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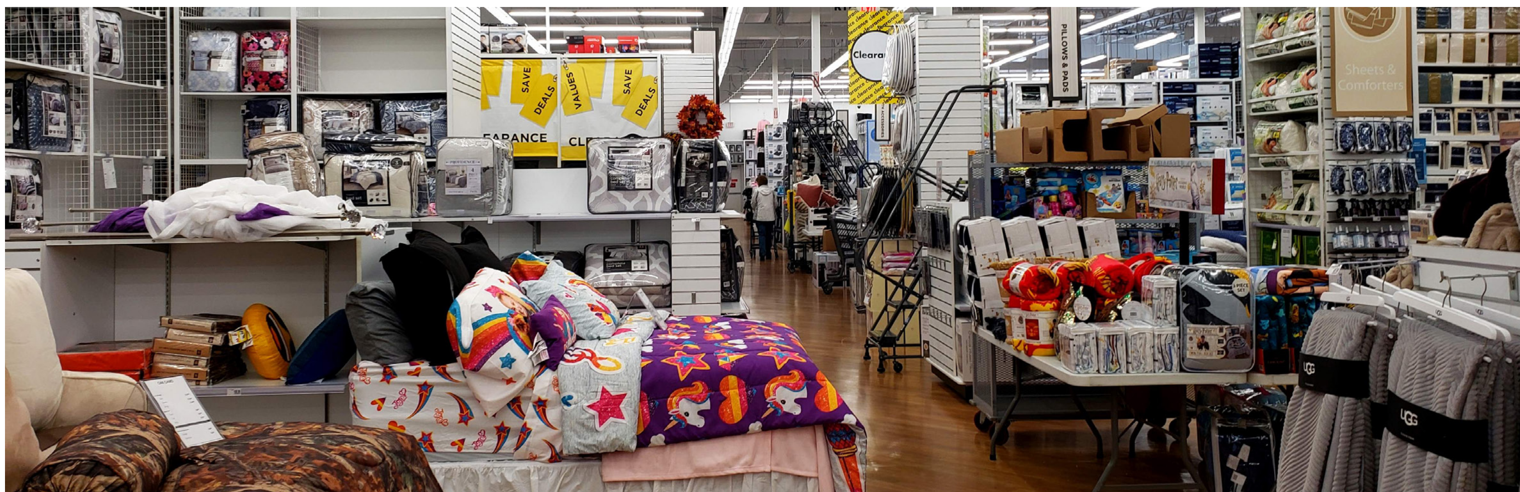
Credit risk, portfolio management
October 21, 2022
Issue 009

Holiday Prep: Can Home Furnishers Outshine Increasing Credit Risk?

Retail sales have been trending lower since March 2021 with furniture and home furnishing seeing declines in recent sales. Brick and mortar retailers have struggled from the onset of the pandemic due to supply chain constraints and growing preferences for online shopping. As consumers now shift spending to services from goods, stores have been stuck with inventory they cannot sell and are forced to cut staff or even close. These adjustments have not been enough though as companies find themselves strapped for cash and investors grapple with elevated credit risk.



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Challenge

The home furnishing chain Bed Bath & Beyond is the latest high-profile consumer durables company to struggle. It took a negative turn in 2019, when the college dorm superstore reported financial losses for the first time in 27 years. The company tried to turn things around by growing its e-commerce business during the pandemic, but competition has been fierce in this segment. Net-income has remained negative as EBITDA has been declining for the last five years. Due to these challenges, the company and investors are straddled with a junk rating status.

The volatile and uncertain environment of the U.S. consumer durables industry and Bed Bath & Beyond, sharply hit by the pandemic, highlights the need to adopt timely and forward-looking analytics to help quantify and understand corporate credit risk. In this article, we demonstrate two leading analytics in action: early warning signals to understand deteriorating credit risks; and alternative scenario credit risk projections to help understand future trouble spots.

Insights

Looking for credible and timely early warning signals is a complex exercise, since commonly used metrics such as firm's financials, the prices of traded financial assets, or macroeconomic indicators do not clearly indicate when and which exposures to worry about. Moreover, when setting early warning thresholds, warning systems may return an excessive number of names at risk, which can be costly to monitor. Moody's Analytics credit risk models and Early Warning System from the EDF-X solution captured Bed Bath & Beyond's surging credit risk beginning in late 2018.

