Research Institute

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Marketing material

U.S. High Yield for Insurance Companies

Evaluating the high yield landscape for insurance investors

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IN A NUTSHELL

— High yield serves an important role in income generation for insurance portfolios, providing diversified income streams versus traditional core fixed income.

— Insurers' general aversion to default losses has resulted in higher quality biases, which can affect portfolio risk and return as well as industry exposure. Historically, changes in spreads have been, on average, more timely indicators of credit deterioration than agency downgrades.

— When combining high yield with other corporation investments, industry beta and overlap should be an important consideration for portfolio construction.

— For investors looking to be more tactical, measuring market distress and implied default rates or risk premia have been a useful time for capturing beta rallies.

Historically, insurance companies have tilted their fixed income portfolios toward higher credit quality asset classes, helping to avoid credit default loss potential and providing a longer duration profile that helps with asset-liability management. Over the past decade, as yields were suppressed by disinflationary pressures and corresponding dovish monetary policy, insurers, among other investor groups, were gently guided toward riskier segments of capital markets in an effort to generate sufficient returns on their float. The most obvious incremental yield extension segment of the fixed income universe has been the U.S. High Yield universe, which has seen significant flows from insurers since the Global Financial Crisis (GFC).

Despite the move higher in both nominal and real risk-free rates over the past year, High Yield seems to have established a permanent strategic and tactical allocation in insurers' asset allocations. As High Yield has gained prevalence in insurers' investment portfolios, the complexity and nuance of high yield bond investments has also evolved. Where some insurance companies may elect to only invest in the upper-tier ratings of the high yield universe as a way to increase portfolio yield on a hold-to-maturity basis, other insurers may seek greater potential opportunities in more speculative segments of the market, and more tactically minded insurers may look to rotate their high yield risk to reflect current market conditions.

This paper seeks to provide a general outline for insurers on the different risk levers that exist within the High Yield universe and how utilizing these levers changes the risk and return characteristics of a high yield portfolio. To do so, we address three main questions that often arise:

1. How do risk and return look for segments of the high yield market? Does quality bias (either in ratings or in spread terms) detract from investment returns or introduce any other unforeseen risks?
2. How does the industry composition of the high yield market bias? What have been the riskier and less risky industries within high yield, and how might constraining industry weights impact risk and return?
3. How has high yield performed in periods of market distress? What is the subsequent recovery performance experience across segments of the high yield market?

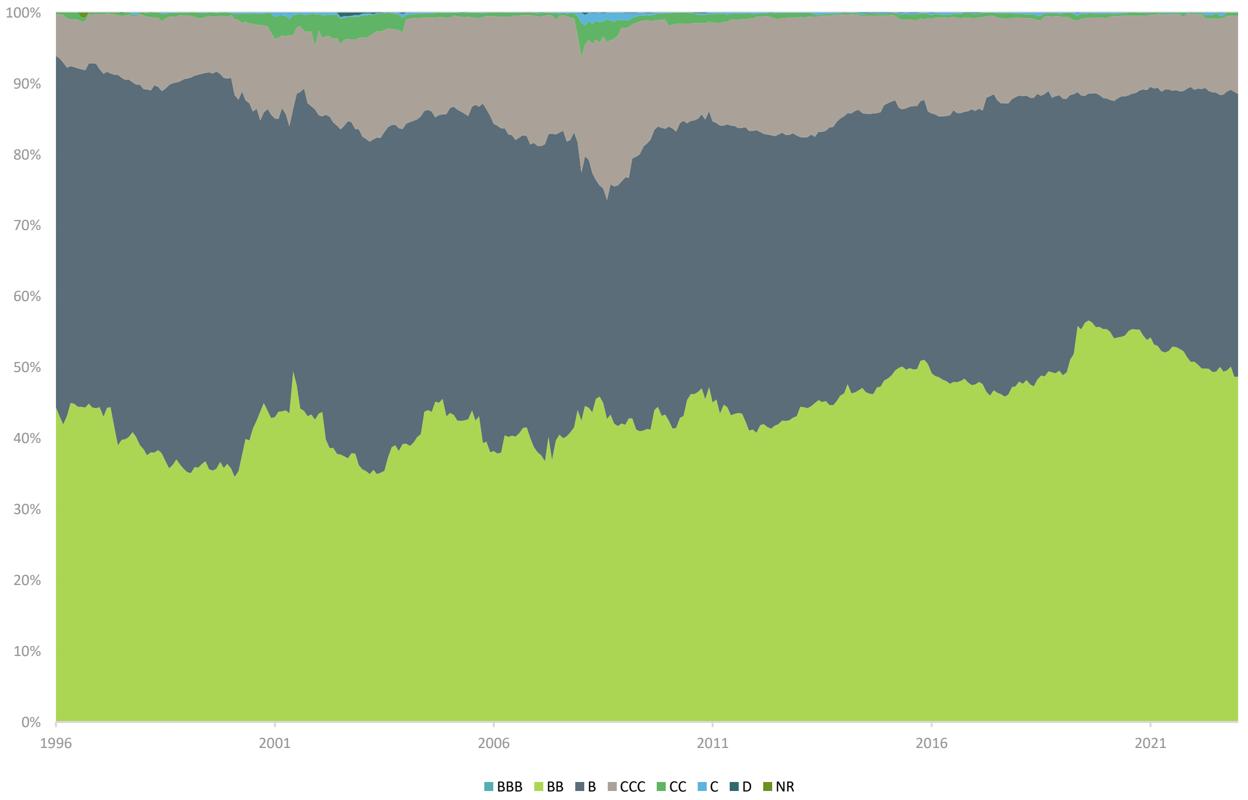
1 / Risk and return across ratings

1.1 Historical ratings distribution

By definition, the high yield corporate bond universe includes any bond deemed by ratings agencies to be "speculative grade," meaning the credit rating is below a certain threshold (e.g. BB or lower for Fitch and S&P, Ba1 or lower for Moody's). Historically speaking the high yield universe has been roughly split between BB and B-rated bonds, with CCCs making up the balance. In historical periods of market distress—during the 2000 tech bubble, the 2008 financial crisis, and the 2016 energy crisis, CC and lower-rated bonds did grow to low-to-mid single percentage of the universe but are, on average, slightly more than 1% of the index.

