Just Markets

Live Webcast Hosted By:

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DoubleLine Capital

January 10, 2017
2016 Year-In-Review: MSCI ACWI +8.48%

MSCI ACWI: 2016 Year-In-Review

- China halts stock trading
- Expectation of Rousseff impeachment sparks sharp BRL rally
- BOJ NIRP
- ECB expands stimulus (CSPP announcement)
- Fears of large DOJ fines affecting DB
- Post-Brexit sell-off lasts just 2 days
- Post-US elections rally on hopes of large fiscal stimulus
- BOJ yield curve control
- RMB Inclusion in SDR basket
- 2nd Fed hike
- Italian referendum: No vote

Source: Bloomberg, Morgan Stanley as of January 3, 2017
BRL = Brazil, BOJ = Bank of Japan, ECB = European Central Bank, DOJ = Department of U.S. Justice, DB = Deutche Bank, RMB = Chinese Renminbi.
MSCI ACWI Index is Morgan Stanley Capital International captures large and mid cap representation across 23 Developed Markets (DM) and 23 Emerging Markets (EM). You cannot invest directly in an index.
Equity 2016 Performance Total Return USD
As of 12/31/16

Developed Markets Equity Performance
(2016 Total Return USD)

Emerging Markets Equity Performance
(2016 Total Return USD)

Source: Bloomberg; DoubleLine
Please see appendix for index definitions. You cannot invest directly in an index.
2016 Change in Global 10y Bond Yields
As of 12/31/16

Source: Bloomberg; DoubleLine
Bps = basis points
Global Economy
U.S. Dollar Index Spot (DXY)
December 31, 2007 through January 9, 2017

Source: Bloomberg Financial Services, DoubleLine Capital LP
DXY = DXY is the US Dollar Index (USDX) indicates the general value of the US dollar. Average exchange rates between the US dollar and six major world currencies. An investment cannot be made directly in an index.
U.S. Dollar Index Spot (DXY) Long Term
January 31, 1967 through January 9, 2017

Source: Bloomberg Financial Services

DXY = DXY is the US Dollar Index (USDX) indicates the general value of the US dollar. Average exchange rates between the US dollar and six major world currencies. An investment cannot be made directly in an index.
U.S. 10 year Inflation Swap and U.S. Dollar (DXY)

December 15, 2006 to January 9, 2017

Source: Bloomberg Financial Services

DXY = DXY is the US Dollar Index (USDX) indicates the general value of the US dollar. Average exchange rates between the US dollar and six major world currencies. An investment cannot be made directly in an index.
Performance of World Stock Markets Since the Global Financial Crisis March 9, 2009 to December 30, 2016

Comparing Major World Indexes Since March 9, 2009
Each is indexed to 800 as of March 9, 2009

Source: Advisor Perspectives.

Please see appendix for index definitions. You cannot invest directly in an index.
Big Picture U.S.
Children Earning More than Their Parents

Note: by decade of birth
U.S. Total Debt

Total Debt Balance and its Composition

Source: New York Fed, Equifax
HE = Home Equity Revolving loans
U.S. Household Debt Service Ratio
January 1, 1980 to June 30, 2016

Household Debt Service Ratio and Financial Obligation Ratios

DSR = Debt Service Ratio
U.S. Public Debt
January 1, 1900 Projected through 2040

Source: The Heritage Foundation
GNP = Gross National Product is a broad measure of a nation’s total economic activity. GDP = Gross Domestic Product is the broadest measure of a nation’s total economic activity.
GDP = Gross Domestic Product is the broadest measure of a nation’s total economic activity.
U.S. Federal Budget
January 1, 1962 Projected through 2020

OUTLAYS AS A PERCENTAGE OF FEDERAL BUDGET

<table>
<thead>
<tr>
<th>Year</th>
<th>Discretionary</th>
<th>Net Interest</th>
<th>Mandatory (On Autopilot)</th>
</tr>
</thead>
<tbody>
<tr>
<td>1962</td>
<td>26.1%</td>
<td>6.5%</td>
<td>67.5%</td>
</tr>
<tr>
<td>2020</td>
<td>64.2%</td>
<td>11.2%</td>
<td>24.4%</td>
</tr>
</tbody>
</table>

Source: The Heritage Foundation
Presidents & Recessions
January 1960 through November 30, 2016

Fresh Faces in White House Met by Recession in 1st Year

Source: Morgan Creek
CEO Confidence
December 16, 2002 to December 16, 2016

Source: Bloomberg, DoubleLine
Consumer Confidence
December 1, 1986 to January 3, 2017

Source: Bloomberg, DoubleLine
U.S. Unemployment Rate vs. 12mo Simple Moving Average January 1, 1948 to December 31, 2016

U-3 Unemployment Rate and 12-month Moving Avg. (with Spread)

Source: Bloomberg; DoubleLine
U-3 is the official unemployment rate per the ILO definition occurs when people are without jobs and they have actively looked for work within the past four weeks. RHS = right hand side.
Just Markets

Source: Bloomberg; DoubleLine

GDP = Gross Domestic Product measures the amount of goods and services produced within a given country.
ISM Manufacturing and Services PMI

Source: Bloomberg

ISM Manufacturing PMI = Purchasing Managers’ index is an indicator of the economic health of the manufacturing sector. SA = Seasonally Adjusted
Inflation
Commodity Prices
January 9, 1997 to January 9, 2017

Source: Bloomberg
Bloomberg Commodity Index is calculated on an excess return basis and reflects commodity futures price movements with monthly rebalancing. You cannot invest directly in an index.
Gold December 31, 2007 to January 9, 2017

Source: Bloomberg

XAU Currency = Gold spot price quoted in US dollars per Troy ounce. You cannot invest directly in an index.

