

January 30, 2017

Economic and Market Commentary

Global Economic News

U.S.

- Personal income and spending and pending home sales for December will be released today. Tomorrow will see the Chicago purchasing manager survey and Conference Board Consumer Confidence Index for January. The ADP employment report for January, construction spending for December, Fed rate decision for February, Ward's domestic and total vehicle sales for January, and the final Markit and Institute for Supply Management (ISM) manufacturing surveys for January will be released on Wednesday. Thursday will see weekly initial jobless claims. Friday will see the employment situation report (payrolls) for January, the final Markit and ISM services surveys for January, and December's factory orders and final durable goods orders report.

Asia

- Japan kicks off the week with last night's report on retail trade for December, to be followed by a preliminary report on industrial production later today. Measures of business sentiment likely will dominate Asian economic releases for the rest of the week as manufacturing purchasing managers' indices (PMI) are reported for Japan on Wednesday, Taiwan on Thursday, and China on Friday.

Europe

- Eurostat, the European Union's statistical arm, starts off the week with reports on consumer confidence. Tomorrow, an advanced read on Eurozone economic growth for the fourth quarter will be published. On Wednesday, a host of manufacturing PMI reports will be reported for European countries. Market participants are likely to monitor the outcome of the Bank of England's monetary policy meeting on Thursday.

Global Market News

Bonds

- Ten-year U.S. Treasury yields finished last week slightly higher, but not much changed for fixed-income investors during President Trump's first full week in office. No action is expected at the Federal Reserve (Fed) meeting this week, but the market will closely examine the statement release for any indication of another rate hike. Current fed fund futures put the probability of a March hike at 36 percent. With several high-profile events this week, there is the potential for an uptick in bond-market volatility.
- A somewhat quieter session Friday saw Eurozone yields mixed, German bund rates moving lower, but periphery yields higher, especially in Greece, with concerns about the renewal of the bailout program mounting. The U.S. Dollar Index (DXY) continued to bounce off 100 as yen strength appeared to reverse.
- German and Eurozone consumer price index (CPI) releases this week may keep upward pressure on bund yields, while a heavy calendar of European Central Bank (ECB) speakers may feed speculation on when the tapering debate will restart. A wild card may be Austrian politics: if the centrist coalition fails to heal a recent rift, then this could mean another election for the Eurozone in 2017.

Stocks

- The busiest week for earnings in the U.S. kicks off today. Additionally, we will start to see more international-based companies reporting earnings this week. One area of interest might be any comments on companies outlook given the strength of the U.S. dollar.
- The Lunar New Year holiday is Jan 27-Feb 2. Liquidity demands increase at this time and the markets will be closed in China for the entire week. Emerging markets have bounced off their December lows and are up nearly 10 percent over the past month.

Commodities

- Investors will look for supply, demand, and other factors influencing commodity prices in reports from the Department of Agriculture (USDA) and Energy Information Administration. Continued softness in the dollar allowed commodity prices to stay above recent lows. Should the dollar strengthen, commodity prices could be pressured lower. Global supplies remain abundant.
- The USDA will release its Livestock and Meats Data report today with outlooks for beef, pork, poultry, and dairy products. Meat production and supply remains elevated. A pickup in demand has contributed to higher prices, but they have started to level off.

Alternative Investments

- Macro managers continue to see an improving opportunity set given divergence in monetary policy between major and minor economies. Further, developments in the energy sector are leading to dispersion between energy importing and exporting economies.

