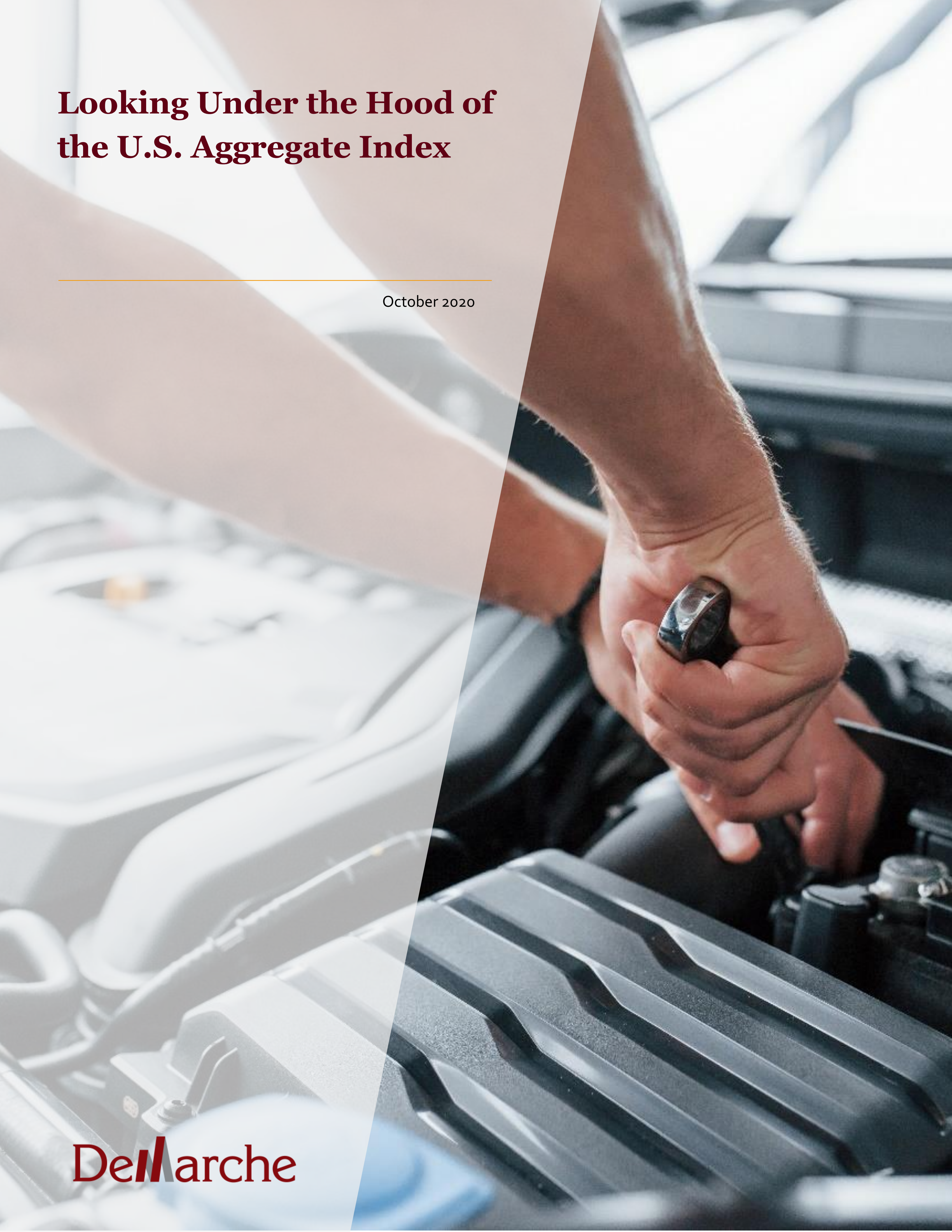

Looking Under the Hood of the U.S. Aggregate Index

October 2020

DeMarche

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Put Research To Work

with the DeMarche Team

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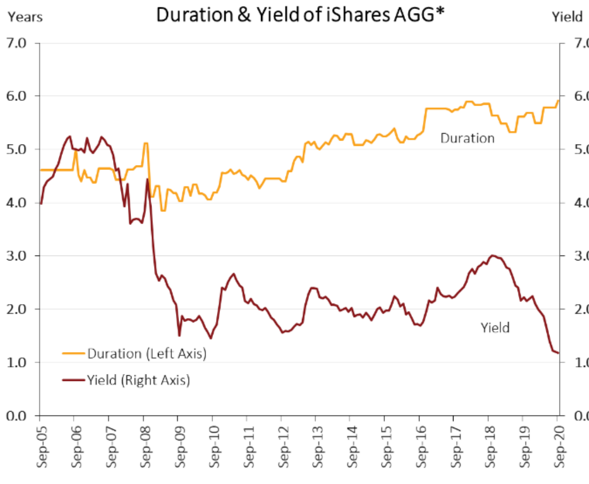
The Holy Grail of investing is to establish a diversified portfolio that is also able to meet return objectives. In the simplest terms, this means to identify assets that react to the same market conditions differently, creating a portfolio return that is significant and less volatile over time. Historically, this was accomplished by combining equity investments and fixed income investments in a single portfolio.

Recent History of Fixed Income

Fixed income investments have been a very important part of portfolio diversification, and in 1984, Lehman Brothers created the Lehman Aggregate Bond index to provide a comprehensive view of the U.S. bond market. During the GFC, this index was maintained by Barclays and then in 2016 the index was acquired by Bloomberg and rebranded. It is now known as the Bloomberg Barclays U.S. Aggregate Bond Index (the Agg). There are three main sleeves of assets included in the Agg —i) Corporate Debt, ii) Government Debt, iii) Securitized Debt. Each category can be broken down, Corporates by company sector, Government further into Treasuries and other government related issues, and Securitized into mortgage-backed securities (residential and commercial) and asset-backed securities. All of the securities in the Agg must be investment grade, have an outstanding value of $100 million, and a year or more left until maturity. The Agg is a market cap weighted, meaning each bond's position in the index is based on the relative issue size against the broader market.