Over the past decade, in part due to improved capital discipline by corporations but supported by accommodative monetary policy via artificially low nominal and real funding rates, the average credit quality across the high yield universe has shown noticeable improvements. BB-rated securities now make up roughly half of the index, B slightly less than 40%, with CCC and lower making up the balance at just over 10%. Figure 1 shows the historical ratings composition of the high yield universe as measured by the ICE BofA High Yield Index.

Figure 1: Index composition by ratings (12/31/1996 to 12/31/2023)



Source: BAML ICE Indices as of 12/31/2023.

1.2 Historical risk and return

When examining the empirical returns of various segments of the high yield market, a couple of observations can be made: 1. Risk-adjusted returns have generally been more favorable for the higher quality segment of the high yield market and corresponding less favorable for the lower-rated cohort and 2. Unsurprisingly, there is considerably more return volatility among CCC and lower-rated securities relative to BB and B names. Figure 2 shows the return, volatility, and Sharpe ratios for different ratings segments of the high yield market dating back to 1996.

Figure 2: Returns, volatility, and Sharpe ratio (12/31/1996 to 12/31/2023)

	U.S. High Yield	BB	Single-B	BB-B HY Constrained	CCC & Lower	Cash
Return (geom)	6.31%	6.63%	5.58%	6.11%	6.41%	2.08%
Return (arith)	6.54%	6.72%	5.86%	6.27%	7.25%	2.06%
Volatility	8.87%	7.47%	9.02%	7.97%	14.13%	
Sharpe	0.50	0.62	0.42	0.53	0.37	
Average OAS	537	353	537	442	1121	

Source: ICE BAML Indices, Bloomberg L.P., DWS calculations as of 12/31/2023.
*Cash return uses Bloomberg US Treasury Bills 1-3 Month Index.

Looking at returns and Sharpes by calendar year, it's apparent that seldom does the CCC and lower segment of the high yield market generate superior risk-adjusted returns relative to BB/B-rated credits. Only in very strong credit market rallies has the risk-adjusted return of the CCC and lower-rated securities exceeded the broader high yield index as shown in **Error! Reference source not found.**. In just seven of the 27 calendar years (1999, 2003, 2006, 2013, 2018, 2021, 2023) was the Sharpe of the CCC and lower superior to the BB-B index, with an average spread tightening in U.S. High Yield of 117bps across those calendar years.

Figure 3: Calendar year return and Sharpe ratio (12/31/1996 to 12/31/2023)

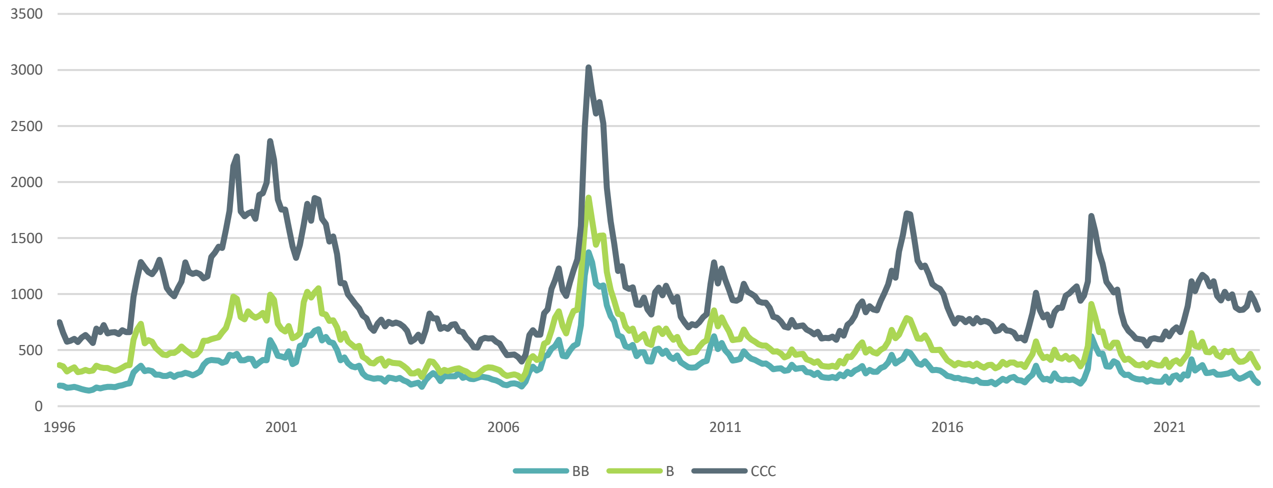
	Return					Sharpe			
	U.S. High Yield	BB-B HY Constrained	CCC & Lower	Cash		U.S. High Yield	BB-B HY Constrained	CCC & Lower	Δ in OAS (U.S. High Yield)
1997	13.27%	12.82%	15.33%	5.33%	1997	2.09	1.97	1.85	-17
1998	2.95%	3.86%	-6.30%	5.13%	1998	(0.23)	(0.14)	(0.62)	270
1999	2.51%	2.48%	1.47%	4.80%	1999	(0.65)	(0.76)	(0.36)	-90
2000	-5.12%	-3.91%	-17.41%	6.08%	2000	(1.79)	(1.57)	(2.82)	440
2001	4.48%	5.43%	-0.94%	4.07%	2001	0.09	0.18	(0.19)	-92
2002	-1.89%	1.10%	-6.20%	1.70%	2002	(0.25)	(0.01)	(0.38)	66
2003	28.15%	22.89%	60.99%	1.03%	2003	4.38	4.03	4.90	-472
2004	10.87%	9.93%	15.75%	1.24%	2004	2.54	2.36	2.32	-109
2005	2.74%	3.39%	-0.54%	3.00%	2005	(0.03)	0.11	(0.44)	62
2006	11.77%	9.29%	18.63%	4.80%	2006	2.97	1.89	4.38	-82
2007	2.19%	3.19%	0.37%	4.78%	2007	(0.43)	(0.29)	(0.48)	302
2008	-26.39%	-23.31%	-38.30%	1.77%	2008	(1.44)	(1.43)	(1.47)	1212
2009	57.51%	46.06%	96.79%	0.15%	2009	3.81	3.83	3.08	-1181
2010	15.19%	14.26%	18.42%	0.14%	2010	2.14	2.30	1.72	-91
2011	4.38%	5.40%	-1.40%	0.07%	2011	0.50	0.68	(0.01)	178
2012	15.58%	14.58%	20.26%	0.08%	2012	3.99	4.14	3.09	-183
2013	7.42%	6.31%	12.96%	0.05%	2013	1.58	1.36	2.48	-126
2014	2.50%	3.49%	-2.57%	0.03%	2014	0.59	0.83	(0.45)	104
2015	-4.64%	-2.79%	-15.02%	0.03%	2015	(0.74)	(0.46)	(1.89)	191
2016	17.49%	14.72%	36.46%	0.26%	2016	2.79	2.77	2.52	-273
2017	7.48%	6.98%	10.59%	0.81%	2017	3.06	3.26	2.24	-59
2018	-2.27%	-2.04%	-4.15%	1.83%	2018	(1.16)	(1.24)	(0.81)	170
2019	14.41%	15.11%	9.11%	2.21%	2019	2.34	2.68	0.74	-173
2020	6.17%	6.28%	2.86%	0.54%	2020	0.45	0.48	0.23	26
2021	5.36%	4.60%	10.42%	0.04%	2021	2.10	1.80	2.75	-76
2022	-11.22%	-10.58%	-16.33%	1.52%	2022	(1.12)	(1.04)	(1.74)	171
2023	13.46%	12.58%	20.36%	5.14%	2023	1.14	1.05	1.42	-142

