Weekly Credit Brief Oct 26 - Nov 01 2021

Labor shortages and supply chain disruptions set to drive heightened credit risk for the US transportation industry

by Ng Ziyan Derlyn

- **The US transportation industry has benefited from increased consumer demand on the back of loosening restrictions, with their NUS-CRI Agg PD demonstrating stability in credit risk**
- **The NUS-CRI Agg Forward 1-year PD underscores the increasing credit risks the US transportation industry is expected to face, as debt repayment pressures mount amidst disruptions to operations caused by the global supply chain crisis**
- **Disruptions have especially impacted the marine transportation sub-sector, as congestion and bottlenecks around US ports hinder operations, concurrent with the sub-sector's NUS-CRI Agg Forward PD**

As the majority of the world recovers from the COVID-19 pandemic, increasing consumer demand has spurred a heightened demand for transportation, translating to higher operating margins for the industry. Both the US and the global transportation industry's[1] NUS-CRI Aggregate (median) 1-year Probabilities of Default (Agg PD) have remained stable so far this year. However, incumbent turmoil around global supply chains, including raw material shortages, port closures, and shipment delays, have threatened their operations. These issues present a mounting challenge especially for the US, where consumer demand has surged unrelentingly, while the industry simultaneously tackles a shortage of workers and congested marine ports. The heightened credit risk of the US transportation industry is shown by the elevated NUS-CRI Agg Forward 1-year PD (Forward PD[2]) in Figure 1b, showing a divergence from their global counterparts and surpassing the upper quartile of their global peer's credit risk in the short-to-medium term.

[1] The NUS-CRI sample of the transportation industry includes Air-freight, Rail, Services, Marine, Truck, and Equipment and Leasing companies.

[2] The Forward PD estimates the credit risk of a company in a future period, which can be interpreted similar to a forward interest rate. For example, the 6-month Forward 1-year PD is the probability that the firm defaults during the period from 6 months onwards to 18 months, conditional on the firm's survival in the next 6 months.

