

ON POINT

ECONOMIC AND POLICY INSIGHT FROM THE OCC

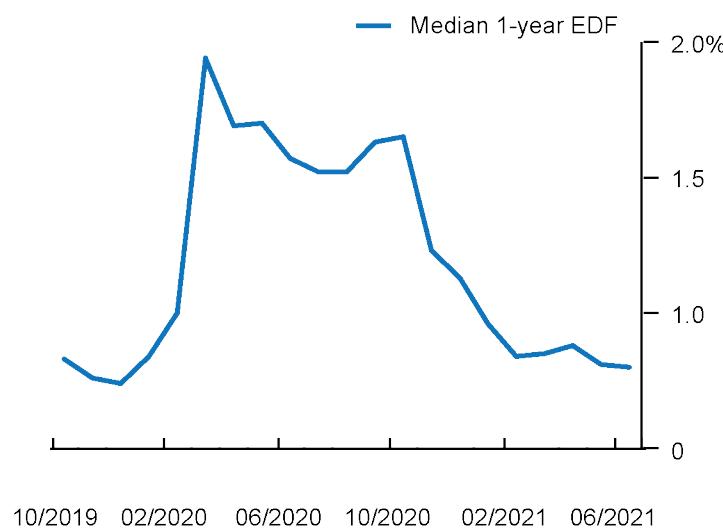
Industries Recovering Unevenly From the Pandemic

The COVID-19 pandemic affected industries differently, and as the economy more fully reopens, each industry faces diverse challenges in shifting from a crisis response toward recovery. The recovery in business financial conditions has been uneven, as evidenced by considerable variation across industries in key financial metrics, including expected default frequencies (EDF)¹ and certain financial performance ratios. Some of the hardest-hit industries, such as transportation, accommodation, and food service, remain under elevated stress compared with pre-pandemic levels, though retail trade seems to be doing much better.

Before turning to industry-specific metrics, it is useful to review economy-wide financial trends to understand the impact of the pandemic in 2020 and 2021. As shown in figure 1, when the pandemic hit, the U.S. median one-year EDF spiked upward in March 2020 and remained relatively high through October 2020, before declining late last year. This EDF remained on a downward trend, before flattening out starting in March 2021. The same is true for two other important financial performance metrics, leverage ratios and interest coverage ratios, which deteriorated at the start of the pandemic before starting to improve in the second quarter of 2020, as shown in figure 2. However, the return to pre-pandemic EDF levels has been much slower for some industries that are still exhibiting elevated risk. While the one-year EDF is a good measure of risk for corporations, financial performance ratios provide additional insight into corporate risk and EDF movement. Looking at both types of metrics allows for a more complete picture of an industry's risk profile. In addition, both the change and the trend of the metrics should be analyzed to provide a more complete picture of the pace and direction of an industry's recovery.

¹ Several vendors provide EDF measures. The Moody's Analytics EDF used here is a forward-looking measure of the probability that a publicly incorporated firm will default on its debt over a specific period. The EDF quantifies business and financial risk by calculating the difference between the market value of a firm's assets and its book value of liabilities. Default is projected to occur when the market value of a firm's assets falls below the book value of its liabilities. To gauge which industries have rebounded and which are still struggling, looking at financial ratios and EDFs provides a picture of an industry's riskiness. The financial ratios are expected to influence the EDFs, meaning that when financial ratios deteriorate, the EDF should rise as default risk increases.

Figure 1: U.S. Nonfinancial Industries: Expected Default Frequency



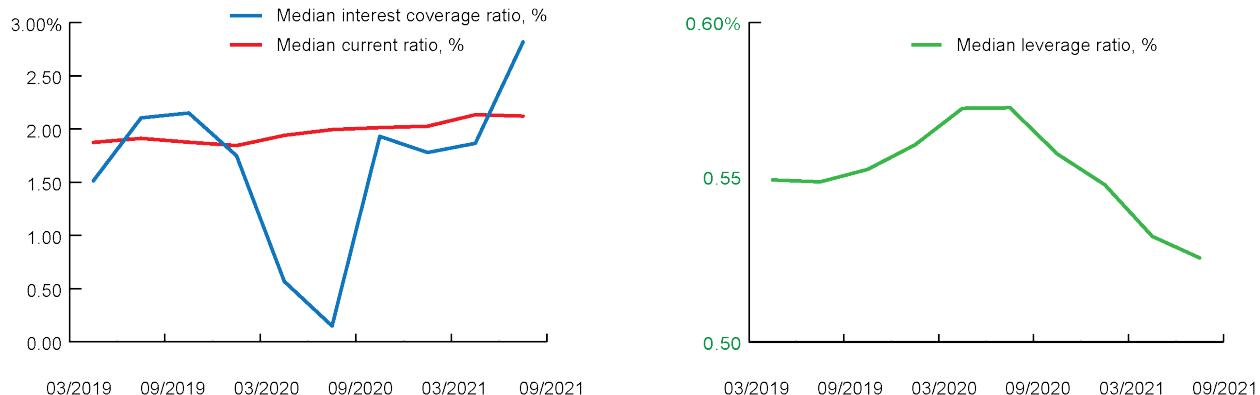
Source: Moody's Analytics

Note: All public nonfinancial corporations continuously in operation from October 2019 to June 2021. Excludes real estate rental and leasing, agriculture, fishing and hunting, educational services, finance and insurance, management of companies and enterprises, and utilities.