Source: ICE BAML Indices, Bloomberg L.P., DWS calculations as of 12/31/2023.
*Cash return uses Bloomberg US Treasury Bills 1-3 Month Index.

1.3 Spread betas across ratings

Historically, spread movements have been understandably more pronounced in the lower-rated segments of the high yield market. Figure 4 shows the options-adjusted spread for the respective high yield ratings cohorts.

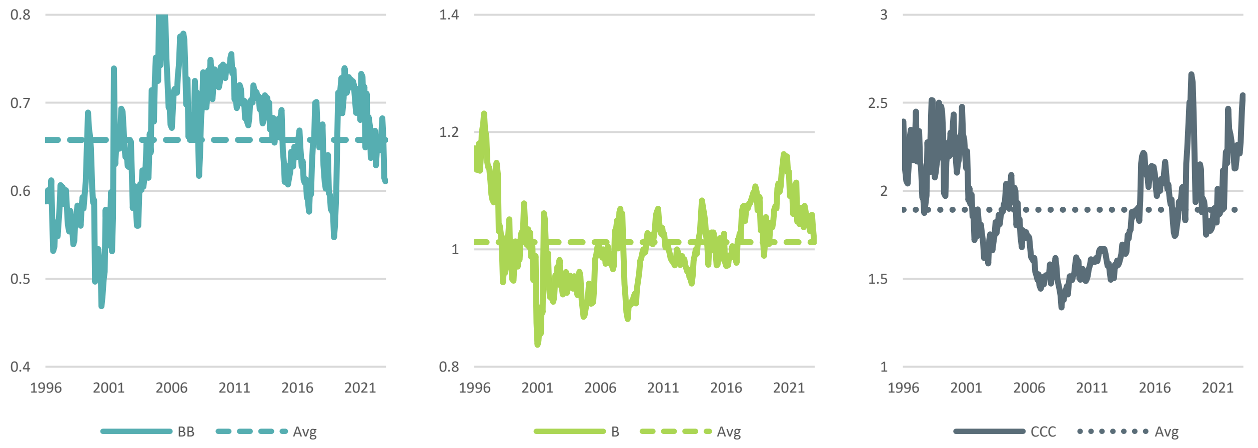
Figure 4: Options-adjusted spread by rating (12/31/1996 to 12/31/2023)



Source: ICE BAML Indices as of 12/31/2023.

While the sensitivity of different-rated credits to moves in broad high yield market spreads can vary at different points in time due to factors such as industry exposure, idiosyncratic single-issuer risks, or other point-in-time factors, the historical beta of the upper tier high yield to the broad market is relatively stable, with BB and B historically realizing 0.66 and 0.92, betas to the broader high yield universe, respectively. The lower-rated CCC segment has historically realized less stable spread betas, given higher issuer concentration and default risks associated with higher spread levels. Figure 5 shows the options adjusted spread betas across different high yield ratings.

Figure 5: Options-adjusted spread by rating with averages (12/31/1996 to 12/31/2023)

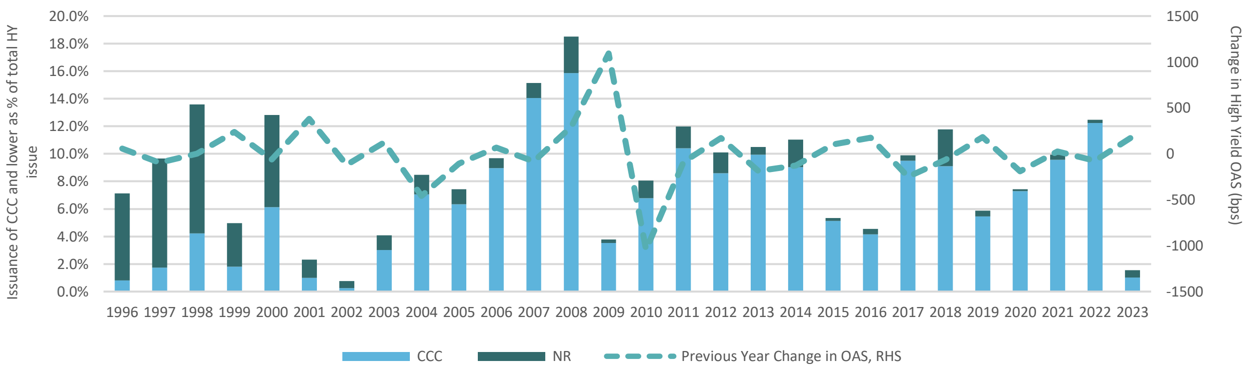


Source: ICE BAML Indices, DWS calculations as of 12/31/2023.