$1183.76
10 Year U.S. Breakeven vs. Copper

Source: Bloomberg, DoubleLine
LHS = Left hand side, RHS = Right hand side
Inflation Breakeven at 2%
September 1, 2014 to December 31, 2016

Source: Bloomberg
Different Measures of Core Inflation

Measures of Core CPI YoY

Recession
Core CPI
Core PCE
Cleveland Fed Median CPI
Atlanta Fed Sticky Core CPI

Core CPI: 2.10
Core PCE: 1.65
Cleveland Fed Median CPI: 2.51
Atlanta Fed Sticky Core CPI: 2.72

Source: Bloomberg

CPI = Consumer Price Index 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. PCE = Personal Consumption Expenditures is the primary measure of consumer spending on goods and services in the U.S. Economy. YoY = year-over-year.
"The annual rate of inflation recorded by PriceStats punched through the 2% mark for the first time in two years on 23rd December and is accelerating rapidly." - State Street

Source: StateStreet
Source: Bloomberg

CPI = Consumer Price Index 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. YoY = year-over-year. You cannot invest directly in an index.
U.S. Wage Growth Overall

Source: Atlanta Fed, DoubleLine
U.S., Eurozone, UK and Japan CPI YoY
October 14, 2006 to January 3, 2017

Source: Bloomberg

CPI = Consumer Price Index 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. YoY = year-over-year.
10-Year Bund vs. German CPI
January 31, 2000 to January 5, 2017

Source: Bloomberg

CPI measures prices paid by consumers for a market basket of consumer goods and services. The yearly growth rates represent the inflation rate. GRCP20YY Index is Germany CPI, LW743065 Corp is a German Corporate bond. You cannot invest directly in an index.
The Fed
Fed 2017 Dot Plot

Dots For 2017

Data Source: The Federal Reserve

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Evolution of 2017 Dot Plot

Declining equilibrium rate with +400 bps Fed Funds rate cycles leading recessions by ~1 year

Source: U.S. Federal Reserve.

Source: Stifel
Change in Effective Fed Funds During Previous Hiking Cycles

Change in Effective Fed Funds during Previous Hiking Cycles
(*2014-2016 Hiking cycle proxied from Wu-Xia Shadow Rate)

Source: Bloomberg, DoubleLine
Interest Rates
Fed Funds Target with LIBOR Curve

Source: Bloomberg
ICE LIBOR = London Interbank Offered rate administered by ICE Benchmark Administration Fixing for U.S. Dollar. The fixing is conducted each date at 11 am. It’s an average derived from the quotations provided by the banks determined by the ICE Benchmark Administration. You cannot invest directly in an index.
U.S. Breakevens  January 6, 2013 to January 9, 2017

Source: DoubleLine, Bloomberg

USGGBE Breakevens = Are the breakeven for the years indicated. They are calculated by subtracting the real yield of the inflation linked maturity curve form the yield of the closest nominal Treasury maturity. You cannot invest directly in an index.
Shares Outstanding of TIPS ETF (Ticker: TIP)
January 5, 2012 to January 3, 2017

Source: Bloomberg
TIPS ETF = iShares TIPS Bond ETF is an exchange-traded fund incorporated in the USA. The ETF will track the Bloomberg Barclays Capital US Treasury Inflation Notes Index. You cannot invest directly in an index.
U.S. 2-Year Treasury
January 9, 2011 through January 9, 2017

Source: Bloomberg Financial Services, DoubleLine Capital LP
GT02 = US 2 Year Treasury Bond. You cannot invest directly in an index.
U.S. 5-Year Treasury
January 9, 2011 through January 9, 2017

Source: Bloomberg Financial Services, DoubleLine Capital LP
GT5 = US 5 Year Treasury Bond. You cannot invest directly in an index.

Source: Bloomberg
CFTC = Commitments of Traders Report.
U.S. 10-Year Treasury
January 9, 2011 through January 9, 2017

Source: Bloomberg Financial Services, DoubleLine Capital LP
GT10 = US 10 Year Treasury Bond. You cannot invest directly in an index.
U.S. Rates: U.S. Treasury 10y Yield Forecast
August 4, 2011 to January 3, 2017

Source: Bloomberg
You cannot invest directly in an index.
Copper/Gold Ratio and 10-Year U.S. Treasury Yield
January 11, 2012 to January 9, 2017

Source: Bloomberg

USGG10Yr Index = 10-year U.S. treasury index. HG1 COMB Comdty = the 1st generic futures contract. You cannot invest directly in an index.

Source: Bloomberg, DoubleLine

DXY = The U.S. dollar Index averages the exchange rates between the USD and major world currencies. USGG10Yr is the generic U.S. 10-year Treasury. You cannot invest directly in an index.
10y U.S. Treasury – Bund Spread
As of 12/30/16

10y UST-Bund Spread

Source: Bloomberg, DoubleLine

Standard deviation = A measure of the dispersion of a set of data from its mean. The more spread apart the data, the higher the deviation.
Taper Tantrum: Now and then...
January 3, 2011 to January 3, 2017
U.S. 30-Year Treasury
January 9, 2011 through January 9, 2017

Source: Bloomberg Financial Services, DoubleLine Capital LP
GT30 = US 30 Year Treasury Bond. You cannot invest directly in an index.
30y U.S. Treasury Total Return by Year
As of 12/31/16

Source: Bank of America Merrill Lynch; DoubleLine
Junk Bonds
January 11, 2011 to January 11, 2017

Source: DoubleLine, Bloomberg
JNK = iShares Barclays High Yield Bond ETF in an exchange-traded incorporated in the U.S. It seeks investment results that correspond to the price and yield of the Barclays High Yield Very Liquid Bond Index. The above is only presented as a proxy and does not constitute an offer or solicitation to sell shares or securities. You cannot invest directly in an index.
S&P 500 versus High Yield ETF

Growth of a Dollar

December 31, 2015 - December 30, 2016

Source: Bloomberg, DoubleLine
S&P 500 is Standard & Poor’s 500 Index is a capitalization-weighted index of 500 U.S. stocks. iShares iBoxx High Yield ETF is an exchange-traded fund that seeks to track the investment results of an index composed of U.S. dollar-denominated high yield corporate bonds. You cannot invest directly in an index.
U.S. High Yield Default Rates

Exhibit 5: The default picture remains benign in HY
12-month trailing issuer-weighted default rates for monthly-refreshed cohorts.

