Specialists in Capital Structure Investing

Peter Duffy, CFA
Partner, Senior Portfolio Manager
Matthew Bogdan
Quantitative Research Analyst

Defensive Short Duration High Yield Bonds

An Overlooked and Underutilized Source of Durable Alpha

Executive Summary

This paper examines the superior risk and return characteristics of Defensive Short Duration High Yield bonds. Most investors tend to use investment grade bonds as a risk diversifier, especially during volatile or uncertain periods, when in fact BB-B rated short duration high yield bonds have historically provided more stability with a higher yield. In this paper, we will examine the underlying factors of this performance anomaly, and why they are overlooked and underutilized within the industry.

Topics Addressed

- Characteristics, outperformance, and risk statistics
- Industry and asset class factors contributing to underutilization
- Minimal need for market timing per historical spread and recession analysis
- Fit within a portfolio allocation and resulting effects

The Consistency of Short Duration High Yield Performance

2003	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016	YTD (8/31)	3Y	5Y	10Y
S&P 500 28.7	S&P 500 10.9	Loans 5.1	S&P 500 15.8	Agg 7.0	Agg 5.2	HY 57.5	HY 15.2	Agg 7.8	S&P 500 16.0	S&P 500 32.4	S&P 500 13.7	S&P 500 1.4	HY 17.5	S&P 500 11.9	S&P 500 9.5	S&P 500 14.3	HY 7.9
HY 28.1	HY 10.9	S&P 500 4.9	HY 11.8	S&P 500 5.5	Corp IG -6.8	Loans 51.6	S&P 500 15.1	Corp IG 7.5	HY 15.6	HY 7.4	Corp IG 7.5	Agg 0.5	S&P 500 12.0	HY 6.1	HY 4.8	HY 6.5	S&P 500 7.6
BB-B 1-3 17.9	BB-B 1-3 6.5	BB-B 1-3 3.0	BB-B 1-3 10.5	Corp IG 4.6	BB-B 1-3 -14.3	BB-B 1-3 40.4	BB-B 1-3 12.0	HY 4.4	Corp IG 10.4	BB-B 1-3 6.1	Agg 6.0	BB-B 1-3 0.3	BB-B 1-3 10.6	Corp IG 5.5	BB-B 1-3 4.7	BB-B 1-3 5.1	BB-B 1-3 7.0
Loans 10.0	Corp IG 5.4	HY 2.7	Loans 6.7	BB-B 1-3 3.4	HY -26.4	S&P 500 26.5	Loans 10.1	BB-B 1-3 4.3	BB-B 1-3 10.2	Loans 5.3	HY 2.5	Corp IG -0.6	Loans 10.2	BB-B 1-3 3.9	Corp IG 3.6	Loans 4.2	Corp IG 5.8
Corp IG 8.3	Loans 5.2	Agg 2.4	Corp IG 4.4	HY 2.2	Loans -29.1	Corp IG 19.8	Corp IG 9.5	S&P 500 2.1	Loans 9.7	Corp IG -1.5	BB-B 1-3 2.0	Loans -0.7	Corp IG 6.0	Agg 3.6	Loans 3.5	Corp IG 3.7	Loans 4.9
Agg 4.1	Agg 4.3	Corp IG 2.0	Agg 4.3	Loans 2.1	S&P 500 -37.0	Agg 5.9	Agg 6.5	Loans 1.5	Agg 4.2	Agg -2.0	Loans 1.6	HY -4.6	Agg 2.6	Loans 2.6	Agg 2.6	Agg 2.2	Agg 4.4

