Interest Rate Sensitive Asset Class Implementation Plan FY 2019

Investment Committee Meeting

12/14/18

Interest Rate Sensitive

- Interest Rate Sensitive is a fixed income asset class comprised of the U.S. investment-grade bond market which includes:
  - U.S. Treasuries and Agencies
  - Agency Mortgage-Backed Securities
  - Corporate Bonds
  - Commercial Mortgage-Backed Securities (CMBS)
  - Asset-Backed Securities (ABS).
- Fixed income strategies that invest exclusively in this market are typically referred to as "Core" or "Core Fixed income."
- The performance of Interest Rate Sensitive Fixed Income is heavily tied to the direction of US Treasury rates. In addition, Interest Rate Sensitive Fixed Income tends to perform well when equity markets decline (ex. 2008) or when inflation expectations materially decline. As a result, it is an important part of the overall ASRS portfolio because it provides a source of balance and diversification from riskier assets such as equities.

Interest Rate Sensitive

- The benchmark for Interest Rate Sensitive is the Bloomberg Barclays U.S. Aggregate Bond Index, which encompasses the market for U.S. dollar denominated, fixed-rate, taxable, investment-grade bonds that are SEC-registered.
- The SAA target for the Interest Rate Sensitive Asset Class is 10% with a range of 0-20%.
- As of October 29th, Interest Rate Sensitive represented 9.9% of the total fund vs. an SAA interim target of 11.8%.
- ASRS's Interest Rate Sensitive investments do <u>not</u> have any liquidity constraints; it is a very liquid asset class.
- Per the SAA, Interest Rate Sensitive bonds will <u>not</u> be levered.

Investment Strategy

- Due to the low level of interest rates, we do not expect the Interest Rate Sensitive asset class to meet the targeted return of the total fund over an extended period of time. Nonetheless, it is an important part of the overall ASRS portfolio.
- The primary reason we invest in the asset class is because it provides a source of balance and diversification away from riskier assets in the total fund such as equities.
- Due to the large percentage of U.S. Treasury bonds, and to a lesser extent, agency mortgage-backed securities in the asset class, the Interest Rate Sensitive Asset Class remains a safe haven in times of market turbulence or uncertainty and tends to perform well when risky assets such as equities sell off (ex. 2008). Historically, Interest Rate Sensitive assets will tend to hold their value or even appreciate in these situations.
- Our investment strategy is to hold investments in Interest Rate Sensitive as a potential funding source to:
    1. rebalance the overall portfolio when equities and other risky assets materially sell-off,
    2. fund obligations of the total fund such as benefit payments and capital calls from private market managers.

Implementation Approach

- Focus on investing in Core Fixed Income which offers a higher yield than U.S. Treasuries of comparable duration with better diversification and less volatility over time. Core Fixed Income encompasses the assets in the Bloomberg Barclays U.S. Aggregate Bond Index, the benchmark of the Interest Rate Sensitive Asset Class.

- Invest in low-cost, passive and enhanced passive index strategies which are well diversified. The internal management of the F2, a very low-cost, enhanced passive strategy, provides valuable market insights.

- When appropriate, invest in Blackrock funds which target specific ***sub-sectors*** of the Bloomberg Barclays U.S. Aggregate Bond Index. These targeted investments provide the capability to adjust our Interest Rates Sensitive allocation to take advantage of compelling market opportunities or to express an investment view.

  – In the past, we invested in diversified Blackrock funds targeting Corporate Bonds and CMBS when credit spreads were unusually attractive following the 2008-2009 financial crisis.

  – In 2015-2016, we invested in a Blackrock long-duration U.S. Treasury Bond fund based on an investment view that interest rates would fall significantly; this targeted investment contributed to excess performance of Core Fixed Income during this time period.

