SEEKING SYMMETRY: STRIKING A RISK-RETURN BALANCE

September 2021

Fixed income investors are, by necessity, a pessimistic lot; unlike equities that have theoretical unlimited upside, the best we can hope for is to get our principal back at maturity. While this is a gross oversimplification of fixed income investing, it does speak to a fundamental tenet of our strategies: we believe it is essential to understand the symmetry of returns.

Failure to understand the relationship between risk and return and whether it is relatively balanced or skews toward one direction could lead to significant underperformance. In fixed income, it could be said, sometimes the best offense is a good defense.

We address the concept of symmetry through our risk-focused approach, which is premised on providing our clients with an investment experience that minimizes undue performance volatility. To help achieve this, we regularly perform historical market analyses to provide context for the symmetry of potential return outcomes. We frame relative value opportunities and risk positioning across a matrix of more than 50 market subsectors using historical excess return and volatility analysis.

Intuitively, when spreads are wide and yields are high, it is more likely a portfolio will generate stronger returns. Conversely, in periods of narrow spreads and low yields, we believe it is prudent to consider a more defensive portfolio position in order to protect capital, as historically, low risk premiums do not offer significant compensation relative to the potential for negative excess returns. This asymmetric risk profile is most acute in longer-duration securities, reflected by a security's spread duration (that is, the sensitivity of price to a change in spread). This relationship, combined with our ongoing excess return and volatility analyses, inform our portfolio positioning.

Take the current market environment, for example; Figure 1 shows current option-adjusted spreads (OAS) and corresponding percentile rankings for subsets of the ICE BofA U.S. Corporate & Yankee Index over the three-year period ended June 30, 2021, broken down by quality and maturity. Across the board, investment grade credit was at the zero percentile ranking — the most expensive, tightest spreads in the series.

Figure 1. ICE BofA U.S. Corporate & Yankee Index OAS by Quality and Maturity

Investment grade spreads are at their most expensive level over the past three years.

OAS (bps) as of June 30, 2021

Quality	Maturity (years)					
	1-3	**3-5**	**5-7**	**7-10**	**10+**	**Total**
AAA-AA	15	24	32	49	81	51
A	29	45	59	73	102	67
BBB	54	77	93	111	149	107
BB	152	209	235	230	244	218

Percentile Rank for the Three-year Period Ended June 30, 2021

Quality	Maturity (years)					
	1-3	**3-5**	**5-7**	**5-7**	**10+**	**Total**
AAA-AA	0	0	0	0	0	0
A	0	0	0	0	0	0
BBB	0	0	0	0	0	0
BB	6	17	14	3	0	6

Lowest Value *Highest Value*

Source: ICE BofA indices, PNC Capital Advisors

Figure 2. ICE BofA U.S. Corporate & Yankee Index Breakeven Spread by Quality and Maturity

Breakeven spreads are at their tightest level over the past three years.

Breakeven Spread (bps) as of June 30, 2021

Quality	Maturity (years): 1-3	3-5	5-7	7-10	10+	Total
AAA-AA	8	6	6	6	5	5
A	15	12	11	10	7	8
BBB	30	21	18	15	10	13
BB	89	83	70	38	22	46

Percentile Rank for the Three-year Period Ended June 30, 2021

Quality	Maturity (years): 1-3	3-5	5-7	5-7	10+	Total
AAA-AA	0	0	0	0	0	0
A	3	0	0	0	0	0
BBB	0	0	0	0	0	0
BB	0	19	47	3	0	0

Lowest Value — *Highest Value*

Source: ICE BofA indices, PNC Capital Advisors

We also consider breakeven spreads when evaluating fixed income securities. This measure quantifies the spread widening necessary to offset the carry benefit of holding a security over a one-year horizon. As you might expect, shorter maturity securities have higher breakevens, as lower durations help minimize price volatility. Conversely, longer maturity securities have lower breakevens. As of June 30, it would take only 10 basis points (bps) of spread widening to offset the carry benefit from holding the index at a spread of 82 bps (Figure 2). Like the OAS percentile analysis, breakeven spreads are currently the worst in the series over the last three years.

As a result, while we remain overweight Credit, given the environment illustrated by Figures 1 and 2, we have moderated our risk profile by reducing our exposure to securities with higher spread durations. Since June 30, credit spreads have generally widened and produced negative excess returns. From June 30 to August 16, the Bloomberg Credit Index widened just 9 bps. While modest, this weaker performance offset between 20-30% of the year-to-date excess return across a variety of sub-indices (Figure 3).