1.4 Issuance across ratings

In periods of financial and credit distress, lower-rated issuers often bear the brunt of waning demand for new corporate bond issuance, which can potentially compound the risks associated with shorter-maturity borrowing windows that often characterize lower-rated corporates. Figure 6 shows CCC and lower bond issuance as a percentage of the total high yield issuance and its relationship with high yield spreads the previous year. As can be observed, in years where spreads reached distressed levels, the subsequent year's CCC and lower issuance was, in many cases, quite limited. Following the tech bubble in 2000, the financial crisis in 2008, and the energy crisis from 2014-2016, issuance volumes for lower-rated corporates were well below long-term averages.

Figure 6: CCC and lower issuance as a % of total market versus previous year OAS

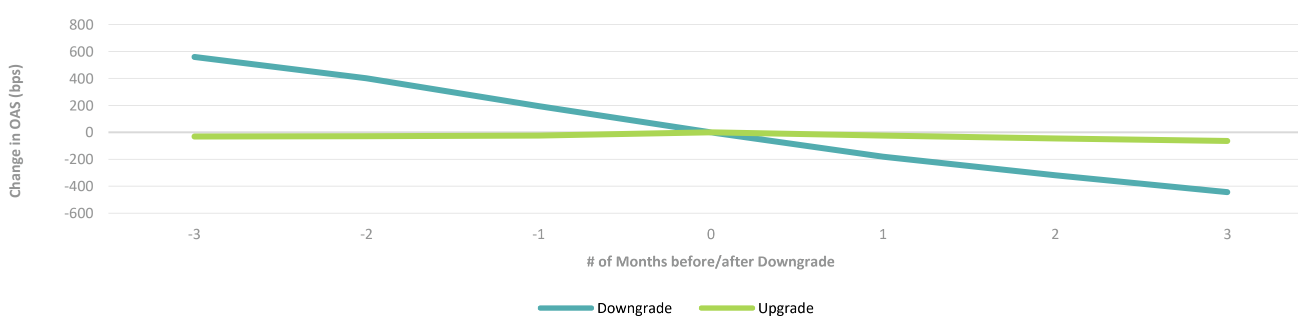


Source: JP Morgan Research, Bloomberg L.P., DWS calculations as of 12/31/2023.

1.5 Spread behavior around ratings upgrades/downgrades

A noteworthy dynamic that can be observed is the interaction between spreads and changes in credit ratings. Following the experience with mortgage credit ratings during the 2008 global financial crisis, investors have observed that ratings agencies may not always upgrade or downgrade bonds before the fundamental deterioration or improvement of the issuer can be observed by market participants. By measuring the average issuer spread behavior prior to and following ratings downgrades, we can illustrate this strong bias: on average, issuer options-adjusted spreads have widened by roughly 550bps three months prior to ratings downgrade and have rallied nearly 450bps in the three months following. Interestingly, the same analysis of ratings upgrades yields much more neutral results in terms of spread behavior before and after the ratings upgrade. Figure 7 shows the average high yield issuers change in OAS in the three months before and after ratings upgrade and downgrades.

Figure 7: Average high yield issuer change in options-adjusted spread 3 months prior to and following ratings upgrade or downgrade (12/31/1996 to 12/31/2023)



Source: ICE BAML Indices, DWS calculations as of 12/31/2023.

