STEVE RUH Co-Director of Research, Non-Investment Grade Credit

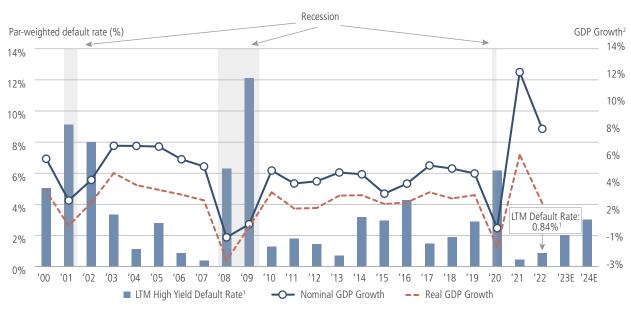
RACHEL YOUNG Co-Director of Research, Non-Investment Grade Credit

Non-Investment Grade Defaults: Up From the Lows, but Contained

With defaults rising off of all-time lows, but likely remaining well below recession norms, we remain constructive on high yield and non-investment grade credit.

We expect defaults in the U.S. high yield credit market to increase from the exceptionally low levels experienced over the past 24 months, but to still remain in line with long-term averages and well below levels realized in past recessionary periods. While above-trend inflation, higher interest expense and a slowing economy will likely be headwinds, high yield issuers are broadly well positioned to navigate the current environment. As a result, our bottom-up default estimates for 2023 (1.5% to 2.5%) and 2024 (2.5% to 3.5%) resemble more of an average default year than the spikes experienced during prior recessions.

HIGH YIELD DEFAULT RATES AND GDP GROWTH



Source: J.P. Morgan, Bureau of Economic Analysis, Neuberger Berman projections for 2023 and 2024.

¹ J.P. Morgan Default Monitor. Defaults based on par amounts. Data as of December 31, 2022.

² Annual GDP growth rates based on SAAR year-over-year percentage change (4Q) except for last data point, which is through 3Q 2022 and based on year-over-year percentage change (3Q 2022/3Q 2021).

Bottom-Up Default Estimates and Process

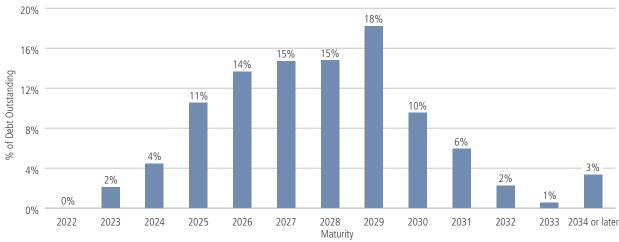
The Non-Investment Grade Credit team's forward-looking default estimates are derived from a bottom-up process that is conducted across the entire universe of approximately 900 U.S. high yield issuers.¹ The credit research team utilizes its sector- and issuer-specific knowledge and expertise to identify issuers where a default is expected. The analysis of bottom-up factors such as industry, business profile, leverage, cash flow, liquidity and maturity schedule are fundamental to the process. This is in contrast to frequently used methodologies that rely on top-down assumptions and market trading levels to estimate forward-looking defaults. Our bottom-up approach to estimating defaults leverages our team's credit research capabilities, and, in our view, provides greater depth and insight into the subject.

Key Drivers of the Low Default Rates

Limited near-term debt maturities, structural market quality improvements and credit profiles strengthened by a period of robust economic growth provide most U.S. high yield issuers with the ability to navigate the current operating environment. Elevated nominal GDP growth may also assist in keeping default rates at lower levels, along with a far healthier energy sector (a frequent contributor to defaults in prior years) than in past periods of market volatility.

The highly accommodative capital markets environment of 2021 allowed high yield issuers to term out their capital structures at a low cost of capital. As a result, the favorable maturity profile of the high yield market is providing issuers with plenty of time to adjust to any challenges without the need to refinance maturities. During the COVID pandemic, management teams broadly surprised to the upside in their ability to adapt to a rapidly changing operating environment, which could be an important driver of credit differentiation in the coming quarters.

¹ ICE BofA U.S. High Yield Master II Index.



U.S. HIGH YIELD: OUTSTANDING BOND MATURITY DISTRIBUTION

Source: ICE BofA U.S. High Yield Master II Constrained Index (HUC0), as of December 31, 2022.

The structure of the high yield market has materially improved over the past 15 years. The percentage of BB rated issuers has almost doubled since the Global Financial Crisis, while the percentage of CCC rated issuers has declined significantly. New issue trends have also been constructive, with the use of proceeds for the majority of new issuance being directed toward refinancing with a greater skew toward higher-quality ratings than in past periods of rising defaults. We believe these trends have structurally lowered the default outlook for the high yield market, particularly relative to the 2001 – 2002 and 2008 – 2009 time periods, when these metrics were materially weaker.