Three financial ratios are particularly useful:

- **The interest coverage ratio** (earnings before interest expenses and taxes (EBIT)/interest expense) complements the leverage ratio, as it measures how easily a company can pay interest on its outstanding debt. The ratio can be used by creditors to assess the risk of lending capital to a firm—the lower the ratio, the greater the risk that the corporation cannot service its debt.
- **The current ratio** (current assets/current liabilities) is a liquidity ratio that measures a company's ability to pay obligations due within one year. It reflects a company's ability to cover its short-term debt with its current assets. The lower the ratio, the greater the risk the corporation will be unable to pay off current liabilities with short-term assets such as cash, inventory, and receivables.
- **The leverage ratio** (total liabilities/total assets) indicates the percent of assets that are being financed with debt rather than equity. The higher the ratio, the greater the degree of financial risk and potential insolvency of the corporation. Leverage summarizes balance sheet structure by measuring total liabilities, inclusive of short-term debt, long-term debt, and other liabilities recognized by the corporation, as well as total assets.

Figure 2: U.S. Nonfinancial Industries: Financial Ratios



Sources: Compustat/Wharton Research Data Services

Note: Public nonfinancial corporations continuously in operation from October 2019 to June 2021. Excludes real estate rental and leasing, agriculture, fishing and hunting, educational services, finance and insurance, management of companies and enterprises, and utilities.

In this analysis, these ratios are calculated using quarterly financial statements filed with the Securities and Exchange Commission. Together, they give a broad picture of the financial health of corporations within an industry.

Overall industry risk profiles are analyzed by examining both the changes in the median one-year EDF for each industry and the median financial ratios in each industry² during the pandemic. Specifically, the basis point change in median one-year EDFs from January 31, 2020, to June 30, 2021, and the basis point change in median quarterly financial ratios from the fourth quarter of 2019 and second quarter of 2021 were calculated for corporations in continuous operation from October 2019 to June 2021 for both financial ratios and EDFs. The industries considered to have elevated risk are those with median financial ratios that have deteriorated *and* a median one-year EDF that remains above its pre-pandemic level. Conversely, those industries considered to have an improved risk profile demonstrate better financial ratios and a median EDF equal to or below pre-pandemic levels.

On the Fast Track to Recovery

As mentioned before, median one-year EDFs for some industries are currently lower than their pre-pandemic levels. Table 1 shows those industries with the most improved median EDF³ levels. While most of the median financial ratios for these industries showed either strong or moderate improvement, some ratios deteriorated. The interest coverage ratio weakened only for the mining, quarrying, oil, and gas industry. Leverage ratios deteriorated in both the retail trade and the mining, quarrying, oil, and gas industries. Overall, however, the ratios point to improved solvency in these industries. The improved financial conditions for the industries in this group are in line with the decline in the median EDF, reflecting a lower level of default risk.

² Industries are defined by their two-digit [North American Industry Classification System \(NAICS\)](#) code.

³ For all the tables, the color categories for the ratios and EDFs are assigned using the median of improved EDF or financial ratios and the median of deteriorating EDFs or ratios.

Table 1: Most Recovered Industries

According to EDF basis point change from January 31, 2020, to June 30, 2021

Industry	Median interest coverage ratio	Median current ratio	Median leverage ratio	Median 1-year EDF
Mining, quarrying, oil, and gas	-252.31	11.77	4.24	-289.83
Health care, social assistance	16.95	34.30	-14.54	-47.00
Retail trade	404.01	1.61	10.33	-33.18

 Strong improvement  Moderate improvement  Moderate deterioration  Strong deterioration

Sources: Moody's Analytics and Compustat/Wharton Research Data Services

Note: Public corporations in continuous operation from fourth quarter of 2019 to second quarter of 2021 for both financial ratios and for EDF.

As mentioned above, the mining industry seems to be the exception—registering the strongest improvement among industries with declining EDFs. The median one-year EDF for this industry spiked by 4.15 basis points in April 2020 when West Texas Intermediate (WTI) oil prices briefly became negative, and default risk remained high until October 2020, when WTI oil prices started to rise above \$40 per barrel for a sustained period. As a result, despite having the highest median one-year EDF overall, the risk level of this industry has gone down.

The financial ratios for mining mostly tell a similar story as the EDF. The median interest coverage ratio was negative before and during the pandemic, reflecting operating income losses. But, as with the median leverage ratio, the median interest coverage ratio has improved sharply since the second quarter of 2020, reflecting smaller operating losses and even positive income in the first two quarters of 2021, while interest expenses remained relatively flat. After an initial spike in the first quarter of 2020, the median leverage ratio started to come down in the second quarter of 2020 and, although it has been flat in 2021, leverage is close to its fourth-quarter 2019 level. This positive development tracks with the oil and gas industry becoming less reliant on debt. Lastly, the median current ratio for the mining industry has improved as the industry is better able to cover its short-term liabilities with assets that can quickly be converted to cash. So overall, the financial ratios reinforce the picture provided by the EDF—after experiencing severe stress in 2020, corporations in this industry mostly seem to be on the road to recovery in 2021.