Looking forward, rising caseloads due to the COVID-19 Delta variant have the potential to be a near-term headwind for the ongoing economic recovery. Employment data aside, recent economic releases have

Figure 3. Bloomberg U.S. Corporate Bond Index Excess Return and Characteristics Comparison

Recent modest spread widening has had an outsized impact on excess returns.

	As of June 30, 2021			*As of August 16, 2021*
	OAS (bps)	Option-adjusted Duration	YTD Excess Return (%)	QTD Excess Return (%)
Corporate	80	8.65	2.04	-0.60
Industrial	83	9.43	2.39	-0.73
Utility	93	10.63	1.85	-0.62
Financial	71	6.54	1.38	-0.33
1-3 Year	31	1.77	0.31	-0.01
3-5 Year	49	3.63	0.79	-0.15
5-7 Year	66	5.25	1.08	-0.17
7-10 Year	84	7.44	1.35	-0.40
10+ Year	117	15.28	3.90	-1.26
A- or Better	59	8.98	1.42	-0.64
BAA Corporate	99	8.56	2.69	-0.58

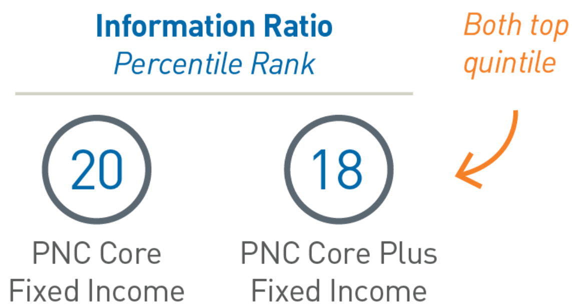
Source: Bloomberg L.P., PNC Capital Advisors generally been weaker than expected and have led to a moderation of growth expectations over the balance of 2021. Additionally, rising geopolitical risks coupled with an expected tapering of the Federal Reserve's (Fed) asset purchase program have the potential to produce elevated volatility over the coming months and may foster an improved environment for increased spread sector allocations.

Over the last five years, our team has navigated a variety of different market environments: risk-on and risk-off sentiment, rising and falling U.S. Treasury yields, tightening and loosening of policy by the Fed, and increased and decreased volatility. By maintaining our discipline and adhering to our risk-focused approach, we have produced strong excess returns for our clients while limiting volatility. The cornerstone of our investment strategy is risk analysis and management.

Comprehensive risk analysis is incorporated into every step of our investment process. Portfolio construction and management is viewed through a risk-return lens with a focus on consistency. Our investment team continuously evaluates sectors, issuers, and securities using a consistent "FVT" (Fundamentals, Valuation, Tactics) framework to provide a common lens to evaluate relative risk and potential volatility. Furthermore, we perform ongoing quantitative analysis as we seek to ensure the primary dimensions of risk are consistent across our strategies and that client portfolios are in line with their desired objectives.

Figure 4. eVestment Peer Ranking for the Five-Year Period Ended June 30, 2021 – Information Ratio

Core and Core Plus are two among our strategies to rank well against their eVestment peers on information ratio.



While we apply the same key principles and investment process across all our strategies, to exemplify our process in action, we would point to our eVestment peer universe information ratio (i.e., return per unit of risk relative to a benchmark) ranking our Core Fixed Income and Core Plus Fixed Income strategies, as they represent a broad maturity/duration profile and wide range of fixed income sectors (Figure 4). Both rank in the top quintile over the five-year period ended June 30, 2021. We believe our ability to consistently produce investment results with more downside protection and less volatility than a majority of our peers is a direct result of our disciplined, risk-focused process.

Presentation of Performance of Market Indices

Various market indices may be referred to in these materials. Please see following for a brief description of these indices and comparisons. Indices are unmanaged and not available for direct investment. The performance of an index does not reflect expenses associated with the active management of an actual portfolio.

The **ICE BofA U.S. Corporate & Yankee Index** tracks the performance of US dollar denominated investment grade debt publicly issued in the U.S. domestic market by U.S. and non-U.S. corporations and non-U.S. quasi-governments.

The **Bloomberg U.S. Corporate Bond Index** measures the investment-grade, fixed-rate, taxable corporate bond market.

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