Rocaton

INSIGHTS

Reviewing the Primary Roles of Core Fixed Income

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EXECUTIVE SUMMARY

- Core fixed income exposures, as proxied by the Bloomberg Barclays Aggregate Index ("Aggregate"), are found in many investors' portfolios.
- Aggregate exposures tend to serve four primary roles in portfolios including 1) source of income, 2) source of liquidity, 3) capital preservation and 4) diversification relative to risk assets.
- Recent changes to the Aggregate's interest rate duration, or sensitivity to changes in interest rates, have the potential to impact these four primary roles.
- The duration extension that the Aggregate has experienced is largely due to the secular decline in interest rates, an increase in the corporate weight within the index, and assumptions about the prepayments within the mortgage backed securities component of the index.
- The combination of a longer duration and historically low starting yields has resulted in the potential for larger drawdowns from core fixed income than have been experienced historically as well as the potential for lower returns for longer.
- Despite this outlook, we believe investors should continue to maintain an allocation to core fixed income, although investors should carefully consider the best way of implementing a core fixed income allocation.
- Linking core fixed income rigidly to the Aggregate may be suboptimal; a more investor-specific definition which can target the specific goals and risks associated with this allocation should be considered.

Introduction

Core U.S. fixed income is often a staple in many investors' portfolios and typically occupies four primary roles including:

1. Source of income
2. Source of liquidity
3. Capital preservation
4. Diversification relative to risk assets

While we believe core fixed income is still suitable as an investment grade exposure, investors should be aware that a lengthened duration and a lower starting yield on the Bloomberg Barclays Aggregate Index ("Aggregate") may impact these four primary roles. Duration on the Aggregate has extended for several reasons including:

1. Secular decline in interest rates
2. Higher exposure to the corporate sector
3. Extension due to slower expected prepayments within the mortgage sector

The index, which dates back to the mid-1970s, recently had a duration of 6.0 years for the first time in its history. We believe investors should be aware of this duration extension and also understand that the potential for weak performance from core fixed income may be greater than it has been historically.

This paper focuses on core fixed income as defined by the Aggregate, as this asset class tends to be an "anchor" in many investors portfolios. However, we believe that investors should not always rigidly proxy core fixed income with the Aggregate. Rather, core fixed income should be loosely defined as an asset class that is U.S. dollar denominated, has an investment-grade orientation, is relatively liquid, and provides diversification benefits relative to risk assets. In future *Insights*, we will explore various structural changes and strategies which investors might want to consider for their core fixed income portfolios.

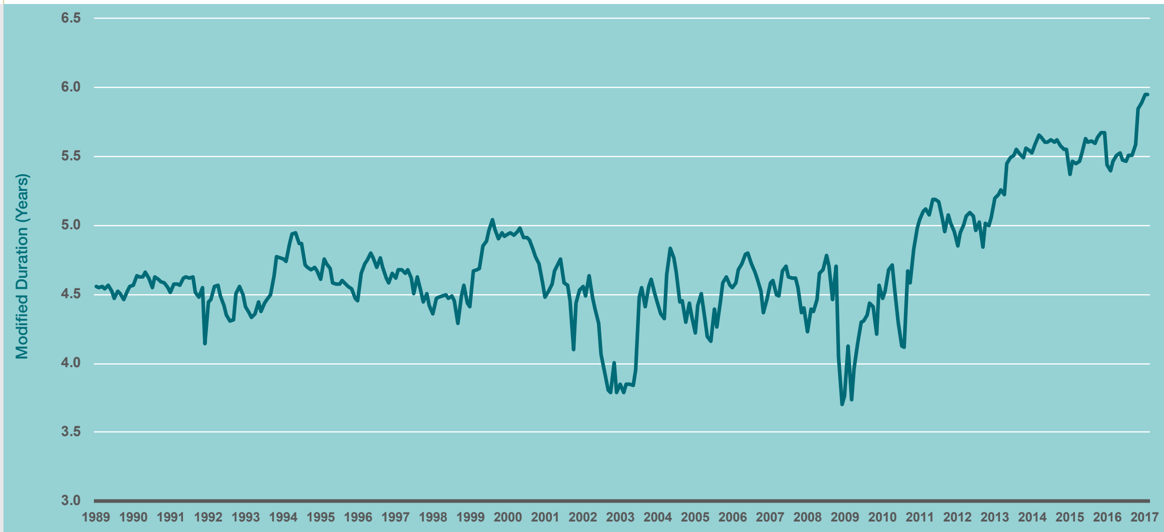
Understanding the Aggregate's Duration Extension

For most of its history, the Aggregate has had a duration between 4 and 5 years. However, following the global financial crisis, the duration on the Aggregate has steadily increased (see Figure 1). In our view, there are two primary long-term trends and one short-term trend that have contributed to the increase in the index's duration.

