CASE STUDY

Diversifying Fixed Income Exposure with Non-Traditional Income

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INTRODUCTION

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Michael is an experienced financial professional having worked in various portfolio management, operations management, and trust officer roles.

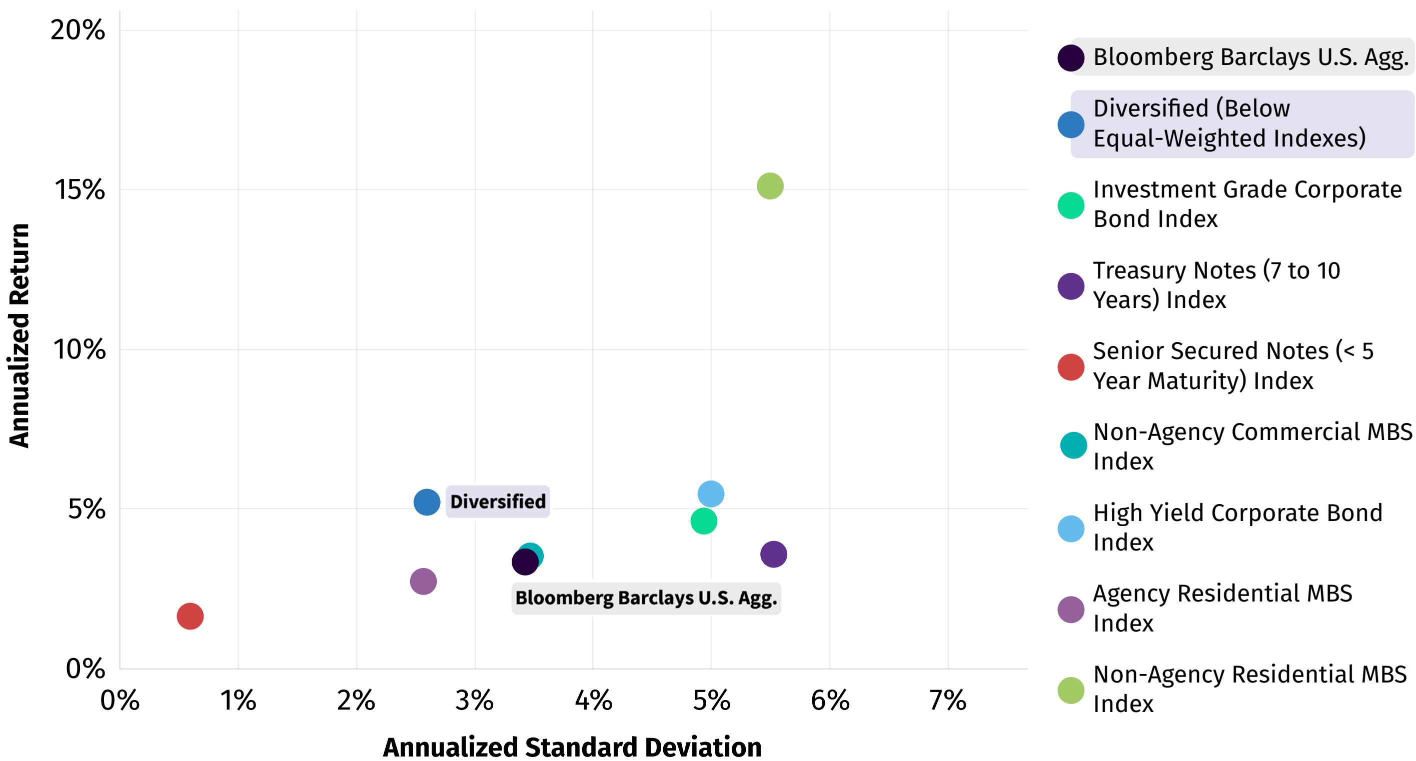
Many bond portfolios consist of investments that replicate the Bloomberg Barclays U.S. Aggregate Bond Index (the "Agg"), which does not include about two-thirds of the investable fixed income space. These bond portfolios leave many investors under-exposed to the broader fixed income universe and with concentrated risk exposure to rising interest rates. By diversifying from a bond portfolio that replicates the Agg to a diversified fixed income portfolio, investors would have historically recognized a higher yield to better meet their cash flow needs. Moreover, since the end of 2012, the combination of many fixed income indexes historically demonstrated higher returns and lower risk than the Agg.