The market capitalization method allows the benchmark to reflect the current market conditions and provide flexibility over time. This can be viewed as a positive thing because the benchmark is not only a representative sample of the investment grade universe, but it also means characteristics of the Agg will likely change over time. This has actually been observed over recent periods, and the common benchmark is different than it used to be. It might even be different from when an investment plan and assumptions were made. We plan to call attention to some of the emerging risks that have grown in an area that many investors perceive to be the safest portion of their portfolio. This will include a deeper dive into changes in the U.S. bond market's duration, yield, credit quality, and sector allocations.

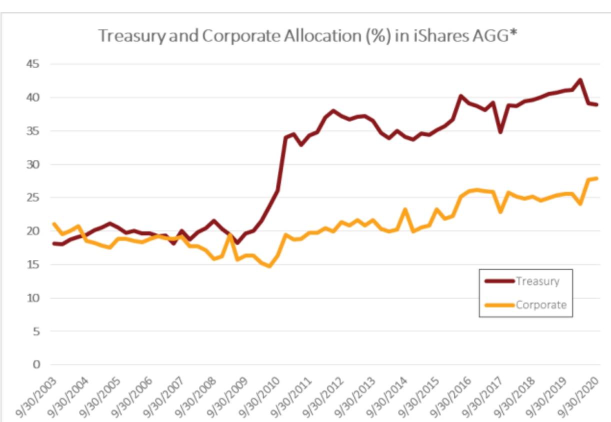
Exhibit 1



*Source: Morningstar Direct, iShares AGG. *Data are net of fees and expenses of the ETF.*

What is Duration? *This is the measure of a bond's sensitivity to changes in interest rates. Duration is measured in years. Therefore, the longer the duration, the greater the volatility will be to a change in interest rates.*

Exhibit 2



*Source: Morningstar Direct, iShares AGG. *Data are net of fees and expenses of the ETF.*

The Interaction of Yields and Duration

The decreasing yield and increasing duration of the Agg has been no secret, but how many investors truly understand how those changes will impact their portfolio? Yield has historically been an important driver in return for investment grade fixed income, and the current era of low rates has made the outlook for the Agg quite bleak. Speaking only in terms of return, plan sponsors and investment committees may need to go elsewhere in order to meet broader overall return expectations.