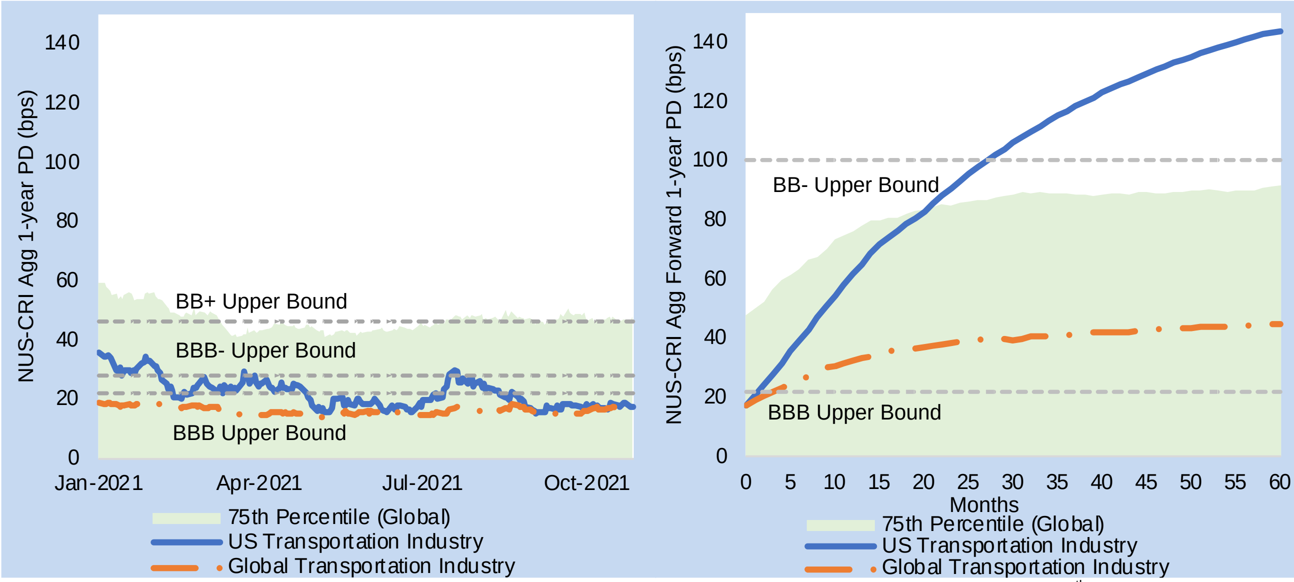


Figure 1a (LHS): NUS-CRI Agg (median) 1-year PD for the United States, Global transportation industry and the 75th percentile of the Global transportation industry from Jan-2021 to Oct-2021 with reference to PDiR2.0[3] bounds. Figure 1b (RHS): NUS-CRI Agg (median) Forward 1-year PD for the United States, Global transportation industry and the 75th percentile of the Global transportation industry as of Oct-2021 with reference to PDiR2.0 bounds. *Source: NUS-CRI*

Although a surge in demand has pushed up operating margins, the US transportation industry may not be able to take full advantage of this increase as suppliers for key goods such as electronics, semiconductors, and commodities, etc. are unable to keep up with the relentless demand, impacting trade routes with the US. The US has witnessed an unprecedented surge in demand for goods nearing all-time highs, with retail sales 20% higher than Dec-2019's levels, which has resulted in longer delivery delays than those witnessed in other economies. However, longer delivery times signal that companies are struggling to increase the scale and accompanying capabilities of their operations, which may result in missed cash flows from operations and higher expenses. Though the credit health of the US transportation industry has not faced the full brunt of these challenges so far, should the current shortage in global supply chains persist, their ability to weather cash-flow related operational headwinds may decrease.

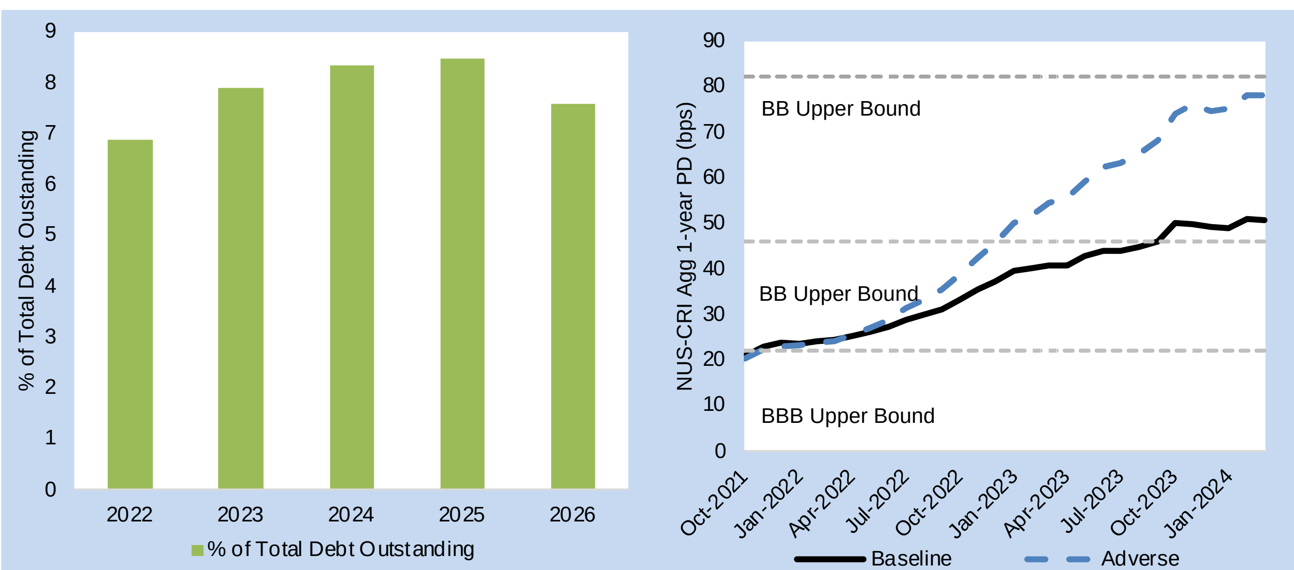


Figure 2a (LHS): Percentage of Debt Outstanding from 2022 to 2026 over Total Debt Outstanding for the United States' transportation industry. Figure 2b (RHS): Agg PD for the United States transportation industry under baseline and adverse scenarios. *Source: Bloomberg, BuDA v3.3.0*