Investment and Insurance Products:

▶NOT FDIC Insured ▶NO Bank Guarantee ▶MAY Lose Value

Recent Wells Fargo Investment Institute Reports

- [Brexit: Update on Supreme-Court Ruling – 1/27/17](#)
- [U.S. Energy Independence: Fact or Fiction—Part III – 1/27/17](#)
- [Dow 20,000: What Investors Need to Know – 1/25/17](#)
- [Fundamentals Matter – 1/25/17](#)
- [Strategy for U.S. Companies with Mexican Factories? Keep Your Head Down – 1/25/17](#)

Economic and Market Forecasts

	Current	2017E
Global GDP Growth **	3.00%	3.20%
Developed GDP Growth **	1.60%	1.70%
Emerging GDP Growth **	4.10%	4.40%
U.S. GDP Growth **	1.90%	2.10%
U.S. Inflation*	2.10%	2.20%
U.S. Unemployment Rate	4.70%	4.50%
Fed Funds Rate	0.75%	1.00-1.25%
10-Year UST Yield	2.48%	2.00-2.50%
30-Year UST Yield	3.06%	2.75-3.25%
S&P 500 EPS **	\$119	\$127
S&P 500	2295	2230-2330
Russell Mid Cap	1834	1750-1850
Russell 2000	1371	1170-1270
MSCI EAFE (USD)	1742	1660-1760
MSCI EM (USD)	916	850-930
Crude Oil Price (WTI)	\$53.17	\$40-50
Crude Oil Price (Brent)	\$55.52	\$45-55
Gold Price	\$1,188	\$1150-1250
Dollars per Euro	\$1.07	\$0.96-1.04

*YoY Change

**2016 estimates

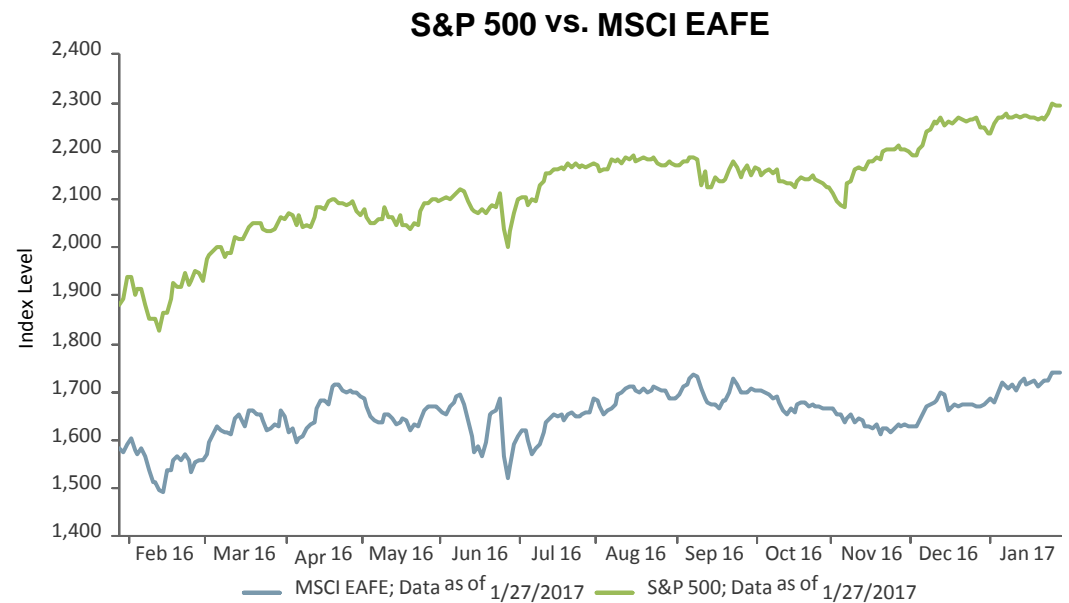
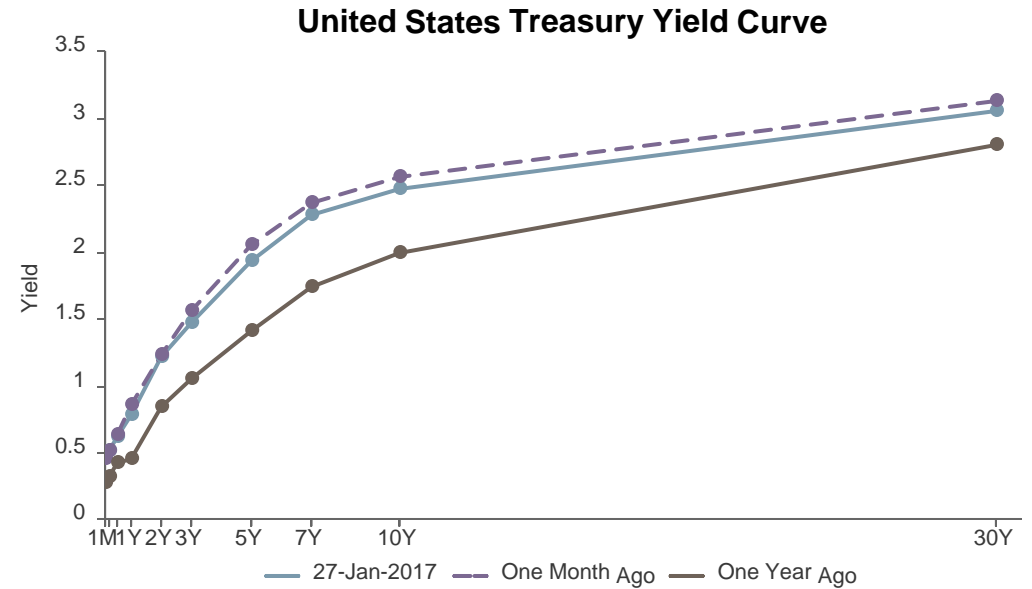
E=WFII Estimates

