Navigating the Current Fixed Income Environment

April 21, 2014

Summary

- Weak economic and market conditions have led the U.S. Federal Reserve to maintain a low interest rate policy which will probably last until most likely April 2015, while tapering continues through October 2014.
- Forward-looking expectations for interest rates are higher and fixed income returns are lower than historical averages
- The time is now to consider alternatives to "traditional" fixed income strategies to protect against losses – and take a whole-portfolio and multi-variable approach to evaluating risk

Current Economic and Fixed Income Landscape

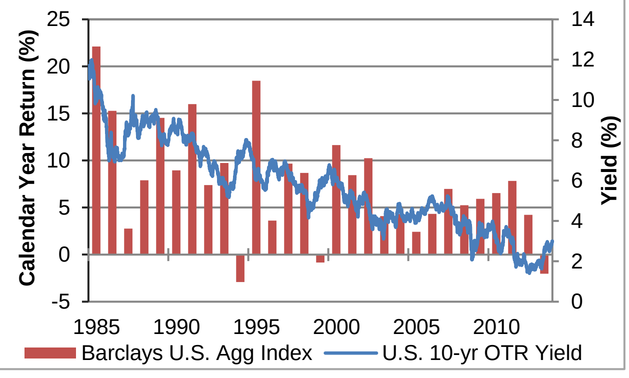
In the early months of 2014, economic growth in the US is low but somewhat stabilizing, leading to hope for improvement during the second half of the year. Jobs and wage growth are dim, while the real estate and housing sectors – a bright spot of growth in recent years - have stalled in price appreciation and sales. These economic conditions have prompted the U.S. Federal Reserve to maintain a low interest rate policy (possibly until April 2015), while "tapering" will continue throughout the year with an expected completion date around October 2014.

At present, fiscal and monetary policies in the U.S. have led investors to expect real rates and overall market volatility to remain muted. In this environment, the search for yield, particularly in the fixed income sector is a difficult sojourn. With a number of fixed income asset classes at fair value or overvalued, there is little room for error in asset allocation. Investors are faced with a decreasing number of fixed income investment options that are available to help solve the need for yield and return. For underfunded pension plans faced with liabilities that are continuing to rise unabatedly, the current pricing and yield environment poses a particularly vexing problem.

This paper provides a back drop of the issues that the current fixed income environment has created for institutional investors. We highlight some of the potential solutions for investors, and the pros and cons of each approach.

Pensions Face challenges in the Current Low-Yield Environment

OTR U.S. 10-yr Treasury Yield vs. Annual Barclays U.S. Agg Index Returns



The current plight of the pension plan sponsor has its roots in asset allocation practices over the past several decades, whereby approximately 40% of a typical institution's portfolio was invested in fixed income with the remaining 60% in equities. Due to the prevalence of backward-looking models, this asset mix was widely accepted, even as investors had difficulty garnering returns in a low yield environment, and also experienced decreased coupon income as rates fall. The decline in income has been somewhat offset by the capital appreciation that fixed income has enjoyed through lower rates – but overall the present value of liabilities in these portfolios has increased. Even though financial markets have enjoyed prolonged rallies both in equities and fixed income, the overriding effect of low yields have led to pension funds that are underfunded, which in many cases are in the 70% range. The current rate environment has also created issues for individual investors as conservative savings deposits do not provide any income after inflation.

