CORPORATES

MOODY'S INVESTORS SERVICE

OUTLOOK

31 October 2019

Rate this Research

TABLE OF CONTENTS

Contacts

Rene Lipsch +1.212.553.1908
VP-Sr Credit Officer
renier.lipsch@moodys.com

Jamie Koutsoukis +1.416.214.3845
VP-Senior Analyst
jamie.koutsoukis@moodys.com

Robert Jankowitz +1.212.553.1318
MD-Corporate Finance
robert.jankowitz@moodys.com

Railroads – North America

Outlook changed to negative as volume for most freight groups expected to decline, pricing softens

Our outlook for the railroad in North America is negative. This outlook reflects our expectations for the fundamental business conditions in the industry over the next 12 to 18 months.

» **Falling freight volume in most groups and weaker pricing gains drive declining industry revenue**. We are changing our outlook for the North American railroad industry to negative from stable, reflecting our expectation that shipments of most freight groups, including coal and intermodal, will continue to fall. Total freight volume is likely to decline 1.75%-3.00% through 2020. Industry revenue will remain largely flat, neither declining nor growing by more than 1%.

» **Coal shipment decline will likely accelerate**. Coal shipments fell 9% over the last three months, a decline we expect to accelerate to the low teens in 2020. Absent a substantial federal policy shift, technological innovations or a significant and sustained increase in natural gas prices, none of which are likely, demand for thermal coal from US utilities is subject to a secular decline of on average about 7% per year over the next 10 years.

» **Intermodal shipments continue to decline, albeit at a moderating pace.** We expect that intermodal shipments will be flat or decline by up to 2.5%, moderating from the 4.2% decline in the last three months. The continuing decline in intermodal shipments is at odds with a moderately growing economy and still healthy consumer data. But high inventory levels, heightened competition from truck carriers and lane rationalizations weigh on shipments of intermodal freight.

» **Growth in other carloads held back by steel, frac sand and grain weakness**. We project that total freight, excluding coal and intermodal, will decline by about 1% over the next 12 to 18 months, moderating somewhat from a 3% decline in the last three months. Offsetting growth in petroleum products and chemicals are the weakening conditions in the steel sector, the continuing displacement of Northern white sand by locally sourced frac sand and ongoing uncertainty in grain export markets.

» **What could change our outlook.** We would consider changing our outlook to stable if we expect freight revenue growth of 0%-4% over the next 12 to 18 months. Possible factors that could cause freight revenue to turn positive include moderating declines in coal shipments if natural gas prices were to increase toward $3/mmBtu and intermodal growth turning positive as inventory levels retreat amid sustained consumer retail spending growth.

Industry outlooks reflect our view of fundamental business conditions for an industry over the next 12-18 months. Since outlooks represent our forward-looking view on business conditions that factor into our ratings a negative (positive) outlook suggests that negative (positive) rating actions are more likely on average. However, the industry outlook does not represent a sum of upgrades, downgrades or ratings under review, or an average of the rating outlooks of issuers in the industry, but rather our assessment of the main direction of business fundamentals within the overall industry.

Falling freight volume in most groups and weaker pricing gains drive declining industry revenue

We are changing our outlook for the North American railroad industry to negative from stable, reflecting our expectation that shipments of most freight groups, including coal and intermodal, will continue to decline.

Total freight volume is likely to decline 1.75%-3.00% in the next 12 to 18 months, compared with our April forecast of a modest increase in total freight volume of 0.25%-1.00% (see Exhibit 1). We also revised our forecast for pricing gains down to 2.25%-2.50% from 2.50%-3.00% previously.

Exhibit 1

Freight growth for most groups to remain negative

Recent and projected growth in North American railroad carloads

Freight category	% of total carloads	FY 2018	Last 12 months	Last 3 months	Forecast next 12 to 18 months
Coal	26.1%	0.2%	-4.1%	-9.0%	Low teens decline
Chemicals	13.2%	4.2%	0.8%	-1.7%	Low single-digit growth
Metallic ores, metal products and scrap	9.8%	4.7%	0.2%	-4.1%	Low single-digit decline
Grain	9.0%	2.9%	-3.8%	-9.8%	Low single-digit decline
Crushed stone, sand and gravel	7.9%	0.6%	-10.2%	-7.6%	Mid single-digit decline
Petroleum products	6.8%	20.2%	22.0%	11.3%	High single-digit growth
Motor vehicles and parts	6.4%	-0.5%	-0.6%	0.3%	Low single-digit decline
Other	20.8%	-0.4%	-2.1%	-3.3%	Low single-digit decline
Carloads - Sub-total	**49.8%**	**2.3%**	**-1.5%**	**-4.6%**	**-4.0% to -3.25%**
Intermodal	50.2%	5.3%	-1.3%	-4.2%	Low single-digit decline to flat
Freight - Total	**100.0%**	**3.8%**	**-1.4%**	**-4.4%**	**-3.00% to -1.75%**