Forecasts are not guaranteed and are subject to change.

Sources: Bloomberg Finance LLP, FactSet, 1/27/17

Economic Calendar

Mon 30-Jan	Personal Income	European Commission Consumer Confidence Indicator
	Consensus: 0.4% Last: 0%	Consensus: -4.9 Last: -4.7
	U.S. PCE Core (MoM)	Japan Retail Trade YoY
	Consensus: 0.1% Last: 0.0%	Consensus: 1.7% Last: 0.6%
Tues 31-Jan	Consumer Confidence	Japan – Industrial Production (MoM)
	Consensus: 112.9 Last: 113.7	Consensus: 0.3% Last: 1.5%
	S&P Case-Shiller 20-City Home Price (MoM)	Eurozone – GDP seasonally adj. (QoQ)
	Consensus: 0.6% Last: 0.63%	Consensus: 0.4% Last: 0.4%
Wed 1-Feb	FOMC Funds Target Rate Decision	Eurozone – Markit PMI Manufacturing
	Consensus: 0.75% Last: 0.75%	Consensus: 55.1 Last: 55.1
	US Construction Spending (MoM)	China Manufacturing PMI
	Consensus: 0.3% Last: 0.9%	Consensus: 51.2 Last: 51.4
Thu 2-Feb	Unit Labor Costs QoQ	Bank of England Bank Rate
	Consensus: 1.9% Last: 0.7%	Consensus: 0.25% Last: 0.25%
	U.S. Nonfarm Productivity	Taiwan Manufacturing PMI
	Consensus: 0.9% Last: 3.1%	Consensus: - Last: 56.2
Fri 3-Feb	US Average Hourly Earnings (MoM)	China – Caixin PMI Manufacturing
	Consensus: 0.3% Last: 0.4%	Consensus: 51.8 Last: 51.9
	US Change in Nonfarm Payrolls	Eurozone – Markit Services PMI
	Consensus: 175k Last: 156k	Consensus: 53.6 Last: 53.6



Sources: Factset, Bloomberg; Index returns do not reflect the deduction of fees, expenses or taxes. Past performance is no guarantee of future results.

