

DoubleLine Asset Allocation Webcast Recap “Spice Up Your Asset Allocation”



Originally aired on November 13, 2018

About this Webcast Recap

On November 13, 2018, Chief Executive Office Jeffrey Gundlach held a webcast discussing the DoubleLine Core Fixed Income (DBLFX/DLFNX) and DoubleLine Flexible Income (DFLEX/DLINX) Funds.

This recap is not intended to represent a complete transcript of the webcast. It is not intended as solicitation to buy or sell securities. If you are interested in hearing more of Mr. Gundlach’s views, please listen to the full version of this webcast on www.doublelinefunds.com on the “Webcasts” tab under “Latest Webcast”. You can use the “Jump To” feature to navigate to each slide.

DoubleLine Core Fixed Income Fund Performance

Quarter-End Returns September 30, 2018	Annualized					Since Inception (6-1-10 to 9-30-18)
	3Q18	YTD	1-Year	3-Year	5-Year	
I-share (DBLFX)	0.31%	-0.61%	-0.15%	2.40%	3.24%	4.91%
N-share (DLFNX)	0.25%	-0.80%	-0.40%	2.12%	2.96%	4.65%
Bloomberg Barclays U.S. Aggregate Index	0.02%	-1.60%	-1.22%	1.31%	2.16%	2.82%
Gross Expense Ratio: I-share 0.48%; N-share 0.73%						

DoubleLine Flexible Income Fund Performance

Quarter-End Returns September 30, 2018	Annualized				Since Inception (4-7-14 to 9-30-18)
	3Q18	YTD	1-Year	3-Year	
I-share (DFLEX)	1.00%	1.36%	2.08%	3.73%	3.32%
N-share (DLINX)	0.83%	1.17%	1.83%	3.45%	3.05%
ICE BofAML 1-3 Year Eurodollar Index	0.60%	0.75%	0.68%	1.34%	1.27%
LIBOR USD 3 Month	0.58%	1.63%	1.99%	1.23%	0.92%
Gross Expense Ratio: I-share 0.78%; N-share 1.03%					

Performance data quoted represents past performance; past performance does not guarantee future results. The investment return and principal value of an investment will fluctuate so that an investor's shares, when redeemed, may be worth more or less than the original cost. Current performance of the fund may be lower or higher than the performance quoted. Performance current to the most recent month-end may be obtained by calling (213) 633-8200 or by visiting www.doublelinefunds.com.

While the Fund is no-load, management fees and other expenses still apply. Please refer to the prospectus for further details

Mutual fund investing involves risk; Principal loss is possible.

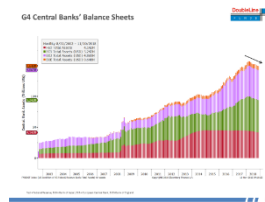
DoubleLine Asset Allocation Webcast Recap “Spice Up Your Asset Allocation”



Originally aired on November 13, 2018

Slide

8



Recap

G4 Central Banks' Balance Sheets & Global Equities

The G4 central banks are the Bank of England (BOE), the Bank of Japan (BOJ), the Federal Reserve (Fed), and the European Central Bank (ECB).

Since the Global Financial Crisis, from late 2008 / early 2009 through the latter part of 2017, the G4 balance sheets were consistently increasing in size.

- In late 2017 / early 2018, their balance sheets began shrinking. This is largely due to the Fed having begun a more aggressive quantitative tightening, which is now at the maximum \$50 billion per month, potentially equating to \$600 billion per year

Over this period of balance sheet growth on a cumulative basis, the global stock market, as measured by the MSCI ACWI (All Country World Index), rose in a consistent manner with the size of the balance sheets.

With the G4 balance sheets now shrinking on a cumulative basis, the global stock market has changed course.

- As the G4 balance sheets have started to roll over, the MSCI ACWI peaked at roughly the same moment of G4 maximum balance sheet size.
 - Year-to-date (YTD) through November 13, 2018, the MSCI ACWI is -5.24%.

S&P 500 vs. MSCI ACWI (ex-US) Normalized 1.26.2018

Mr. Gundlach believes this could be the “chart of the year.”

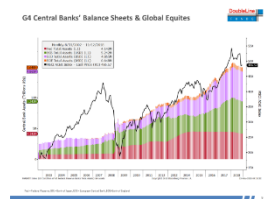
The performance between the S&P 500 and MSCI ACWI (ex-US) began decoupling around the end of April / beginning of May this year.