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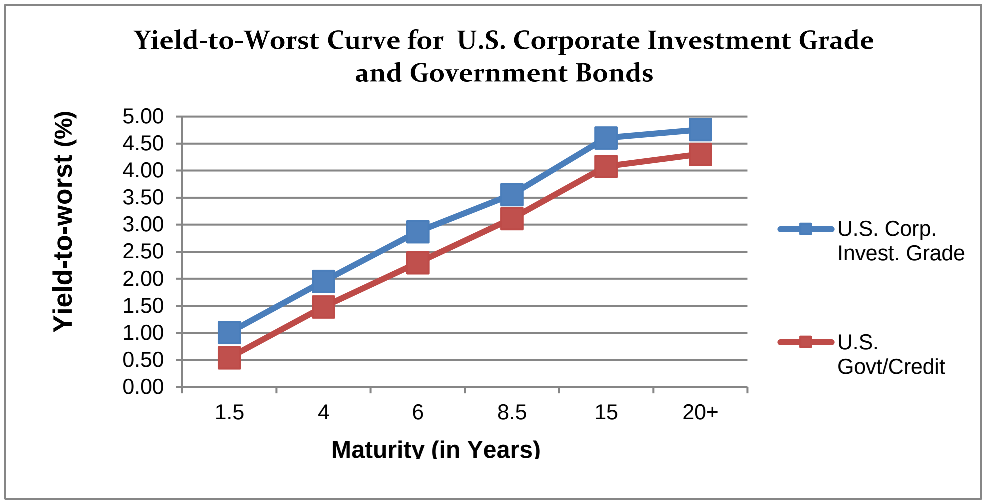
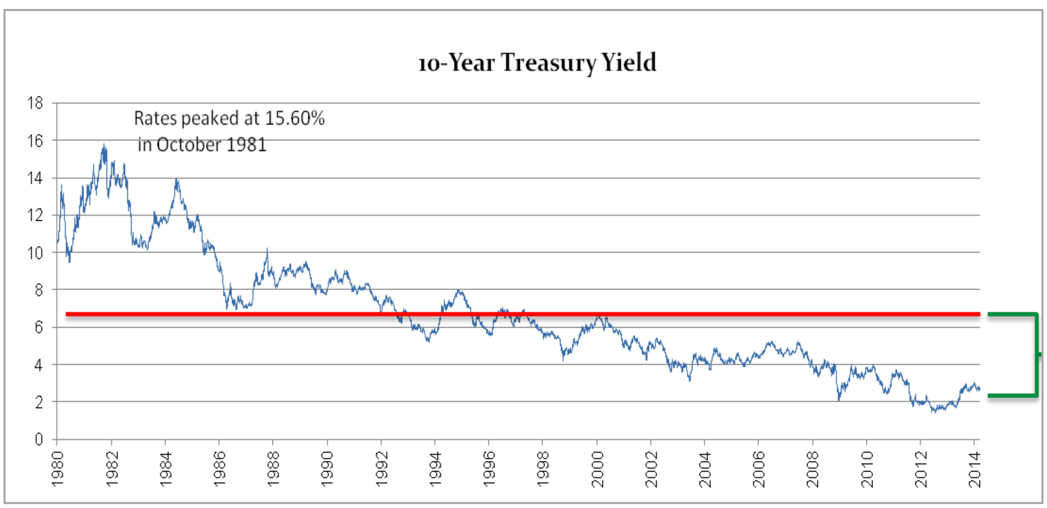
Present yields are historically low across the curve from 30-day LIBOR to 30-Year Treasuries (see chart to right), the specter of interest rates rising from current levels is becoming more of a reality. The Federal Reserve has announced that it will continue its tapering program and end the purchase of mortgage and Treasury securities by the estimated time frame of Q4 2014 to Q1 2014. In addition, Fed Chairman Janet Yellen has hinted that the accommodative interest rate policy investors have enjoyed since the "Great Recession" will soon end, and short term rates may begin to rise as soon late Q1 or early Q2 2015.