Market Performance

Index Returns

Fixed Income	Prior Close	1 Week	YTD	1 Year
Bloomberg Barclays Multiverse	106	0.1	0.5	2.7
Bloomberg Barclays US Aggregate	103	0.0	0.1	1.7
Bloomberg Barclays US Treasury	101	0.0	0.1	-0.6
Bloomberg Barclays US Corporate	104	0.1	0.2	6.3
Bloomberg Barclays US High Yield	101	0.4	1.5	21.6
Bloomberg Barclays Municipal Bond	107	-0.1	0.5	-0.3
Bloomberg Barclays Municipal Bond H	54	0.3	1.5	4.4
JP Morgan GBI Global Ex US	518	0.0	0.0	0.6
JP Morgan EMBI Global	750	0.3	1.4	12.7

Equity	Prior Close	1 Week	YTD	1 Year
S&P 500	2295	1.0	2.6	24.6
NASDAQ Composite Index	5661	1.9	5.2	28.3
DJ Industrial Average	20094	1.3	1.8	29.4
Russell 1000 Growth	1096	1.3	4.1	21.4
Russell 1000 Value	1116	0.8	1.4	29.4
Russell Mid Cap	1834	1.1	2.9	28.5
Russell 2000	1371	1.4	1.0	38.8
MSCI AC World	513	1.3	3.4	21.9
MSCI EAFE (USD)	1742	1.3	3.5	13.6
MSCI EAFE (Local)	1055	0.8	1.7	15.7
MSCI EM (Emerging Markets) (USD)	916	2.5	6.3	31.5
MSCI EM (Emerging Markets) (Local)	49936	2.0	4.8	25.3
MSCI FM Frontier Markets (USD)	534	1.9	7.0	21.1
MSCI FM Frontier Markets (Local)	689	1.8	6.6	27.3
CBOE Market Volatility Index	11	-8.3	-24.6	-54.2

Real Assets	Prior Close	1 Week	YTD	1 Year
FTSE EPRA/NAREIT Global	2032	0.0	0.7	13.1
Alerian MLP Index	336	5.5	6.9	50.2
S&P Global Infrastructure	2308	-0.2	1.3	17.8
Bloomberg Commodity Index	88	-0.4	0.6	16.0

Alternative Strategies	Prior Close	1 Month	YTD	1 Year
HFRI Fund Weighted Composite	12958	1.0	5.5	5.5
HFRI Relative Value	11287	1.2	7.8	7.8
HFRI Macro	14680	1.1	1.3	1.3
HFRI Event Driven	14989	1.5	10.5	10.5
HFRI Equity Hedge	18773	0.8	5.5	5.5

MSCI Country Returns

Developed	Prior Close	1 Week	YTD	1 Year
MSCI Australia	781	1.2	5.3	30.9
MSCI Canada	1643	1.8	4.4	39.6
MSCI France	1562	0.1	1.5	13.3
MSCI Germany	1979	1.8	4.5	17.3
MSCI Italy	229	-1.0	0.3	3.5
MSCI Japan	2920	1.1	3.5	16.1
MSCI Netherlands	2543	0.3	2.4	12.1
MSCI Spain	404	1.7	3.7	12.1
MSCI Sweden	6999	2.0	4.9	14.7
MSCI Switzerland	4772	1.8	3.9	7.2
MSCI United Kingdom	1093	1.7	2.2	10.0

Emerging	Prior Close	1 Week	YTD	1 Year
MSCI Brazil	1886	3.6	12.9	115.9
MSCI China	63	2.2	6.9	27.6
MSCI India	470	3.6	5.2	14.0
MSCI Indonesia	758	1.8	1.1	19.1
MSCI Korea	416	3.0	9.2	27.3
MSCI Malaysia	330	1.6	4.0	2.7
MSCI Mexico	4788	5.6	1.9	1.3
MSCI Poland	583	5.1	10.7	24.9
MSCI Russia	621	5.1	3.0	73.3
MSCI South Africa	469	0.5	3.3	38.2
MSCI Taiwan	320	2.0	5.0	37.2
MSCI Thailand	380	3.1	4.8	32.3