- The MSCI ACWI (ex-US) started to fall from a level of 93 down to as low as 79. At the same time, the S&P 500 was increasing by roughly the same amount.
- During Mr. Gundlach’s September 11, 2018 webcast, he alluded to the fact this is unlikely to continue, because if the weakness in the global stock market reasserted itself, the U.S. stock market would not be able to act as an island of safety and would likely fall in sync with the global stock market.
 - That’s exactly what has happened. As the MSCI ACWI (ex-US) took out its low in September, the S&P 500 began to trend downward, giving up its positive returns for the year, and entered into correction territory.

This could be attributable to the tariff talks. Tariffs are worse for other countries than they are for the U.S., as the U.S. has such a small percentage of its Gross Domestic Product (GDP) stemming from exports.

- Only 8% of the U.S. GDP stems from exports, whereas many foreign economies have large shares of their GDP accounted for by exports.
 - For example: In 2017 South Korea had roughly 43% of its GDP from export markets.

9



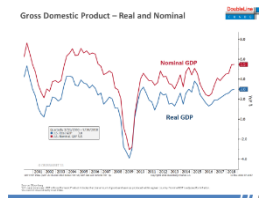
DoubleLine Asset Allocation Webcast Recap “Spice Up Your Asset Allocation”



Originally aired on November 13, 2018

Slide

12



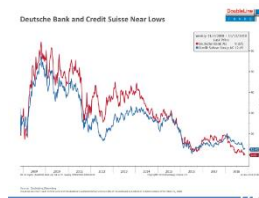
Recap

Measures of Business and Consumer Sentiment

As of this webcast, none of the recession indicators DoubleLine monitors are flashing a caution signal for recession.

- A slower moving indicator tends to be the Leading Economic Indicators (LEI) from the Conference Board.
 - October's LEI registered at 7.0% year-over-year (YoY), one of the highest readings of the last couple of decades.
 - Historically, the U.S. has never had a recession without the LEI falling below zero on a YoY basis.
- Some of the fast-moving indicators, such as measures of business and consumer sentiment, continue to register at elevated levels as well.
 - Small business optimism ticked down slightly from its all-time high reading last month.
 - CEO confidence is also down slightly from the previous month.
- In aggregate, these measures broadly do not signal an imminent recession.

16



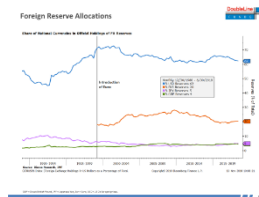
Emerging Markets vs. Developed Markets and U.S. Dollar

Emerging Markets, as measured by the MSCI Emerging Markets Index, have been lagging developed markets, as measured by the MSCI World Index for the majority of 2018 as the U.S. Dollar (USD) has rallied.

- It appears the success and failure of investing in Emerging Markets is largely tied to the fate of the USD.
- The bullishness on the USD is extraordinary; Mr. Gundlach believes this bullishness may be nearing an end.
- The USD is broadly secularly declining after a rally from 2011 into 2017, as measured by the U.S. Dollar Index (DXY).

DoubleLine turned negative on the USD in January 2017, when the DXY hit 103. Since that time, the DXY fell below 90, before rallying in 2018 with its latest reading at 97.30. Mr. Gundlach believes we will not see the DXY set a new high above 103.

19



Crude Oil Futures Market Share

Mr. Gundlach believes there is a desire from China and the European Central Bank (ECB) to have a role as a reserve currency.

China is making moves to enter the global reserve currency picture by trading oil futures in Yuan.

- This began in around April / May of this year, and the Petro Yuan as a percent of total volume is roughly 14%.
- Once a country starts trading a global commodity, such as oil, in its own currency, that country is signaling to the market that steps are being taken to compete for reserve currency status.

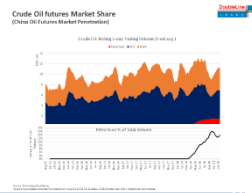
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Originally aired on November 13, 2018

Slide

20



Recap

Rising Deficits and Rising Rates

Mr. Gundlach believes this is one of the most important charts within the deck, which shows the unusual situation of rising deficits while interest rates are being hiked by the Federal Reserve.