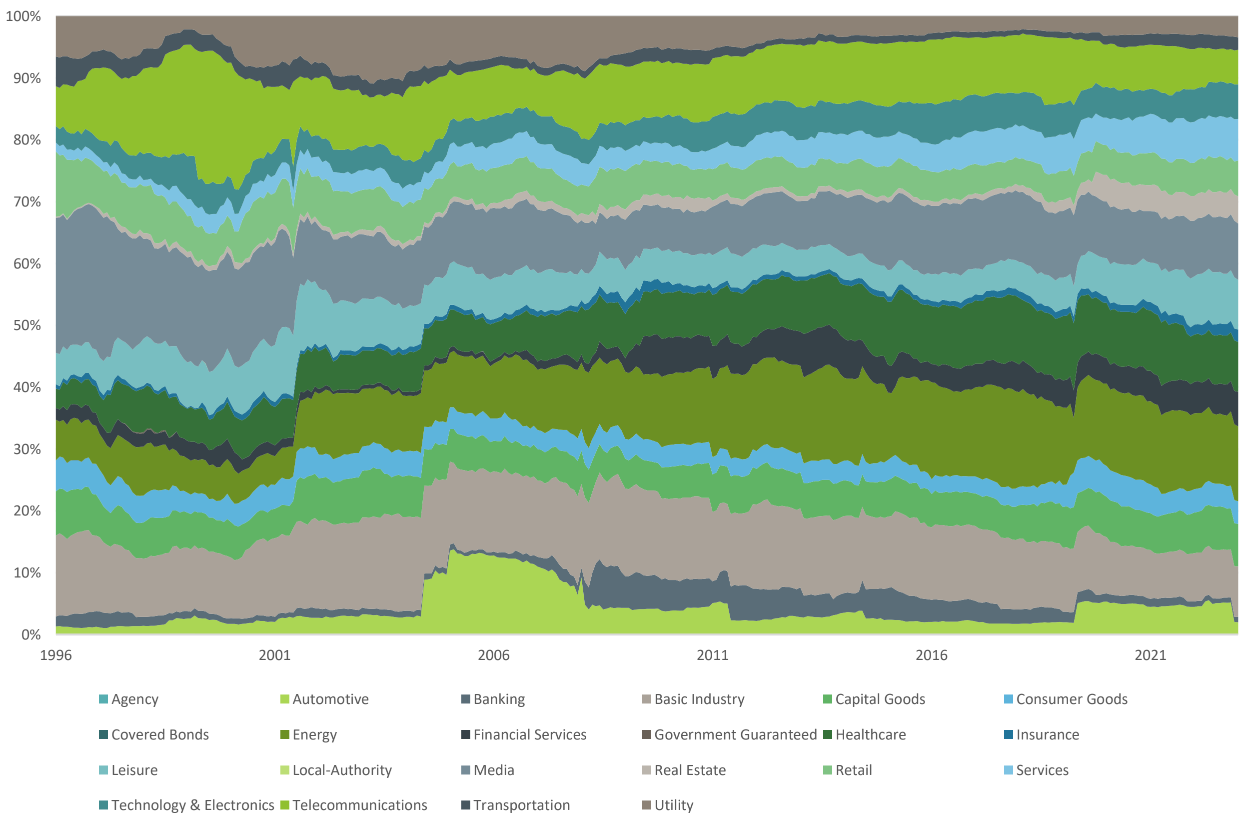
2 / High yield industries

2.1 Industry breakdown

The industry composition of the high yield universe has changed over the past three decades, where energy has grown to now exceed 11% of the high yield index even after the energy default cycle in 2016. On the contrary, retail has shrunk from just about 10% in 1996 to barely 5% of the current index, and Media, once representing over 22% of the index, is now just 9% of the high yield universe.

Generally macroeconomic trends have driven the shifts in industry composition across the high yield universe, although the size and the creditworthiness of companies has also influenced the breakdown between investment grade and high yield composite indices. Telecommunications and media companies such as Nextel and Adelphia, once sizeable issuers within the high yield universe, are now either merged with other firms or no longer operating, whereas the boom in U.S. energy production has made Houston-based Occidental Petroleum one of the largest high yield issues in recent years. Figure 8 shows the historical changes in the industry composition of the broad high yield index.

Figure 8: High yield industry composition (12/31/1996 to 12/31/2023)

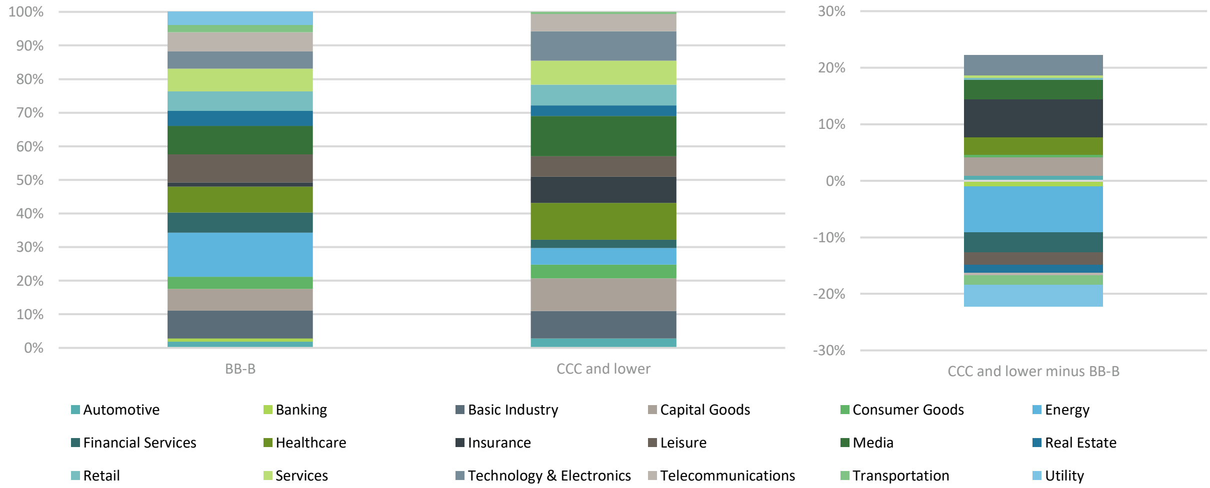


Source: ICE BAML Indices as of 12/31/2023.

2.2 Industry tilts resulting from quality bias

Although constraining a high yield allocation to upper tier BB-B-rated bonds only effectively removes about 10% of the index (see ratings composition in Figure 1), there are, at times, not insignificant deviations in industry composition. The CCC and lower segment of the market can, at times, be dominated by single issuer downgrades or industry-specific turmoil, which can drive significant differentials in industry composition between higher quality and lower quality indices. Figure 9 shows the most recent industry weightings for the BB-B segment of the high yield market as compared to the CCC and lower segment.

Figure 9: High yield industry weights by rating (12/31/2023)

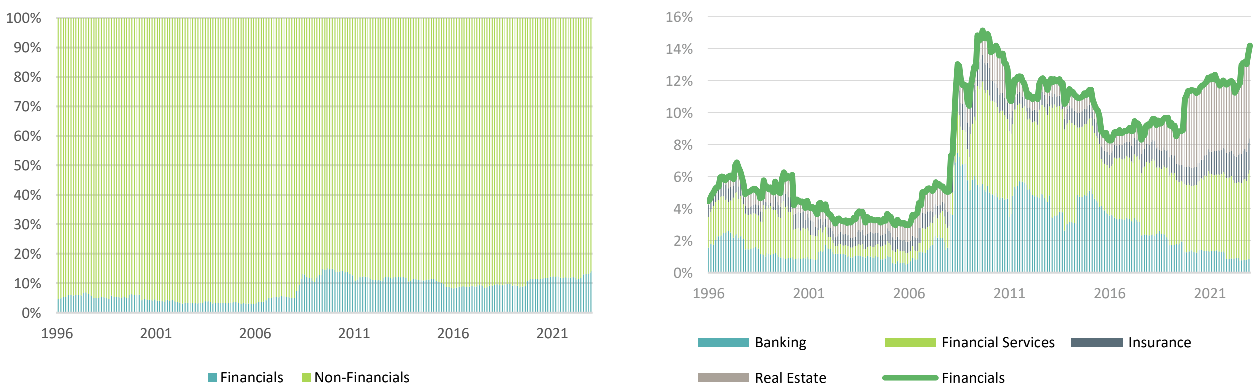


Source: ICE BAML Indices as of 12/31/2023.