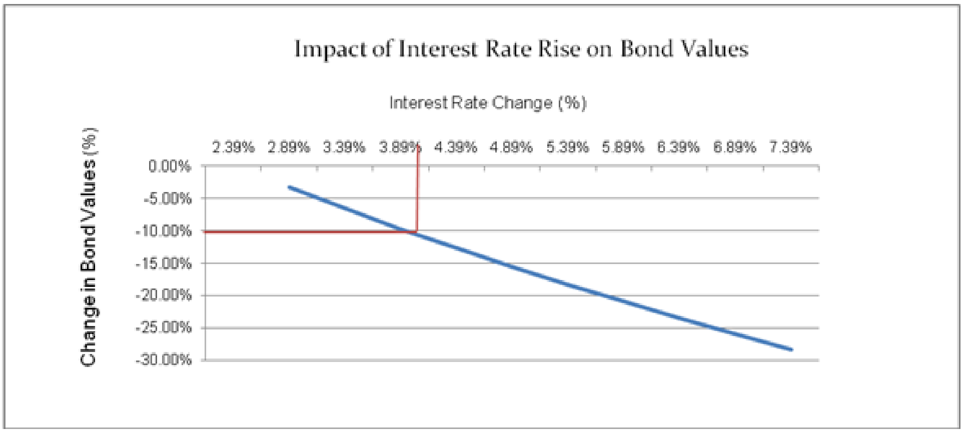


The implication of rising rates for fixed income investors could be diminished returns with small losses, or significant losses - depending on the magnitude and velocity of the rate rise. The basis from which rates may rise are still historically low, for example the 10-year Treasury yield is currently 2.80%, as shown in the chart below. Should 10-year rates normalize to a level that historically has averaged 6.66% (1980 to 2013), the differential may well be hundreds of basis points. This would cause a dramatic decline in fixed income prices as rates normalize.



Fixed income has enjoyed a 30 year bull market - with yields at record highs in the early 1980s (high to mid-teens), to record lows in 2012-2013 (low single digits).

Based on duration, convexity and current yield of the bond market, if yields revert back to the mean, pension plans are at risk of losing approximately four times the coupon income they would have earned annually.



Potential Interest Rate Scenarios

With these risks of loss in the back of our minds, Clearbrook outlines below two scenarios for in the inevitable rise in rates. The process may be slow and protracted, or we may see a scenario where rates spike dramatically as seen in 1994.

Scenario #1: Slow and Steady rise

As the Fed continues its tapering program, it will need to balance the tapering schedule and the eventual rise in interest rates versus tepid (but improving) economic growth, improving U.S. employment and support for the recovering housing market in order to allay investor fears of rapidly rising interest rates. The Fed is presently reducing asset purchases of Treasury and mortgage assets at a present pace of $5 billion per month. This reduction of asset purchases entails the non-reinvestment of principal payments being received by the Fed from Treasury and mortgage security holdings. The halt to these purchases will naturally bring back cash into the coffers of the U.S. Treasury and begin to reduce the size of Fed's balance sheet estimated to exceed over $4.5 trillion, according to JPMorgan research [Rover and Barry 2014]. This natural retirement of Treasury and mortgage bonds will continue over several years and will slowly drain excess reserves in the banking system. We believe tapering should conclude in and around Q4 2014 to Q1 2015.

The on-going steps leading to a slow and steady rise in interest rates will involve the Fed providing rate guidance, initiating market operations to drain reserves from the banking system, and eventually increasing rates when appropriate. The timing and the magnitude of an interest rise will be tricky. Rate movements will not only be determined by their potential impact on U.S. economic growth, but also by the trillions of dollars of mortgage and Treasury debt held by the U.S. Government estimated to mature between 2021 and 2024 or later. A rate rise would have a negative effect on these asset prices, though only on a mark-to-market basis. Thus the expectation is that an expected rise in rates will be thoughtfully considered and measured. The wide consensus that a "slow and steady" scenario is likely engenders concerns**: there are no easy sources of return at present in fixed income investing.** Investors should be wary of the possibility of a sharp rise in interest rates as many strategies are counting on "nothing happening" between now and the end of 2014.

#2: A Rapid rise in Interest Rates

A possible alternate scenario is where interest rates spike dramatically as seen previously in May/June 2013, when the 10-year Treasury rate climbed from 1.66% to 2.60%, causing an unexpected level of fixed income losses in a short period of time. **Though we do not presently believe this type of rate spike will occur from current interest rate levels, there are a number of potential headwinds on the horizon that could prompt a quick hike in rates.** Eventually the financial markets will need to confront the historical levels of financial debt being accumulated by the global central banks. Any semblance of a revival of inflation due to a rise in commodity or food prices, or an increase in wages as the global employment picture improves could also cause a quick rate increase. And finally, a rise potential rise in interest rates would not be complete without a "tail-risk" event, where the trillions of global assets that have been parked in fixed income around the world since 1998, could see a dramatic reversal of fund flows as rates rise. The potential losses seen by fixed income investors could engender bond sales, which of course could create a vicious circle of selling and rising rates virtually perpetuating itself, until investors could wake up with rates being up to 200 basis points higher. *(See Clearbrook Perspectives: The Impact of Tail Risk)*