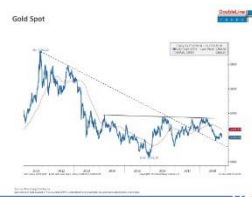
- It's very strange that the U.S. is continuing to increase its deficits as a percent of GDP this late during an economic expansion while the U.S. is supposedly in a good economy, as Nominal GDP is at 5.5% YoY and Real GDP is at 3.0% YoY.
- The reason economic growth has continued to expand is likely due to the growth in the deficit. When the deficit increases, that's potentially good for the short-term, but it's borrowing from the future.

Historically, the deficit as a percent of GDP and the Fed Funds Rate have been inversely related, meaning when the deficit has increased, the Fed Funds Rate has decreased, as the Fed looks to spur economic growth during a weakening economy.

- That relationship changed in the aftermath of the Global Financial Crisis in 2008. Coming out of the recession, the deficit shrank while interest rates remained low.
- When the Fed began raising rates in 2015, counter-historically, the deficit started rising, due to the policies that were put in place after the 2016 U.S. Presidential Election.
 - Currently, the U.S. deficit-to-GDP is 4%, with projections from the Congressional Budget Office (CBO) showing that figure increasing to nearly 6% by 2021.
 - However, that 4% number is misleading, as the national debt increased by \$1.3 trillion for the fiscal year 2018, which just ended on September 30th, indicating that the current deficit-to-GDP should really be 6%.

Mr. Gundlach has referred to this in previous webcasts, and believes the U.S. is on a “suicide mission” by increasing our debt while simultaneously increasing the cost to service that debt by raising interest rates.

22



Bloomberg Commodity Index (BCOM)

Commodities broadly have been falling, as the price of West Texas Intermediate (WTI) fell from \$75 per barrel (bbl) at the beginning of October to roughly \$55/bbl through the first few weeks of November.

- However, the technical levels for the BCOM appear bullish. Additionally late in economic cycles, commodities have historically rallied.

In 2011, Gold peaked at \$1900 an ounce (Oz). Since then, Gold has been in a bear market, hitting a low of \$1051/Oz. DoubleLine is bullish on Gold at levels below \$1200/Oz.

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Originally aired on November 13, 2018

Slide

23



Recap

Currency Hedged U.S. Treasury Yields

One component keeping U.S. Treasury (UST) yields from rallying to the downside is the lack of attractiveness to foreign buyers. Not only is the U.S. alienating foreign economies via isolationist rhetoric, there also exists a structure of hedging that if foreign investors purchase the 10-year UST and hedge back into local currency, for example Japanese Yen, those investors would actually receive a negative yield, as the cost to hedge is greater than the current yield on the 10-year UST.

- As of November 13, 2018, the 10-year UST yield hedged to the Yen was -0.19bps; hedging back to Euro was -0.35bps.

This has also impacted the makeup among holders of U.S. Treasuries, as the percent of foreign holders owning U.S. Treasuries has ticked down from roughly 42% in 2016 to a 36.35% as of June 2018.

- Additionally, as the Fed continues with quantitative tightening (QT) they will be reducing their purchase of bonds by \$50 million dollars a month.
- Domestic holders have been picking up the lack of demand from both foreign buyers and the Fed, which are retail investors, savers, and pension plans. This group now makes up the largest percent of holdings in UST, at roughly 50% as of June 2018.

26



U.S. Rates: Goldman Sachs Cyclical/Defensive Equity Basket & 10-Year UST Yield

The setup of the bond market has diverged from a performance of cyclicals versus defensive equity basket that Goldman Sachs calculates.

- Prior to global markets peaking in January of this year, cyclical equities outpaced defensive equities for much of the past six years.
- With defensives outperforming cyclicals since the beginning of the year, it's interesting to see bond yields continuing to rise, as a risk-off sentiment has historically led to lower bond yields.
- The 10-year UST yield broke above 3.00% to start the year, and closed at a high of 3.24% on November 8, 2018.

29



30-Year U.S. Treasury Levels

The 30-year UST yield broke above a key technical resistance level we were watching at DoubleLine, which was two consecutive closes above 3.25%.

- From a technical perspective, there is a head-and-shoulders base that has been built over the last four years. The move off of this base could see the 30-year UST yield rise to 5.00% to 6.00% over the next couple of years.
- Additionally, there has historically been a bimodal distribution of the 30-year UST yield going back to 2001:
 - Pre-financial crisis, the 30-year UST yield traded around 5.00%.
 - Post-financial crisis, the 30-year UST yield has been trading around 3.00%.
- Since the 30-year has broken through its resistance level of 3.25%, based upon history, the yield could gravitate towards 5.00%.