Sector Returns

S&P Sector Returns	Prior Close	1 Week	YTD	1 Year
S&P 500 Consumer Discretionary	677	1.4	4.6	19.8
S&P 500 Consumer Staples	537	-0.4	1.2	9.4
S&P 500 Energy	544	-0.5	-1.8	36.6
S&P 500 Financial	392	2.2	1.6	41.0
S&P 500 Healthcare	806	-0.2	1.2	6.0
S&P 500 Industrials	555	1.4	3.2	34.5
S&P 500 Information Technology	855	2.3	5.9	33.2
S&P 500 Material	332	3.4	6.4	43.2
S&P 500 Real Estate	189	-0.9	-0.4	9.0
S&P 500 Telecom	171	-1.7	-2.2	15.3
S&P 500 Utilities	246	-0.5	-0.4	14.3

Commodities & Currencies

Commodities & Currencies	Prior Close	1 Week	YTD	1 Year
CRB Total Return	193	-0.3	0.5	18.2
Baltic Dry Index Freight	827	-10.59	-13.94	145.40
Gold (oz)	1188	-1.35	3.31	6.45
Copper	2.69	2.46	7.34	30.31
WTI Crude Oil (bbl)	53	1.43	-1.02	64.61
Brent Crude Oil (bbl)	56	0.05	-2.29	67.73
Natural Gas (btu)	3.39	5.84	-8.94	54.91
Gasoline (gal)	1.55	-0.91	-7.13	45.44
U.S. Dollar per Euro	1.07	-0.25	-1.48	1.55
U.S. Dollar per British Pounds	1.25	-1.82	-1.53	13.60
Japanese Yen per U.S. Dollar	115	0.00	-1.35	-3.10
United States Dollar Index	100.56	-0.25	-1.61	1.66

Tactical Asset Allocation

Underweight	Overweight
Asset Classes	
High Yield Taxable Fixed Income Developed Market Ex.-U.S. Fixed Income U.S. Small Cap Equities Commodities Hedge Funds—Event Driven	U.S. Taxable Inv. Grade Fixed Income U.S. Intermediate Taxable Fixed Income Public Real Estate Hedge Funds—Relative Value Hedge Funds—Equity Hedge
S&P Equity Sectors	
Consumer Staples Energy Utilities	Consumer Discretionary Financials Health Care Industrials

Bond Market Data

Cross-Sector Yield Curves

Maturity	Corporate		AAA	Taxable Equivalent Yield ⁴		
	Treasury	Agency	Municipal	35.0%	33.0%	28.0%
1-Yr	0.78	0.88	0.92	1.42	1.37	1.28
2-Yr	1.22	1.26	1.13	1.74	1.69	1.57
3-Yr	1.48	1.56	1.33	2.04	1.98	1.84
4-Yr	NA	1.82	1.52	2.34	2.27	2.11
5-Yr	1.95	2.05	1.71	2.63	2.56	2.38
7-Yr	2.29	2.43	2.02	3.10	3.01	2.80
10-Yr	2.48	2.84	2.34	3.60	3.50	3.25
15-Yr	NA	3.17	2.73	4.19	4.07	3.78
20-Yr	NA	3.37	2.97	4.57	4.43	4.12
30-Yr	3.06	NA	3.13	4.81	4.67	4.34

Corporate Bond Yield Curves and Spreads

Maturity	AA		A		BBB		BB	
	AA**	Spread	A**	Spread	BBB**	Spread	BB** ³	Spread ¹
1-Yr	1.26	47	1.42	64	1.71	92	2.66	188
2-Yr	1.60	38	1.80	58	2.13	91	3.23	201
3-Yr	1.90	43	2.13	65	2.50	102	3.69	222
4-Yr	2.17	NA	2.39	NA	2.80	NA	4.08	NA
5-Yr	2.42	48	2.63	69	3.07	112	4.43	248
7-Yr	2.85	56	3.03	75	3.53	125	5.03	274
10-Yr	3.31	83	3.44	95	4.00	151	5.67	319
15-Yr	3.78	NA	4.01	NA	4.58	NA	6.44	NA
20-Yr	4.03	NA	4.24	NA	4.83	NA	6.83	NA
30-Yr	4.22	116	4.22	116	4.76	170	NA	NA