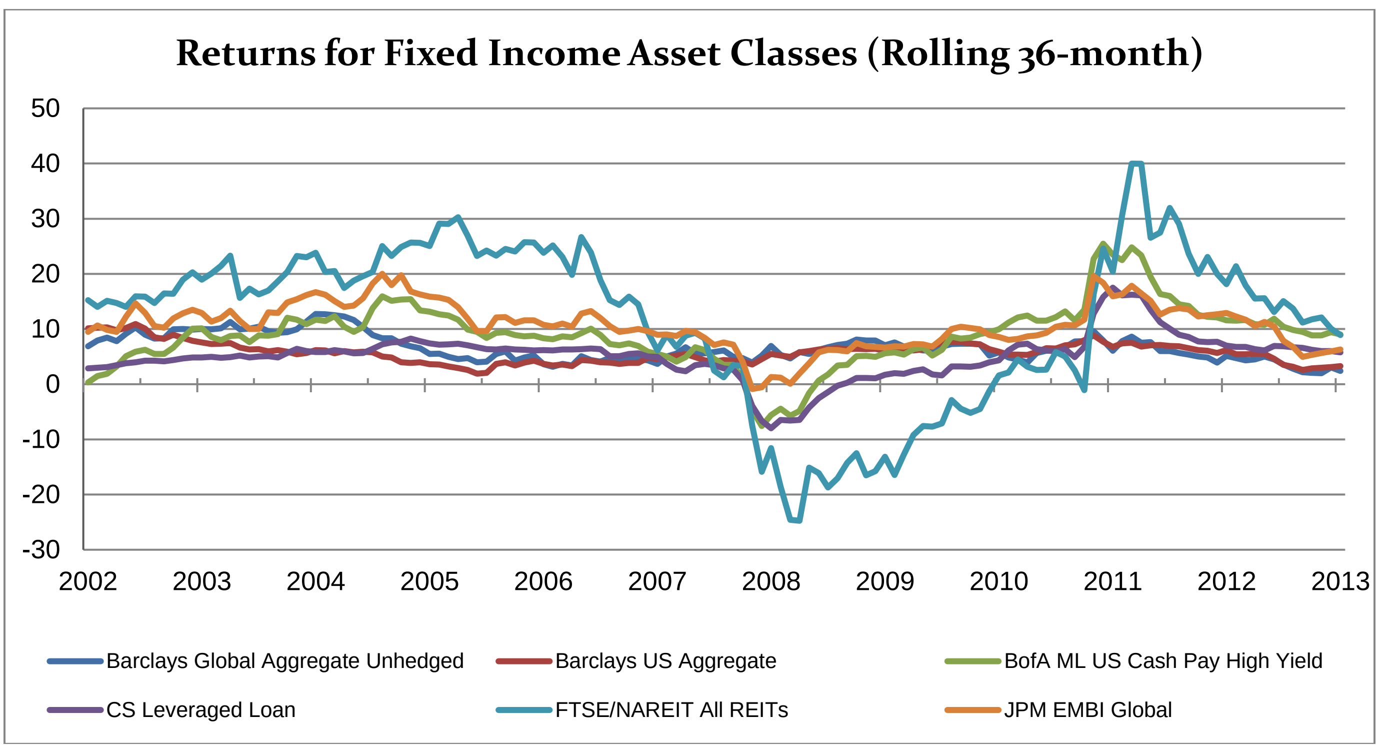
The scenario of a swift rise in interest rates played out in 1994, when bond market sell-off was due to its own internal dynamics, according to the Bank for International Settlements [Borio and McCauley 1994]. The bond market correction and rise in rates had little to do with changes in inflation or interest rate policy; it had more to do with widespread selling as risk across major bond markets rose by between 10 and 20 percent. This occurred even though the Federal Reserve just started to raise rates following the recovery from the 1991 recession. Between January and September 1994, the U.S. 30-year long bond's yield jumped more than 150 basis points to 7.75%. This interest move of 150 basis points translated into a loss in excess of 40% in principal value for a bond with duration of 30 years.