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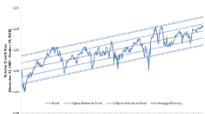


Originally aired on November 13, 2018

Slide

31

Relative Growth of ICE BofAML Mortgage Index to ICE BofAML Treasury Index



Recap

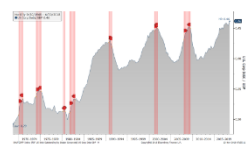
Bond Market Valuations

Rich-cheap analysis shows that when a sector trades up to two standard deviations relative to trend, it's expensive relative to its historical average, indicating a potentially good time to sell.

- ICE BofAML Mortgage Index to ICE BofAML Treasury Index:
 - Currently, mortgages are a little less than one standard deviation rich versus the historical trend going back to 1985.
- ICE BofAML Corporate Index to ICE BofAML Treasury Index:
 - Corporate bonds are currently near historically high levels from a valuation perspective relative to treasuries, trading near two standard deviations rich.
- ICE BofAML High-yield Cash Pay Index to ICE BofAML Treasury Index:
 - High-yield bonds relative to treasuries are coming off their most expensive reading in over 30 years. When compared to longer-dated bonds - which we believe is a more accurate representation of the risk-parity within high-yield - junk bonds still screen expensive.

35

U.S. Corporate Credit as % GDP



Corporate Debt Levels Inconsistent with High-Yield Spreads

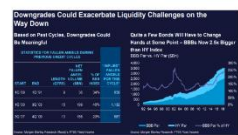
Against a backdrop of share buybacks financed with corporate bonds, there is currently a lot of leverage in the corporate economy, as measured by U.S. Corporate Credit as a percent of GDP.

What's interesting is the high-yield spread levels and the corporate debt levels are completely out of sync with each other.

- Historically, when debt-as-a-percent of GDP registered at the current elevated levels, high-yield spreads have been much higher, which is also consistent with the risk of a recession. As of June 30, 2018:
 - Corporate Debt to GDP registered at 46%.
 - High-yield spreads, as measured by the Bloomberg Barclays U.S. Corporate High-yield Average OAS Index, registered at 361bps.
 - For perspective, the last time Corporate Debt to GDP registered at current levels, high-yield spreads were over 1600bps.

37

Downgrades Could be Significant Come Cycle Turn



U.S. Corporate BBB Debt

BBB-rated bonds are currently almost \$3 trillion, up from roughly \$700 billion in 2008. BBB credits now make up nearly half of the \$6 trillion investment-grade world compared to 2008 they accounted for less than a third of the total.

BBB bonds are now two and a half times bigger than the entire high-yield bond market.

- Because BBBs are right on the edge of high-yield, if they were to get downgraded the smaller high-yield bond market could have a hard time absorbing the new supply without sharp price discounts.

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Originally aired on November 13, 2018

Slide

Recap

U.S. Corporate BBB Debt (cont'd)

45% of the investment-grade corporate bond market would be rated junk if evaluated by leverage ratios.

- The ratings agencies have decided not to downgrade these companies because of statements where company officials have acknowledged their debt ratios are too high and their idea is to address those ratios at some future date.
- If these companies don't address those debt levels or if there's a recession and they're not able to address those debt levels, there could be a very large fraction of the investment-grade market being downgraded.

Additionally, if rates continue to rise, investment-grade is likely to underperform other fixed income asset classes due to an extended duration.

- The duration of the Bloomberg Barclays U.S. Corporate Index is over 7 years, compared to the Bloomberg Barclays U.S. Mortgage Backed Securities Index of approximately 6 years and the Bloomberg Barclays U.S. Aggregate Bond Index of 6.30 years.

If rates fall, it's likely the stock market has to enter a bear market. If this happens, it is unlikely corporate bonds will outperform, as the performance of corporate bonds, particularly high-yield corporates, has been highly correlated to the performance of equities.

