March 2019

Jennifer Karpinski, CFA®
Investment Director
Global Investment Strategies

The opportunity in BB-rated corporate bonds

The BB-rated corporate bond market has tripled in size since 2002, creating new investment opportunities within the space.

Additionally, BBs represent an inefficient corridor between investment grade and high yield, potentially creating mispriced opportunities within the corporate bond market.

Historical data shows that BB-rated corporate bonds may offer a compelling risk/return profile.

The growth of the BB-rated segment of the high-yield market has created opportunities

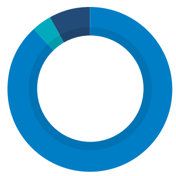
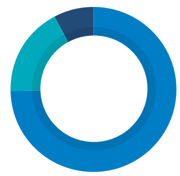
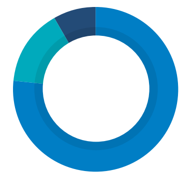
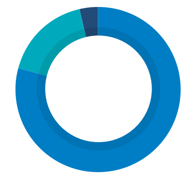
The BB-rated corporate bond market has substantially grown over the past 15+ years. On December 31, 2002, the market value of the BB segment was $181.2 billion as measured by the Bloomberg Barclays Ba U.S. High Yield Index, and the market consisted of 588 issues. As of February 28, 2019, the BB market value was $564.9 billion, and the market consisted of 827 issues. Two key factors have driven this growth:

1. Total high-yield issuance has grown, and BBs represent a larger share of new issues. According to J.P. Morgan data, BBs represented 20% ($28 billion in market value) of total high-yield supply in 2007, and as of December 31, 2018, BBs represented 33% ($62 billion in market value) of total high-yield supply.

2. Also, a larger number of downgrades from investment grade to high yield (especially in 2009 and 2016) caused an increase in BBs. According to Bloomberg Barclays Index data, "fallen angels" represented $111 billion (in market value) in 2009 and $82 billion in 2016.

The growth of the BB market has created additional investment opportunities within the space. Also, as the end of the corporate credit cycle nears, issuers may cross over between investment grade and high yield and create even more opportunities in the BB space.

Development of the BB corporate bond market has created a broader opportunity set

	December 31, 2002	December 31, 2007	December 31, 2012	February 28, 2019
Number of issues	588	527	677	827
Size	$181.2 billion	$227.1 billion	$418.7 billion	$564.9 billion
Sector composition	 Industrials 88.1% Financials 3.9% Utilities 8.0%	 Industrials 74.9% Financials 17.4% Utilities 7.7%	 Industrials 76.8% Financials 15.1% Utilities 8.2%	 Industrials 79.4% Financials 17.0% Utilities 3.6%
Average duration	5.05 years	4.78 years	4.66 years	3.86 years
Average yield	9.12%	8.37%	4.70%	5.00%
Average OAS	582 bps	450 bps	359 bps	225 bps

Sources: Bloomberg Barclays Ba U.S. High Yield Index, Putnam, as of 2/28/19. Indexes are unmanaged and do not incur expenses. You cannot invest directly in an index. Past performance is not a guarantee of future results.

Corporate bond investors often overlook the BB-rated market

Despite the growth of the BB market, it remains an inefficient corridor between investment grade and high yield. The former segment has many ratings-restricted investors, while the latter has many yield-seeking investors. We believe this is a key reason that BB-rated corporates represent an inefficiently priced opportunity within the corporate bond market. BB-rated corporate bonds today can potentially generate an attractive 5.00% yield and offer price appreciation as well.

A rigid delineation between investment-grade and high-yield ratings results from corporate investment policy statements and investor behavior. Many institutional investors, such as pension funds and insurance companies, can own only companies with investment-grade ratings (AAA to BBB) by every available rating agency. These institutions have investment guidelines that restrict them from buying bonds rated below investment grade, including BBs. At the same time, some traditional high-yield managers typically view BB-rated bonds as unattractive compared with lower-rated high-yield opportunities. They reason that spreads and yields are less compelling for BBs compared with lower-rated high-yield bonds. In our view, the high levels of index sensitivity on the part of many investment-grade investors and a yield-seeking bias on the part of many high-yield investors give the BB segment of the market an attractive risk/return profile.

