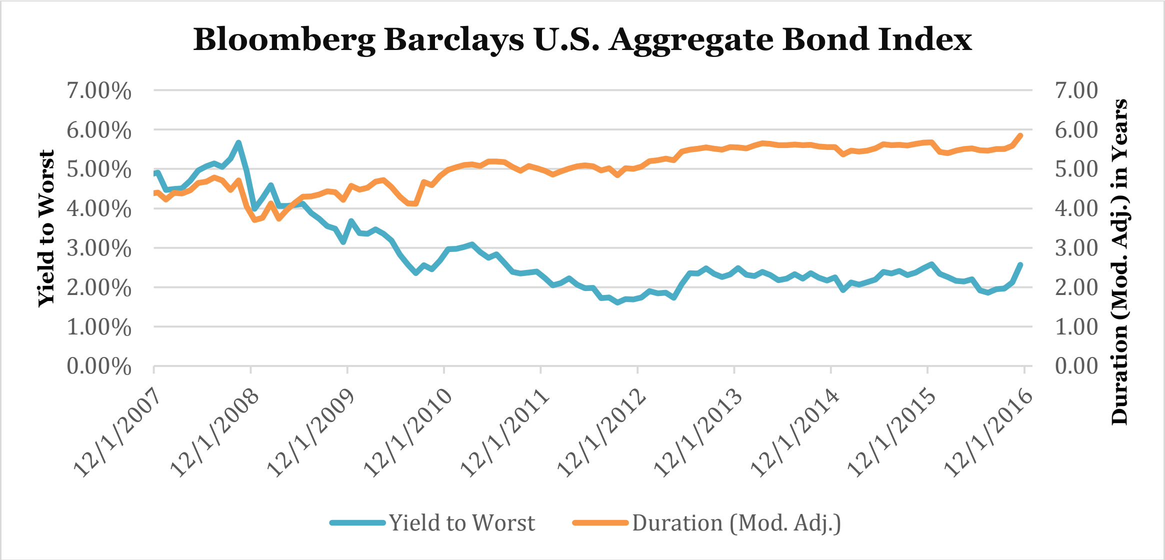
The Benefit of Diversification in Fixed Income

The fourth quarter of 2016 logged the worst quarter for bonds in over 35 years. For the quarter, the Bloomberg Barclays U.S. Aggregate Bond Index fell about 3% and the yield on the 10-year Treasury bond rose nearly a whole percentage point. While these numbers may sound small, assuming yields remain in the same range, it could take a bond investor over a year to make up this loss.

There have been several factors pushing rates higher. The Trump administration has indicated that it would like to increase monetary spending, decrease tax rates and relax regulations. These policies have the potential to spur growth which could lead to more inflation and tighter monetary policies. The sharp jump in yields was driven by these inflation expectations. In addition to these domestic factors, there are also international factors driving down demand for Treasurys and pushing their yields higher. It is expected that the Bank of Japan and the European Central Bank will reduce their expansionary monetary policies, which may cause their bond yields to rise as they buy fewer bonds. Also, the yield advantage for foreign buyers, who had been buying U.S. Treasurys and hedging the currency risk in a search for yield, has dissipated as it has become increasingly expensive to hedge this currency risk. Lastly, central banks in emerging markets have been selling Treasurys and using the proceeds to support their currencies.

Since the financial crisis of 2008, the issuance of longer-dated Treasurys has extended the duration of many market-cap-weighted bond benchmarks like the Bloomberg Barclays Aggregate Bond Index. This has further exacerbated the risk of rising yields or falling bond prices. The duration, a measure of the sensitivity to interest rate movements, has extended from under 4.5 years to close to 6 years. Compounding the problem, the yield-to-worst has fallen from around 5% to 2.5%, indicating that interest rate risk has increased while return potential has decreased.

Chart 1



Source: Franklin Templeton Investments

Given these concerns, why invest in fixed income at all? While rates are expected to rise and thus bond prices are expected to fall, the timing is often tough to predict. Rates have been expected to rise for a long time, but have not until recently. Not owning bonds could increase the volatility of an overall portfolio. Also, rates are expected to increase gradually over a period of years. The gradual rise in rates would allow the yield to cover loss of principal. Fixed income remains one of the few asset classes that is consistently uncorrelated or even negatively correlated with equities.

When equity markets sold off in 2008, bonds with sensitivity to duration were positive. In fact, high quality bonds were one of the only asset classes that finished positive that year. The S&P 500 lost 37% and the Bloomberg Barclays U.S. Aggregate Bond Index was up 5.24%. Investment grade fixed income volatility is generally much lower than equity volatility.