Interest Rate Sensitive
Core Fixed Income Managers

Portfolio	Market Value ($MM) 10/29/18	%	IMD Commentary
Blackrock US Debt Index Fund	$2,010	52	Passive strategy with history of modest outperformance.
F2 Internally Managed Account	$1,836	48	Enhanced passive strategy with an objective to slightly outperform the Barclays U.S. Aggregate Bond Index (the "Index") through a stratified sampling strategy. History of outperformance particularly over the past 10-year period.
Total	$3,846	100	

House Views

- We are underweight Interest Rate Sensitive Fixed Income (9.9% vs. a 11.8% target as of 10/29/18). Interest Rate Sensitive Fixed Income is likely to generate low returns as Treasury yields are at relatively low levels both on the short-end and long-end of the yield curve. Competing long-term interest rates in major developed countries such as Germany and Japan are very low.

- In addition, over the intermediate term, we see a heightened risk that rates may rise as global growth expectations are generally improving and central banks such as the Federal Reserve and the ECB are pulling back from unusually aggressive monetary policies that have pushed down interest rates in major developed countries.

- That being said, Interest Rate Sensitive Fixed Income remains a safe haven in times of market turbulence or uncertainty and tends to perform well when risky assets such as equities sell off.

Yield of Bloomberg Barclays U.S. Aggregate Bond Index

Interest Rate Sensitive
Historical Performance Through 6/30/18

	1-Year	3-Year	5-Year
Core Composite	-.28	2.13	2.58
Bloomberg Barclays Aggregate	-.40	1.72	2.27
Core Composite Excess	**.12**	**.41**	**.30**
Blackrock US Debt Index Fund	-.33	1.82	N/A
Bloomberg Barclays Aggregate	-.40	1.72	2.72
Blackrock Excess	**.07**	**.10**	N/A
F2 Internally Managed Account	-.22	1.91	2.48
Bloomberg Barclays Aggregate	-.40	1.72	2.27
F2 Excess	**.18**	**.19**	**.21**

Interest Rate Sensitive
Comments on Historical Performance

- Both the Blackrock US Debt Index Fund and the F2 Internally Managed Account outperformed the Interest Rate Sensitive benchmark. These two funds comprise our expected investment allocation for the Interest Rate Sensitive Asset Class going forward.
- The excess return of the Core Composite for the 3-year and 5-year periods is unusually high due to the success of a targeted investment in a Blackrock long-duration U.S. Treasury Bond fund in 2015-2016. We do not expect this performance to be repeated.

Expected Performance

- The yield-to-worst of the Bloomberg Barclays U.S. Aggregate Bond Index was approximately 3.5% as of the end of October.
- We believe this 3.5% yield is a reasonable proxy for the long-term expected return of the Interest Rate Sensitive Asset class **assuming that interest rates and credit spreads do not increase.**
- However, we see a heightened risk that interest rates may rise primarily because central banks such as the Federal Reserve and the ECB are pulling back from unusually aggressive monetary policies that have pushed down interest rates in major developed countries.
- With this view, **we believe that a 3% expected return over the medium-term for the Interest Rate Sensitive Asset Class is reasonable.**
- Based on 1-year and 3-year historical performance for the Blackrock US Debt Index Fund and the F2 Internally Managed Account, and a roughly 50/50 investment mix of the two funds, **we believe that 12.5 bps or 0.125% of expected outperformance is reasonable.**

Historical And Expected Tracking Error

- Below is a summary of the historical tracking error for the Blackrock US Debt Index Fund and the F2 Internally Managed Account.

Tracking Error	1-Year	3-Year	5-Year	10-Year
Blackrock US Debt Index Fund	0.02%	0.06%	0.09%	0.10%
F2 Internally Managed Account	0.15%	0.17%	0.19%	0.37%

- As the 10-year track record for F2 may include unusual tracking error which occurred during the 2008-2009 financial crisis.   We believe the 3-year and 5-year tracking errors are a better indicator of the likely tracking error going forward.

- Assuming a roughly 50/50 investment mix of the two funds, **we believe an expected tracking error of 12.5 bps or 0.125% is reasonable.**