In this case study, we start by presenting the performance characteristics of various fixed income assets class indexes and a diversified portfolio of those asset classes. By comparing these to the Agg, we demonstrate the historical benefits diversification had for fixed income. We then analyze the risks that Agg-like investors are taking in today's environment and explain how a non-traditional income approach can help mitigate some of these risks.

A diversified portfolio offers more favorable characteristics than a traditional fixed income portfolio.
Daily Return Data (12/31/2012 to 8/31/2020)

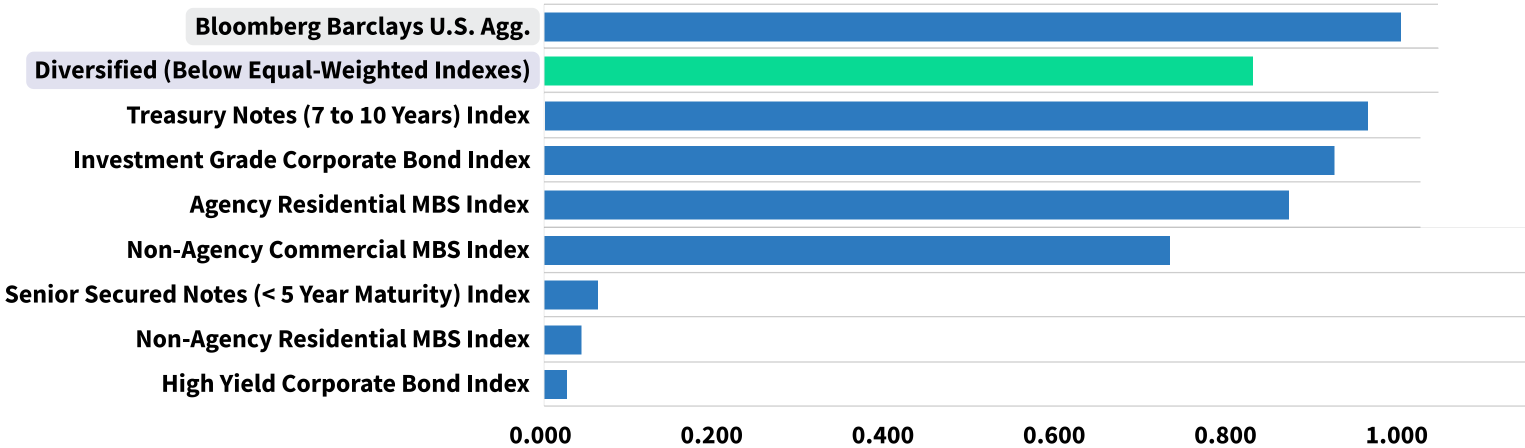
Index	Annualized Return	Volatility	Return/Risk	Worst Drawdown	Correlation to Agg
Bloomberg Barclays U.S. Agg.	3.37%	3.42%	0.98	-6.30%	1.000
Diversified (Below Equal-Weighted Indexes)	5.24%	2.59%	2.02	-9.88%	0.827
Investment Grade Corporate Bond Index	4.65%	4.93%	0.94	-15.44%	0.922
Treasury Notes (7 to 10 Years) Index	3.61%	5.52%	0.65	-8.87%	0.961
Senior Secured Notes (< 5 Year Maturity) Index	1.67%	0.59%	2.84	-4.13%	0.062
Non-Agency Commercial MBS Index	3.47%	3.44%	1.01	-11.52%	0.730
High Yield Corporate Bond Index	5.50%	4.99%	1.10	-20.78%	0.026
Agency Residential MBS Index	2.76%	2.56%	1.08	-4.05%	0.869
Non-Agency Residential MBS Index	15.14%	5.49%	2.76	-23.05%	0.043

Historically, a diversified fixed income portfolio exhibits a favorable risk/return tradeoff compared to the AGG and AGG-like investments.



Correlation of Various Fixed Income Asset Class Indexes to the Agg

A diversified fixed income portfolio has demonstrated a meaningful reduction in correlation to the Agg.



Despite other fixed income assets classes generating higher returns and far better risk-adjusted returns, Agg-like portfolios have appealed to many investors largely because of the perception that they are diversified and deliver stable returns as a result of strong performance during a period of interest rates reaching historical lows. However, in today's environment, the Agg offers only a 1.15% yield and exhibits an effective duration of almost six years, meaning that for a 1% increase in interest rates, investors can expect to see a 6% decline in the value of their bond portfolios.

Many fixed income asset classes that fall outside the investment universe of the Agg offer investors the potential to diversify their risk exposure, as highlighted in the table to the right.