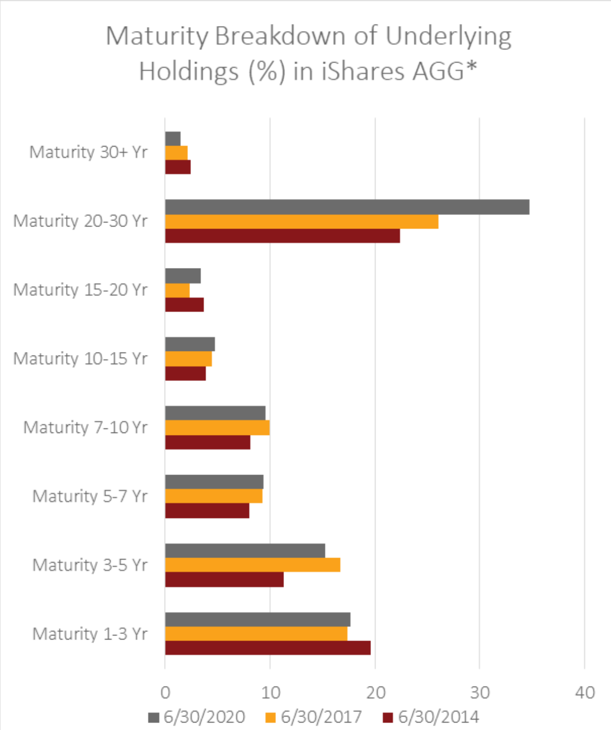
Mathematically speaking, lower yields also translate to longer duration because more weight is given to the terminal cash flow of the bond maturing. In addition to this fact, borrowers are seeking to lock in low rates for longer periods by issuing longer maturity bonds, further adding to the duration issue. Why is long duration an issue? Duration can be defined as interest rate risk for a bond/portfolio. A quote from fund manager Bill Gross shows the power duration can have:

> *A 30-year Treasury at 2.5 percent can wipe out your annual income in one day with a 10 basis point increase.*

Over the past twenty years, and especially the last ten, return expectations have decreased while interest rate risk has gone up, the exact opposite of what any investor wants (Exhibit 1). With the Federal Reserve holding steady and maintaining rates around zero, it would appear that interest rates can only go up from here.

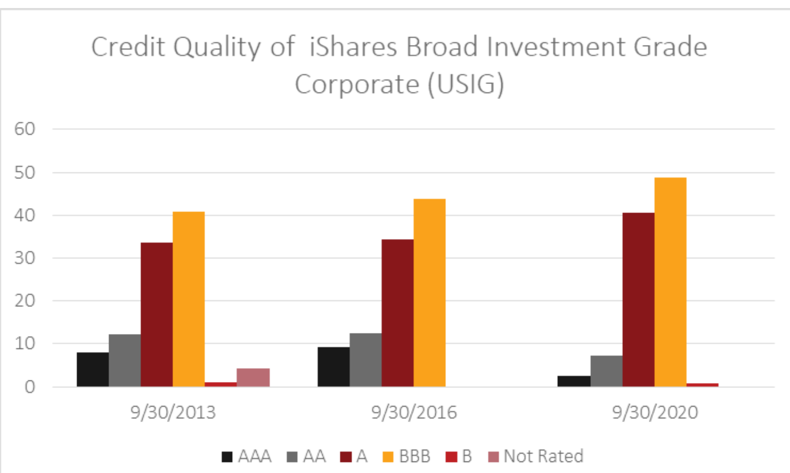
While the Fed has signaled that low rates could stick around for several years to come, they also are not afraid to take action when they view it to be appropriate. When this time comes, it may be a stronger headwind for the Agg than other historical rising rate environments given that the starting point is near zero. On the other side of that coin, ***there has been an artificial floor deployed by the Fed—zero.*** Other central banks have shown a willingness to let short term rates be negative in 2020. The Fed not following their peers in this regard may be unintentionally hurting the diversification benefit of investing in the Agg. As a reminder, bonds often appreciate when interest rates/yields move lower. With the Fed keeping rates in the black, there is hardly any room for rates to go lower and provide the same degree of diversification that has historically existed. Should their stance change, yields would have more room to move lower and provide appreciation. But as we alluded to earlier, lower yields mean longer duration and more interest rate risk, which can presently be observed in some of the non-us fixed income benchmarks; the Bloomberg Barclays' Global Aggregate duration is over 7 years and the European Aggregate about 7.5 years, whereas the U.S. Aggregate's duration is roughly 6 years.