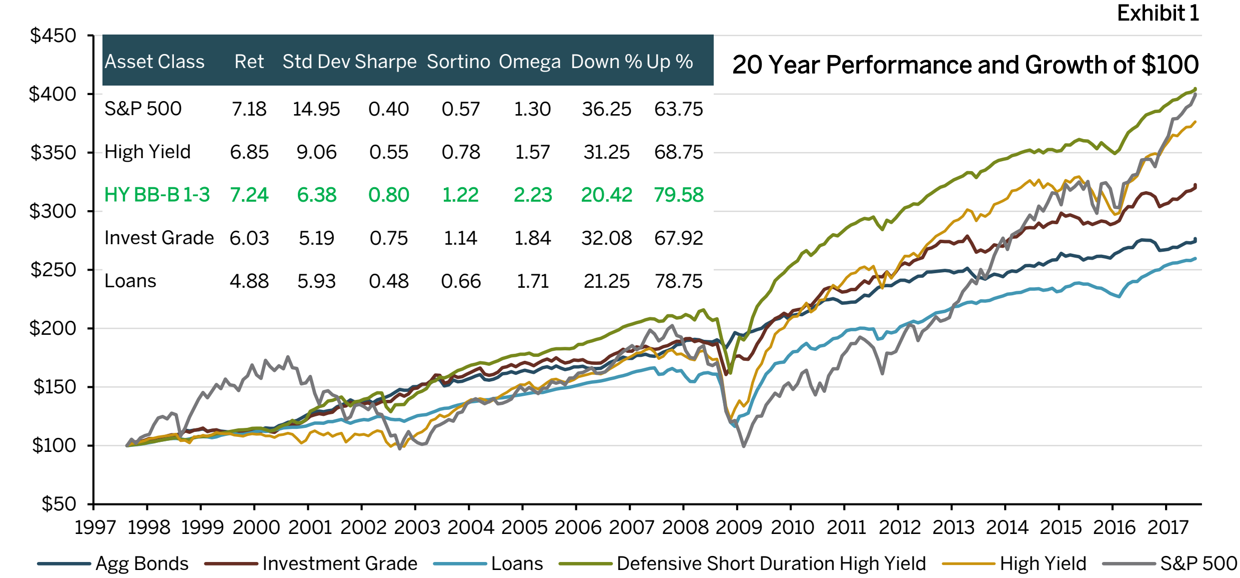
FOR ILLUSTRATIVE PURPOSES ONLY. The index information and data contained herein was obtained from BofA ML, BBgBarc, and S&P/LSTA. Annualized data as of August 31, 2017.

PENN CAPITAL
1200 Intrepid Avenue, Suite 400, Philadelphia, PA 19112

Defensive Short Duration High Yield Bonds ("Defensive SDHY") consist of BB-B rated corporate bonds with a maturity under 3 years. They account for a small portion of the high yield market and have historically exhibited unique characteristics. Defensive SDHY has demonstrated a return profile more consistent than investment grade and high yield bond markets while outperforming both (Exhibit 1). Its durability stems from macro factor insensitivity, such as interest rate and high yield spread conditions, relative to similar asset classes. With a duration of 1.7 compared to 7.2 and 3.9 for investment grade and high yield bonds, the asset class is less impacted by changes to interest rates.

Exhibit 1

20 Year Performance and Growth of $100



Asset Class	Ret	Std Dev	Sharpe	Sortino	Omega	Down %	Up %
S&P 500	7.18	14.95	0.40	0.57	1.30	36.25	63.75
High Yield	6.85	9.06	0.55	0.78	1.57	31.25	68.75
HY BB-B 1-3	7.24	6.38	0.80	1.22	2.23	20.42	79.58
Invest Grade	6.03	5.19	0.75	1.14	1.84	32.08	67.92
Loans	4.88	5.93	0.48	0.66	1.71	21.25	78.75

An Overlooked and Underutilized Outperformer. Defensive SDHY makes up $116 billion of the $1.3 trillion high yield bond market (Exhibit 2). Lacking potential for economy of scale and requiring significant research coverage, large active managers tend to avoid the space. Passive managers have likewise been unsuccessful but for different reasons, given the difficulty to track and emulate, with top ETF's delivering significantly lower returns and higher volatility relative to short term high yield indices. Additionally, databases generally understate or don't recognize the asset class, such as Morningstar which does not have a high yield short duration category.

These factors, paired with the fact that Defensive SDHY has never been the top performing asset class in any calendar year, has not been a primary beneficiary of 30 years of interest rate decline, and is capacity constrained, have kept the asset class under the radar of many investors.