One long-term reason is "bond math" and the impact of declining interest rates. Duration can also be expressed as the weighted average time to receipt of the promised cash flows from a bond. As interest rates fall, a larger portion of a bond's present value is represented by the final principal payment received at maturity. This lengthens the average time to receive the promised cash flows from a bond, thereby extending the duration[1].

Figure 1:

Bloomberg Barclays Aggregate Modified Duration



Source: FactSet; Bloomberg Barclays. Based on monthly data through February 28, 2017.

The second long-term factor impacting duration is the increase in exposure to corporate bonds within the Aggregate. Over the last 20 years, the average corporate weight within the Aggregate was approximately 20%. Due to record corporate issuance post-financial crisis and a slowdown in Fannie Mae and Freddie Mac MBS issuance (Ginnie Mae issuance has been very strong post-crisis), the corporate weight within the Aggregate has grown to about 26% as of year-end 2016. The duration on the corporate sector is longer than the duration on the three other Bloomberg Barclays Class 1 sectors (Treasury, Government Related, Securitized). The larger weight to the corporate sector and corresponding decrease in the MBS sector has led to an increase in the Aggregate's duration.

Duration extension within the mortgage backed securities ("MBS") component of the Aggregate has also increased the overall duration for the index. In the past six months, the duration of the MBS sector has increased approximately 2.75 years (from 2.25 years as of 7/31/16 to 5.04 years as of 2/28/17). Mortgage backed securities exhibit extension risk in response to higher interest rates. As interest rates rise, there is typically a deceleration of mortgage prepayments. Generally speaking, homeowners are less likely to refinance their existing mortgage when interest rates rise. This reduces prepayments

[1]These comments are largely applicable to fixed rate, bullet maturity bonds. Floating rate and callable bonds have a number of other considerations which are outside the scope of this paper.

for existing mortgages and therefore lengthens the duration of the sector. The opposite is also true as duration would be expected to shorten when interest rates decline due to increased prepayments (homeowners are more likely to refinance their mortgage as rates fall). The exact speed of prepayments is not known in advance. Rather, index providers make assumptions regarding prepayment speeds based on a number of factors, including historical prepayment speeds and the current level of interest rates.

Duration Extension Impact on Core Fixed Income

With the understanding that the duration for the Aggregate is now at a historically high level and yields are near all-time lows, we believe investors should review the four primary roles of core fixed income.