40

Core Fixed Income Fund Portfolio Statistics

	Core Fixed Income Fund	Bloomberg Barclays U.S. Aggregate Bond Index
Duration	4.57	5.99
Yield	4.57	4.57

DoubleLine Core Fixed Income Fund

As of October 31, 2018:

- DBLFX had a duration 4.57 years compared to the Bloomberg Barclays U.S. Aggregate Bond Index of 5.99 years.
- DBLFX has outperformed the Bloomberg Barclays U.S. Aggregate Bond Index by 112bps YTD.
 - One of the reasons is the fund's roughly 1200bps underweight to corporate bonds.
- The composition of the fund is broadly diversified across 13 fixed income sectors.
 - The largest weighting is in Mortgaged-Backed Securities, at 24.3%, which is actually less than the Bloomberg Barclays U.S. Aggregate Bond Index of roughly 30%.
- The fund's Infrastructure exposure is all investment-grade, dollar-denominated bonds. We view these as an alternative to corporate bonds, and prefer to own them in lieu of corporates. Additionally, Infrastructure bonds are currently yielding more than corporates.
- The credit quality of the portfolio remains significantly high:
 - 14.5% are rated below investment-grade, and 5.7% are unrated securities.
- For now, Mr. Gundlach is not concerned about the weightings to below investment-grade, although moves made in the portfolio in recent quarters have been gravitating towards a higher quality portfolio.

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Originally aired on November 13, 2018

Slide

43

Flexible Income Fund Portfolio Statistics

	DFLEX Flexible Income Fund	ICE BofAML 1-3 Year Eurodollar Index
Duration	1.62	1.94
Assets (\$B)	3.33	3.36

Recap

DoubleLine Flexible Income Fund

As of October 31, 2018:

- DFLEX had a duration 1.62 years compared to the ICE BofAML 1-3 Year Eurodollar Index of 1.94 years.
 - To deliver a yield that is significantly higher than treasuries with a duration that's less than two years requires the fund to take on credit risk.
- DBLFX has outperformed the ICE BofAML 1-3 Year Eurodollar Index by 32bps YTD.
- The composition of the fund is broadly diversified across 11 fixed income sectors:
 - Emerging markets exposure at 15.9% is short-term investments, and all dollar-denominated.
- Bank loans (10.4%) and Collateralized Loan Obligations (17.5%) were big themes during Mr. Gundlach's Barron's roundtable discussion in January. At the beginning of the year, Mr. Gundlach alluded to the most attractive asset classes for the year were investments that floated off of the London Inter-bank Offered Rate (LIBOR).
 - Additionally, some of the Commercial MBS and Non-Agency MBS are floating rate, helping to reduce the fund's duration.
- Roughly half of the portfolio is below investment-grade. The fund does actively manage its credit exposure, and there would likely be large changes in the portfolio if there were a recession on the foreseeable horizon.
 - Mr. Gundlach believes there is at least a couple of months before that happens, if history is any guide based on some of the economic indicators DoubleLine is constantly monitoring.

Questions and Answers

"How will the national debt be resolved?"

- It will be resolved by being devalued, meaning the national debt will be devalued. The problem of the deficit will be solved ultimately by entitlement reform once the nation wants it and realizes that the path that we're on is going to lead to a catastrophe if we don't address it. But it's difficult because you have to raise the entitlement eligibility ages and other things.

"Nominal GDP is 5.5%, does that indicate the 10-year UST yield should go higher?"

- Yes and no. The relationship of nominal GDP to the 10-year has broken down because of the dispersion in interest rates around the world. So, the way to get to a benchmark for the 10-year Treasury is not nominal GDP anymore; it's the average of nominal GDP and the German 10-year. So, nominal GDP is around 5.5%. The German 10-year is pegged around 50 basis points. You add those together, you get 6%; divided by two, 3%. So, the 10-year Treasury is being pulled higher by nominal GDP, but pulled lower by the German and other rates being pegged at extremely negative real levels.

DoubleLine Asset Allocation Webcast Recap

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Originally aired on November 13, 2018

Slide

Recap

Questions and Answers

“Can stocks and bonds go down together?”

- Yes. They certainly did that during past stagflation scenarios. Mr. Gundlach is not predicting stagflation any time soon. It's possible that could be in the case in the future. Certainly, it's interesting again that with stocks going down heavily during three weeks of October, bonds' yields actually went up. That shows you that stocks and bonds certainly can decouple or they can certainly go down together.

“How much of DoubleLine’s interest rate forecast is tied to technical analysis versus fundamental?”