2.3 Financial industries

For some insurance companies, there is a desire to mitigate industry or sector-specific risks that more closely align with their areas of business. An obvious starting point is financially-oriented industries, which constitute roughly slightly over 12% of the high yield universe. The four financial industries—banking, financial services, insurance, and real estate, have fluctuated in their market values over the past three decades, with real estate having gradually grown at the expense of banking. Figure **10** shows the composition of financial industries within high yield.

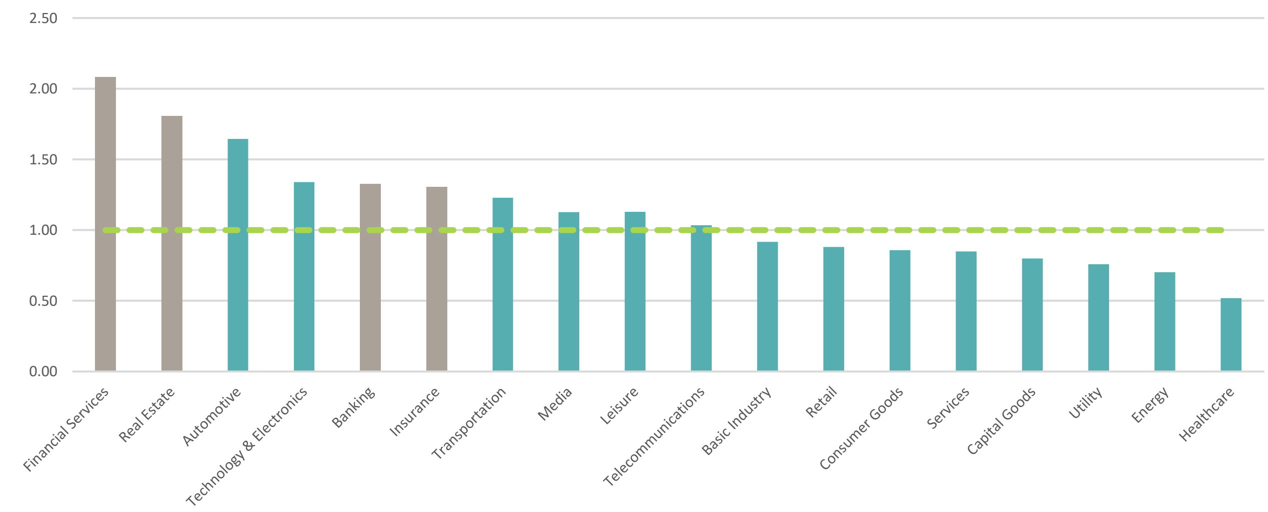
Figure 10: Breakdown of financials within high yield (12/31/1996 to 12/31/2023)



Source: ICE BAML Indices as of 12/31/2023.

Historically, high yield industries have realized different levels of market risk as well. When measuring the beta of the spread relative to the broad high yield index, more defensive sectors such as Healthcare and Utilities have realized the lowest betas whereas financially-oriented industries have historically realized among the highest market betas of high yield industries. Figure 11 shows the historical spread betas across high yield industries, illustrating the empirically higher beta of financial industries.

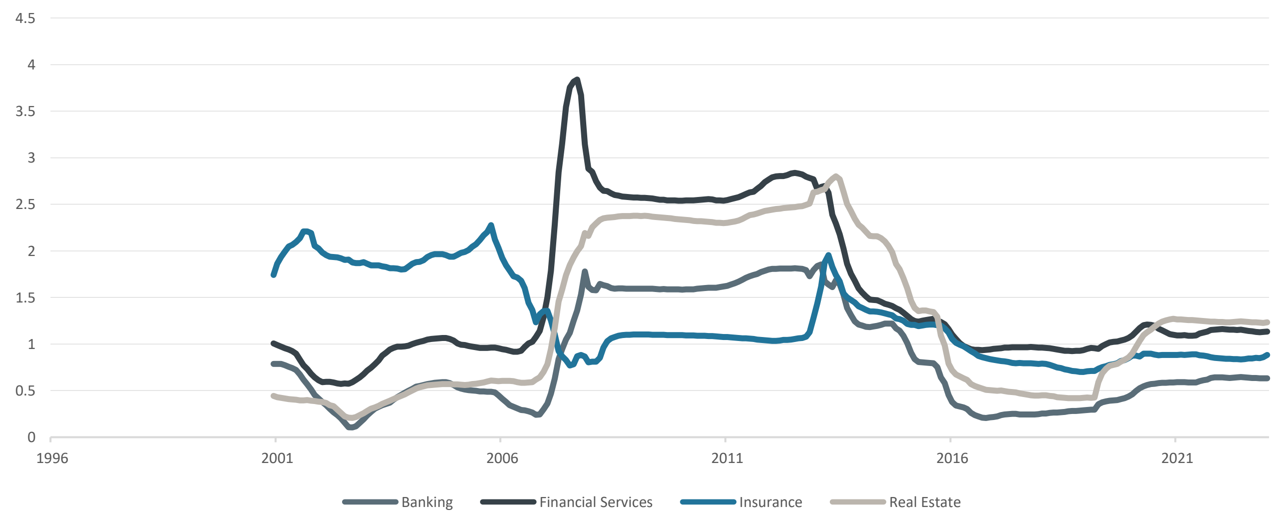
Figure 11: Historical spread beta by industry (12/31/1996 to 12/31/2023)



Source: ICE BAML Indices, DWS calculations as of 12/31/2023.

The higher spread beta nature of financial industries is predominantly driven by elevated risk during the financial crisis, with post-GFC betas looking more in line with the broader high yield market. Figure 12 shows how the beta in the post-GFC regime was significantly lower and more in line with the broad universe.

Figure 12: Rolling 5-year spread beta (12/31/1996 to 12/31/2023)



Source: ICE BAML Indices, DWS calculations as of 12/31/2023.