Exhibit 2

Relative Size	Market Value ($Mil)	Duration
US Treasury	$9,546,856	6.32
Invest Grade	$6,312,436	7.22
High Yield	$1,304,890	3.93
HY BB-B 1-3Y	$115,881	1.67

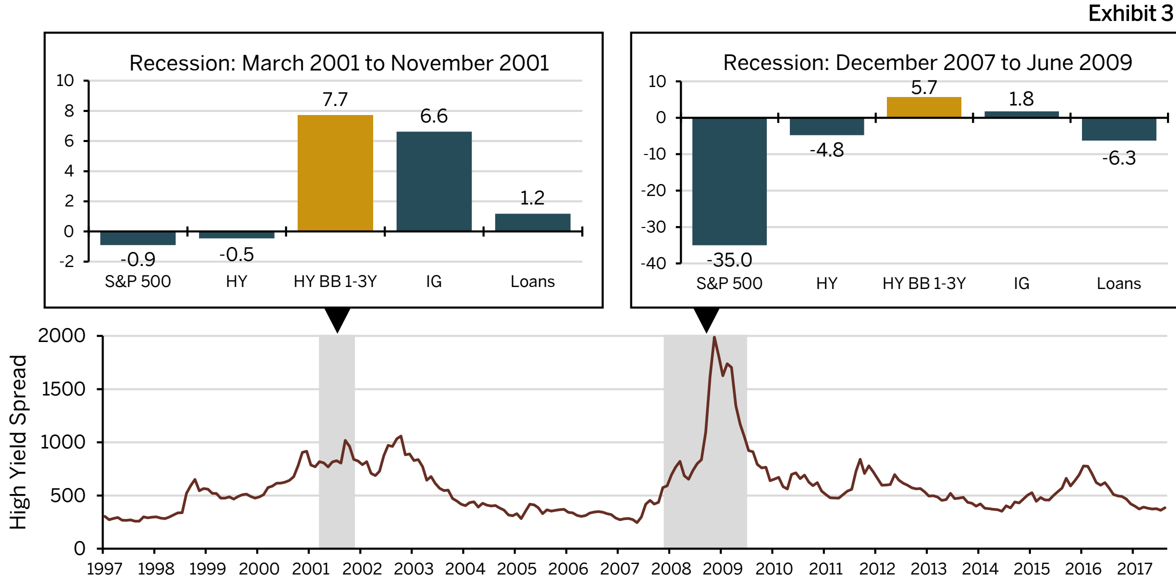
Rolling 5Y Outperform %	HY BB-B 1-3Y Last 20 Years
Return vs IG	89%
Sharpe vs IG	65%
Return vs HY	46%
Sharpe vs HY	93%

Def SDHY Allocation Effect	Invest Grade	High Yield	Private Credit
Lower Duration	✓	✓	✓
Lower Volatility	✓	✓	✓
Lower Defaults	X	✓	✓
Incr Diversification	✓	✓	✓
Incr Yield	✓	X	X
Incr Liquidity	X	✓	✓
Incr Sharpe Ratio	✓	✓	✓

As of August 31, 2017
Source: Morningstar Direct, BofA ML Index Data
Indices: Equity: S&P 500, High Yield: BofA ML US HY Master, High Yield BB-B 1-3 Year: BofA ML US HY BB-B 1-3 Year, Invest Grade: BofA ML US Corp Master, Loan: S&P/LSTA Loans, Aggregate: BBgBarc US Agg Bond, Treasury: BofA ML US Treas Master