Source: Moody’s, Goldman Sachs Global Investment Research.

HY = High Yield, RHS = Right hand side
U.S. Crude Oil Inventories by Year
As of December 30, 2016
Trump Effect
Stock Market (S&P 500) By Sector Performance
July 8, 2016 to December 31, 2017

Relative Returns since 7/8/16

Mean = Is the average of the numbers or a central value. Median = Denotes or related to a value lying at the midpoint of a frequency distribution of observed values.. Please see index definitions for S&P 500. You cannot invest directly in an index.
Stock Market Returns Post-Election

S&P 500 Performance Since Election Day


Mean = Is the average of the numbers or a central value. Median = Denotes or related to a value lying at the midpoint of a frequency distribution of observed values. Please see index definitions for S&P 500. You cannot invest directly in an index.
Top Five Trading Partners
August 31, 1978 to August 31, 2016

Nobody but U.S.
Previous rallies have seen the world markets advance, but not since election

- S&P 500
- MSCI World
- MSCI Asia
- MSCI EM
- MSCI LatAm

% Change

Source: Bloomberg

Please see appendix for index definitions. You cannot invest directly in an index.
Trump Tax Plan

China Top Five Trading Partners
August 31, 1978 to August 31, 2016

Source: Bloomberg; DoubleLine
Mexico Exports Trading Partners
August 31, 1978 to August 31, 2016

Source: Bloomberg; DoubleLine
Trump – First 100 Day Plan
“To Make America Great Again”

Three Main Areas of Focus:

1) Cleaning Up Washington –
   - Impose term limits on Congress

2) Protecting American Workers

3) Restoring Law & Order

Source: NPR, November 9, 2016 “Here is What Donald Trump Wants to do in His First 100 Days”
Trump – First Day In Office Plan  “To Clean up Washington”

Immediately pursue the following six measures to clean up corruption and special interest collusion in Washington DC:

1) Propose constitutional amendment to impose term limits on all members of Congress
2) Federal Employee hiring freeze (except military, public safety and public health)
3) A requirement that for every new federal regulation, two existing regulations must be eliminated
4) A 5 year-ban on White house or Congressional officials becoming lobbyists after leaving government service
5) Lifetime ban on White house officials lobbying on behalf of foreign governments
6) A complete ban on foreign lobbyists raising money for American elections

Source: NPR, November 9, 2016 “Here is What Donald Trump Wants to do in His First 100 Days”
Immediately pursue the following seven actions to protect American Workers:

1) Announce my intention to *renegotiate NAFTA or withdraw* from the deal under Article 2205
2) Announce our *withdrawal from the Trans-Pacific Partnership*
3) Direct Secretary of the Treasury to *label China a currency manipulator*
4) Direct Secretary of Commerce to *identify foreign trading abuses that unfairly impact American workers* and use every tool to end the abuses immediately
5) *Lift restrictions* on the production of $50 trillion worth of *job-producing American energy reserves* including shale, oil, natural gas and clean coal
6) *Lift Obama-Clinton roadblocks* and allow vital energy infrastructure projects, like Keystone Pipeline to move forward
7) Cancel payments to U.N. climate change programs and use the money to *fix America’s water and environmental infrastructure*

Source: NPR, November 9, 2016 “Here is What Donald Trump Wants to do in His First 100 Days”
Trump – First Day In Office Plan
“To Restore Law & Order”

Immediately pursue the following five actions to restore security and the constitutional rule of law:

1) **Cancel every unconstitutional executive action**, memorandum and order issued by President Obama
2) Begin the process of **replacing Justice Scalia**
3) **Cancel all federal funding to Sanctuary cities**
4) Begin **removing** more than 2 million **criminal illegal immigrants** and cancel visas to foreign countries that won’t take them back
5) **Suspend immigration from terror-prone regions** where vetting cannot safely occur

Source: NPR, November 9, 2016 “Here is What Donald Trump Wants to do in His First 100 Days”
Trump – First 100 Day Plan  
“To Make America Great Again”

**Working with Congress:**

Introduce 10 pieces of legislation that:

1) Repeal Obamacare

2) Fund construction for a wall (with provision that Mexico reimburse the U.S)

3) Encourage infrastructure investment

4) Rebuild military bases

5) Promote school choice

Source: NPR, November 9, 2016 “Here is What Donald Trump Wants to do in His First 100 Days”
Trump – Working with Congress Plan
“Broader Legislative Measures”

1) **Middle Class Tax Relief & Simplification Act** –
   An economic plan designed to *grow the economy 4% per year and create at least 25 million new jobs* through massive tax reduction and simplification, in combination with trade reform, regulatory relief, and lifting the restrictions on American energy. The largest tax reductions are for the middle class. *A middle-class family with 2 children will get a 35% tax cut.* The current number of *brackets will be reduced from 7 to 3*, and tax forms will likewise be greatly simplified. The *business rate will be lowered from 35 to 15 percent*, and the trillions of dollars of American corporate *money overseas can now be brought back at a 10 percent rate*.