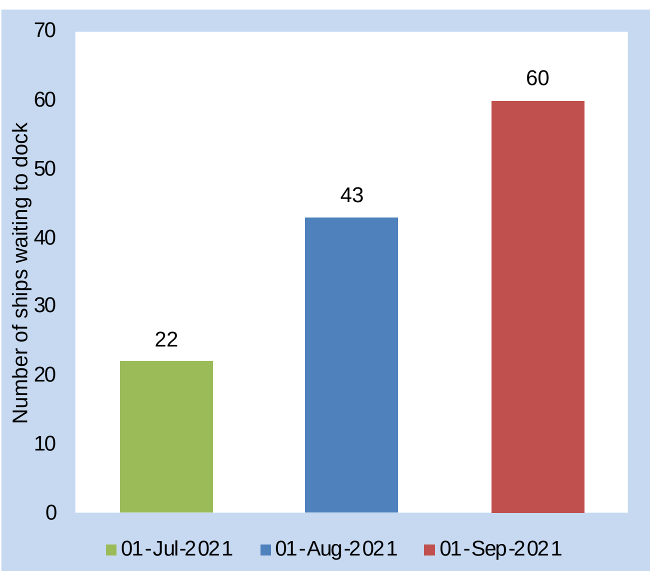
Compounded with potential cash flow hindrances arising from the continued global supply chain crisis, the companies are set to face elevated credit risk, driven also by potential refinancing risk. Higher transportation

[3] The Probability of Default implied Rating version 2.0 (PDiR2.0) provides a more familiar interpretation through mapping the NUS-CRI 1-year PDs to the S&P letter grades. The method targets S&P's historical credit rating migration experience exhibited by its global corporate rating pool instead of relying solely on the reported default rates.

costs and shortages of goods caused by the supply chain crisis translate to rising consumer prices. With inflation levels in the US currently at a 30-year high as of Sep-2021, interest rate hikes could occur sooner than anticipated. This could cast a shadow on the outlook of the US transportation industry in regards to future refinancing and debt repayment capabilities. With roughly 40% of current debt outstanding due over the next five years (See Figure 2a), increasing interest rates would make refinancing of their current outstanding debts more expensive.

To make matters worse, the warehousing and transportation industry lacked an unprecedented half a million workers, consequently increasing operating costs. With the industry being unable to pass on the cost to consumers, this may dampen profit margins and cash flows in the future. In particular, the trucking sub-sector is facing a labor shortage of 80,000 workers, with the shortage set to worsen in the future. To examine the resilience of the US transportation industry against unemployment in the US, the NUS-CRI Bottom-Up Default Analysis toolkit (BuDA[4]) was used to stress test unemployment against the NUS-CRI Agg PD for the US transportation industry. The baseline and adverse scenarios[5] for the unemployment rate in the US were used based on the Federal Reserve's 2021 Stress Test Scenarios. The baseline scenario sees the US transportation industry's PD demonstrating lower credit risk, compared to the adverse scenario (See Figure 2b). With the transportation industry having one of the largest labor shortages in the US, persistently high unemployment rates may result in heightened credit risks for the industry.

Skyrocketing demand and a persistent scarcity of dockworkers and truck drivers have been causing congestion at US ports, with waiting times averaging 7-12 days, the longest globally. Shipping a container through US ports now takes three times as long as it used to, resulting in a shortage of containers. As seen in Figure 3a below, the number of ships waiting to dock in three of the US' biggest ports has increased dramatically since Jul-2021. With containers piling up in US ports, the cost of containers in Sep-2021 increased roughly elevenfold since 2019. Should this shortage of containers persist into the future, it may force companies to invest in new containers, which further pressures their leverage should they finance these investments with debt. Although President Biden pushed to open ports all around the clock to counter this congestion, with no location to move the cargo and a lack of trucks, operating the ports for 24 hours would only increase operating costs, resulting in heightened pressures on their margins and cash flows. Furthermore, the announcement of a fee on shipping lines would cut into the cash flows of the marine companies if implemented. As a result, the marine sub-sector's Forward PD is set to be the most volatile amongst the other sub-sectors in the industry, with its Forward PD ranging from 48 to 120bps in the next 12 months (See Figure 3b).



