

# FOLIOBEYOND FIXED INCOME COMMENTARY FOR January 2023

## 2022 Year End Review and Outlook for 2023

FolioBeyond's ETF-based Fixed Income strategies significantly outperformed the Bloomberg Barclays U.S. Aggregate Bond Index ("AGG") in 2022 by over 500 basis points, returning -5.67% and -7.58% in its static and dynamic volatility versions, respectively. In comparison, AGG returned -13.03% for the year. The bond market experienced a historic flattening selloff as the 10-year Treasury spiked by 237 basis points while the 2-10 year curve spread went from positive 78 basis points to an inversion of 55 basis points by year end. This unprecedented volatility not seen in recent decades wreaked havoc in the traditionally sedate bond market.

The main drivers of downside performance were unmistakably duration and credit spreads. Duration risk alone accounted for the bulk of overall underperformance of AGG. FolioBeyond model's downside was more muted as it benefited from rebalancing trades subject to risk and diversification constraints. FolioBeyond's multi-factor optimization model considers 24 discrete fixed income ETF exposures and optimizes portfolio allocations based on a framework that quantifies relative value, risk, correlations, momentum, and diversification. This optimization and timely rebalancing process captures the changing dynamics of various fixed income risk and return variables, and constructs an optimal portfolio that is constrained by risk levels consistent with AGG.

Over the course of the year, the FolioBeyond model had over-weight exposures to TIPS (both short and long duration), negative duration MBS IOs, short duration high yield corporate bonds, and floating rate bank loans. Later in the year, mortgage REIT exposure gained favor as MBS spread widening resulted in very attractive dividend income from mortgage REITs.

There were several important drivers of portfolio optimization that affected our performance. First, relative value relationships need to be measured accurately, on a forward-looking basis, after accounting for embedded options and credit risks. The flatness of the yield curve generally favored short duration rate and credit exposures.

Second, correlation effects, especially negative correlations, provide advantageous effects in a portfolio context. One component in our 24-ETF universe that stands out is RISR. With a minus 10-year duration exposure, it is highly negatively correlated with practically all other ETFs in our mix. Additionally, it generates positive current income that is attractive from a relative value perspective. Consequently, RISR is currently allocated 15% of our static 3.5% volatility model portfolio, and 30% of our dynamic volatility strategy which is tied to the trailing 12-month volatility of AGG.

Third, momentum effects can be a significant factor in the secondary market, especially in a trending environment. The momentum effects of the individual ETFs are quantified and incorporated into the optimization model to reflect their impact in either direction.

Looking forward to 2023, whether the market stabilizes with a soft landing for the economy, experiences a sustained multi-year selloff, or catches a strong bid as recession fears mount, FolioBeyond's fixed income model is designed to capture the most attractive opportunity set overlaid with controlled risk parameters within a portfolio context. Additionally, the exclusive use of ETFs allows the strategy to implement rebalancing transactions that avoid potential challenges of trading large blocks of individual CUSIP bonds. The negative correlation benefits relative to other sector exposures have been significant, especially since FolioBeyond's model typically generated positive monthly returns in 2022 when equities were down.

FolioBeyond's model-based strategy can also be easily customized to suit the requirements of various investor goals and risk tolerance levels. For example, duration limits can be specified, high yield credit limits can be dialed up or down, along with other risk parameters. The portfolio can also be supplemented with attractive mezzanine credit floating rate bonds. Please contact us to explore how our optimization model can be effectively customized to address your specific portfolio requirements.

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