We believe BB-rated corporate bonds offer attractive risk-adjusted returns potential

Several metrics demonstrate the compelling risk/return profile of BB-rated corporate bonds.

- **Mean historical total return:** BBs have mean total returns that are similar to high-yield returns over various time periods and returns that are higher than investment grade.
- **Standard deviation:** The volatility of BB returns over certain historical time periods is less than that of the high-yield market.
- **Sharpe ratio:** BBs have a higher Sharpe ratio relative to investment grade and high yield over certain historical time periods.
- **Correlation:** BBs have a lower correlation to the S&P 500 Index than high yield over certain historical time periods.

Past performance is not a guarantee of future results. See chart on page 3 for historical data and fixed-income indexes referenced.

In addition, BBs have historically defaulted at a much lower rate than B- and CCC-rated bonds. Moody's Annual Default Study: Corporate Default and Recovery Rates, 1920–2018, shows the 5-year cumulative default rate for BB-rated bonds was 4.5% versus 14.3% for B-rated bonds and 35.8% for CCC-rated bonds. Thus, we believe that BBs offer an attractive return profile with low volatility and default risk.

Putnam's portfolio construction team has also performed an independent analysis of the corporate credit space. The team examined cumulative excess returns across the corporate credit sector using J.P. Morgan Index data from 1995 to 2018 and Bloomberg Barclays Index data from 1988 to 2018. In both instances, BBs exhibited an attractive risk/return profile relative to B- and CCC-rated securities. The other segments — Bs and CCCs — experienced the negative impact of severe default levels. BBs generated a higher Sharpe ratio due to a higher average expected excess return (lower default level) and lower volatility. Our analysis using excess returns reached the same conclusion as using total return data: BB-rated corporate bonds have a compelling risk/return profile.

Conclusion

Putnam's Fixed Income team believes that the BB market will continue to offer an attractive risk/return profile and a variety of opportunities that active managers can pursue. This confidence is based on the persistence of the gap between ratings-restricted investors who favor investment-grade bonds and yield-seeking investors who prefer opportunities in lower-rated corporate bonds. Also, as the corporate credit cycle turns, more issuers may move from investment grade to the BB space and create additional investment opportunities.

Examining historical data illustrates the attractive risk/return profile of BB-rated corporate bonds

	BB	Investment grade	High yield	S&P 500	Government
2019 YTD	5.91%	2.38%	6.26%	11.48%	0.21%
Historical total returns					
Mean 1984–2019	**9.22**	7.56	8.87	11.65	6.50
Mean 1990–1999	9.75	8.03	10.48	17.75	7.32
Mean 2000–2009	7.62	6.59	7.18	0.36	6.07
Mean 2010–2019	**7.49**	4.73	7.42	13.10	2.68
Standard deviation					
1984–2019	**6.41**	5.48	8.24	14.70	4.48
1990–1999	4.80	4.81	7.22	13.43	4.21
2000–2009	8.83	6.32	11.46	16.13	4.62
2010–2019	**5.15**	3.98	5.99	12.06	3.17
Sharpe ratio					
1984–2019	**0.86**	0.72	0.64	0.54	0.65
1990–1999	0.98	0.62	0.75	0.94	0.55
2000–2009	0.51	0.55	0.36	-0.17	0.66
2010–2019	**1.38**	1.09	1.28	1.06	0.73
Monthly return correlations					
1984–2019	—	0.63	0.94	0.56	0.20

Source: Barclays U.S. High Yield Corporate Update, as of 2/28/19. All returns are annualized.Fixed-income indexes referenced include Bloomberg Barclays Ba U.S. High Yield, U.S. Credit, High Yield, and U.S. Treasury Bond. Indexes are unmanaged and do not incur expenses. You cannot invest directly in an index. Past performance is not a guarantee of future results.

A world of investing.®

Putnam INVESTMENTS