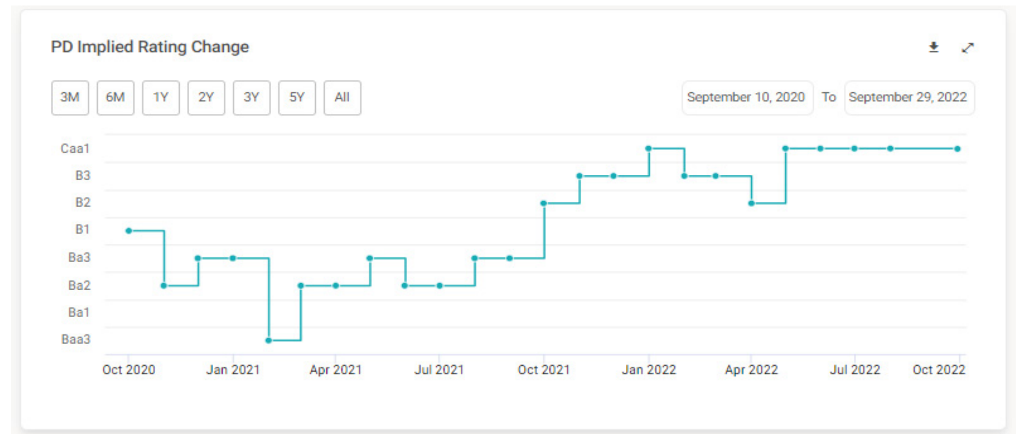
Investors and risk managers can use alternative economic scenarios to prepare for an uncertain and rapidly changing economic environment. We analyze how these economic shocks and operations could affect the industry's credit risk. Our worst case alternative economic scenario suggests the default rate in the consumer durables industry could exceed the financial crisis.

Analysis

In late 2018, Bed Bath & Beyond's 1-year forward probability of default (PD) surged, approaching the default trigger threshold that identifies the riskiest firms within a region or industry peer group.[1] The company first reported poor financial performance in Q1 2019, causing it to first breach the trigger in July 2019 as it struggled to maintain market share against online competition. Bed Bath & Beyond has been a watchlist candidate for three years; its default risk has been on a roller coaster ride without ever materially dropping below our threshold.

Figure 1 Bed Bath & Beyond's elevated credit risk since October 2018

Figure 2 Implied risk rating deteriorates since early 2021



[1] To obtain an accurate warning signal, we define a trigger threshold calibrated by region and industry peer groups. When the PD measure of the company is below its trigger, our model interprets signals from the financial statements and market suggesting there is no reason to worry. When the trigger threshold is crossed, however, it indicates a default warning for the firm, and the need to monitor if the high risk improves or deteriorates.

Figure 1 shows Bed Bath & Beyond's default risk measure (PD) passed the trigger level two times after the initial breach: In February 2020, with the onset of the pandemic; and again in September 2021, when share prices declined as it warned of lower revenue and earnings in its outlook. In 2020 and 2022, the default risk stayed well above the trigger, with average values doubling and tripling since 2018, indicating a noteworthy financial distress signal.

We can understand how risk evolved by mapping default risk to appropriately matched Moody's Investors Service credit rating category. As seen in Figure 2, Bed Bath & Beyond's PD implied rating has been in non-investment grade territory for the last two years, consistently deteriorating to Caa1 where it sits today.

> Moody's Analytics EDF-X Early Warning System captured Bed Bath & Beyond's surging credit risk as early as October 2018.

Meme Stock Mayhem

In March 2022, Ryan Cohen, chairman of GameStop, announced a 10% stake in Bed Bath & Beyond causing a Reddit frenzy among retail investors. Bed Bath & Beyond shares jumped 350% in early August in a short squeeze and then dropped soon after when he sold his stake. The stock volatility did not go unnoticed by our PD model, as the volatility of asset values increased during the asset price swings. As fundamentals and market sentiment deteriorated, investors were left with very high levels of credit risk. As seen in our previous meme stock analysis, the January 2021 GameStop rally and June 2021 AMC rally helped support stock prices, as was the case for Bed Bath & Beyond's meme stock. While GameStop and AMC got a lifeline from this influx of cash, Bed Bath & Beyond wasn't able to take advantage the same way.

These measures are driven by two fundamental risk factors: business risk and financial risk. Business risk is measured by the volatility of a company's asset value, which includes physical, non-physical, and financial assets. Financial risk is measured by the ratio between a company's default point[2] and its asset value.

During the pandemic, Bed Bath & Beyond's market value of assets dropped and moved closer to its default point causing a spike in PD. In early 2021, the relationship between these two drivers had a consistent directional movement, maintaining stable PD levels. However, from mid-2021 to the present, its asset volatility has increased substantially while its market value of assets consistently dropped, indicating that the firm's rising credit risk.

The problems for the sector are not isolated to Bed Bath & Beyond. Retail sales for furniture and home furnishing are forecasted to decline in nominal terms suggesting that demand will be a headwind. In a portfolio of 86 U.S. consumer durables companies as of September 12, 2022 as seen in Figure 3, over one-third have a severe Early Warning Score, which indicates that their PD is above its peer group trigger level, and its implied rating has deteriorated. Furthermore, nearly two-thirds of these companies saw their Early Warning Score deteriorate.The Early Warning Score is useful to identify at-risk names across large portfolios with enough time to take action and can even help uncover opportunities.