COMPARISON: MARKET CHARACTERISTICS IN PERIODS OF ECONOMIC STRESS

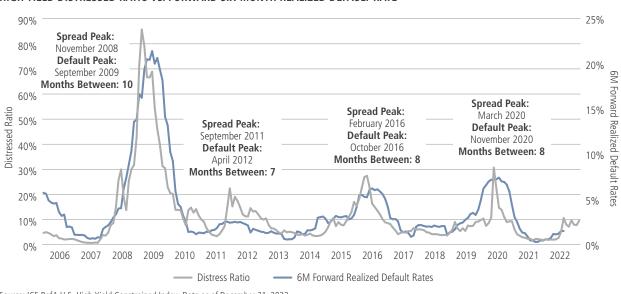
| Time Period | 2001/2002 | 2008/2009 | 2015/2016 | 2019/2020 | 2022/2023 |
|--------------------------------|-----------------------|-----------|-----------|-----------|-----------|
| Default Rate (%) ¹ | | | | | |
| Year 1 | 9.1 | 6.3 | 1.8 | 2.6 | N/A |
| Year 2 | 8 | 12.1 | 3.6 | 6.2 | N/A |
| Year 1 & 2 Total | 17.1 | 18.4 | 5.4 | 8.8 | N/A |
| Prior 2 Years Use of Proce | eeds (%) ² | | | | |
| Leveraging | 66.3 | 64.8 | 43 | 37.9 | 37.9 |
| Refinancing | 33.7 | 35 | 53.6 | 60.9 | 60.2 |
| Prior 2 Years New Issue R | ating (%)² | | | | |
| BB & Above | 26.8 | 22.5 | 36.4 | 34.5 | 40.8 |
| Split BB / B | 57.1 | 41.3 | 45.1 | 48.1 | 45.2 |
| Split B / CCC / NR | 16.1 | 36.3 | 18.4 | 17.4 | 13.9 |
| Market Rating (%) ³ | | | | | |
| BB | 35.7 | 38 | 46.3 | 48 | 54.2 |
| В | 55.1 | 43.2 | 39 | 40.3 | 35.3 |
| CCC & Below | 9.2 | 18.8 | 14.6 | 11.7 | 10.5 |

¹ Source: J.P. Morgan. "Year 1" represents the first year of the period and "Year 2" represents the second year of the period.

² Source: J.P. Morgan. "Prior 2 Years" represents the average of the two full years preceding the period. Leveraging includes Acquisition Finance/LBO, General Corporate, Dividend.
³ Source: Bank of America. Data represents the ICE BofA U.S. High Yield Index (H0A0). As of the year-end preceding each period (e.g., the data displayed for 2001/2002 is as of December 31, 2000).

Merits of Allocating to High Yield Ahead of Rising Defaults

Allocating to high yield ahead of a rising default environment may seem counterintuitive; however, we believe the market is generally effective at identifying and pricing in defaults in advance of their occurrence. Consequently, spreads have tended to peak prior to defaults. Issuers at risk of default are generally well known to the market and priced accordingly well in advance of a formal default. During periods of economic volatility, defaults typically are concentrated in this lowest rung of well-known stressed issuers. As a result, allocating to high yield during a rising default environment generally has been a good entry point with credit risk being priced into the market ahead of formal defaults.





Source: ICE BofA U.S. High Yield Constrained Index. Data as of December 31, 2022

Default Outlook Relative to European High Yield

In our view, the European high yield credit market is likely to experience headwinds similar to those within the U.S., but will also be affected by higher energy costs. Offsetting these risks is a higher-quality ratings mix, with BB ratings comprising 67% of the market as of January 31, 2023. The result is a forward-looking default estimate that is similar but slightly higher than the U.S., with a 2023 default estimate of 2.0% to 3.0% and a 2024 default estimate of 2.5% to 3.5%.

Higher Dispersion and Constructive Defaults Outlook Provide an Opportunity for Bottom-Up Credit Selection

The recent increase in yield within the high yield market has brought the outlook for defaults into focus. We expect earnings volatility to increase in 2023; however, the period of robust growth and accommodative capital markets experienced over the past couple of years has left issuers well positioned to navigate this environment. While headwinds to credit improvement are likely to persist well into 2023, issuers are entering the period from a position of strength with a long runway to navigate macro or issuer-specific challenges. In this environment, we expect credit dispersion between sectors and issuers to increase while defaults remain low, providing an attractive backdrop for managers with strong bottom-up credit capabilities to drive alpha through credit selection.

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Neuberger Berman 1290 Avenue of the Americas New York, NY 10104-0001