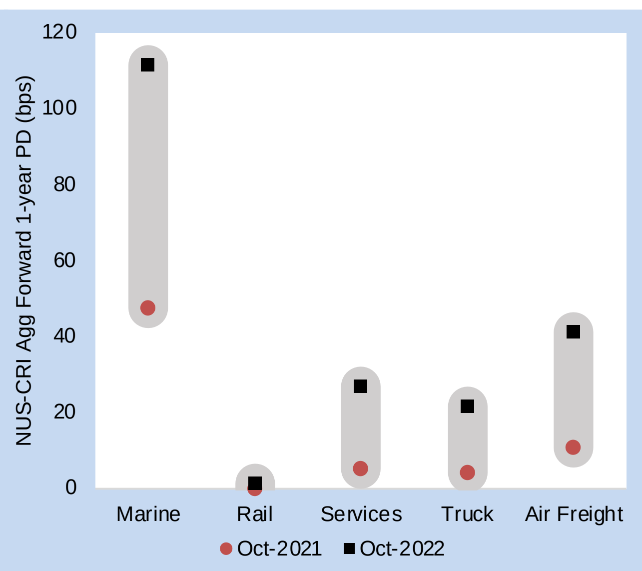


Figure 3a (LHS): Number of ships waiting to dock at three of the largest United States' ports as of the start of the month for July, August and September 2021. Figure 3b (RHS): Min Max graph of the NUS-CRI Forward 1-year PD over the next 12 months for the United States transportation industry sub-sectors as of Oct-2021. *Source: Bloomberg, NUS-CRI*

Disruption to the global supply chain is expected to persist should demand remain strong in the following months. On top of that, recent COVID outbreaks continue to shut down shipping hubs throughout the world, and extreme

[4] The Bottom-up Default Analysis (BuDA v3.3.0) is a credit stress testing and scenario analysis toolkit jointly developed by the Credit Research Initiative (CRI) team of National University of Singapore (NUS) and the International Monetary Fund (IMF).

[5] The baseline scenario for unemployment sees unemployment decreasing from 5.5% in Q4 2021 to 4.5% in Q1 2024. The adverse scenario for unemployment sees unemployment fluctuating between 7.4% to 10.8%.

weather breaks individual links in the supply chain. This is a challenge for the transportation industry, which is particularly vulnerable to extreme weather events, with Hurricane Ida leading to the Kansas City Southern rail network shutting down its mainline in Aug-2021 and the closure of ports of the marine sub-sector. Additionally, the weather was the main cause of one-third of all air cargo delays. With extreme weather events predicted to be more frequent, the rail, air freight, and marine sub-sector could potentially experience increased disruptions, as reflected by their volatile Forward PD in Figure 3b. Hence, the US transportation industry is in an extremely precarious position with debt repayment pressures mounting amidst disruption to operations.

Credit News

Evergrande crisis all but shuts bond market for china's junk borrowers

Oct 28. Junk-bond issuance by China's riskier companies has nearly ground to a halt, creating refinancing challenges for real-estate developers, who have over USD 40bn in dollar debt due by the end of next year. With investors rattled by the Evergrande crisis and a string of defaults by smaller developers, Chinese junk bonds in dollars yielded about 21.6% on Wednesday, making the issuance of new debt too expensive for many companies. Sales of new dollar junk bonds by Chinese borrowers this month have fallen by about 90% from their five-year average to USD 352mn. Developers dominate China's international high-yield bond market, comprising about 80% of its USD 197bn of debt outstanding. These companies have typically relied on shorter-term borrowing, but with this source of funding mostly shut, coupled with weak revenue from home sales, there are growing concerns that more developers could struggle to repay dollar debt due in the coming months. (WSJ)

Catastrophe bonds storm into mainstream as climate threat grows

Oct 26. Catastrophe bonds have grown to a market with USD 30bn of outstanding debt. Except for insurers, businesses and governments are increasingly embracing catastrophe bonds to protect against catastrophe-linked losses. Investors taking on that risk would receive regular interest payments and investment performance uncorrelated with mainstream assets. The climate threat is a catalyst in the second consecutive year of record issuance. Natural catastrophe losses were estimated at USD 40bn in H1 2021, encouraging companies and insurers to transfer their climate risks with capital markets. However, some academics warn that betting against the environment is too risky for institutional investors. Moreover, valuation multiples comparing income to expected losses have dropped over time. Although fears remain that a disastrous year for natural catastrophes will induce investor flight, investors and intermediaries argue that the market has survived tough years and that existing data enable an informed judgment. (FT)