Short-Term Yield Curves

Maturity	Treasury	Agency	Commercial		Certificates
	Bills	Discount Notes	Paper	Libor	of Deposit
1-month	0.47	NA	0.71	0.78	0.67
3-month	0.50	0.52	0.80	1.04	1.33
6-month	0.62	0.61	0.91	1.36	1.49
1-Year	0.79	0.88	NA	1.72	1.85

International Yield Curves

Maturity	Canada	France	Germany	Japan	United Kingdom
2-Year	0.80	-0.47	-0.67	-0.24	0.13
5-Year	1.13	0.17	-0.36	-0.11	0.62
10-Year	1.78	1.08	0.48	0.08	1.47
30-Year	2.43	2.05	1.20	0.82	2.10

Due to technical issues, the GNMA data below is as of 11/3/16

GNMA Pass-Through Yields

Coupon	30-Year GNMA Pass Through				
	Price	Yield	Spread ¹	Avg Life	
4.50	110 1/32	1.51	19	3.58	
5.00	110 14/32	1.90	70	3.65	
5.50	112 29/32	1.13	68	3.10	
6.00	115	0.54	71	2.83	
6.50	114 22/32	1.44	120	3.07	

Coupon	15-Year GNMA Pass Through				
	Price	Yield	Spread ¹	Avg Life	
4.50	102 18/32	3.66	217	3.49	
5.00	102 14/32	4.11	280	3.13	
5.50	102 12/32	4.63	332	3.14	
6.00	102 4/32	5.06	388	2.62	
6.50	110 23/32	2.62	157	2.99	

Municipal Yield Curves

Maturity	AAA	AAA Treasury ²
1-Yr	0.92	117.3%
2-Yr	1.13	92.9%
3-Yr	1.33	89.9%
4-Yr	1.52	NA
5-Yr	1.71	88.0%
7-Yr	2.02	88.2%
10-Yr	2.34	94.3%
15-Yr	2.73	NA
20-Yr	2.97	NA
30-Yr	3.13	102.3%

Short-Term Yield Curves

Government Repo	
Overnight	0.52
1-week	0.58
1-month	0.59
3-month	0.65

Money Rates

Fed Funds Target Rates	0.75
Prime Rate	3.75

¹ Spread is the difference between the yield on a bond and that of a comparable U.S. Treasury security.

² The spread column represents the approximate percentage of current yield the listed type of municipal security may provide relative to a similar maturity Treasury security.

³ High yield bonds, commonly known as junk bonds, are subject to greater risk of loss of principal and interest, including default risk, than higher rated bonds. The price of these bonds, like all bonds, fluctuate inversely to changes in interest rates, may be volatile, and they are generally only suitable for aggressive investors.

⁴ Taxable Equivalent yield (TEY) assumes the tax bracket shown. Income may be subject to state and/or local taxes and/or the alternative minimum tax (AMT).

NA: Not Available

**Standard & Poor's (S&P) Corporate Bond Ratings: AA means high quality and subject to very low credit risk. A means upper-medium grade and subject to low credit risk. BBB means subject to moderate credit risk; these obligations are considered medium-grade and as such may possess certain speculative characteristics. BB is judged to have speculative elements; subject to substantial credit risk.

GNMA yields are bond equivalent yields based on generic issues for varying coupons. They do not represent Consensus GNMA issues. Average life is a means to measure the time until all principal is returned for securities that return principal over time vs. in one lump sum. The yield and average life are calculated using a prepayment assumption that may or may not be met. The assumption used for the calculations is the median of 12 mortgage brokers' estimated prepayment speeds. Spread represents the implied risk premium an investor will receive over an equivalent investment in a U.S. Treasury security. For GNMA's, this spread is an option-adjusted spread as it factors in the series of embedded options inherent in mortgage-backed securities.

For municipal yield curves, there is no "constant Treasury" in the 4-, 15- or 20-year maturity segment to facilitate this calculation.

Notes on Index Returns: Index Returns reflect previous business day's closing value with the exception of Hedge Fund Index returns which have a one day lag. Three-year returns are annualized.

