RAILROAD WEEK IN REVIEW
February 21, 2020

"Adjusted EBITDA is dumb. There's a basic moral problem with it. It's ridiculous to charge for fees for talking this way – it's reflective of wretched excess. By its nature, finance's temptations are too great, and it always goes to wretched excess. I don't like it and I don't think it's good for the country." — Charlie Munger, 2020 Wesco/Daily Journal Annual Meeting

"I fear that we are reaching a dangerous tipping point with respect to investors' ability to focus. Like an exhausted boxer in the ring, the hits to the head are coming so quickly and violently that investors can no longer make sense of it all." — Keith McCulloch, Hedgeye.com, February 12

"US corporate debts are now all-time highs as a percentage of GDP. Junk bond yields are at all-time record lows, yet there's no risk offset in the margin for junk bonds. There is literally no action excess premium in the BBB market that is on a precipice of being downgraded. There is no margin to account for any rising defaults when they arise, and they will arise. They always arise in the next recession." — Raoul Pal, Real Vision, February 10

Imagine, if you will, a box divided into four quadrants. The vertical in the middle is the inflation rate; the horizontal line in the middle is the GDP growth rate. The center of the box is zero; above the X axis and to the right of the Y axis are positive. Call these Quad 1 to Quad 4 starting top left and going clockwise. These are the four quadrants in the business cycle and are excellent predictors of where business sectors are headed.

Railroads are in the Industrial sector and they fare best when interest rates are rising and the GDP is expanding. Logically, they fare less well in Quads 3 and 4. The railroads' companions in Quad 1 and 2 are tech and consumer discretionary (cars, washing machines, big-screen TVs); Quad 3 makes people start hunkering down to the necessities of life — utilities (gotta keep the lights on) and banking as stuff bought on credit becomes more common. Quad 4 is the bottom of the cycle — falling interest as the fed tries to keep spending up, and falling GDP as spending slows.

I mention this because railroads are now in Quad 3 heading for Quad 4. Revenue units are down as goods movement slows and loans are being taken out to finance share buy-backs rather than using cash flow to improve the physical plant. Short lines and regional railroad operators are doubly sensitive to the quads — it's all carloads and there are scant intermodal boxes to cushion the lower number of single-car moves. They lack the cash cushion and access to capital enjoyed by the class Is so they do more on credit — Quad 3.

So here we are in the latter stages of Quad 3, headed for Quad 4 in April. If the pundits are right and revenue unit volumes start to return in the second half, we could be heading for the the lower levels of Quad 2 — slowly increasing production and GDP, still moderate interest rates, and greater levels of consumer sending. Attention must be paid.

I mention the Four Quadrant concept, courtesy of hedgeye.com, because it provides a framework for the slippage in railroad revenue unit volumes. Allison Landry at Credit Suisse:

Figure 1: Rail Traffic Performance Highlights, Week 7

	Week 7 2020						1Q20		
Carloads	**Coal**	**Intermodal**	**Automotive**	**Ag**	**Petroleum**	**Total**	**4-Wk M.A.**	**QTD Total**	**CS Ests**
CN	-19.0%	-24.3%	-6.4%	-14.2%	-6.3%	-14.2%	0.4%	-3.4%	-2.4%
CP	-1.1%	18.0%	15.6%	18.4%	76.2%	18.0%	11.8%	5.1%	3.6%
CSX	-20.4%	-5.5%	2.2%	-12.3%	10.1%	-5.6%	0.6%	-1.5%	-4.4%
KSU	-17.9%	13.4%	-12.8%	3.5%	47.7%	7.3%	10.3%	6.5%	3.3%
NSC	-28.8%	-11.7%	8.1%	-14.7%	43.5%	-11.7%	-7.6%	-9.7%	-9.6%
UNP	-30.4%	-14.8%	-0.8%	-9.8%	45.7%	-10.1%	-8.5%	-9.7%	-6.9%
Regional Averages	**Coal**	**Intermodal**	**Automotive**	**Ag**	**Petroleum**	**Total**	**4-Wk M.A.**	**QTD Total**	**CS Ests**
West (UNP + KSU)	-24.1%	-0.7%	-6.8%	-3.1%	46.7%	-1.4%	0.9%	-1.6%	-1.8%
East (NSC + CSX)	-24.6%	-8.6%	5.2%	-13.5%	26.8%	-8.7%	-3.5%	-5.6%	-7.0%
Canadian (CN + CP)	-10.1%	-3.2%	4.6%	2.1%	34.9%	1.9%	6.1%	0.8%	0.6%
RTMs	**Coal**	**Intermodal**	**Automotive**	**Ag**	**Petroleum**	**Total**	**4-Wk M.A.**	**QTD Total**	**CS Ests**
CN	-16.6%	-21.3%	-6.6%	n.a.	n.a.	-8.0%	5.0%	-1.4%	-5.0%
CP	-10.4%	16.3%	13.7%	n.a.	n.a.	22.1%	12.1%	3.0%	6.0%