2) **End Offshoring Act** –
   Establishes tariffs to discourage companies from laying off workers to relocate overseas

3) **American Energy & Infrastructure Act** –
   Leverage public-private partnerships with tax incentives to spur $1 trillion in infrastructure investment over 10 years

4) **School of Choice**

5) **Repeal & Replace Obamacare Act**
   Replaces with Health Savings Accounts, manages Medicaid funds, cuts red tape at the FDA

Source: NPR, November 9, 2016 “Here is What Donald Trump Wants to do in His First 100 Days”
Trump – Working with Congress Plan
“Broader Legislative Measures”

6) Affordable Childcare & Eldercare Act –
Deductions for childcare and elder care from taxes, incentivizes employers to provide on-side childcare, creates Dependent care savings accounts for young and elderly dependents

7) End Illegal Immigration Act –
Wall construction with provision for Mexican reimbursement, establishes 2-year mandatory minimum federal prison for illegally re-entering the U.S. after deportation, 5-year mandatory minimum for re-entering with felony convictions, multiple misdemeanors or two or more prior deportations, reforms visa rules to enhance penalties for overstaying and ensures jobs are offered to Americans first.

8) Restoring Community Safety –
Reduces surging crime, drugs and violence by creating a Task Force On Violent Crime and increasing funding for programs that train and assist local police; increases resources for federal law enforcement agencies and federal prosecutors to dismantle criminal gangs and put violent offenders behind bars.

9) Restoring National Security Act
Rebuilds our military by eliminating the defense sequester and expanding military investment; provides Veterans with the ability to receive public VA treatment or attend the private doctor of their choice; protects our vital infrastructure from cyber-attack; establishes new screening procedures for immigration to ensure those who are admitted to our country support our people and our values

10) Clean up Corruption in Washington Act
Enacts new ethics reforms to Drain the Swamp and reduce the corrupting influence of special interests on our politics.

Source: NPR, November 9, 2016 “Here is What Donald Trump Wants to do in His First 100 Days”
Stocks
Stock Market 12-Month EPS vs. Price Change

Source: FactSet

EPS = Earnings per Share. Please see index definitions for S&P 500. Please see appendix for index definition. You cannot invest directly in an index.
Corporate Profits vs. Employee Compensation

**U.S. Corporate Sector (As % of Gross Value-Add)**(1)

**Employee Compensation:**
- 1948-2001
- AVG 63.1%

**Gross Operating Surplus:**(2)
- *i.e., A proxy for profit share of corporate GDP*
- 1948-2001
- AVG 28.3%

Source: B.E.A. data, Stifel format.
(1) Gross Value-Add is the value of goods & services produced by the corporate sector (gross output) less goods & services used in production (total intermediate inputs).
(2) Gross Operating Surplus is gross output less the cost of intermediate goods and services (to give Gross Value Added), and less employee compensation. It is gross because it makes no allowance for depreciation of capital. It is the portion of income derived from production by incorporated enterprises that is earned by the capital factor of the economy.


GDP = Gross Domestic Product measures the amount of goods and services produced within a given country. Please see index definitions for S&P 500. You cannot invest directly in an index.
Shiller PE Ratio
January 1, 1880 through December 31, 2016

CAPE 10 Price-Earnings Ratio

Price-Earnings Ratio (CAPE, P/E10) January 1881 - December 2016

CAPE = Cyclically Adjusted Price Earnings. CAPE 10 based on S&P 500. Please see appendix for index definitions. PE = price earnings. You cannot invest directly in an index.
S&P 500 Consensus Estimates
January 1, 1880 through December 31, 2016

Consensus Estimates for S&P 500 Operating Earnings per Share by Calendar Year

Source: Ned Davis Research
PE = Price Earnings. Please see appendix for S&P 500 definition. You cannot invest directly in an index.
NYSE = New York Stock Exchange, S&P 500 Index is the capitalization-weighted index of the 500 large companies having common stock on the NYSE. You cannot invest directly in an index.
Cycle-Adjusted CAPE PE
January 1, 1998 to December 31, 2016

Source: Minack Advisors; Bureau of Labor & Statistics (BLS), National Bureau of Economic Research (NBER)
DM = Developed Markets, Please see appendix for index definitions. You cannot invest directly in an index.
MSCI EM (10yrs)
January 11, 2007 to January 6, 2017

Source: Bloomberg
MSCI EM Index is a free-float weighted equity index that captures large and mid-cap representation across Emerging Markets (EM) countries. You cannot invest directly in an index.
S&P 500 Index / MSCI Emerging Markets Index on 1/3/17 2.5206

Source: Bloomberg

S&P 500 is Standard & Poor’s 500 Index is a capitalization-weighted index of 500 U.S. stocks. MSCI EM Index is a free-float weighted equity index that captures large and mid-cap representation across Emerging Markets (EM) countries. You cannot invest directly in an index.
SPX/Nikkei (3 years)  December 28, 2014 to January 3, 2017

Source: Bloomberg

S&P 500 is Standard & Poor’s 500 Index is a capitalization-weighted index of 500 U.S. stocks. Nikkei (NKY) Index is a price-weighted average of 225 top-rated Japanese companies listed in the First Section of the Tokyo Stock Exchange. You cannot invest directly in an index.
Source: Bloomberg

S&P 500 is the Standard & Poor's 500 Index, a capitalization-weighted index of 500 U.S. stocks. MSCI Europe (MXEU) Index is a free-float weighted equity index designed to measure the equity market performance of the developed markets in Europe. You cannot invest directly in an index.
S&P 500 vs. EMB December 31, 2015 to December 31, 2016

Source: Bloomberg, DoubleLine
S&P 500 is Standard & Poor’s 500 Index is a capitalization-weighted index of 500 U.S. stocks. iShares JP Morgan USD EM Bond ETF is a hedged UCITS exchange traded fund. You cannot invest directly in an index.
Index Descriptions

Barclays Capital US Aggregate Index - The Barclays Capital US Aggregate Index represents securities that are SEC-registered, taxable, and dollar denominated. The index covers the US investment grade fixed rate bond market, with index components for government and corporate securities, mortgage pass-through securities, and asset-backed securities. These major sectors are subdivided into more specific indices that are calculated and reported on a regular basis.