On the Slower Road to Recovery

Some industries have faced a weaker recovery, with moderate improvements or slight deteriorations in their median EDF. As shown in table 2, the ratio changes for this group mostly reflect an improvement in the financial profile of these industries. Among this group of industries, only the manufacturing and the professional, scientific, and technical services industries saw moderate improvement in their median EDF and improving financial ratios. Other industries in this group saw a moderate deterioration in their EDF and an inconsistent trend in their financial ratios—a few financial ratios deteriorated, while most improved. The median leverage ratio improved for all industries and only one financial ratio deteriorated for the wholesale trade and information industries, even though their median EDF deteriorated.

All the financial ratios for the other services industry improved, but its median EDF was the highest of the group, indicating that this industry has the highest risk of default. Both the median interest coverage ratio and the median leverage ratio deteriorated in the last quarter of 2020 but

improved significantly since then, surpassing their pre-pandemic levels. With vaccination becoming more widespread, the demand for services surged in the first half of 2021, pushing earnings up. Rising earnings in turn improved the interest coverage ratio and reduced liabilities, which helped drive recovery of the median leverage ratio for other services. A similar pattern is reflected in the EDF, which spiked in September 2020 and then significantly decreased until March 2021, when the first cases of the Delta variant were identified in the United States. The emergence of the new variant curbed the improvement in the median EDF, despite all of the financial ratios showing at least moderate improvement until June. The improving 2021 financial profiles across these industries are consistent with the surge in overall demand, while the deteriorating EDFs align with the increased risk posed by the Delta variant.

Table 2: Moderately Recovered Industries

According to EDF basis point change from January 31, 2020, to June 30, 2021

Industry	Median interest coverage ratio	Median current ratio	Median leverage ratio	Median 1-year EDF
Professional, scientific, and technical services	27.98	6.54	-7.23	-11.21
Manufacturing	68.49	22.79	-13.77	-1.54
Wholesale trade	123.20	-7.14	-2.81	3.65
Information	-26.62	25.51	-8.54	14.06
Administrative and support and waste management and remediation services	85.51	3.58	-0.31	24.08
Other services	71.87	15.36	-2.35	32.00

Strong improvement Moderate improvement Moderate deterioration Strong deterioration

Sources: Moody's Analytics and Compustat/Wharton Research Data Services

Note: Public corporations in continuous operation from fourth quarter of 2019 to second quarter of 2021 for both financial ratios and for EDF.

Some Industries Left Behind, for Now

Not all industries have shown improvements in median one-year EDF, but even in this group the financial profiles point to a strong recovery from the pandemic. As shown in table 3, among the group of industries with the greatest increase in median EDF, the median leverage ratio deteriorated only for the accommodation and food services and the transportation and warehousing industries. All other median ratios for industries shown in table 3 improved.

The median one-year EDF for the accommodation and food services industry is the lowest among this group of industries despite being hard-hit by the COVID-19 lockdowns. Rising vaccination rates and wider availability of testing are mitigating the effect on restaurants and accommodation, but the emergence of the Delta variant remains a headwind for these businesses. Although the median interest coverage and current ratios improved, leverage deteriorated for the accommodation and food services industry.

The median one-year EDF for the arts, entertainment, and recreation (entertainment) industry remains the most elevated above its pre-pandemic level. The entertainment industry was devastated by the pandemic as museums, amusement parks, theaters, and many other venues closed. This industry's median one-year EDF spiked in July 2020 and has declined since. However, the decline started to slow down in March 2021, and the EDF remains above its pre-

pandemic level. The evolution of the financial ratios is in line with the movement of the EDF for this industry, as all the ratios have been improving since the second quarter of 2020. With the rising vaccination rate, people have been more comfortable going out and traveling, which has benefited the industry's recovery. Even though the level of risk remains above its pre-pandemic level, risk has already decreased considerably.

Table 3: Industries With Elevated Risk

According to EDF basis point change from January 31, 2020, to June 30, 2021

Industry	Median interest coverage ratio	Median current ratio	Median leverage ratio	Median 1-year EDF
Accommodation, food services	42.46	57.78	1.91	40.09
Construction	151.75	1.59	-4.54	42.36
Transportation, warehousing	6.49	34.42	5.53	46.96
Arts, entertainment, and recreation	129.54	40.31	-0.75	47.68

Strong improvement Moderate improvement Moderate deterioration Strong deterioration

Sources: Moody's Analytics and Compustat/Wharton Research Data Services

Note: Public corporations in continuous operation from fourth quarter of 2019 to second quarter of 2021 for both financial ratios and for EDF.

The Point?

The recovery of U.S. businesses has been uneven, with some of the hardest-hit industries such as accommodation, restaurants, and transportation remaining under elevated stress earlier this year, though retailing has shown much improvement.