RAILROAD WEEK IN REVIEW

July 6, 2018

"From January 2015 to April 2018, the saving rate was halved 6.1% to 2.8% while credit card borrowing as a percentage of disposable income rose from 7.0% from 6.5%." - Danielle Martino Booth, June 29

"While new orders on the Chicago manufacturing index rose to a five month high, production fell for the fourth time since peaking in December, with firms stifled by issues higher up in the supply chain." — Peter Boockvar, June 29.

Class I railroads see a slowing of frac sand loads into the Permian Basin over the next few months, for several reasons. One, local sourcing of frac sand may replace much of the sand now arriving by train from northern suppliers, potentially slowing the demand for small-cube covered hopper cars. There are 11 frac sand mines currently in production in the Permian (plus as many as eight more later this year), creating more supply than demand, even as more sand is going into each well.

Two, it isn't as easy to get oil out of the Permian and into markets as it is to get the stuff out of the ground, so production could slow. Pipeline capacity is limited and it'll take years to add more. Trucks aren't an option thanks to low tank truck availability, a shortage of drivers, and the smallish loads trucks can take. Moreover, the 550-600 mile length of haul from West Texas to the Gulf Coast can be limited by trucking hours-of-service. Thus trucking costs (if you can even get them) are likely to be in the $17-$19/bbl. range, offsetting the crude price differential.

Three, the railroads' frac sand handing volumes eat up a third of the track capacity, there aren't enough rail-loadings terminals, anyway, and such terminals as already exist can't handle the volumes needed to support significant outbound loading —you need three days of tank storage for every day of loading. Finally, there's no incentive to add tankage because the Class I railroads and oil producers see the infrastructure shortages as temporary because there will be pipelines in a few years.

There is another out, however. There is no shortage of short lines in the Permian, and, as we've seen with frac sand in the northeast, these local carriers collaborate with shippers to build unit train terminals, meaning the Class I doesn't have to block the main while it drills a sand receiver; they can just hand the train to the short line. It works is reverse, too. The short line builds the train for the Class I so the latter need only hook and go.

Union Pacific's Texas main cuts right across the Permian, and BNSF covers the northern (Lubbock) and western (Carlsbad) sides. Watco's Pecos Valley Southern and Texas & New Mexico cover the southwest; their Lubbock & Western covers the north. The independent Texas & Oklahoma Railroad can work the east side out of Sweetwater. The Texas & Pacifico and Fort

Worth & Western cover the southern reaches of the Permian from Fort Worth through San Angelo and on to the Sunset Route connection at Alpine. There appear to be plenty of tank cars out there, too.

As for tank cars, a note from Matt Elkott at Cowen writes, "DOT-117 tank cars have seen a material increase and are now in the $850-$1,000/month range. This momentum is likely to continue if the traditional buyers of these cars resist the temptation to add big numbers of newly built units to their fleets given that memories of last crude-by-rail bust are still fresh." Still, it seems to me that the going $1000/month lease rate for these cars ought to be a a huge incentive to get cars out of storage and into revenue-producing activities. Not adding to fleets helps balance supply and demand, supporting lease rates.

The demand is there. PFL Petroleum Services says that U.S. oil production is booming:

> Oil output has hit a record 11 million barrels of oil per day and U.S. oil exports are also reaching new highs — 3 million barrels a day, according to government data. Those exports are more than most OPEC countries can produce each day and only lag two OPEC countries, Saudi Arabia and Iraq, in terms of exports.
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> WTI has closed as high as $74.14, but the back end of the curve comes down as current inventory concerns foreshadow the front end. It appears that oil has been pulled from inventories to meet export commitments as *getting crude from the Permian to the gulf has run into a few bottlenecks* that undoubtably will be worked out. *[emphasis added - rhb]*

Canadian Pacific gets some well-earned coverage in a pair of stories in the August, 2018 issue of Trains magazine. Author Bill Stevens speaks with those closest to Hunter Harrison about what made him tick — and why they think he's misunderstood. Stevens does admirable work exploring what Hunter found on CP and how he led a significant turnaround, complete with facts and figures. However, I think the story also brings out the operational changes that short lines can take to the bank — and which I see being replicated on CSX.

I called on CP at their new Calgary campus back in December and learned that, yes, Hunter ruffled more than a few feathers makings operational changes, but CP today is the better for it. Moreover, my CP friends tell me they think CSX will be able to follow the same model, emerging a better railroad tomorrow than it was yesterday.

Hunter's Five Principles of Precision Scheduled Railroading and his Seven Service Design Principles really come down to running an efficient railroad where there are no surprises and everything happens according to plan. No more making it up as you go along. Says Stevens, "It took nearly three years for Precision Scheduled Railroading to fully take hold. Yet now CP moves freight faster and more dependably."

Carload trip plans sure help, and they're coming to CSX. From WIR March 9, 2018:

> Trip plans by car give customers much greater control. If you know the transit time from release to actual placement is five days, you can plan your supply-chain requirements to fit. There are no plans at present to share trip plans with customers or short lines, but there exist third-party vendors who track this stuff with waybill samples. You can see not only O-D transit times, but also times between nodes.

Paul Hilal, an investor who learned in 2011 that institutional shareholders "were fed upon with CP," credits Hunter with changing not only CP's operations but its culture. "He took a sleepy, complacent utility culture and turned it into a can-do, go-getter entrepreneurial culture." CP President Keith Creel now picks up the thread, maintaining that loco and car fleets that are bigger than the railroad really needs really slow the place down. Scheduling everything creates capacity everywhere so they can get more RTMs per train-mile, per available horsepower, and per T&E crew, to name a few.

The CP revenue ton-mile numbers for 2018 second quarter year-to-date show a five percent increase vs. last year, with the largest double-digit gains in energy (petrol and related), potash, and metals/minerals/consumer products, all beating intermodal (a mere 9 percent gain). By comparison, revenue units only gained three percent, suggesting more RTMs per carload — a key measure of the efficiency CP seeks.

CP hasn't had a short line meeting in too many years, and, were they to have one tomorrow, I'd suggest they bring out the efficiencies wrought since Hunter came to town and upon which the the railroad is recreating its brand. I'd want to see trip plan compliance to and from shortline stations, how dwell times at junctions are trending, shortline interchange on/off times, why shortline pre-blocks add to value perceived by the customer, and how CP is using short lines and regionals as network extenders. Mostly, we'd need the presenters to show how the feeder line community can use Precision Scheduled Railroading to add value to their own franchises.

This just in Dept. *International Railway Journal* for June reports that the first intermodal train from China to Austria completed its 14-day trip on April 27. The train carried 44 containers and had to make two gauge changes — to 1520 mm gauge at the Kazakhstan border and back to standard gauge on leaving the Ukraine. The sponsor, Rail Cargo Austria, plans for up to 600 such trains this year. A new agreement with the Russian Ministry of Transport will cut transit time to ten days, five days faster than the present sea voyage. (It takes ten days to get a carload of lumber into Central Pennsylvania from northern Canada, with *no* gauge changes. Go figure.)