RAILROAD WEEK IN REVIEW

February 10, 2023

"This January and February are made more challenging over worries about an impending recession. From the rail perspective, it's not a leap to say that the recession has already begun. Rail loadings are generally forward indicators, and last year's barely break-even levels are being backed up with a weak start to 2023 (combined with the impact of an early lunar new year)." — David Nahass, Railway Age, February 7,

"January total U.S. carloads rose two percent year-over-year — January 2022 was the worst January for total carloads since 1988. January 2023 was the best January on record for crushed stone and sand, in part due to growth in frac sand. Grain carloads were the second most for a January (behind 2021) since 2011. All told, 12 of the 20 carload categories we track saw gains in January." — AAR Rail Time Indicators, February 3, 2023

We read regularly about trends in Class I dwell times and velocity, typically in percentage change from week to week. But are they all measuring the same things the same way? I think not. And because of this we can only track changes within each railroad.We' can't say, for example, CSX dwell time was up two percent and BNSF dwell was down two percent — what's wrong with BNSF?

I have scoured the AAR website for their definitions of dwell time and velocity yet I come up empty-handed. However, each railroad has its own definition. CN, for example says, "Car velocity is defined as the average miles per day traveled by loaded and empty, active system, foreign and private cars on company lines."

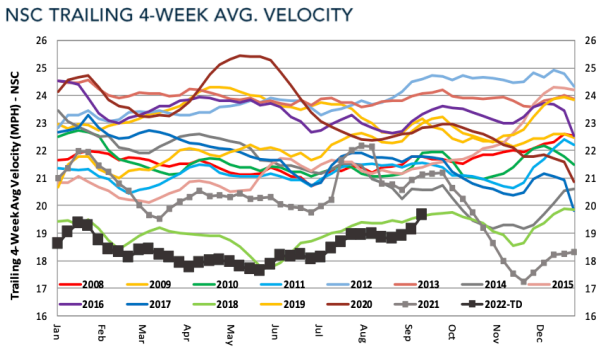
Dwell is a little more complicated. CN uses the term "through dwell," defined as "the average time a car resides within terminal boundaries expressed in hours. The measurement begins with a customer release, received interchange, or train arrival event and ends with a customer placement (actual or constructive), delivered or offered in interchange, or train departure event. This excludes stored, bad ordered, maintenance of way cars, or cars with dwell greater than 10 days."

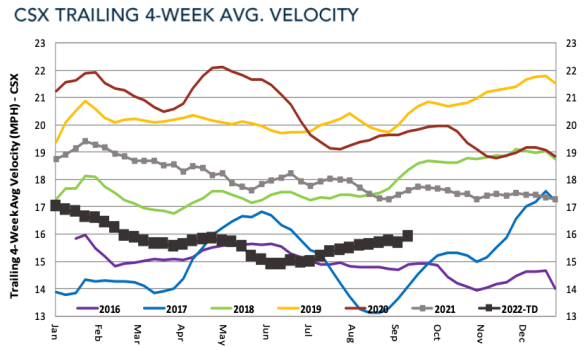
CSX uses broader measures. Train velocity is "total miles divided by total travel time (hours) of a given Train ID. Total travel time includes intermediate dwell of the train." So I guess every car in that train gets the same velocity number. CSX dwell for a single car is "the total time, in hours, that a car spent in a given terminal. Aggregated dwell is

calculated by dividing the total number of hours cars spent in terminals by the total count of car-dwell events (excludes bad-order cars, maintenance of way cars and stored cars).

At Union Pacific, car velocity "measures the average daily miles a car moves on Union Pacific from release/interchange to placement/interchange, loaded or empty. Excludes non-revenue cars. And car dwell "measures dwell in hours for any car classification or run-through train activity at a railroad station."

As you can see, each railroad defines velocity and dwell in a slightly different way, so a car in a local freight on its way to a customer where it will be constructively paced may not be scored in the same way on every railroad. So when we see percentage changes in these metrics we have to look at each railroad with respect to itself, not NS vs.CSX, for example.



