/3 by trading volume and 1/3 by world production and weight-caps are applied at the commodity, sector and group level for diversification.

Energy Sector: Bloomberg Energy Sub-index is a commodity group sub-index of the Bloomberg Commodity Index. It is composed of futures contracts on crude oil, heating oil, unleaded gasoline and natural gas. It reflects the return of underlying commodity futures price movements only and is quoted in USD.

**Agriculture Sector: Bloomberg Agriculture Sub-Index** is a commodity group sub-index 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 underlying commodity futures price movements only and is quoted in USD.

**Precious Metals Sector: Bloomberg Precious Metals Sub-Index** is a commodity group sub-index of the Bloomberg Commodity Index. It is composed of futures contracts on gold and silver. It reflects the return of underlying commodity futures price movements only and is quoted in USD.

Base Metals Sector: Bloomberg Industrial Metals Sub-Index is composed of futures contracts on aluminum, copper, nickel and zinc. It reflects the return of underlying commodity futures price movements only. It is quoted in USD.

## **REITs:**

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

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

International REITs: FTSE EPRA/NAREIT Global Ex US Index is part of a range of indices designed to help US investors benchmark their international investments. The index comprises large, mid and small cap stocks globally excluding the US. The index is derived from the FTSE Global Equity Index Series which covers 98% of the world's investible market capitalization.

**Private REITs: NCREIF Property Index (NPI)** is a quarterly, unleveraged composite total return for private commercial real estate properties held for investment purposes only.

## **Hedge Funds:**

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.

HFRI Fund Weighted Composite Index is a fund-weighted (equal-weighted) index designed to measure the total returns (net of fees) of the approximately 2,000 hedge funds that comprise the Index. Constituent funds must have either \$50 million under management or a track record of greater than 12 months. Sub-strategies include: HFRI Event-Driven, Distressed/Restructuring Index, and HFRI Event-Driven (Total) Index.

HFRI Event Driven Index maintains 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.

**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.

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.

HFRI Equity Hedge (Total) Index consists of 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%, and may in some cases be substantially entirely invested in equities, both long and short.

## **Private Equity**

Cambridge Associates Private Equity Index is an end-to-end calculation based on data compiled from 1,152 U.S. private equity funds (buyout, growth equity, private equity energy and mezzanine funds), including fully liquidated partnerships, formed between 1986 and 2014.

## **Economic Indexes**

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.

**Institute for Supply Management (ISM) Non-Manufacturing Index** is based on surveys of more than 400 non-manufacturing firms by the Institute of Supply Management. The ISM Non-Manufacturing Index tracks economic data.

The Consumer Price Index (CPI) is a measure that examines the weighted average of prices of a basket of consumer goods and services, such as transportation, food and medical care. It is calculated by taking price changes for each item in the predetermined basket of goods and averaging them.

The Producer Price index (PPI) program measures the average change over time in the selling prices received by domestic producers for their output.

IA SBBI U.S. Inflation Index is a custom unmanaged index designed to track the U.S. inflation rate.

**NFIB Small Business Optimism Index** is the small business optimism index is compiled from a survey that is conducted each month by the National Federation of Independent Business (NFIB) of its members. The index is a composite of ten seasonally adjusted components based on questions on the following: plans to increase employment, plans to make capital outlays, plans to increase inventories, expect economy to improve, expect real sales higher, current inventory, current job opening, expected credit conditions, now a good time to expand, and earnings trend.

**Consumer Confidence Index** (CCI) is designed to measure consumer confidence which is defined as the degree of optimism on the state of the economy that consumers are expressing through their activities of savings and spending. Global consumer confidence is not measured.

The American Association of Individual Investors (AAII) U.S. Investor Sentiment survey measures the percentage of individual investors who are bullish, bearish, and neutral on the stock market short term

**U.S. Dollar Index** (USDX/DXY) 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.

West Texas Intermediate (WTI) Crude Oil is a light, sweet (i.e., low sulfur) crude oil which is the main type of U.S. crude oil traded in U.S. futures markets.

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