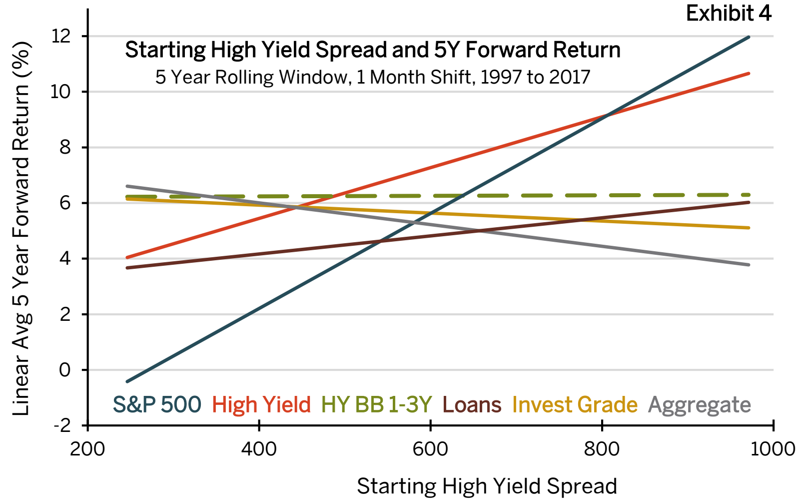
Recessions, Spreads, and "Timing the Market", these are three things that keep investors awake at night. Market conditions, as measured by high yield spreads, can significantly impact return potential. This leads many down the notoriously hard path of "timing the market", which can be difficult. For example 81% of CCC, 62% of S&P 500, and 40% of high yield 20 year returns were derived from the top 12 months of their respective performance. If an investors timing was slightly off, their performance was impacted. That figure is reduced to 24% for 1-3 year BB's, the same as investment grades and 4% lower than treasuries. Timing has shown to be a significant factor for most asset classes, but less so for Defensive SDHY. This is further exemplified when viewing performance over various points in the credit cycle, market recessions, bubbles, and events. Over the last two recessionary periods, Defensive SDHY outperformed the more volatile S&P 500 and high yield indices as expected, but also outperformed higher quality investment grade bonds (Exhibit 3).

Exhibit 3



Durability throughout the market cycle. Over the last 20 years, Defensive SDHY's rolling 5 year performance was not affected by the high yield spread level at the date of entry (Exhibit 4). Its relative indifference to market timing has historically made it ideal as a long term portfolio fixture or for periods of uncertainty.

Exhibit 4



As of August 31, 2017
Source: Morningstar Direct, BofA ML Index Data
Indices: Equity: S&P 500, High Yield: BofA ML US HY Master, High Yield BB 1-3 Year: BofA ML US HY BB 1-3 Year, Invest Grade: BofA ML US Corp Master, Loan: S&P/LSTA Loans, Aggregate: BBgBarc US Agg Bond

Where Credit Quality and Maturity Reach Optimization. To help illustrate the rationale behind each component of Defensive SDHY, Exhibit 5 breaks down performance by credit quality, maturity, and both. BB's exhibited the top risk-adjusted performance relative to other credit qualities. High yield bonds within the 1-3 year maturity range, though returning less than other maturities, exhibited considerably less volatility which resulted in superior risk-adjusted returns. These factors translated into strong 1-3 year BB-B performance.

Exhibit 5

5Y by Quality	Ann Ret	Std Dev	Sharpe
CCC	7.9	9.2	0.8
HY All	6.5	5.3	1.2
B	6.0	5.3	1.1
BB	6.5	4.6	1.3
BBB	4.3	4.4	0.9
IG	3.7	3.9	0.9
Treas	1.4	3.4	0.4
Agg	2.2	2.8	0.7

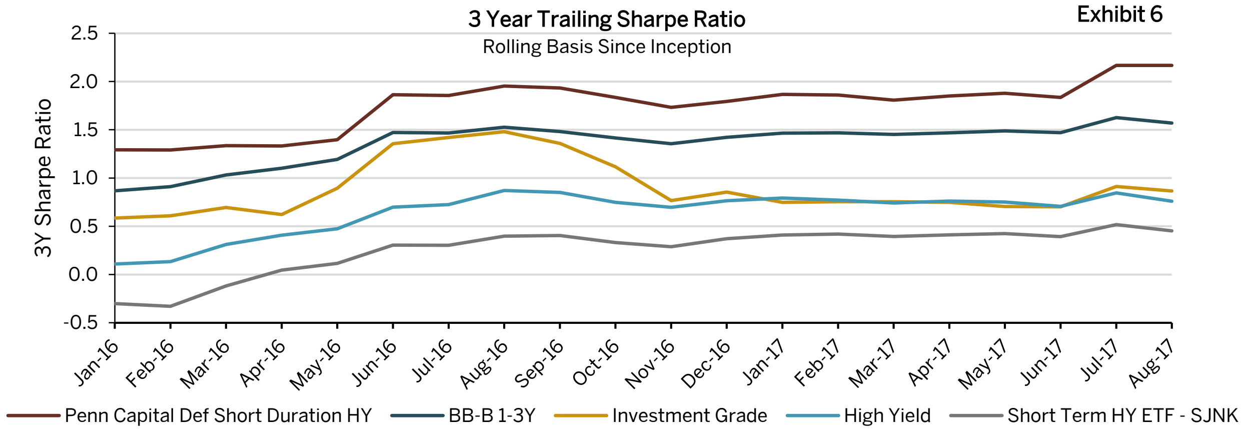
5Y by Maturity	Ann Ret	Std Dev	Sharpe
HY 1-3	6.0	3.3	1.8
HY 5-7	6.0	5.5	1.1
HY All	6.5	5.3	1.2
HY 7-10	6.5	5.9	1.1
HY 10-15	10.0	6.7	1.4
HY 15+	12.7	7.9	1.5

