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Around the Curve

The Quest for Positive Convexity in High Yield Portfolios

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One of us had a professor who would say "When it comes to math, I'm slow but I'm inaccurate." That shortcoming can be a problem for understanding convexity in many parts of the fixed income markets but not in corporate credit. In corporate credit, we evaluate convexity as the upside price potential compared to the downside price potential. The math is simple, but we believe finding creative and prudent ways to improve the convexity of a high yield portfolio can be a key to outperformance.

Newly Issued High Yield Bonds Typically Have Poor Convexity

Newly issued high yield bonds typically have limited upside price potential compared to downside price potential. Price upside is limited by their shorter maturities, typically 10 years or shorter, and the fact that most can be called, *i.e.*, redeemed, early by the issuer. Non-call periods and call premiums improve upside price potential. However, over the last decade non-call periods have become shorter and call premiums lower, so the trend has moved in the wrong direction. Higher risk of default, higher volatility or illiquidity, and higher risk-free interest rates can lead to significant downside price potential. To simplify, you can think of a newly issued generic high yield bond as having approximately 5-10 points of upside price potential and 60-70 points or more of downside price potential in a default scenario, based on our experience and calculations.

Newly issued investment grade corporate bonds can have better upside price potential because they are typically not callable and sometimes have longer maturities of 10-30 years or longer. Newly issued loans typically have worse upside price potential because they are often callable at a slight call premium for the first six months or so. After that, they frequently can be called at par, or 100 cents on the dollar. Loans may be issued at a slight discount to par, but the upside price potential generally is equivalent to a few points at best.

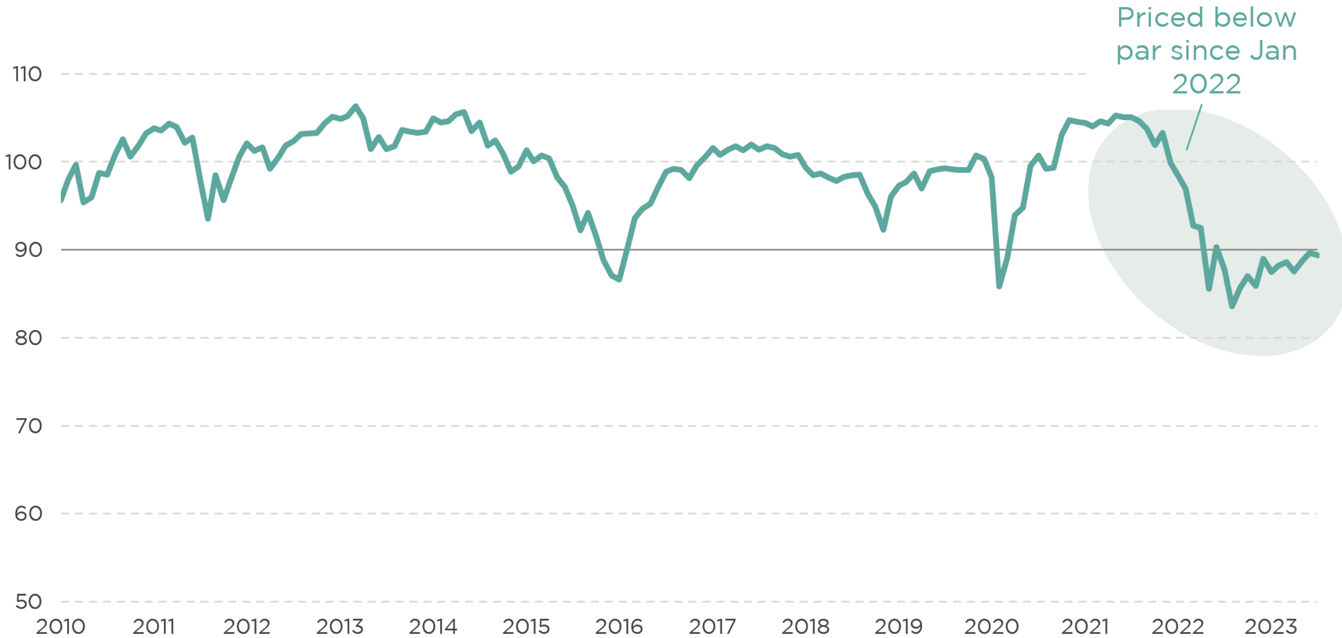
Secondary Market High Yield Convexity Is Much Better Today

As shown in the chart below, for much of the post-Global Financial Crisis (GFC) period, the US high yield market has traded at par or higher (see Exhibit 1). The high yield index traded below 90 cents on the dollar for a few months in late 2015 through early 2016, when energy was under pressure and recession fears were elevated. High yield traded below par again for a few months in 2020 at the beginning of the pandemic. For most of the last 15 months, however, the high yield index has traded below 90 cents on the dollar due to the large amount of low coupon issuance in 2020-2021 and the significant increase in the base Treasury rate. As a result, convexity in the high yield market is better than it has been for virtually all of the post-GFC period. Instead of 5-10 points of upside price potential, high yield bonds now may offer 15-25 points of upside. Furthermore, instead of 60-70 points or more of downside price potential, we estimate current ranges to be more like 50-60

points and probably much less if the risk of default is at all meaningful because the current dollar price for those credits likely will be much lower than 90 cents.