To mitigate these potential risks, Clearbrook formulated a number of investment solutions that employ both traditional and alternative investments in order to achieve higher yields, with lower correlation and downside risk associated with core fixed income. For our clientele, we want to hedge interest rate and duration risk particularly in an investment cycle where the down-side clearly out-weighs the up-side in the fixed income sector.

Strategies and Options to Chart the Course

In the accompanying table below, we chart out a number of investment options for clients seeking an acceptable rate of return from fixed income, without taking on unnecessary interest rate, duration, credit and illiquidity risks.

Historically, volatilities for many of these asset classes have closely trailed the Barclays Aggregate with the greatest fluctuations seen in the FTSE/NAREIT All REITS Index. Please see the chart below for more information. Definitions of indices are listed in the appendix.



Each investment option is tied to a particular interest rate scenario that we are most likely to see in the coming months and years. **Investments with higher coupon levels, adjustable rate coupons, and above average current yields can insulate investors from principal loss as the higher yields will absorb the initial negative impact of a rate rise.** For example, Private debt structures such as Bank Debt, Direct Lending and Real Estate are protected against an interest rate spike as their coupon levels are typical re-adjusted with a rise in short term rates such as LIBOR. In addition, private debt structures are not subject to market to market risk such as bonds, but their values can be diminished due to a payment default or decline in the value of the debt's underlying collateral.

Below, here is a summary of Clearbrook's outlook on fixed income sectors investors are currently considering.

Global Bond	**Pros** a. Policy divergence between the ECB and the Fed/Bank of England presents upside potential b. European peripheral spreads offer yield premium and spread compression possibilities **Cons** a. US Dollar could strengthen for a period of time b. Currency and country risk is a primary concern, security selection is important
Emerging Market Debt	**Pros** a. Shorter duration with a decent yield pick-up b. Stimulus measures from China and Bank of Japan can be supportive of EM prices c. Several EM countries have strong credit standing such as Taiwan, Chile and South Korea **Cons** a. Selectivity is key as headwinds may still persist due to the following: i. Impact of US Fed Tapering, leading to rate increases ii. Political risk and impact of election outcome iii. Fund outflows seeking to stabilizing and reversing
High Yield Bonds	**Pros** a. Intra-credit spreads between investment grade and high yield corporate bonds are still attractive b. Still a reasonable spread to Treasuries and low default rates **Cons** a. Could become more interest rate sensitive than in the past because of artificially low rates b. Can be subject to downside market risk should default rates increase

Bank Debt/Trust Preferreds *Interest rate quarterly reset to changes in LIBOR*	**Pros** a. Bank loans provide a yield pick-up (current coupon 4.0% to 4.5%) versus IG credit and floating rate benefit b. Senior to bonds and equities in corporate capital structure c. Bank and Insurance Company Trust Preferreds (TruPs) trading at prices in 70s and 80s due to past suspension of coupon payments d. Bank M&A activity can provide upside to TruPs investors as in a transaction, they must be retired before capital is paid to shareholders e. As of December 31, 2013, a cumulative total of 174 banks cured their interest obligations since third quarter 2007 **Cons** a. Need to stay with well underwritten issues, avoid covenant “light or no” paper b. Subject to credit risk and spread widening as high yielding issues are below investment grade c. The TruPs market is small with a total capitalization of approximately $60 billion, and is subject to illiquidity
Structured Credit, Direct Lending	**Pros** a. Bank loans provide a yield pick-up (current coupon 4.0 Good opportunity across residential mortgages b. GSE role with new mortgages diminished c. Historically regional banks and finance companies primary providers of direct lending capital have been dormant due to effects of Dodd-Frank, Basel III and low interest margins d. Mid-market corporate loan void is filled by specialty finance investment companies and funds e. Attractive net un-leveraged returns in high single to low double digits **Cons** a. Illiquidity risk as investments have maturities ranging from 3 to as long as 20 Years b. Mid-market lenders can be subject to borrower’s defaulting on either interest or principal payments or both c. The work out of a defaulted loan and repayment of principal and/or interest may take several years