Barclays Capital US Treasury Index - This index is the US Treasury component of the US Government index. Public obligations of the US Treasury with a remaining maturity of one year or more.

Barclays Capital US Treasury 10 Year Index - This index is the 10 year component of the US Government index.

Barclays Capital US Treasury 30 Year Index - This index is the 30 year component of the US Government index.

Barclays Capital US High Yield Index - The Barclays Capital US High Yield Index covers the universe of fixed rate, non-investment grade debt. Eurobonds and debt issuer 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 zeroos, step-up coupon structures, 144-A and pay-in-kind (PIK, as of October 1, 2009) are also included.

BofA Merrill Lynch US Government Index (GOAO) - The Merrill Lynch US Government Index tracks the performance of US government (i.e. securities in the Treasury and Agency indices.)

BofA Merrill Lynch US 15+ Year Treasury Index “Long Treasuries” (G902)- This index is a subset of the BofA Merrill Lynch US Treasury Index including all securities with a remaining term of final maturity greater than 15 years.

BofA Merrill Lynch US Corporate Index (COAO) “Investment Grade”- The Merrill Lynch Corporate Index tracks the performance of US dollar denominated investment grade corporate debt publicly issued in the US domestic market. Qualifying securities must have an investment grade rating (based on an average of Moody’s, S&P and Fitch) and an investment grade rated country of risk (based on an average of Moody’s, S&P and Fitch foreign currency long term sovereign debt ratings). Securities must have at least one year remaining term to final maturity, a fixed coupon schedule and a minimum amount outstanding of $250MM.

BofA Merrill Lynch US All Convertibles Index (VOSO) - The Merrill Lynch All Convertible Index is a rule driven index. which includes all bonds and preferred stocks of U.S.-registered companies, which have $50 million or more in aggregate market value and are convertibles in U.S. dollar-denominated common stocks, ADRs or cash equivalents. Please note an investor cannot invest directly in an index.

CRB Commodity Index (CRY) - An unweighted geometric average of some important commodities. It averages prices across 17 commodities and across time. The index tracks energy, grains, industrials, livestock, precious metals, and agricultural.

S&P 500 (SPX) - The S&P 500 is a free-float capitalization-weighted index published since 1957 of the prices of 500 large-cap common stocks actively traded in the United States.

Standard Deviation – Sigma = standard deviation. It shows how much variation there is from the “average” (mean, or expected/budgeted value). A low standard deviation indicated that the data point tend to be very close to the mean, whereas high standard deviation indicated that the date is spread out over a large range of values.

Dow Jones – UBS DJ Commodity Index - The Dow Jones UBS – Commodity index is composed of commodities traded on U.S. exchanges, with the exception of aluminum, nickel and zinc, which trade on the London Metal Exchange (LME).

“Copper” = Copper Spot Price (HGI) Copper is the world’s third most used metal behind iron and aluminum primarily used in highly cyclical industries including construction and industrial machinery manufacturing. Spot price quoted in USD/lb.

“Gold” = Gold Spot Price (Golds) The Gold Spot price is quoted as US Dollar per Troy Ounce.

Crude Oil= Crude oil varies greatly in appearance depending on its composition. West Texas intermediate (WTI) = Texas light sweet crude is used as a benchmark in oil pricing. It’s “light” because of the low density and sweet because of low sulfur. Brent crude = Is a major trading classification of sweet light crude. Brent is the oil maker also known as Brent Blend.

Volatility Index (VIX) - The VIX shows the market’s expectation of 30-day volatility. It is constructed using the implied volatilities of a wide range of S&P 500 index options. This volatility is meant to be forward looking and is calculated from both calls and puts. The VIX is a widely used measure of market risk and is often referred to as the “investor fear gauge.”

BofA Merrill Lynch U.S. Commercial Mortgage-Backed Securities Index (CMAO) - The BofA Merrill Lynch US Fixed Rate CMBS Index tracks the performance of US dollar denominated investment grade fixed rate commercial mortgage backed securities publicly issued in the US domestic market. Qualifying securities must have an investment grade rating (based on an average of Moody’s, S&P and Fitch), a fixed coupon schedule, at least one year remaining term to final maturity and at least one month to the last expected cash flow.
Index Descriptions

BoFA Merrill Lynch US Dollar Emerging Markets Sovereign Plus Index (IGOV) - This index tracks the performance of US dollar denominated emerging market and cross-over sovereign debt publicly issued in the eurobond or US domestic market. Qualifying countries must have a BB1 or lower foreign currency long-term sovereign debt rating (based on an average of Moody’s, S&P, and Fitch).

BoFA Merrill Lynch U.S. High Yield Cash Pay Index (J0A0) "Below Investment Grade"- The Merrill Lynch High Yield Index tracks the performance of US dollar denominated below investment grade corporate debt, currently in a coupon paying period, that is publicly issued in the US domestic market. Qualifying securities must have a below investment grade rating (based on an average of Moody’s, S&P and Fitch foreign currency long term sovereign debt ratings). Must have one year remaining to final maturity and a minimum outstanding amount of $100MM.

BoFA Merrill Lynch International Government Index (NOGO) - The Merrill Lynch International Index tracks the performance of Australia, Canadian, French, German, Japan, Dutch, Swiss and UK investment grade sovereign debt publicly issued and denominated in the issuer’s own domestic market and currency. Qualifying securities must have at least one year remaining term to final maturity, a fixed coupon schedule and a minimum amount outstanding.