- It depends. There's times when it's extremely technical. The big backdrop, the bigger picture, the 6% kind of thing, is due to what some people don't call fundamental. Mr. Gundlach believes supply and demand is fundamental. Some people call that technical. But Mr. Gundlach believes the supply of bonds is overwhelming and the demand for bonds has been – is hard to identify at the level that it was before, absent higher interest rates. So, Mr. Gundlach believes the market has the fundamentals for a supply-driven interest rate increase. And the technicals have to do with trade location more than anything else, which can be very helpful in adding incremental return.

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Important Information Regarding This Report

DoubleLine assumes no obligation to provide revised assessments in the event of changed circumstances. While this information based on sources believed to be reliable, DoubleLine does not guarantee the accuracy of the information provided. DoubleLine assumes no duty to update this information, which is not a complete discussion of all economic factors reviewed by DoubleLine. DoubleLine reserves the right to change its investment perspective and outlook without notice as market conditions dictate or as additional information becomes available. The opinions of any individual portfolio manager does not necessarily reflect the opinions of all DoubleLine portfolio managers.

Certain data discussed in this report is publicly available only on a time delayed basis. DoubleLine strives to analyze data as it becomes available, but makes no representation that all data is reviewed contemporaneously to its release.

Opinions expressed are subject to change, are not intended to be a forecast of future events, a guarantee of future results, nor investment advice.

The funds' investment objectives, risks, charges and expenses must be considered carefully before investing. The statutory and summary prospectuses contain this and other important information about the investment company, and may be obtained by calling (877) 354-6311/(877) DLine11, or visiting www.doublelinefunds.com. Read carefully before investing

Fund Risks:

Investments in debt securities typically decrease in value when interest rates rise. This risk is usually greater for longer-term debt securities. Investments in lower-rated and non-rated securities present a greater risk of loss to principal and interest than higher-rated securities. Investments in ABS, MBS, and floating rate securities include additional risks that investors should be aware of such as credit risk, prepayment risk, possible illiquidity and default, as well as increased susceptibility to adverse economic developments. Investments in floating rate securities include additional risks that investors should be aware of such as credit risk, interest rate risk, possible illiquidity and default, as well as increased susceptibility to adverse economic developments. The Fund invests in foreign securities which involve greater volatility and political, economic and currency risks and differences in accounting methods. These risks are greater for investments in emerging markets. The Fund may use leverage which may cause the effect of an increase or decrease in the value of the portfolio securities to be magnified and the Fund to be more volatile than if leverage was not used. Derivatives involve special risks including correlation, counterparty, liquidity, operational, accounting and tax risks. These risks, in certain cases, may be greater than the risks presented by more traditional investments. Investing in ETFs involve additional risks such as the market price of the shares may trade at a discount to its net asset value ("NAV"), an active secondary trading market may not develop or be maintained, or trading may be halted by the exchange in which they trade, which may impact a Funds ability to sell its shares. The fund may make short sales of securities, which involves the risk that losses may exceed the original amount invested.

Fund Benchmark/Index Disclosure:

Bloomberg Barclays U.S. Aggregate Bond 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

ICE BAML 1-3 Year Eurodollar Index is a subset of the ICE BAML Eurodollar Index including all securities with a remaining term to final maturity less than 3 years. The ICE BAML Eurodollar Index tracks the performance of US dollar-denominated investment grade quasigovernment, corporate, securitized and collateralized debt publicly issued in the eurobond markets.

London Interbank Offering Rate (LIBOR) is an indicative average interest rate at which a selection of banks known as the panel banks are prepared to lend one another unsecured funds on the London money market.

It is not possible to invest in an index.

Fund holdings are subject to change and should not be considered a recommendation to buy or sell any security.

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Diversification does not guarantee a profit or protect from loss in a declining market.

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Glossary of Terms

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

Beta - Beta is the measure of a mutual funds' volatility in relation to the market. By definition, the market has a beta of 1.0, and individual mutual funds are ranked according to how much they deviate from the market. A beta of above 1.0 means the fund swings more than the market. If the fund moves less than the market, the beta is less than 1.0.

Bloomberg Barclays Commodity Index (BCOM) - An index calculated on an excess return basis that 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. Roll period typically occurs from 6th-10th business day based on the roll schedule.

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.

Bloomberg Barclays US Corporate High Yield Index - Measures the USD-denominated, high yield, fixed rate corporate bond market. OAS are option-adjusted spreads.

You cannot invest directly in an index.