Infrastructure/Commercial Real Estate	**Pros** a. Cyclical fundamental improvements producing good returns b. **Tertiary** market opportunities c. Supply/demand in properties is good for investors, with rental income and rates rising d. Off market and direct transactions provide opportunities for higher returns for debt and equity investors e. Global financial institutions seeking consistent long term yield provide attractive financing via lower interest rate land leases **Cons** a. Real estate in major cities, in general, are at least fair value, or overvalued. b. These investments are long dated, with many investment horizons spanning 10 to 20 years

CONCLUSIONS

Investors over the next several years will need to seriously consider alternatives to traditional fixed income or a combination thereof, so as to increase their ability to achieve the returns they have historically enjoyed from traditional fixed income investments. As we know, the fixed income sector has literarily enjoyed a bull market rally over the past 30 years plus, and staying with the status quo will not help to mitigate the potentially substantial losses investors can suffer in the impeding rising interest rate environment.

In order to protect fixed income investment principal as well as try to achieve a positive return, there needs to be a series of tradeoffs which we recommend that sponsors and investors will need to make. These trade-offs include credit (high yield, bank debt and TruPs) and/or liquidity risk (direct lending and/or sovereign risk in the case of Global/EMD), versus interest rate and duration risk. , Advisors and their clients' need to take an entire portfolio asset allocation approach, in order to determine the appropriate percentage allocation per asset class, strategy and investment manager. These decisions must be made in relationship to the risk/return/liquidity inherent to each investor portfolio's existing equity, traditional fixed income and alternative investments. Allocators should advise their clients that it is necessary to be agnostic to vehicle type, whether separate account, commingled fund, private fund or publicly traded to get the specific exposures that provide the best risk/return. In the end, the combined approach of traditional and alternative fixed income investments will better reduce the interest rate and duration risk that is prevalent today in investor portfolios.

References

Publications

Borio, C.E.V. and R.N. Mc Cauley (1995): "The Anatomy of the Bond Market Turbalance of 1994"

A. Rover and J. Barry (2014): "Gimme Three Steps: The Fed's Path Towards The Exit Door"

APPENDIX

DEFINITIONS:

FTSE NAREIT All REITs: THE FTSE NAREIT ALL REITS INDEX IS A MARKET CAPITALIZATION-WEIGHTED INDEX THAT INCLUDES ALL TAX-QUALIFIED REAL ESTATE INVESTMENT TRUSTS (REITS) THAT ARE LISTED ON THE NEW YORK STOCK EXCHANGE, NYSE AMEX, OR THE NASDAQ NATIONAL MARKET. THE FTSE NAREIT ALL REITS INDEX IS NOT FREE FLOAT ADJUSTED, AND CONSTITUENTS ARE NOT REQUIRED TO MEET MINIMUM SIZE AND LIQUIDITY CRITERIA.