As with the risk profile, risk-adjusted returns are also a tale of two regimes. While average BB-B financials returns were modestly higher than the BB-B index since 1996, the significantly higher volatility outweighed the higher returns resulting in a lower empirical Sharpe ratio. However, simply measuring the risk-adjusted returns in the post-GFC period puts financials more on par with the broader BB-B universe, exhibiting slightly higher volatility but also slightly higher average returns. Figure **13** shows the risk and return across the full period, prior to the GFC, and from the GFC to the end of 2023.

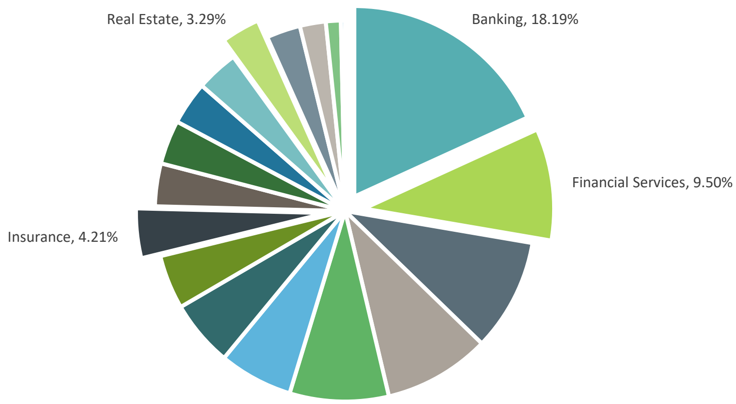
Figure 13: Return statistics high yield versus ex-financials (12/31/1996 to 12/31/2023)

Full Period (1996 to 2023)	U.S. High Yield	BB-B HY Constrained	BB-B Non-Financial Non-Distressed	BB-B Financials	CCC & Lower	Cash
Return (geom)	6.17%	5.98%	5.92%	6.98%	6.24%	2.02%
Return (arith)	6.41%	6.14%	6.01%	7.45%	7.09%	2.00%
Vol	8.88%	7.96%	6.82%	11.52%	14.16%	0.59%
Sharpe	0.50	0.52	0.59	0.47	0.36	-
Pre-GFC (1996 to 2008)	U.S. High Yield	BB-B HY Constrained	BB-B Non-Financial Non-Distressed	BB-B Financials	CCC & Lower	Cash
Return (geom)	3.01%	3.35%	4.44%	1.35%	1.14%	3.63%
Return (arith)	3.43%	3.67%	4.61%	2.06%	2.29%	3.57%
Vol	9.41%	8.38%	6.99%	11.34%	14.85%	0.52%
Sharpe	(0.02)	0.01	0.15	(0.13)	(0.09)	-
Post-GFC (2009 to 2023)	U.S. High Yield	BB-B HY Constrained	BB-B Non-Financial Non-Distressed	BB-B Financials	CCC & Lower	Cash
Return (geom)	8.85%	8.18%	7.16%	11.85%	10.63%	0.72%
Return (arith)	8.86%	8.18%	7.16%	11.89%	11.05%	0.72%
Vol	8.34%	7.56%	6.66%	11.52%	13.46%	0.34%
Sharpe	0.98	0.99	0.97	0.97	0.77	-

Source: ICE BAML Indices, Bloomberg L.P., DWS calculations as of 12/31/2023.
***Cash return uses Bloomberg US Treasury Bills 1-3 Month Index.**

Looking at the U.S. investment-grade corporate bond universe, Figure 14 shows financials make up more than 35% of the market capitalization, with banking and financial services as the two largest industries at 18.2% and 9.5%, respectively. For investors who are allocating across both high grade and speculative grade corporate credit markets, this may or may not be an important consideration for industry or sector diversification purposes.

Figure 14: Investment Grade industry weights (12/31/2023)



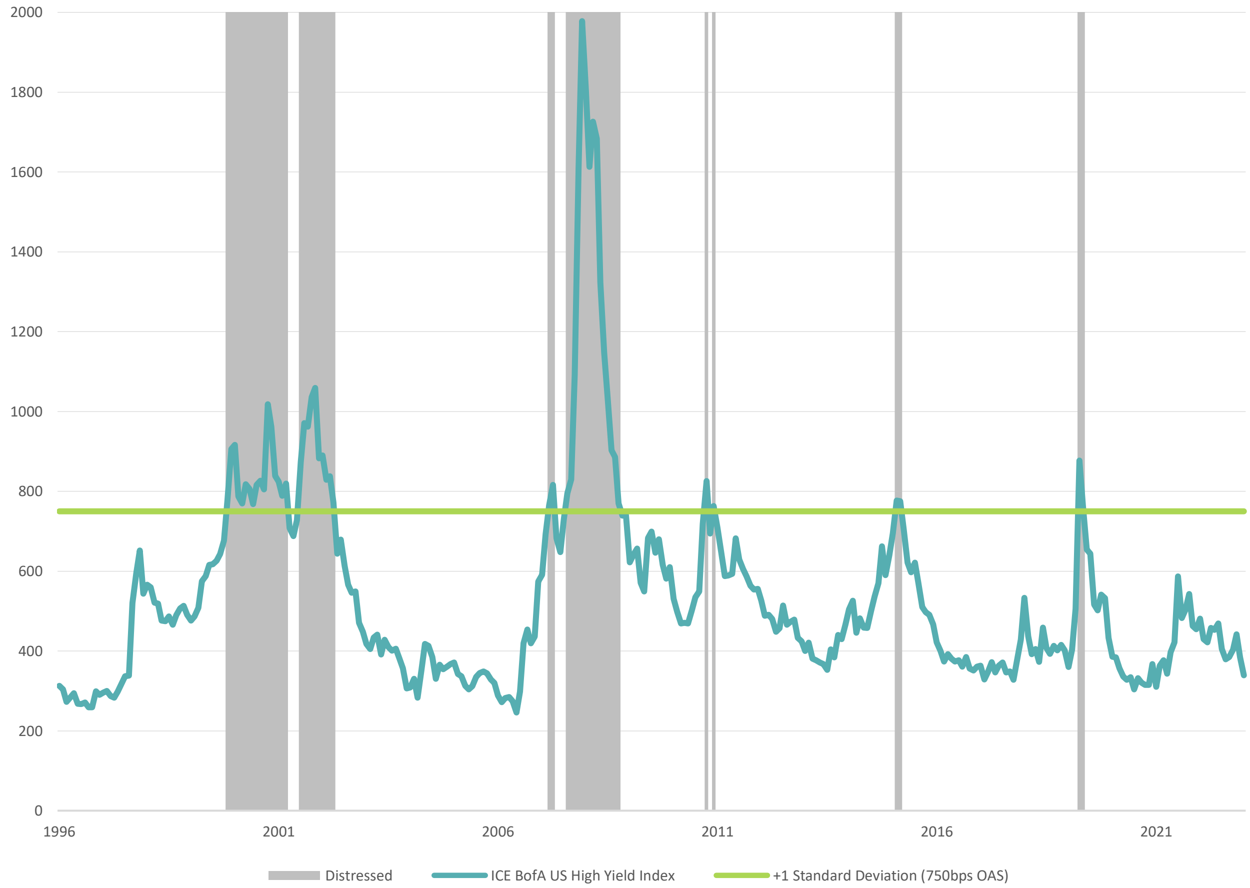
Source: ICE BAML Indices as of 12/31/2023.