BoFA Merrill Lynch Mortgage-Backed Securities Index (MOA0) - This index tracks the performance of US dollar denominated fixed rate and hybrid residential mortgage pass-through securities publicly issued by US agencies in the US domestic market. 30-year, 20-year, 15-year and interest only fixed rate mortgage pools are included in the Index provided they have at least one year remaining term to final maturity and a minimum amount outstanding of at least $5 billion per generic coupon and $250MM per production year within each generic coupon.

BoFA Merrill Lynch U.S. Municipal Securities Index (UOAJ0) - This index tracks the performance of US dollar denominated investment grade tax-exempt debt publicly issued by US states and territories, and their political subdivisions, in the US domestic market. Qualifying securities must have at least one year remaining term to final maturity, a fixed coupon schedule and an investment grade rating (based on Moody’s, S&P and Fitch). Minimum size vary based on the initial term to final maturity at time of issuance.

Barclays Capital Global Emerging Markets Index - The Barclays Capital Global Emerging Markets Index represents the union of the USD-denominated US Emerging Markets index and the predominately EUR-denominated Pan Euro Emerging Markets Index, covering emerging markets in the following regions: Americas, Europe, Middle East, Africa, and Asia. As with other fixed income benchmarks provided by Barclays Capital, the index is rules-based, which allows for an unbiased view of the marketplace and easy replicability.

JP Morgan Investment Grade Corporate Index - JP Morgan Investment Grade Corporate Index includes performance of US dollar denominated investment grade corporate debt publicly issued in the US domestic market. Qualifying securities must have an investment grade rating (based on an average of Moody’s, S&P and Fitch) and an investment grade rated country of risk (based on an average of Moody’s, S&P and Fitch foreign currency long term sovereign debt ratings). Securities must have at least one year remaining term to final maturity, a fixed coupon schedule and a minimum amount outstanding of $250MM.

Draw Down - The peak-to-trough decline during a specific record period of an investment, fund or commodity. A drawdown is usually quoted as the percentage between the peak and the trough.

NAV – A mutual fund’s price per share or exchange-traded fund’s (ETF) per-share value. In both cases, the per-share dollar amount of the fund is calculated by dividing the total value of all the securities in its portfolio, less any liabilities, by the number of fund shares outstanding.

CMO – A type of mortgage-backed security that creates separate pools of pass-through rates for different classes of bondholders with varying maturities, called tranches. The repayments from the pool of pass-through securities are used to retire the bonds in the order specified by the bonds’ prospectus.

TIPS – Treasury Inflation Protection. A treasury security that is indexed to inflation in order to protect investors from the negative effects of inflation. TIPS are considered an extremely low-risk investment since they are backed by the U.S. government and since their par value rises with inflation, as measured by the Consumer Price Index, while their interest rate remains fixed.

CPI – Consumer Price Index. A measure that examines the weighted average of prices of a basket of consumer goods and services, such as transportation, food and medical care.

Cash Flow – Cash flow measures the cash generating capability of a company by adding non-cash charges (e.g. depreciation) and interest expense to pretax income.

~rated Index (J0A3) – A component of the BoFA/Merrill Lynch High Yield Cash Pay Index concentrating on CCC rated High Yield credit only.

MSCI World Index (MXWO) – Is a free-float weighted equity index including developed world markets, and does not include emerging markets.

MSCI ACWI Index (MXWD) – Is a free-float weighted equity index including developed world markets and emerging markets.

MSCI Asia Index (MXAP) – Is a free-float equity index and includes Asia Pacific countries.

MSCI Emerging Markets Index (MXEF) – Is a free-float weighted equity index that captures large and mid-cap representation across Emerging Markets (EM) countries.

MSCI Latin America Index (MXLA) – Is a free float weighted equity index including Latin American countries.

MSCI US Index (MXXS) – Is a free float weighted equity index including U.S. stocks.

MSCI World Index Ex-US Index (MXWOU) – Is a free-float weighted equity index including developed world markets excluding the U.S., and does not include emerging markets.
Index Descriptions

BofA/Merrill Lynch Credit Index AAA-rated Index (COA1) – A component of the BofA/Merrill Lynch Credit Index concentrating on the highest rated AAA investment grade credits.

BofA Merrill Lynch US Treasury Index (GOQO) – The Merrill Lynch US Treasury Index tracks the performance of US dollar denominated sovereign debt publicly issued by the US government in its domestic market. Qualifying securities must have at least one year remaining term to final maturity, a fixed coupon schedule and a minimum amount outstanding of $1 billion.

BofA Merrill Lynch 1-3 Year Treasury Index (G1O2) – is a subset of the BofA Merrill Lynch US Treasury Index including all securities with a remaining term to final maturity less than 3 years. The BofA Merrill Lynch US Treasury Index tracks the performance of US dollar denominated sovereign debt publicly issued by the US government in its domestic market.


BofA Merrill Lynch Current 10 year UST Index — This index is the 10 year component of the US Government index.

BofA Merrill Lynch Current 30 year UST Index — This index is the 30 year component of the US Government index.

JP Morgan Corporate EMBI Broad Diversified Index (JBCDCOMP) – This index tracks the performance of investment grade corporate debt publicly issued across a range of emerging market countries.

Shanghai Index - The Shanghai Stock Exchange Composite is a capitalization-weighted index tracking daily price performance of all A and B-shares listed on the Shanghai Stock Exchange. This index was developed December 19, 1990 with a base value of 100.

S&P/Case-Shiller Composite Home Price Index - The Case-Shiller Home Price Indices, one comprised of price changes within all 20 metropolitan markets, and another comprised of price changes within the following subset of 10 metropolitan markets: Boston, Chicago, Denver, Las Vegas, Los Angeles, Miami, New York, San Diego, San Francisco and Washington DC. In addition to those 10 markets, the 20-Home Price index reflects price changes for Atlanta, Charlotte, Dallas, Detroit, Minneapolis, Phoenix, Portland, Seattle and Tampa.