Another potential disadvantage of Agg-like portfolios is the absence of active management. In many cases, a non-traditional approach to fixed income can provide investors with significant value, such as higher returns and/or higher yields than the asset class benchmark. Consider the following examples.

Investors in Agg-like bond portfolios are highly exposed to interest rate risk for a limited yield of 1.15%.

Index	A Primary Risk Consideration
Investment Grade Corporate Bond Index	Interest Rate
Treasury Notes (7 to 10 Years) Index	Interest Rate
Senior Secured Notes (< 5 Year Maturity) Index	Credit
Non-Agency Commercial MBS Index	Commercial Real Estate
High Yield Corporate Bond Index	Credit
Agency Residential MBS Index	Interest Rate
Non-Agency Residential MBS Index	Home Prices

Seasoned, Non-Agency Residential Mortgage Bonds

Mortgage bonds are a compelling diversifier because they tend to have limited exposure to the traditional fixed income risk factors: interest rates and credit. Seasoned non-agency residential mortgage-backed securities (RMBS), or legacy mortgage bonds, were bonds issued prior to the financial crisis. The mortgages backing these bonds survived one of the worst housing markets in history. These homeowners have significant equity in their homes today. When compared to newly issued mortgage bonds, these bonds are attractive because they often offer a higher yield with higher return potential. They also do not carry the risk of newly issued mortgage bonds. The newly issued mortgage bonds are backed by mortgages with limited home equity and mortgages that have yet to be tested in a crisis.

Senior Secured Notes

Senior secured notes often offer higher yields and better return potential than traditional bonds. There are many perceptions that are just not accurate about the asset class, and this creates an opportunity for investors. For example, if a company with senior secured notes and AAA investment grade bonds were to go bankrupt, who gets paid first? The senior secured notes get paid first. Many investors also believe that these floating rate notes only do well in a rising rate environment. However, they deliver relatively consistent returns in rising, flat, and declining interest rate environments.

Hedged Agency Residential Mortgage Bonds

Agency residential mortgage-backed securities are backed by government agencies yet offer higher yields than Treasury securities. The asset class also has a higher yield than the Agg with significantly less volatility. The active derivative market in the agency mortgage bond space allows skilled managers to both hedge various risks while also potentially enhancing returns and improving yields.

Actively Managed, Short Duration Fixed Income

An actively managed approach to investment grade corporate bonds also offers the potential to generate higher returns with less interest rate risk. One approach is to focus on short-duration bonds that are further down the investment grade spectrum. A skilled active manager can offset the incremental credit risk by looking for factors such as companies having significantly more current assets than liabilities. The result for investors is a portfolio that can generate a much higher yield than the Agg while significantly reducing the potential interest rate risk that the Agg carries.

Important Risk Considerations

Please note that diversification does not assure a profit or protect against loss in a declining market.

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The referenced indices are shown for general market comparisons and are not meant to represent any fund. Investors cannot directly invest in an index; unmanaged index returns do not reflect any fees, expenses or sales charges. Source: Bloomberg LP.

Investment Grade Corporate Bond Index is the Bloomberg Barclays US Corporate Investment Grade USD TR Index, which measures the investment grade, fixed-rate, taxable corporate bond market. Treasury Notes (7 to 10 Years) Index is the Bloomberg Barclays US Treasury: 7-10 Year Index, which measures US dollar-denominated, fixed-rate, nominal debt issued by the US Treasury with 7-9.9999 years to maturity. Agency Residential MBS Index is the Bloomberg Barclays US MBS Index Total Return, which tracks fixed-rate agency mortgage backed pass-through securities guaranteed by Ginnie Mae (GNMA), Fannie Mae (FNMA), and Freddie Mac (FHLMC). High Yield Corporate Bond Index is the Bloomberg Barclays US Corporate High Yield TR, which measures the USD-denominated, high yield, fixed-rate corporate bond market. Senior Secured Notes < 5 Years Index is the Bloomberg Barclays US FRN <5 Years Index, which is a subset of the US Floating-Rate Note (FRN) Index, which measures the performance of USD denominated, investment-grade, floating-rate notes across corporate and government-related sectors. This index has a maximum maturity of 4.9999 years and is not part of the US Aggregate Index, which is a fixed rate index. Non-Agency RMBS Index is the Markit iBoxx Broad US Non-Agency RMBS USD Index, which tracks the non-agency RMBS market. Non-Agency Commercial MBS Index is the Bloomberg Barclays Non-Agency CMBS TR Index, which tracks the non-agency commercial MBS market. "Diversified" is an equal weighted index rebalanced daily of all non-Agg indexes.