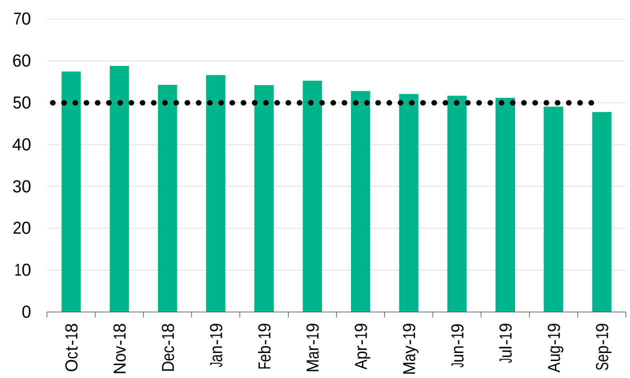
Actual data inclusive of September 2019. Percentage of carloads calculated as a percentage of total carloads, except intermodal, which is calculated as a percentage of total freight. Forecast is calculated as weighted average of all freight categories.
Sources: Association of American Railroads and Moody's estimates

Faced with declining freight volume and weaker pricing gains, industry revenue will remain largely flat in 2020, no more than about 1% higher or lower than in 2019. In particular in the next six to nine months, we expect that revenue will decline, which would be within our framework of a negative outlook for the North American rail sector. Our revenue growth forecast excludes the effect of possible changes in fuel surcharges.

Our forecast of declining total freight volume is broadly consistent with the weakening trend in the ISM Purchasing Managers Index, which steadily declined to less than 50 in August and September from nearly 60 in September 2018 (see Exhibit 2). Over the same period, total freight volume declined by about 1.4%. Levels below 50 indicate a contraction in economic activity in the manufacturing sector, suggesting that the pressure on freight demand is likely to persist. The Industrial Production Index of the Federal Reserve Board fared somewhat better recently, pointing toward an increase in industrial production in the third quarter, although production fell back

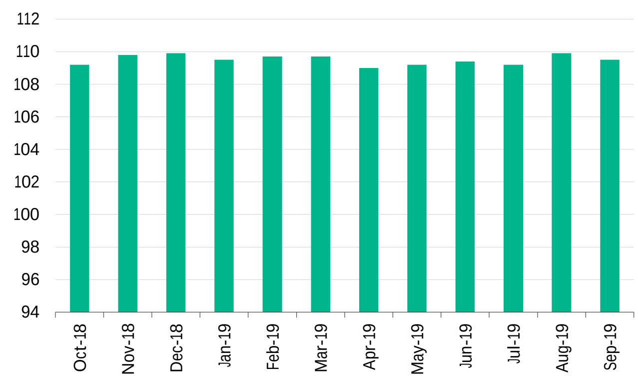
0.4% in September (see Exhibit 3). Meanwhile, our forecast of 2.3% real GDP growth in the US in 2019 assumes around 2.0% real GDP growth in the second half of 2019, decelerating further to 1.7% in 2020, according to our August Macroeconomic Board forecast.

Exhibit 2
Manufacturing activity entered contraction territory [1]
ISM Purchasing Managers Index



[1] Level below 50 (dotted line) indicates contraction
Source: Institute for Supply Management

Exhibit 3
Industrial production sputtered in the first and second quarter
Federal Reserve's Industrial Production Index



100 represents average industrial production in 2012
Source: Federal Reserve

The softening in pricing gains is primarily driven by heightened competition from truck carriers for intermodal and certain other freight, such as food and beverages, and paper. Although there was a peak shortage in trucking capacity as recently as July 2018, according to ACT Research, the market moved to excess capacity in May 2019 as truck carriers took delivery of a large number of previously ordered trucks and freight growth moderated.