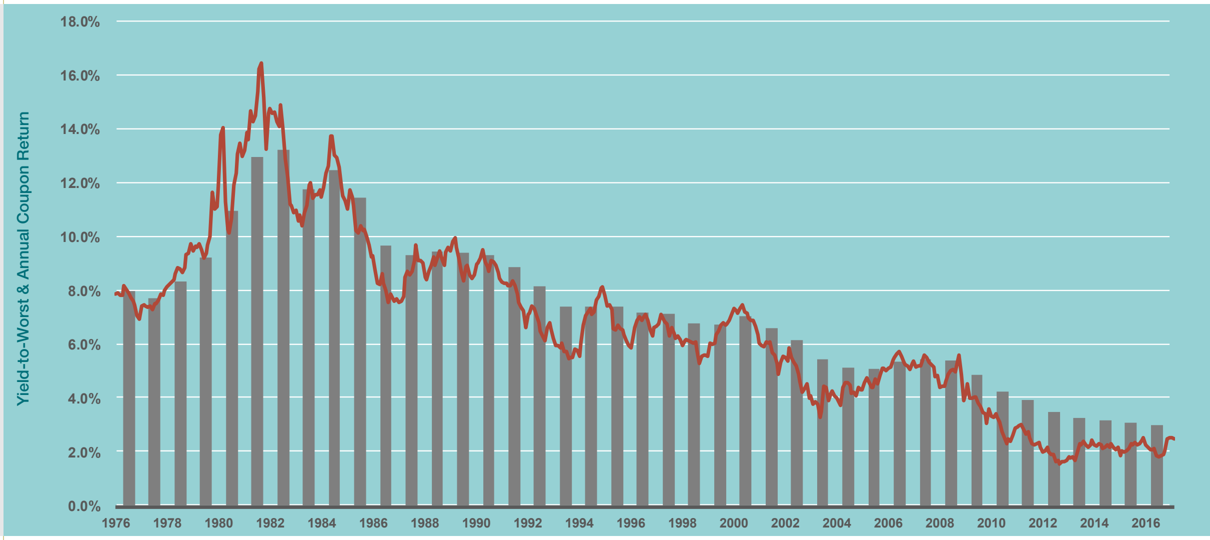
Source of Income

Despite the fact that the yield on the Aggregate remains near an all-time low (see Figure 2), we believe core fixed income exposures can still provide a stable source of income. Given the investment grade rating of the index, investors should expect the coupon return of the index to remain stable as there will likely be limited defaults. Of course, given the decline in interest rates, the coupon return remains low. In 2016, for example, the coupon return of the Aggregate was 3.0%, well below the coupon return of 7.0% generated in 2000. It should be noted that the Aggregate's current yield-to-worst of 2.6% is slightly better than the MSCI All Country World Index's dividend yield of 2.4%.

Figure 2:

Bloomberg Barclays Aggregate Yield-to-Worst & Annual Coupon Return

Legend:
Yield-to-Worst
Annual Coupon Return



Source: FactSet; Bloomberg Barclays. Based on monthly data through February 28, 2017.

Source of Liquidity

In our view, core fixed income should continue to be a reliable source of liquidity for investors. While regulatory changes have certainly had an impact on the liquidity of certain fixed income markets, it is worth noting that ~65% of the Aggregate is composed of U.S. Treasuries and Agency MBS. Providing liquidity is one of the critical roles of the asset class as it can serve as a source of funds when other attractive return opportunities are identified. For investors with ongoing cash needs (e.g. benefit payments), core fixed income remains an appropriate source of liquidity. We are wary of using other liquid, more volatile assets (such as public equities) for ongoing cash needs as investors may be forced to sell assets at inopportune times.

Capital Preservation

While there is the potential for higher volatility from core fixed income going forward, we are not concerned about the ability of the asset class to preserve capital. Given the high credit quality of the asset class, investors should expect limited defaults from core fixed income.

However, all else equal, a longer duration will lead to more volatility and will also lead to greater price losses in the event of rising rates. Compounding the problem for the Aggregate is the fact that the yield on the index is at a historically low level. The Aggregate has historically provided investors with a higher level of income to offset price losses due to rising interest rates. As a result, we believe investors should be cognizant of the potential for larger and more frequent drawdowns for core fixed income. Using our latest capital market assumptions, we forecast a ≈35% probability of the Aggregate producing a negative return over the next 1-year period and a ≈5% probability of producing a negative compound return over the next 3-year period. This compares to just 7.5% of rolling 1-year returns and 0.9% of rolling 3-year compound returns historically (using monthly data) that have produced negative returns since the index's inception in 1976. Although permanent impairments are likely to stay low, in our opinion, investors should be prepared for larger and more lengthy drawdowns.

Diversification Relative to Risk Assets

One of the benefits of the Aggregate's increased duration is the potential for greater diversification relative to risk assets, such as public equities. Long duration Treasury bonds, for example, have been a reliable source of diversification given their negative correlation to equities and other risk assets. While the Aggregate's duration is roughly one-third the duration of the long Treasury index, the recent lengthening of the Aggregate's duration should provide incremental diversification relative to risk assets. This, of course, assumes that the historically negative correlation between core fixed income and public equities continues.

Conclusion

Core fixed income has often been used by investors as a source of income, liquidity, diversification and capital preservation. We still believe the asset class can serve these roles; however, the current characteristics of the investment grade universe should be considered carefully. A longer duration profile may provide additional diversification benefits, but may also result in higher volatility. As mentioned earlier, we are not overly concerned about permanent impairments from core fixed income. While we have highlighted the potential for drawdowns in core fixed income, we would remind investors that the range of outcomes for the asset class is significantly narrower than the wide range of returns which can be experienced by public equities or other high risk asset classes. As such, core fixed income may provide some of the best returns of any asset class during a market correction .

As mentioned earlier, in future *Insights*, we plan to explore the topics of diversification and income generation further, including presenting various structural changes and strategies which investors might want to consider for their core fixed income portfolios.

[2] Cash and long duration Treasury bonds may also perform well during a market correction.

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