Citigroup offers social bonds after agreeing to racial audit

Oct 28. Citigroup Inc. has proposed a USD 1bn social bond deal, following its announcement that it will allow a racial audit, which will gauge if and how the bank contributed to racial discrimination. The audit will scrutinize the bank's 2020 commitment of USD 1bn which aimed to invest in lowering the racial wealth gap. Citigroup also sold a similar USD 2.5bn social bond in October 2020, which was the largest deal of its nature in the private sector. The proceeds of the deal went towards the construction and development of affordable housing for low and middle-income families. Global sales of social bonds are increasing and stand at a record USD 217bn YTD, as compared to USD 162bn in FY2020. (Bloomberg)

Banks' debt sales are driving the corporate bond market

Oct 26. The six largest US banks have issued over USD 314bn of bonds so far this year, the most since 2008, with Bank of America and JPMorgan Chase & Co. completing the largest-ever sale of bank debt back in April. Despite having collected trillions of dollars worth of deposits since the start of the pandemic, banks are still issuing bonds to fulfill regulatory requirements of keeping long-term debt as a share of their liabilities. Banks are also taking advantage of the current low long-term borrowing costs which could help them boost profits if rates were to increase. However, consumer demand for loans so far has been muted, but investors see an opportunity for higher yields in bank bonds compared to industrial company bonds. (WSJ)

Moody's warns of 'systemic risks' in private credit industry

Oct 26. Private credit industry loans to buyout companies have burgeoned to USD 1tn, but opacity, lower standards, and the difficulty of trading create 'systemic risk'. Investors have flocked to private markets in recent years, hoping that venture capital, private equity, real estate, and infrastructure will provide an alternative to the clouded outlook for returns in major public equity and bonds markets. One of the most popular markets is private credit, where investment funds offer high-yield and tailor-made loans to midsize companies and even some large companies. As banks have downsized, this has been a boon to many companies. However, explosive private credit growth has been accumulating risk in the less-regulated environment. Growing leverage is manageable when rates are low but may introduce a higher degree of risk in the future. (FT)

Another Chinese developer is sinking as junk bonds sell off (Bloomberg)

Saudi deal with Euroclear to allow foreigners access to debt (Bloomberg)

Australia's central bank lets key bond yield surge well above target (FT)

Regulatory Updates

Treasury set for own tapering with USD 1tn in debt cuts seen

Nov 1. The US Treasury department will soon join the Federal Reserve in tapering as it is expected to announce a reduction in the quarterly sale of long-term securities. Gradually, the Treasury's reduction in issuance of debt will surpass the Fed's quantitative easing purchase of securities. According to analyst estimates, sales of coupon-bearing debt may be reduced by USD 1tn by the second half of 2022, as compared to the central bank's plan of discontinuing the USD 80bn monthly purchase of Treasuries. The upcoming auction for quarterly refunding is expected to initiate the planned reductions. Although the exact extent of the Treasury's borrowing requirements depends on two longer-term fiscal packages that the US Congress aims to enact in the coming weeks, the downward trajectory of the US budget deficit makes record auction sizes, as seen during the pandemic, unnecessary. (Bloomberg)

Bank of England considers capital rules for banks to cover climate risks

Oct 28. As the UK became the first G20 country to force certain companies to disclose their climate-associated risks, the Bank of England is considering whether banks should hold extra capital to deal with climate risks. Former US vice-president Al Gore also stated that banks should be required to change their capital requirements to dissuade them from investing in destructive carbon-intensive investments. According to the central bank's Prudential Regulation Authority (PRA), altering capital requirements could lead to several unintended consequences, including 'green' investments being treated as less risky than they are, and key sectors being unable to access financing to transition to greener business models. The PRA would publish its findings on whether bank capital buffers need to be changed to cover climate risks by the end of 2022, while the European Commission has said that it would delay the introduction of new rules on bank capital until 2025. (FT)

Libor transition vexes collateralized loan obligations market (WSJ)

EU says more time needed to put in place bank capital rules (FT)

Published weekly by Credit Research Initiative – NUS | Disclaimer
Contributing Editors: Yao Xuan, Raghav Mathur