1 ICE BofA US High Yield Index

Average Price, USD, As of 8/31/2023



Source: Brandwine Global, Macrobond, ICE BofAML

Positive Convexity Plus Upside Surprises

While index level convexity is better than it has been, fundamental analysis and an understanding of the bond structure are still essential. In general, buying bonds at 70-90 cents on the dollar is better than buying them at par but only if that investor avoids excessive defaults and illiquidity. If too many holdings fall to 30-40 cents on the dollar, the results will be poor.

In addition to price, the goal is to identify bonds that have a higher probability of upside surprises than downside surprises. Earlier and/or higher-priced takeouts of the bond can lead to a better yield-to-outcome than the yield-to-worst that is the focus of many market participants. These positive surprises may be the result of mergers and acquisitions, refinancings, or company tenders at premium-to-market prices. Downside surprises may be the result of adverse fundamental developments, poor capital allocation, or decisions that shift value from your bonds to other parts of the issuer’s capital structure.

Better Convexity May Be Available in Investment Grade or Convertible Bonds

Dedicated high yield managers who have minimal or no flexibility to allocate to adjacent asset classes may have trouble building sufficient positive convexity into their portfolios. One recurring issue we have observed is when dedicated high yield managers want to high grade or improve the credit quality of their portfolios because, for example, they believe the probability of recession is elevated. In these instances, they may pile into BBs, the highest credit quality in the high yield market, regardless of price. Because BBs are more often callable, they will have less upside price potential as they get closer to their call price and they become overvalued. The combination of poor convexity and overvaluation is clearly not the right way to get defensive.

We believe high yield managers should have the flexibility to exploit opportunities in adjacent asset classes. For example, BBBs, the lowest credit quality in the investment grade corporate bond market, may be particularly attractive when BBs are not. When dedicated investment grade managers want to high grade their own portfolios, they generally shy away from BBBs. Since BBBs are often not callable, they tend to have better upside price potential. The dislocations between BBs and BBBs have become so pronounced in recent years that, in some cases, spreads widen when a bond is upgraded and narrow when a bond is downgraded (see Exhibit 2). It is essential to analyze each individual situation, but select BBBs may offer better upside price potential and better valuations than some BBs.

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US HY BB Option-Adjusted Spread Less US IG BBB Option-Adjusted Spread

Basis points, As of 8/31/2023

Source: Brandwine Global, Macrobond, ICE BofAML

Another advantage of BBBs for the high yield manager is to add duration, or interest rate sensitivity, to the portfolio with less risk of credit spread volatility. Duration allows the portfolio to benefit from declining base Treasury rates, but it also amplifies the risk of credit spread widening. Our mantra is to take our credit spread with less duration and take our duration with less credit spread. Adding duration to a high yield portfolio with carefully selected BBBs with attractive credit spreads is more prudent than adding duration with overvalued BBs, in our view.

The convertible bond market is another adjacent asset class that also may present opportunities to improve convexity. Some companies issued convertible bonds with zero or near-zero coupons when their stock prices were much higher. These “busted convertibles,” where the equity option is of negligible value, may have significant upside price potential and minimal downside price potential. The issuer may be a high-quality company that has not issued straight corporate bonds so there can be scarcity value as well.

The opportunity for positive convexity in a high yield bond portfolio is better than it has been for virtually all of the post-GFC period. However, fundamental analysis and an understanding of the bond structure are essential to maximize positive surprises and minimize negative surprises. Having the flexibility to look for better convexity in adjacent markets, like investment grade and convertible corporate bonds, can also be valuable

tools for high yield portfolio managers.

The ICE BofA US High Yield Index tracks the performance of USD-denominated below investment grade corporate debt publicly issued in the major domestic markets.

The ICE BofA US High Yield BB Index is a subset of the ICE BofA US High Yield Index tracking the performance of US dollar-denominated below investment grade-rated corporate debt publicly issued in the US domestic market. This subset includes all securities with a given investment grade rating BB.

The ICE BofA BBB US Corporate Index is a subset of the ICE BofA US Corporate Master Index tracking the performance of US dollar denominated investment grade-rated corporate debt publicly issued in the US domestic market. This subset includes all securities with a given investment grade rating BBB.

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