So, how can fixed income investors avoid large losses when interest rates rise? The answer may lie in diversification. By adding less correlated fixed income strategies together, it could be possible to smooth returns, possibly even increasing return with less risk. Investors usually think of diversification within a broader sense, such as equity, fixed income and cash. However, one can also be diversified within fixed income in a number of ways. Fixed income investors can diversify by sectors and subsectors, credit quality, country, inflation protection, duration, the yield curve and currencies. Many multi-sector or nontraditional bond managers aim to accomplish this diversification. (It's important to note that diversification does not guarantee a profit or protect against loss.)

Periodic investment tables are often used to illustrate the power of diversification in asset classes, equity sectors or market capitalization, but are used less often for fixed income. Chart 2 is a periodic table showing calendar year returns for different risk factors in fixed income. One can see the benefits of diversifying among these factors. For instance, when yields rose in 2013, duration-sensitive bonds fell, while credit-sensitive bonds were up. Conversely, when credit-sensitive bonds fell in 2008, bonds with more duration were positive.

Chart 2[1]

Fixed Income Calendar Year Performance

2007	2008	2009	2010	2011	2012	2013	2014	2015	2016
10.94	24.02	58.21	15.12	29.93	18.54	7.44	25.07	1.23	17.13
9.81	9.43	51.62	12.04	8.46	15.81	5.29	5.97	0.56	10.19
7.31	6.67	28.18	10.13	7.84	9.66	0.36	5.53	0.55	10.16
6.97	5.24	5.93	9.38	5.24	4.21	-2.02	2.45	-0.69	2.65
6.28	-10.91	4.35	6.54	4.98	3.56	-4.88	1.60	-1.21	1.87
2.08	-26.16	0.80	6.12	1.55	1.77	-6.58	0.63	-4.47	1.33
1.87	-29.10	-12.92	2.40	1.52	0.43	-12.66	-2.77	-4.84	0.86

Short Duration	Below Investment Grade	International Bonds
Aggregate Bond Index	Floating Rate Loans	Emerging Market Bonds
Long Duration		

Source:Morningstar

1. See Appendix for fixed income category descriptions

At a more granular level, we could take a sector like below-investment-grade, otherwise known as high-yield bonds, and break it down by economic sector or by credit quality. Chart 3 on the next page is an illustration of the high yield sector broken down by credit quality. Lower grade CCC-rated bonds had a rough year in 2015, but they have rebounded in 2016. Some managers like to invest more in lower grade issues, while some like to invest in higher grade BB issues, and other managers rotate between these ratings. It is important to be familiar with high yield managers' biases when picking a fund, as the differences in returns from BB-rated bonds to CCC-rated bonds can be dramatic. There are many different opportunities for diversification within fixed income. It is a larger and more complex universe than many realize.

Chart 3

Bloomberg Barclays U.S. High Yield 2% Issuer Cap Index Quarterly Returns by Credit Quality

2013				2014				2015				2016		
1Q	2Q	3Q	4Q	1Q	2Q	3Q	4Q	1Q	2Q	3Q	4Q	1Q	2Q	3Q
CCC 5.79	CCC -0.47	CCC 3.67	CCC 4.27	CCC 3.31	BB 2.66	BB -1.34	BB 0.90	BB 2.69	CCC 0.49	BB -3.10	BB -0.15	BB 3.86	CCC 11.83	CCC 8.20
B 2.73	B -1.49	B 2.33	B 3.57	BB 3.11	CCC 2.42	B -1.85	B -1.51	B 2.63	B 0.37	B -5.56	B -1.97	CCC 3.76	B 4.83	B 5.70
BB 1.96	BB -1.87	BB 1.77	BB 3.16	B 2.74	B 2.18	CCC -2.74	CCC -3.91	CCC 2.01	BB -0.37	CCC -7.29	CCC -7.51	B 2.46	BB 3.60	BB 4.36

Source: Federated Investors, Inc.

Balancing risk factors is important, since too much duration risk could leave a portfolio susceptible to rising interest rates, while too much credit risk could cause the fixed income part of the portfolio to correlate with equities. We currently recommend a shorter-than-benchmark duration with an overweight to credit, which can be achieved in several ways. One example would be to invest in a core bond fund and a short duration bond fund with a tilt to credit, coupled with a high yield bond fund. Another approach to building a diversified fixed income portfolio might entail adding a floating rate fund — which generally carries below investment grade credit risk with little to no duration — to a core fixed income portfolio.