Barclays US Aggregate Bond Index: A BENCHMARK INDEX MADE UP OF THE BARCLAYS GOVERNMENT/CORPORATE BOND INDEX, MORTGAGE-BACKED SECURITIES INDEX, AND ASSET-BACKED SECURITIES INDEX, INCLUDING SECURITIES THAT ARE OF INVESTMENT-GRADE QUALITY OR BETTER, HAVE AT LEAST ONE YEAR TO MATURITY, AND HAVE AN OUTSTANDING PAR VALUE OF AT LEAST $100 MILLION.
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Barclays Global Aggregate Index: THE GLOBAL AGGREGATE INDEX PROVIDES A BROAD-BASED MEASURE OF THE GLOBAL INVESTMENT-GRADE FIXED-RATE DEBT MARKETS. IT CONTAINS THREE MAJOR COMPONENTS: THE US AGGREGATE INDEX (USD 300 MILLION), THE PAN-EUROPEAN AGGREGATE INDEX (EUR 300 MILLION), AND THE ASIAN-PACIFIC AGGREGATE INDEX (JPY 35 BILLION). IN ADDITION TO SECURITIES FROM THESE THREE BENCHMARKS (94.9% OF THE OVERALL GLOBAL AGGREGATE MARKET VALUE), THE GLOBAL AGGREGATE INDEX INCLUDES GLOBAL TREASURY, EURODOLLAR (USD 300 MILLION), EURO-YEN (JPY 35 BILLION), CANADIAN (USD 300 MILLION EQUIVALENT), AND INVESTMENT-GRADE 144A (USD 300 MILLION) INDEX-ELIGIBLE SECURITIES NOT ALREADY IN THE THREE REGIONAL AGGREGATE INDICES.
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CS Leveraged Loan Index: THE CREDIT SUISSE ("CS") LEVERAGED LOAN ("LL") IS AN INDEX DESIGNED TO MIRROR THE INVESTABLE UNIVERSE OF THE $US-DENOMINATED LEVERAGED LOAN MARKET. THE FREQUENCY IS MONTHLY. NEW LOANS ARE ADDED TO THE INDEX ON THEIR EFFECTIVE DATE IF THEY QUALIFY ACCORDING TO THE FOLLOWING CRITERIA: LOANS MUST BE RATED "5B" OR LOWER; ONLY FULLY-FUNDED TERM LOANS ARE INCLUDED; THE TENOR MUST BE AT LEAST ONE YEAR; AND THE ISSUERS MUST BE DOMICILED IN DEELOPED COUNTRIES. FALLEN ANGELS ARE ADDED TO THE INDEX SUBJECT TO THE NEW LOAN CRITERIA. LOANS ARE REMOVED FROM THE INDEX WHEN THEY ARE UPGRADED TO INVESTMENT GRADE, OR WHEN THEY EXIT THE MARKET (FOR EXAMPLE, AT MATURITY, REFINANCING OR BANKRUPTCY WORKOUT). NOTES THAT ISSUERS REMAIN THE INDEX FOLLOWING DEFAULT. TOTAL RETURN OF THE INDEX IS THE SUM OF THREE COMPONENTS: PRINCIPAL, INTEREST, AND REINVESTMENT RETURN. THE CUMULATIVE RETURN ASSUMES THAT COUPON PAYMENTS ARE REINVESTED INTO THE INDEX AT THE BEGINNING OF EACH PERIOD.
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BofA MLUS Cash Pay High Yield Index: THE BOF A ML US CASH PAY HIGH YIELD INDEX TRACKS FIXED-RATE, COUPON-BEARING BONDS WITH AN OUTSTANDING PAR THAT IS GREATER OR EQUAL TO $100 MILLION, A MATURITY RANGE GREATER THAN ONE YEAR, AND A RATING LESS THAN BBB/Baa3 RATED, BUT NOT IN DEFAULT. THE CASH PAY ONLY INDEX EXCLUDES PAY-IN-KIND BONDS AND DEFERRED INTEREST BONDS THAT ARE NOT YET ACCRUING A COUPON.

JPM EMBI Global Index: THE J.P. MORGAN EMERGING MARKETS BOND INDEX GLOBAL ("EMBI GLOBAL") TRACKS TOTAL RETURN FOR TRADED EXTERNAL DEBT INSTRUMENTS IN THE EMERGING MARKETS. IT INCLUDES U.S. DOLLAR-DENOMINATED BRADY BONDS, OANS, AND EUROBONDS WITH AN OUTSTANDING FACE VALUE OF AT LEAST $500 MILLION.

Tertiary Market Opportunities in Infrastructure/Commercial Real Estate: ALL OTHER US STATES NOT INCLUDED IN MAJOR METROPOLITAN AREAS AND SECONDARY MARKETS.