NASDAQ- A computerized system that facilitates trading and provides price quotations on more than 5,000 of the more actively traded over the counter stocks. Created in 1971, the Nasdaq was the world's first electronic stock market.

Transports- The Industrials Sector includes companies whose businesses are dominated by one of the following activities: The manufacture and distribution of capital goods, including aerospace & defense, construction, engineering & building products, electrical equipment and industrial machinery

Utilities- A public utility is a business that furnishes an everyday necessity to the public at large. Public utilities provide water, electricity, natural gas, telephone service, and other essentials. Utilities may be publicly or privately owned, but most are operated as private businesses.

Basis Point- A basis point is a unit that is equal to 1/100th of 1%, and is used to denote the change in a financial instrument.

Duration – Duration is a commonly used measure of the potential volatility of the price of a debt security, or the aggregate market value of a portfolio of debt securities, prior to maturity. Securities with a longer duration generally have more volatile prices than securities of comparable quality with a shorter duration.

BofA/Merrill Lynch Inflation Linked Index (GQO1) – The BofA Merrill Lynch US Inflation-Linked Treasury Index tracks the performance of US dollar denominated inflation linked sovereign debt publicly issued by the US government in its domestic market.

Citigroup TIPS (SBUSILSI) – It measures the returns of the inflation-linked bonds with fixed-rate coupon payments that are linked to an inflation index. The price of each issue in the USLSI is adjusted by using an index ratio. The index ratio is determined by dividing the current inflation index level by the inflation index level at the time of issue of the security. The inflation index is published on a monthly basis, and the intra-month index ratio is calculated using linear interpolation.

Barclays Capital CMBS Index – tracks the performance of US dollar-denominated securitized commercial mortgage-backed securities.

Russell 2000 – measures the performance of the small-cap segment of the US equity universe. Russell 2000 is a subset of the Russell 3000 index representing approximately 10% of the total market capitalization of that index.

S&P GSCI – is a composite index of commodity sector return representing an unleveraged, long-only investment in commodity futures that is broadly diversified across the spectrum of commodities.

Barclays European Aggregate Index tracks fixed-rate, investment-grade securities issued in the following European currencies: euro, British pounds, Norwegian krone, Danish krone, Swedish krona, Czech koruna, Hungarian forint, Polish zloty and Swiss franc.

S&P LSTA Lever Loan Index (Bank Loans)- Created by the Leveraged Commentary & Data (LCD) team at S&P Capital IQ, the review provides an overview and outlook of the leveraged loan market as well as an expansive review of the S&P Leveraged Loan Index and sub-indexes. The review consists of index general characteristics, results, risk-return profile, default/distress statistics, and repayment analysis. It is not possible to invest directly in an index.

Citigroup 3 Month T-Bill (SBMMTB3) – 3 Month US T-Bill in US dollars.

Moody’s U.S. Speculative Grade Default Rate: A speculative-grade default occurs if a defaulting issuer held an speculative-grade rating (Ba1 or lower) at the start of latest 12 month period. The rate is established by dividing the number of Spec-grade defaults by the number of Spec-grade issuers at the beginning of the sample period.

Moody’s Distressed Rate: Percentage of High Yield Issuers whose debt is trading at distressed levels. Distressed issuers are defined as having debt with OAS or CDS of 1000 bps or more.
Index Descriptions

S&P GSCI Agriculture – is a composite index of agriculture commodity futures unleveraged, long-only investment.

Barclays Capital U.S. 30 Year TIPS Index - . Barclays Capital 30-year TIPS on-the-run index quoted in US Dollars traded intraday

Citigroup Economic Surprise Index - . The Citigroup Economic Surprise Indices are objective and quantitative measures of economic news. They are defined as weighted historical standard deviations of data surprises (actual releases vs Bloomberg survey median). A positive reading of the Economic Surprise Index suggests that economic releases have on balance beating consensus. The indices are calculated daily in a rolling three-month window. The weights of economic indicators are derived from relative high-frequency spot FX impacts of 1 standard deviation data surprises. The indices also employ a time decay function to replicate the limited memory of markets.

DAX – This index is the German Stock Index is a total return index of 30 selected German blue chip stocks traded on the Frankfurt Stock Exchange.

CAC 40 – This index the most widely-used indicator of the Paris market, reflects the performance of the 40 largest equities listed in France, measured by free-float market capitalization and liquidity.

FTSE 100 – Is a capitalization-weighted index of the 100 most highly capitalized companies traded on the London Stock Exchange.

Mexico IPC “Mexico”- The Mexican IPC index is a capitalization-weighted index of the leading stocks traded on the Mexican Stock Exchange.

Hang Seng – The Hang Seng China Enterprises Index is a freefloat capitalization weighted index comprised of H-shares listed on the Hong Kong Stock Exchange and included in the Hang Seng Mainland Composite Index.

KOSPI - This index is a capitalized-weighted index of all common shares on the Korean Stock Exchanges.

Nikkei 225 – The Nikkei-225 Stock average is a price-weighted average of 225 top-rated Japanese companies listed in the First Section of the Tokyo Stock Exchange.

Australia AORD – S&P/ASX All Ordinaries represents 500 largest companies in the Australian equities market. Index constitutes are drawn from eligible companies listed on the Australian Stock Exchange.

Brazil Bovespa Index (IBOV) “Brazil” -The Bovespa Index is a gross return index weighted by traded volume and is comprised of the most liquid stocks traded on the Sao Paulo Stock Exchange. The Bovespa Index has been divided 10 times by a factor of 10 since January 1, 1985.