3 / Market timing

3.1 Returns in distressed credit markets

In distressed market environments, the extent to which high yield spreads can widen is not uniform across historical bear markets. The average OAS experience in distressed markets is heavily skewed by the Global Financial Crisis when high yield spreads reached nearly 2000bps, implying a nearly 40% default rate based on our previous assumptions (325bps credit risk premium and 40% recovery rate). While high yield total returns were quite challenging during this period of market turmoil, the realized default rate was significantly lower and the subsequent returns to the asset class were quite favorable for investors. Figure 15 shows the options-adjusted spreads of both the high yield index and the BB-B segment, highlighting periods where spreads exceeded 1 standard deviation above the historical average.

Figure 15: Options-adjusted spread by rating (12/31/1996 to 12/31/2023)



Source: ICE BAML Indices, Bloomberg L.P., DWS calculations as of 12/31/2023

The widening in credit risk premia has spurred the creation of risk rotation strategies from asset allocations who are looking to take advantage of wide credit spreads. If the peak in spreads can be estimated with any accuracy, monetizing temporarily high credit risk premia following these market selloffs can help generate quite favorable investment returns. Figure 16 and Figure 17 show the rolling 12-month returns of segments of the high yield market, average next twelve-month returns have been far more favorable following periods of market distress.

Figure 16: Rolling 12-month total returns (12/31/1996 to 12/31/2023)

Source: ICE BAML Indices, DWS calculations as of 12/31/2023.

Figure 17: Average rolling 12-month total returns across segments of high yield (12/31/1996 to 12/31/2023)

	BB-B HY Constrained	CCC & Lower	U.S. High Yield	Cash
Avg 12mo Rolling Return	6.26%	6.05%	6.64%	1.98%
Avg 12mo Rolling Return (Distressed)	14.50%	12.14%	17.11%	1.28%

Source: ICE BAML Indices, Bloomberg L.P., DWS calculations as of 12/31/2023.
*Cash return uses Bloomberg US Treasury Bills 1-3 Month Index.

4 / Conclusion

The need for nominal and real income generation by insurance companies in the decade and a half following the financial crisis has pushed insurers out on the risk curve, with allocations to high yield now making up an important allocation within strategic investment portfolios. As interest rates have moved higher, the yield provided by high yield markets, particularly with lesser interest rate and spread duration as compared to other sovereign and credit asset classes, continues to look quite attractive for insurance investors and other asset-liability plans.

Understanding the risks and access points within the high yield market remains integral for insurers who may be looking to either supplement yield or to express more tactical views on the market. By approaching high yield investments through a thoughtful strategic lens, yield objectives can be potentially achieved with consideration for spread volatility and drawdown risk, ratings quality, and industry concentration. Furthermore, insurance investors looking to be more opportunistic during more distressed market conditions can also utilize different segments of the high yield market such as spread beta, duration, and industry tilts to help achieve their tactical objectives.

Important definitions

Bond investments are subject to interest rate, credit, liquidity and market risks to varying degrees. When interest rates rise, bond prices generally fall. Credit risk refers to the ability of an issuer to make timely payments of principal and interest.

Bond and loan investments are subject to interest-rate, credit, liquidity and market risks to varying degrees. When interest rates rise, bond prices generally fall. Credit risk refers to the ability of an issuer to make timely payments of principal and interest. Floating rate loans tend to be rated below-investment grade and may be more vulnerable to economic or business changes than issuers with investment-grade credit. Bond investments are subject to interest-rate, credit, liquidity and market risks to varying degrees. When interest rates rise, bond prices generally fall. Credit risk refers to the ability of an issuer to make timely payments of principal and interest.

Loan investments are subject to interest-rate, credit, liquidity and market risks to varying degrees. Floating rate loans tend to be rated below-investment grade and may be more vulnerable to economic or business changes than issuers with investment-grade credit.

Investments in lower-quality ("junk bonds") and non-rated securities present greater risk of loss than investments in higher-quality securities.

Credit risk refers to the ability of an issuer to make timely payments of principal and interest. The Credit quality represents the credit worthiness of corporate or government bonds.

Mortgage-backed securities represent interests in “pools” of mortgages and often involve risks that are different from or possibly more acute than risks associated with other types of debt instruments. When market interest rates increase, the market values of mortgage-backed securities decline and volatility of the fund may increase. When market interest rates decline, the value of mortgage-backed securities may increase, but could expose the fund to a lower rate of return on investment.

Municipal securities are subject to the risk that litigation, legislation or other political events, local business or economic conditions or the bankruptcy of the issuer could have a significant effect on an issuer’s ability to make payments of principal and/or interest. The market for municipal bonds may be less liquid than for taxable bonds and there may be less information available on the financial condition of issuers of municipal securities than for public corporations.

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