Source: Bloomberg Finance LLP, 1/27/17

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Disclosures

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Asset Class Risks:

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. The risks associated with the representative index asset classes include:

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.

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.

Technology and internet-related stocks, especially of smaller, less-seasoned companies, tend to be more volatile than the overall market.

Fixed Income: Investments in fixed-income securities are subject to interest rate and credit risks. Bond prices fluctuate inversely to changes in interest rates. Therefore, a general rise in interest rates can result in the decline in the bond's price. Credit risk is the risk that an issuer will default on payments of interest and principal. High yield fixed income securities are considered speculative, involve greater risk of default, and tend to be more volatile than investment grade fixed income securities. All fixed income investments may be worth less than their original cost upon redemption or maturity. U.S. government securities are backed by the full faith and credit of the federal government as to payment of principal and interest if held to maturity. Although free from credit risk, they are subject to interest rate risk.

Foreign/Emerging 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 markets.

Hedge funds are complex, speculative investment vehicles and are not suitable for all investors. They are generally open to qualified investors only and carry high costs, substantial risks, and may be highly volatile. There is often limited (or even non-existent) liquidity and a lack of transparency regarding the underlying assets. They do not represent a complete investment program. The investment returns may fluctuate and are subject to market volatility, so that an investor's shares, when redeemed or sold, may be worth more or less than their original cost. Hedge funds are not required to provide investors with periodic pricing or valuation and are not subject to the same regulatory requirements as mutual funds. Investing in hedge funds may also involve tax consequences. Speak to your tax advisor before investing. Investors in funds of hedge funds will incur asset-based fees and expenses at the fund level and indirect fees, expenses and asset-based compensation of investment funds in which these funds invest. An investment in a hedge fund involves the risks inherent in an investment in securities, as well as specific risks associated with limited liquidity, the use of leverage, short sales, options, futures, derivative instruments, investments in non-U.S. securities, "junk" bonds and illiquid investments. There can be no assurances that a manager's strategy (hedging or otherwise) will be successful or that a manager will use these strategies with respect to all or any portion of a portfolio. Please carefully review the Private Placement Memorandum or other offering documents for complete information regarding terms, including all applicable fees, as well as other factors you should consider before investing.

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.

Definitions:

Institute for Supply Management Manufacturing Index (ISM) is based on surveys of more than 300 manufacturing firms by the Institute of Supply Management. The ISM Manufacturing Index monitors employment, production inventories, new orders and supplier deliveries. A composite diffusion index is created that monitors conditions in national manufacturing based on the data from these surveys.

Purchasing Managers Index (PMI) is an indicator of the economic health of the manufacturing sector. The PMI index is based on five major indicators: new orders, inventory levels, production, supplier deliveries and the employment environment.

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

The **U.S. Dollar Index (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.

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

Basis Point (bps) – A basis point is a unit that is equal to 1/100th of 1%.

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 sub-indices by sector, quality, maturity, and country. JP Morgan Global Ex United States bond Index 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.

The **Bloomberg Barclays US Treasury Index** measures US dollar-denominated, fixed-rate, nominal debt issued by the US Treasury. Treasury bills are excluded by the maturity constraint, but are part of a separate Short Treasury Index. STRIPS are excluded from the index because their inclusion would result in double-counting. The US Treasury Index is a component of the US Aggregate, US Universal, Global Aggregate and Global Treasury Indices. The US Treasury Index was launched on January 1, 1973.

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Disclosures

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

The Bloomberg Barclays US Corporate Bond Index measures the investment grade, fixed-rate, taxable corporate bond market. It includes USD-denominated securities publicly issued by US and non-US industrial, utility and financial issuers.

The Bloomberg Barclays High Yield Index covers the universe of fixed rate, non-investment grade debt. Pay-in-kind (PIK) bonds, Eurobonds, and debt issues from countries designated as emerging markets (e.g., Argentina, Brazil, Venezuela, etc.) are excluded, but Canadian and global bonds (SEC registered) of issuers in non-EMG countries are included. Original issue zeroes, step-up coupon structures, and 144-As are also included.