5Y by Short Dur	Ann Ret	Std Dev	Sharpe
CCC 1-3	9.1	8.6	1.0
HY 1-3	6.0	3.3	1.8
B 1-3	6.1	3.1	1.9
BB 1-3	4.6	2.2	2.0
BBB 1-3	2.4	1.0	2.0
IG 1-3	1.9	0.8	2.0
Treas 1-3	0.7	0.6	0.7
Agg 1-3	1.0	0.6	1.2

Summary and Conclusion. Defensive SDHY has demonstrated suitability for a variety of functions. These include improving credit quality of high yield portfolios, enhancing liquidity of direct lending or distressed portfolios, shortening duration of investment grade portfolios, and optimizing portfolio returns while protecting against uncertainty. Defensive SDHY's durable returns and low correlations to investment grade, aggregate, and treasury bonds – 5 year 0.50, 0.24, and 0.01 correlations, respectively – make it an ideal and complementary diversifier within an optimal portfolio. While difficult to passively emulate and unable to massively scale, the asset class has historically realized its potential with focused, disciplined, and fundamentally driven active management.

Penn Capital Defensive Short Duration High Yield has consistently produced alpha and superior Sharpe Ratios vs the BofA ML BB-B 1-3 Year Index since inception on a 3 year rolling basis (Exhibit 6).

Exhibit 6



5 year trailing performance as of August 31, 2017.
Source: Morningstar Direct, BofA ML Index Data
Indices: High Yield, Invest Grade, and Treasury of all Maturities: BofA ML US Indices, Equity: S&P 500, Loan: S&P/LSTA Loans, Aggregate: BBgBarc US Agg Bond

Firm Overview

Independently Owned, Investment-Driven Culture
- Founded in 1987; Headquartered in Philadelphia
- 67 total employees; 20 partners
- 25 member investment team

Specialists in Capital Structure Investing
- Fully integrated credit and equity investment team
- Fundamental, bottom-up proprietary research process
- Over 1,000 company management meetings per year

Investment Philosophy and Characteristics
- High Conviction – High Active Share
- Capacity Constraints – Client Focused
- Core Capability – Defensive Credit Investing

Key Facts
- Institutionally Focused
- Over $2 billion in Defensive Credit AUM across multiple duration ranges
- Investment Driven – 25 investment professionals and $4.6 billion in Total AUM*

Investment Vehicle Availability
- Institutional Mutual Funds
- Institutional Limited Partnership
- Institutional Separate Accounts

* Total combined assets include model advisement, discretionary, and non-discretionary

Specialists in capital structure investing

At Penn Capital, we believe that understanding a company's entire capital structure is the best way to identify investment opportunities with the most value. In fact, we've found that managing bond portfolios makes us better equity managers, and vice versa. Employing a fully integrated credit and equity research process, we focus on non-investment grade companies in the micro to mid-capitalization range, where we can take advantage of inefficient security pricing. We are an independent, employee-owned boutique investment management firm based in Philadelphia. We forge our own ideas, we respect hard work, and we are committed to our clients, our staff and our community.

Contact information

215-302-1500
info@penncapital.com

penncapital.com