Exhibit 3



Source: Morningstar Direct, iShares AGG.
**Data are net of fees and expenses of the ETF.*

Exhibit 4



Changing Sector Dynamics

It should be noted that fixed income benchmarks are potentially more affected by policy decisions, both in the form of traditional monetary and fiscal policy, as well as quantitative easing (QE) and regulatory action, than other asset classes. The Agg is a market weighted index and because QE and other fiscal plans have to be funded, the weighting of the Government Debt sleeve has increased over the last ten years as a proportion of the index. Due to Government Debt being largely viewed as the risk free rate and the starting point for pricing riskier bonds in the market, its move towards lower yields and longer maturities has negatively impacted the future prospects of the broader asset class.

Another topic which has widely been discussed by economists, investors, and DeMarche, is the growing level of corporate debt in the United States. Companies are refinancing and issuing new debt, locking in low interest rates (with longer maturities) and adding leverage at higher levels than in the past. A large portion of these companies have a credit rating below AA as presented in Exhibit 4, which shows the credit risk involved in corporate bond investing. BBB rated bonds are the largest portion of the corporate bond market and just recently grew to represent 10% of the U.S. Aggregate Index. DeMarche's January white paper on ***Fallen Angel Risk*** discussed the risk of BBB rated corporate bonds being downgraded, falling out of the investment grade universe, and becoming ineligible for inclusion in the Agg. Add on a global pandemic to that starting point and the risk of a potential wave of downgrades becomes even more apparent. To date, the Fed has provided a backstop, but they can't do this forever. The growing weight of BBB bonds in the Agg bolsters the case for active management of fixed income portfolios. Active management opens the door to a more thoughtful approach to addressing the imbedded credit and interest rate risks present in the fixed income market.

With the massive increase in issuance of both corporate and government debt, the Securitized sleeve (including Mortgage Backed and Asset Backed Securities) has become a smaller proportion of the Agg, thus decreasing their role in diversifying the Index itself. The characteristics and expectations of each sector have their own unique attributes and ultimately these variations will have a profound effect on the Index going forward. Over the past ten years, the low interest rate environment led to robust refinancing activity, which has a direct impact on the MBS market. Prepayments have historically been a detractor to performance in mortgage backed instruments, but will this level of refinancing continue? The answer might not be clear, but it is very apparent that the index will continue to evolve.

Conclusion

It is always advisable to periodically conduct asset allocation studies, assess risk tolerances, expectations, and required return needs. While the U.S. Aggregate may have historically been viewed as a core and stable component of diversified portfolios, as it should be, it also deserves the same scrutiny as other asset classes during these discussions because it too has changed. Fixed Income investments have been a very important part of the diversified investment portfolio in the past and we expect the same going forward, <u>but it just might look a little different.</u> It is incumbent on plan sponsors to understand the changing landscape and to act when necessary. DeMarche's research and consulting teams are here to answer your questions and help plan sponsors understand the impact of evolving markets on their portfolios.

Sources Utilized:

- *Morningstar Direct*
- *Diamond Hill*
- *Fidelity*
- *Disclosure: The ETF's referenced during this paper may use representative sampling and not reflect the exact characteristics of the underlying index.*