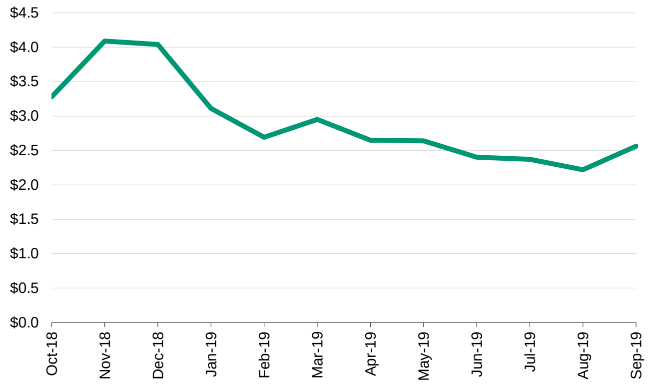
Monitoring pricing gains has become very difficult because the railroads no longer report core pricing gains or similar data. Since late 2018, Union Pacific (Baa1 stable) was the only railroad to report core pricing data but the company announced in its third quarter earnings call that it would no longer do so, citing commercial reasons. Union Pacific calculated core pricing gains of 2.50% under its methodology in the third quarter down from 2.75% in each of the previous two quarters.

Decline in coal shipments likely to accelerate

We expect that the stiff decline in coal shipments of 9% over the last three months will accelerate. We forecast a decline in coal shipments in the next 12 to 18 months in the low teens. Absent a substantial shift in federal policy, technological innovations or a significant and sustained increase in natural gas prices, demand for thermal coal from US utilities is subject to a secular decline of on average about 7% per annum over the next 10 years.

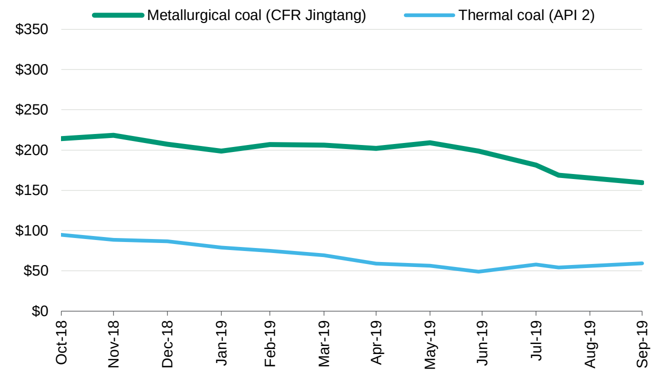
Conditions for US coal producers worsened considerably in 2019. Natural gas prices dropped to less than $2.50/mmBtu causing power utilities to increasingly substitute natural gas for coal (see Exhibit 4). Gas futures contracts suggest that natural gas prices will remain below or around $2.50/mmBtu for the next 12 months. Our projection for coal shipments is in line with recent coal production forecasts by the US Energy Information Agency (EIA).

Exhibit 4
Coal less competitive at low natural gas prices
Henry Hub natural gas prices, $ per mmBtu



Source: EIA Natural Gas Weekly

Exhibit 5
Weaker coal export prices dim prospects for US producers
Metallurgical and thermal coal export prices, $/mt



Sources: Metal Bulletin, FactSet

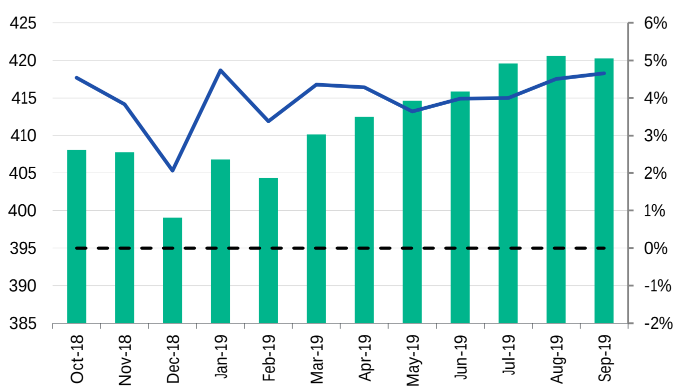
In addition, export prices for metallurgical coal started to weaken in mid-2019 because of weakness in the steel industry, although prices for metallurgical coal remain favorable compared with historical levels. The weakening in export prices for metallurgical coal followed a substantive drop in seaborne prices for thermal coal after prices reached a peak in the third quarter of 2018 (see Exhibit 5). Lower export prices make US coal producers less competitive given their higher cost structures, including transportation costs to overseas markets. The weakening in export prices prompted a change in our outlook for the coal sector to negative in August.