Preparing for Uncertainty: Economic Impact on Consumer Durables Sector Credit Risk

For our economic scenario analysis, we leverage Moody's Analytics Baseline (BL) and two stressed scenarios: Severely Adverse (S4) and Stagflation (S6).[3] Under the BL scenario, the economy should reach full employment and avoids a recession. The forecast is for a 75-basis point rate hike at the November Federal Open Market Committee meeting. The outlook for housing is tenuous though as higher mortgage rates and rising prices are cutting into affordability. We assume that oil prices begin to drop in 2023 as the Russian oil supply loss will be largely offset by increasing OPEC and non-OPEC output, demand destruction due to higher prices, and the easing of sanctions on Iran and Venezuela.

Under the stressed scenario S4, the military conflict worsens dramatically, expanding beyond Ukraine and causing commodity prices to rise more sharply than in BL, with major interruptions to supply chains. COVID flares once again before abating in early 2023.

The S6 scenario is designed as a stagflation scenario. In this scenario, the Fed raises the fed funds rate slightly faster than in the baseline during 2022 and the first half of 2023, despite a deceleration in the economy. OPEC oil supply cuts are more than expected and the Russian invasion of Ukraine persists much longer than anticipated.

Figure 3 **Early Warning Score identifies 31 companies to watch in U.S. consumer durables portfolio**

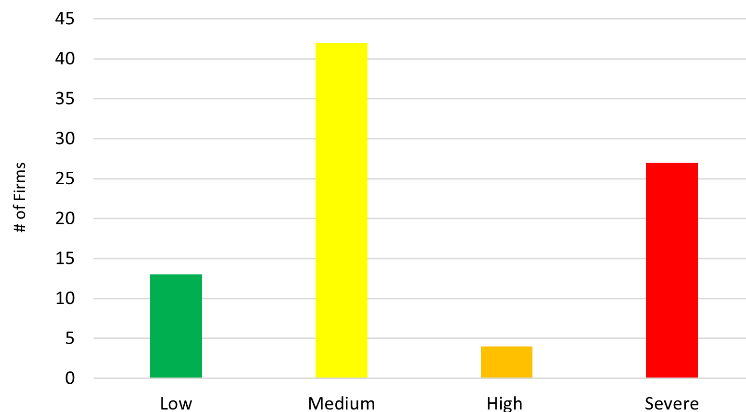


Figure 4 **Default risk could reach record high**

[2] We define the default point as when creditors lose faith in a firm's ability to service its current obligation, stop extending credit, and push the firm into default. Theoretically, default occurs when the firm's asset value falls to the default point level.

[3] The forecast was created in September 2022.

Furthermore, supply bottlenecks persist due to exports of components and commodities from Ukraine and Russia being disrupted. This causes oil prices to rise faster than in the baseline in 2023, although slower than in S4, and remain higher than the baseline through 2024.

Figure 4 shows the historical and projected effects on average corporate credit risk for the consumer durables industry under alternative economic scenarios. To obtain forecasted default rates, we condition our forward-looking corporate default probabilities on firm-specific information as well as on macroeconomic factors like GDP, consumer spending, and the unemployment rate, which differ across alternative scenarios.

As Figure 4 shows current economic conditions would not cause corporate default probabilities to jump as supply chains stabilize and the labor market remains strong. Nevertheless, the pandemic and the resulting downturn caused PD measures to rise to their highest level since 2008. Due to the recent worsening of financial conditions, the peak PD levels in the severely adverse scenario is projected to be higher than during the last 20 years. The BL scenario projects an average PD measure of 6.2%, while the S4 and S6 stressed scenarios exhibit an increase in credit risk, peaking at 18.0% and 12.1%, respectively. As economic conditions become more volatile, the projected PD level shows the potential for significant downside risk.

Key Takeaways

» Using forward-looking credit risk signals and actionable insights from the Early Warning System in the EDF-X solution, we capture the earliest signs of credit deterioration for Bed Bath & Beyond beginning in late 2018. This company could have gone on a watch list 3 years ago, giving risk and portfolio managers enough time to take action.

» The recent surge in prices and lowered demand threaten to result in a significant increase in corporate defaults—if the credit environment further deteriorates due to more uncertainties in the path of economic recovery. As economic volatility is likely to persist, we need to estimate the potential impact of a range of potential economic scenarios on credit risk.

» Moody's Analytics Stressed PD model shows that although a credit crisis has not yet materialized to drive up the consumer durables industry's default risk to levels seen during the Global Financial Crisis, should the stressed scenarios realize, defaults for U.S. consumer durables corporates would likely rise to levels surpassing the 2007–2008 economic crisis.

Learn More About EDF-X

EDF-X, Moody's Analytics flagship solution for credit insights and early warning signals, pre-calculates credit measures for 425+ million companies globally—public and private, rated and unrated—using the best data available and provides customized views for a range of credit decisions.

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