April 2017

Passive Investing is <u>Not</u> a Passive Exercise

- Passive investing is <u>not</u> a passive exercise.
- The market, and the index investments that seek to replicate the market, are constantly evolving in response to changing market dynamics.
- We believe skill and diligence are just as critical for the passive investor as they are for the active investor.

We have written at great lengths about the benefits of both active and passive investing. As users of both, we advocate for a thoughtful mix of both for our clients. However, we want to make clear that passive investing is not a passive exercise. As with all components of investing, due diligence and care are required to manage risk prudently. In light of the Federal Open Markets Committee's recent action to increase interest rates, we'll use U.S. investment-grade bonds as an illustration for the need of active diligence with passive investing. While there are numerous other risks that investors should consider when investing in fixed income securities, for the purposes of this illustration we will narrow our focus to interest rate risk, otherwise known as duration.

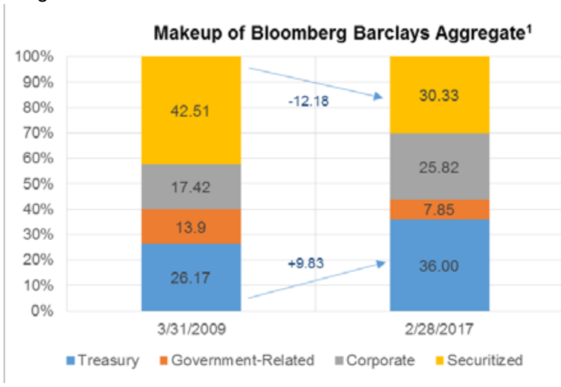
Figure 1.

	Duration (yrs)	Price Impact from 1% Increase in Interset Rates (%)
Bond A	5	-5.0
Bond B	1	-1.0

For those who are not familiar with bond math, duration is simply the sensitivity of a bond's price to changes in interest rates. Prevailing interest rates are an important component to bond prices and as interest rates go up, bond prices will fall all, else equal. Duration is expressed in years and is the numerical calculation of that sensitivity. For example, we have provided two hypothetical bonds in Figure 1. Bond A has a 5 year duration and Bond B has a 1 year duration. If interest rates were to move up by 1%, Bond A's price would fall by approximately 5% while Bond B's price would fall by approximately 1%. Said another way, Bond A has five times the sensitivity to a change in interest rates than Bond B. The inverse would also be true if interest rates fell, Bond A would appreciate by approximately five times more than Bond B.

So why does this matter to my passive portfolio? Because owning passive investments does not necessitate a passive stance on risk. To demonstrate this we, will dig deeper into the Bloomberg Barclays Aggregate (the Agg), one of the most common bond indexes in the market. As is the case with all passive investing, the investment seeks to replicate an index as closely as possible with little, if any, deviation from the index. The index itself is constructed mechanically based on an established set of rules. Indexes have no opinion on risk or return, they simply take what the market provides. This aligns with what passive investors are seeking, they want to buy "the market" at as low a cost as possible. The Agg is no exception to this.

Figure 2.



1. Barclays Point

The trick here however, is that the market is not static. It is changing, repricing and moving all the time. This means risk and return are continually shifting as well. These shifts in the last number of years for the Agg in particular have been meaningful since the financial crisis for several reasons. Low interest rates, accommodative monetary policy from the Federal Reserve and new legislation have all come together to shift the complexion of the market. As a result, the index has performed exactly as designed and mirrored the changes in the market place. In Figure 2, you can see sectors represented in the index have changed meaningfully. Since March 31, 2009 (near the bottom of the financial crisis), Treasury issuance and bonds outstanding have risen materially. Over the same time period securitized securities have lost a considerable amount of market share.

As these sectors have shifted, the overall risk and return profile of the Agg has also shifted. The Agg you bought in March 2009 is not the same as the one you own today. Figure 3 displays the historical duration of the index since the financial crisis. The duration of the Agg index has increased by 58%. Said another way, the Agg today is 58% more sensitive to interest rates than it was 7 years ago.

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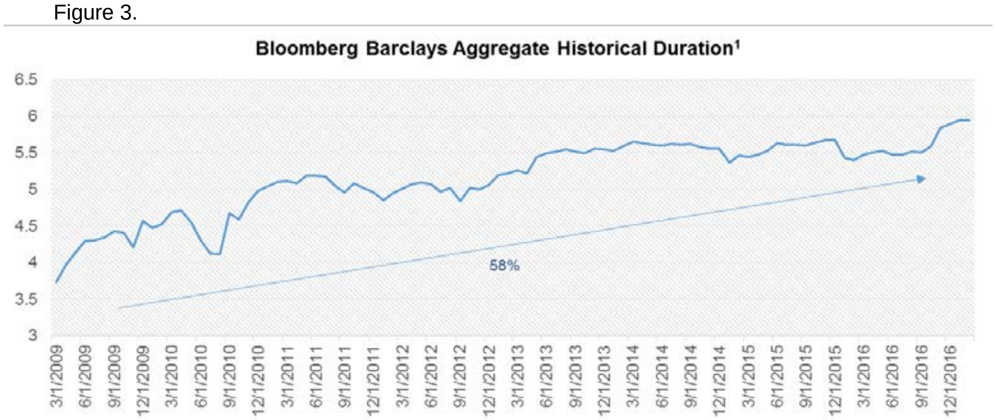

1. Barclays Point

Back to our hypothetical examples, an investor that bought the Agg in March of 2009 signed on for a duration of 3.7 years. If that same investor holds the index today they have, perhaps unknowingly, signed up for a duration of 5.9 years. The risks as shown in Figure 4 can be markedly different.

We are not making the claim the Agg is not a prudent investment or that passive investing is broken. As mentioned before, we believe passive investments can often be the prudent choice. However, we firmly believe there is no excuse for passive diligence, execution and monitoring with passive investments. The shift in the Agg's duration is just one example of why investors need to employ a diligent process to select and monitor investments in their portfolios and not make passive investing a passive process.

Figure 4.

	Duration (yrs)	Price Impact from 1% Increase in Interset Rates (%)
Barclays Aggregate - 3/31/2009	3.73	-3.73
Barclays Aggregate - 1/31/2017	5.95	-5.95