Bloomberg Barclays US Mortgage Backed Securities (MBS) Index tracks agency mortgage backed pass-through securities (both fixed-rate and hybrid ARM) guaranteed by Ginnie Mae (GNMA), Fannie Mae (FNMA), and Freddie Mac (FHLMC).

Duration - A measure of the sensitivity of the price of a fixed income investment to a change in interest rates, expressed as a number of years.

Gross Domestic Product (GDP) - The market value of all final goods and services produced within a country in a given period. GDP is considered an indicator or metric of a country's standard of living.

ICE BofA Merrill Lynch U.S. Corporate Index (COAO) "Investment Grade" - An index that tracks the performance of U.S. dollar denominated investment grade corporate debt publicly issued in the U.S. 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.

ICE BofA Merrill Lynch Mortgage-Backed Securities Index (MOA0) - An index that tracks the performance of U.S. dollar denominated fixed rate and hybrid residential mortgage pass-through securities publicly issued by U.S. agencies in the U.S. 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.

ICE BofAML U.S. Cash Pay High Yield Index (JOAO) - ICE BofAML US Cash Pay 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.

ICE BofAML 1-3 Year Eurodollar Index (E1A0) - ICE BofAML 1-3 Year Eurodollar Index is a subset of ICE BofAML Eurodollar Index including all securities with a remaining term to final maturity less than 3 years.

ICE BofAML US Treasury Index (GOQ0) - 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.

ISM (Institute of Supply Management) Manufacturing Index - based on surveys of more than 300 manufacturing firms by the Institute of Supply & Management. PMI = Purchasing Managers' Index is an indicator of the economic health of the manufacturing sector based on five major indicators: new orders, inventory levels, production, supplier deliveries and the employment environment. ISM Non-Manufacturing Index (also known as ISM Services PMI) - An index made up of data from 400 non-manufacturing firms collected by the Institute of Supply Management (ISM).

LEI YoY Index - An index published monthly by The Conference Board used to predict the direction of global economic movements in future months. The index is composed of 10 economic components whose changes tend to precede changes in the overall economy.

London-Interbank Offered Rate (LIBOR) - An indicative average interest rate at which a selection of banks known as the panel banks are prepared to lend one another unsecured funds on the London money market.

MSCI ALL World Index - The MSCI ACWI captures large and mid cap representation across 23 Developed Markets (DM) and 23 Emerging Markets (EM) countries*. With 2,484 constituents, the index covers approximately 85% of the global investable equity opportunity set.

MSCI EM Index - A float-adjusted market capitalization index that consists of indices in 23 emerging economies: 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 the United Arab Emirates.

S&P 500 (SPX) - 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.

Shiller Barclays CAPE® Ratio - CAPE® stands for Cyclically Adjusted Price-Earnings. The CAPE® Ratio is a valuation metric that takes the current price of an equity or index divided by its inflation adjusted average of ten years of earnings.

Shiller Barclays CAPE® Europe Sector Net TR USD Index - An index that incorporates the principles of long-term investing distilled by Dr. Robert Shiller and expressed through the CAPE® (Cyclically Adjusted Price Earnings) ratio (the "CAPE® Ratio"). The classic CAPE® Ratio assesses equity market valuations and averages ten years of reported earnings to account for earnings and market cycles. Each month, the Index's methodology ranks ten sectors within the European equity markets based on a modified CAPE® Ratio and a twelve-month price momentum factor.

Spread - The difference between the bid and ask price or between the high and low price.

Standard Deviation - A measure of the variation or dispersion of a set of data from its mean or expected/budgeted value. A low standard deviation indicates that the data points tend to be very close to the mean, whereas a high standard deviation indicates that the data is spread out over a large range of values. A measure of an investment's volatility.

Stoxx 600 - Stoxx 600 Europe 600 Price Index. The STOXX Europe 600 Index is derived from the STOXX Europe Total Market Index (TMI) and is a subset of the STOXX Global 1800 Index. With a fixed number of 600 components, the STOXX Europe 600 Index represents large, mid and small capitalization companies across 18 countries of the European region.

Yield Curve - Is a line that plots the interest rates, at a set point in time, of bonds having equal credit quality but differing maturity dates.

U.S. Dollar Index (DXY) - A weighted geometric mean of the United States dollar's value relative to a basket of 6 major foreign currencies, including the Euro, Japanese yen, Pound sterling, Canadian dollar, Swedish krona and Swiss franc.