One could also invest in a core bond fund along with an unconstrained offering such as a multi-sector or nontraditional bond fund. These more unconstrained bond funds try to navigate the fixed income universe, usually adjusting some or all of the factors discussed earlier; factors such as sectors and subsectors, credit quality, country , inflation protection, duration, the yield curve and currencies. In doing so, the more nontraditional funds tend to aim for absolute returns or a certain return over cash, while other more multi-sector focused funds aim to rotate sectors depending on the credit cycle. Both types of funds try to be more dynamic than traditional bond funds and attempt to avoid some of the pitfalls seen in more traditional funds, like the effect of rising rates or increasing inflation. Every unconstrained bond fund addresses these risk factors differently, so it is important to understand the flexibility of each fund's mandate and the options available to the portfolio manager - some strategies are more active in managing duration risk while others focus more on rotating sectors.

While rates may continue to rise, we still recommend an allocation to fixed income. Fixed income can provide a hedge against equity volatility and reduce overall volatility in a portfolio. To help mitigate the risk of rising rates, we recommend diversifying the previously mentioned bond factors while keeping long term risk and return objectives in mind.

This report is created by Tower Square Investment Management LLC

Appendix

Short Duration	BBgBarc Treasury 1-3 Yr TR USD
Long Duration	BBgBarc Long Term US Treasury TR USD
Below Investment Grade	BBgBarc US Corporate High Yield TR USD
Aggregate Bond Index	BBgBarc US Agg Bond TR USD
Floating Rate Loans	S&P/LSTA Leveraged Loan TR
International Bonds	BBgBarc Global Treasury Ex US TR USD
Emerging Market Bonds	JPM EMBI Global TR USD

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While diversification may help reduce volatility and risk, it does not guarantee future performance.

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Glossary

The ***Bloomberg Barclays Treasury 1-3 Year Index*** *consists of public US Treasury obligations with remaining maturities of one to three years.*

The ***Bloomberg Barclays US Long Treasury Index*** *measures the performance of US dollar-denominated, fixed-rate, nominal debt issued by the US Treasury with a maturity greater than 10 years. STRIPS are excluded from the index because their inclusion would result in double-counting. The US Treasury Index is a component of the US Aggregate, US Universal, Global Aggregate and Global Treasury Indices. The US Treasury Index was launched on January 1, 1973.*

The ***Bloomberg Barclays U.S. Corporate High Yield Index*** *measures the market of USD-denominated, non-investment grade, fixed-rate, taxable corporate bonds. Securities are classified as high yield if the middle rating of Moody's, Fitch, and S&P is Ba1/BB+/BB+ or below, excluding emerging market debt.*

The ***Bloomberg Barclays Capital U.S. Aggregate Bond Index****, which was originally called the Lehman Aggregate Bond Index, is a broad based flagship benchmark that measures the investment grade, US dollar-denominated, fixed-rate taxable bond market. The index includes Treasuries, government–related and corporate debt securities, MBS (agency fixed-rate and hybrid ARM pass-throughs), ABS and CMBS (agency and non-agency) debt securities that are rated at least Baa3 by Moody's and BBB- by S&P. Taxable municipals, including Build America bonds and a small amount of foreign bonds traded in U.S. markets are also included. Eligible bonds must have at least one year until final maturity, but in practice the index holdings has a fluctuating average life of around 8.25 years. This total return index, created in 1986 with history backfilled to January 1, 1976, is unhedged and rebalances monthly.*

The ***S&P/LSTA Leveraged Loan Index*** *(LLI) reflects the market-weighted performance of U.S. dollar-denominated institutional leveraged loan portfolios.*

The ***Bloomberg Barclays Capital Global Treasury Ex-US Index*** *includes government bonds issued by investment-grade countries outside the United States, in local currencies, that have a remaining maturity of one year or more and are rated investment grade.*

The **J.P. Morgan Emerging Markets Bond Index** Global Diversified tracks total returns for U.S. dollar-denominated debt instruments issued by emerging market sovereign and quasi-sovereign entities: Brady bonds, loans, Eurobonds. The diversified index limits the exposure of some of the larger countries.

The ***S&P 500*** *is an index of 500 stocks chosen for market size, liquidity and industry grouping (among other factors) designed to be a leading indicator of U.S. equities and is meant to reflect the risk/return characteristics of the large cap universe.*