Bloomberg Barclays Municipal Bond Index (from Lehman Brothers Municipal Bond Index) represents municipal bonds with a minimum credit rating of at least Baa, an outstanding par value of at least \$3 million, and a remaining maturity of at least one year. The Index excludes taxable municipal bonds, bonds with floating rates, derivatives, and certificates of participation. The Barclays 10-Year Municipal Index is the 10 Year (8-12) component of the Municipal Bond Index.

Bloomberg Barclays Municipal High Yield Bond Index is composed of non-investment grade U.S. municipal securities with a remaining maturity of one year or more.

The DAX German Stock Index represents 30 of the largest and most liquid German companies traded on the Frankfurt Stock Exchange.

The JP Morgan Government Bond Index (GBI) Global Ex-United States which 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.

The J.P. Morgan Emerging Markets Bond Index Global (EMBI Global), which currently covers 27 emerging market countries. Included in the EMBI.

S&P 500 Index is a capitalization-weighted index calculated on a total-return basis with dividends reinvested. The index includes 500 widely held U.S. market industrial, utility, transportation and financial companies.

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

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

The Russell 1000® Growth Index represents the large-cap growth segment of the U.S. equity universe.

Purchasing Managers Indexes (PMI) are indicators of the economic health of the manufacturing sector of the countries or regions noted. The PMI index is based on five major indicators: new orders, inventory levels, production, supplier deliveries and the employment environment. A PMI of more than 50 represents expansion when compared to the previous month. A PMI reading under 50 represents a contraction, and a reading at 50 indicates no change.

The Russell 1000® Value index represents the large cap value segment of the U.S. equity universe.

The 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.

The 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®.

The 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.

The MSCI EAFE Index (Europe, Australasia, Far East) is a free float-adjusted market capitalization index that is designed to measure the equity market performance of developed markets, excluding the US & 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.

The MSCI Emerging Markets Index is a free float-adjusted market capitalization index that is designed to measure equity market performance of emerging markets. The MSCI Emerging Markets 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.

The MSCI Frontier Markets Index is a free float-adjusted market capitalization index that is designed to measure equity market performance of frontier markets. The MSCI Frontier Markets Index consists of the following 24 frontier market country indexes: Argentina, Bahrain, Bangladesh, Bulgaria, Croatia, Estonia, Jordan, Kenya, Kuwait, Lebanon, Lithuania, Morocco, Kazakhstan, Mauritius, Nigeria, Oman, Pakistan, Romania, Serbia, Slovenia, Sri Lanka, Tunisia, Ukraine, and Vietnam.

CBOE Market Volatility Index (VIX) is a key measure of market expectations of near-term volatility conveyed by S&P 500 stock index option prices.

The FTSE NAREIT Global Real Estate Index measures the performance of listed real estate companies and REITs worldwide, the series acts as a performance measure of the overall market.

The Bloomberg Commodity Index is designed to be a highly liquid and diversified benchmark for commodities as an asset class. The index is composed of futures contracts on 19 physical commodities. No related group of commodities (e.g., energy, precious metals, livestock and grains) may constitute more than 33% of the index as of the annual reweightings of the components. No single commodity may constitute less than 2% of the index.

Alerian MLP Index is a composite of the 50 most prominent energy master limited partnerships calculated by Standard & Poor's using a float-adjusted market capitalization methodology.

The S&P Global Infrastructure Index provides liquid and tradable exposure to 75 companies from around the world that represent the listed infrastructure universe. To create diversified exposure cross the global listed infrastructure market, the index has balanced weights a cross three distinct infrastructure clusters: Utilities, Transportation, and Energy.

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.

The MSCI China Index captures large and mid-cap representation across China H shares, B shares, Red Chips and P Chips. With 140 constituents, the index covers about 85% of the China equity universe.

January 30, 2017

Disclosures

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

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

The HFRI Macro Index: Macro: 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.

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

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

Note: 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. ("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.

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