Intermodal shipments continue to decline, albeit at a moderating pace

We expect that intermodal shipments will be flat or decline by up to 2.5%, moderating from the 4.2% decline in the last three months. The continuing decline in intermodal shipments is at odds with a moderately growing economy and still healthy consumer data, including robust retail sales growth (see Exhibit 6), a low unemployment rate and high - albeit somewhat more cautious - consumer confidence. Positive consumer data underpin intermodal shipments because intermodal freight largely contains consumer-related freight.

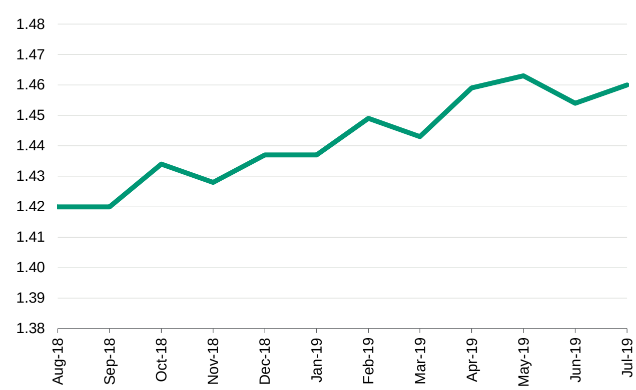
Notwithstanding still healthy consumer data, the weakness in intermodal shipments can be explained in part by the implementation of tariffs on imports from China that caused a surge in imports last year to avoid impending tariffs. Also, retail and manufacturing inventories reached elevated levels in mid-2019 (see Exhibit 7) and competition from truck carriers increased markedly.

Exhibit 6
Healthy consumer spending to moderate decline in intermodal
Retail sales excl. auto and gasoline, $ billions (LHS) and year-over-year change (RHS)



Source: US Census Bureau

Exhibit 7
Inventory levels impeding growth in intermodal
US manufacturing and trade inventories to sales ratio



Source: The Conference Board

At the same time, US railroads discontinued certain intermodal lanes that did not meet their internal return hurdles. This occurred as part of a broader effort to improve profit margins and asset returns as most railroads implement changes to their operating model based on precision scheduled railroading. The effect of this year's lane rationalizations on intermodal shipments will likely abate in the first half of 2020.

Growth in other carloads held back by steel, frac sand and grain weakness

We project that total freight, excluding coal and intermodal, will decline by about 1% over the next 12 to 18 months, moderating somewhat from a 3% decline in the last three months.

Total freight excluding coal and intermodal will decline despite our expectation of high single-digit growth in petroleum products — which includes crude oil — and a steady, but modest increase in carloads of chemicals that should continue to benefit from expanding petrochemical facilities in the Gulf Coast region. Offsetting the growth in petroleum products and chemicals are the weakening conditions in the steel sector, the continuing displacement of Northern white sand by locally sourced frac sand and ongoing uncertainty in grain export markets.

What could change our outlook

We would consider changing our outlook to stable if we expect freight revenue growth of 0%-4% over the next 12 to 18 months. Possible factors that could cause freight revenue to turn positive include moderating declines in coal shipments if natural gas prices were to increase toward $3/mmBtu and intermodal growth turning positive as inventory levels retreat amid sustained consumer retail spending.

Moody's related publications

Sector In-Depths

Global Trade Monitor – October 2019: Continued trade tensions increase recession risks, strain corporate earnings and test the strength of consumer confidence, October 2019

Railroads – North America: Railroads face $5 billion in revenue losses as utility coal shipments set to drop by more than half by 2030, September 2019

Transportation – North America: North American domiciled shipping, surface transportation and automotive companies face environmental risks, July 2019

Outlooks

Steel – US: Outlook to negative with manufacturing slowing, prices falling, October 2019

Manufacturing – Global: Outlook revised to negative on lower earnings forecasts; likely to weaken further, September 2019

Coal – North America: Weak export prices tip outlook to negative, August 2019

Global Macro Outlook 2019-20 (August 2019 Update): Global growth slows even as central banks cut rates to offset of trade disputes, August 2019

Railroads — North America: Outlook update: Change to stable as freight volume slows, led by coal and intermodal, April 2019

REPORT NUMBER 1200859

MOODY'S INVESTORS SERVICE