Shanghai Index (SHCOMP) -The Shanghai Stock Exchange Composite Index is a capitalization-weighted index. The index tracks the daily performance of all A-shares and B-shares listed on the Shanghai Stock Exchange. The index was developed on December 19, 1990 with a base value of 100.

BSE India Sensitive Index (Sensex) “India”- The Sensex is a cap-weighted index. The selection of the index members has been made on the basis of liquidity, depth and floating-stock-adjustment depth and industry representation.

Dow Jones Industrial Average “Dow Jones” – is a price weighted average of 30 blue-chip stocks that are generally the leaders in their industry.

Eurostoxx - Based on the EURO STOXX 50 Index options traded on EUREX, measuring implied volatility on options with a rolling 30-day expiry.

Swiss Market Index “Switzerland” (SMI) – is an index of the largest and most liquid stocks traded on the Geneva, Zurich and Basel Stock Exchanges.

FTSE MIB Index “Italy”- Is an index consisting of the 40 most liquid and capitalized stocks listed on the Borsa Italiana.

Indice Bursatil Español (IBEX) Index “Spain” - The official index of the Spanish Continuous Market. The index is comprised of the 35 most liquid stocks traded on the Continuous market. It is calculated, supervised and published by the Sociedad de Bolsas.

Standard & Poor’s/Toronto Stock Exchange Composite Index “Canada” - A capitalization-weighted index designed to measure market activity of stocks listed on the Toronto Stock Exchange.

Buenos Aires Stock Exchange Merval Index “Argentina”- The Argentina Merval Index is a basket weighted index, is the market value of a stock portfolio, selected according to participation in the Buenos Aires Stock Exchange.

Santiago Stock Exchange IPSA Index “Chile” - The IPSA Index is a Total Return Index and is composed of the 40 stocks with the highest average annual trading volume in the Santiago Stock Exchange.

Taiwan Stock Exchange Capitalization Weighted Index “Taiwan” - TWSE Index is a capitalization-weighted index of all listed common shares on the Taiwan Stock Exchange.

FTSE Bursa Malaysia KLCI Index “Malaysia” - Malaysia KLCI Index comprises of the largest 30 companies by full market capitalization on Bursa Malaysia's Main Board.

Thai Stock Exchange Index “Thailand” - Thailand Stock Exchange Net Foreign Stocks Investment (THB) using the U.S. dollar.

Indonesia Jakarta Stock Exchange Index “Indonesia” – Index is updated directly from Jakarta using the U.S. dollar.

The Philippine Stock Exchange PSEI Index “Philippines”- is a capitalization-weighted index composed of stocks representative of the Industrial, Properties, Services, Holding Firms, Financial and Mining & Oil Sectors of the PSE.

Poland Warsaw Stock Exchange Index “Poland” is the total book value (nominal share price x shares outstanding) of all companies trading on the Warsaw Stock Exchange.

Prague Stock Exchange Index “Czech” is market cap weighted containing 13 securities.

CSFB Russia Stock Market Index “Russia” USD Daily Cap Weighted is a capitalization weighted, based on 30 stocks & denominated in US dollars

Budapest Stock Exchange Budapest Stock Index “Hungary” is a capitalization-weighted index adjusted for free float tracking daily price only performance of large, actively traded shares on the Budapest Stock Exchange.

Borsa Istanbul 100 Index “Turkey” is a capitalization-weighted index composed of National Market companies except investment trusts selected on the basis of pre-determined criteria directed for the companies to be included in the index.

FTSE/JSE Africa Top40 Tradeable Index “South Africa” is a capitalization weighted index. Companies included are the 40 largest companies by market capulation include din the FTSE/JSE All Shares Index.

The Straits Times Index (STI) “Singapore” is maintained by FTSE is the most globally-recognized benchmark index and market barometer of Singapore covers the 30 largest and most liquid companies listed on the Singapore exchange.
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ISPDR Barclays High Yield Bond ETF (JNK) Investment Objective & Summary

The investment objective of the SPDR Barclays High Yield Bond ETF seeks to provide investment results that, before fees and expenses, corresponds generally to the price and yield performance of the Barclays High Yield Very Liquid Index. The ETF invests in U.S. high yield bonds. The Barclays High Yield Very Liquid Index is designed to measure the performance of publicly issued U.S. dollar denominated high yield corporate bonds with above-average liquidity. High yield securities are generally rated below investment grade and are commonly referred to as "junk bonds." The Index includes publicly issued U.S. dollar denominated, non-investment grade, fixed-rate, taxable corporate bonds that have a remaining maturity of at least one year, regardless of optionality, are rated high-yield (Ba1/BB+/BB+ or below) using the middle rating of Moody's Investors Service, Inc., Fitch Inc., or Standard & Poor's, Inc. Respectively, and have $500 million or more of outstanding face value.

Important Risk Information - In general, ETFs can be expected to move up or down in value with the value of the applicable index. Although ETF shares may be bought and sold on the exchange through any brokerage account, ETF shares are not individually redeemable from the Fund. Investors may acquire ETFs and tender them for redemption through the Fund in Creation Unit Aggregations only. Please see the prospectus for more details.

Bond funds contain interest rate risk (as interest rates rise bond prices usually fall); the risk of issuer default; issuer credit risk; liquidity risk; and inflation risk. Investing in high yield fixed income securities, otherwise known as "junk bonds" is considered speculative and involves greater risk of loss of principal and interest than investing in investment grade fixed income securities. These lower-quality debt securities involve greater risk of default or price change due to potential changes in the credit quality of the issuer.

The Fund invests by sampling the Index, holding a range of securities that, in the aggregate, approximates the full Index in terms of key risk factors and other characteristics which may cause the fund to experience tracking errors relative to performance of the Index.

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