Source: Company data, Credit Suisse estimates

Further indications of Quad 4 come from Scott Group of Wolfe Research. He writes that the STB total headcount for January (US ops only, Canada and Mex excluded) "declined 12 percent year-over-year… This is the largest year over year decline in the history of our data series (back to 2001). Total headcount also fell 2.4% sequentially in January, the 14th straight sequential monthly reduction."

From Norfolk Southern comes word that it will close the Roanoke Distribution Center and transfer the work and positions at the Roanoke Locomotive Shop to Altoona, Pennsylvania. More than 100 mechanical and clerical jobs in Roanoke are affected. The mechanical jobs will be transferred Altoona; the furloughed clerical employees will have the opportunity to apply for available positions elsewhere on the Norfolk Southern system.

Norfolk cites two reasons for the changes. Coal tonnage is half what it was in 2008 and it's going to get worse. There are now 22 percent fewer active locos in the fleet than there were two years ago, reducing the need for shop support staff. Having two separate heavy-repair facilities and distribution centers is clearly overkill. Closing Roanoke turns a significant historical page: Norfolk Southern predecessor railroad Norfolk & Western began operating the shop, then Roanoke Machine Works, in 1883. The shop once built steam locomotives.

The shift in the economy from Quad 2 through Quad 3, and into Quad 4 is taking its toll on non-Class I carriers as well. The Railinc Shortline/regional Railroad Index for December, 2019 shows merchandise traffic roughly even with December, 2018. However, the commodities with negative deltas (in red) account for nearly two out of every five carloads.

Commodity	Dec 19	Dec 18	Change	Pct Total
Chemicals	53,611	49,330	8.7%	28.2%
Grain	23,034	26,397	-12.7%	12.1%
Crushed Stone, Sand and Gravel	20,727	23,536	-11.9%	10.9%
Pulp, Paper, and Allied Products	18,615	18,023	3.3%	9.8%
Metals and Products	17,004	18,896	-10.0%	8.9%
Stone, Clay and Glass Products	12,971	11,251	15.3%	6.8%
Food and Kindred Products	11,199	10,584	5.8%	5.9%
Waste and Scrap Materials	9,013	10,290	-12.4%	4.7%
Lumber and Wood Products	8,789	8,220	6.9%	4.6%
Grain Mill Products	7,577	6,667	13.6%	4.0%
Nonmetallic Minerals	2,898	2,384	21.6%	1.5%
Metallic Ores	2,767	2,867	-3.5%	1.5%
Petroleum Products	2,018	1,924	4.9%	1.1%
Total	190,223	190,369	-0.1%	

Grain is weather and export dependent; aggregates, metals, and met ores are affected by construction and oil-drilling; waste and scrap slow as the economy slows and less waste and scrap are generated. Thus it remains that, with the exception of chemicals (including fertilizer), the remaining three out of five carloads are largely low-rated and low volume.

Worse, many are subject to diversion to truck. The Chainalytics report from Jason Seidl at Cowan advises, "Dry van spot rates fell sequentially once again this week as the effects of the seasonally weaker period continue be felt while contract rates remain positive." Cheaper spot rates tell us several things, none of which bode well for railroad carload freight.

More and cheaper moves on spot rates say goods are moving on shorter lead times; customers are less willing to commit to contract rates due to continued economic uncertainty; and carload freight's longer lead times, uncertain transit times, and the added inventory cost combine to make the railroad an even less competitive option. But keeping ahead of the Quads will at least provide an early warning as to what's coming.