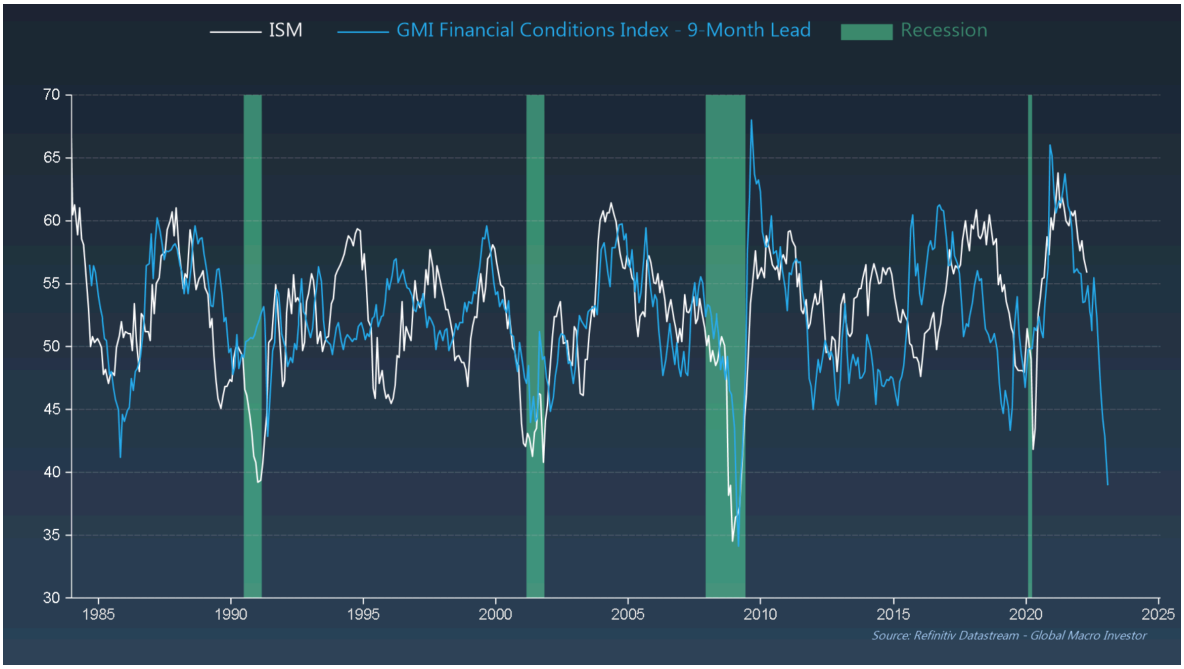


But then, it may all be self-correcting if the economy continues in its present funk. ISM manufacturing numbers are down, meaning the demand for raw materials shrinks in anticipation of decreased demand for finished goods. Ergo less stuff to move either in or out, and the number of freight cars and intermodal boxes on line shrinks accordingly.

Raoul Pal of Global Macro investors predicts, "growth is about to collapse due to a near-unprecedented tightening in financial conditions effecting widespread demand destruction." One reason is that the Conference Board Leading Economic Index has plunged to 100 percent recession territory.

Another is that CEO expectations have collapsed to their lowest levels since 1979. And for a third strike, consumer sentiment fell to a record low in June of last year – going back to 1950. So, growth did indeed collapse — of the eighteen industries covered in the ISM Manufacturing Survey, zero reported any growth in December – the lowest since the Global Financial Crisis. It could be argued that recession is knocking. And with it comes lower demand for railroad transportation.

So, growth did indeed collapse. Graphically, here is the precipitous drop in the ISM:



As noted before, a reading of 50 is the break between favorable and unfavorable outlooks. So 40 would seems to be rather pessimistic. I know that one month does not a year make, but very often as January starts so goes the year.

January AAR total revenue units (Week 4 ending Jan 28) are down three percent for the month with intermodal taking the biggest hit — minus eight percent. And since retail dominates intermodal, the negative number could support the ISM chart above. Carload freight posted double-digit gains in non-metallic minerals (think aggregates and frac sand), metals, and automotive. Forest products and chemicals took serious hits — the former from housing starts and construction; the latter from the general economic tenor.

From the AAR's February *Rail Time Indicators*:"January 2023 was the worst January for intermodal since 2013. Major retailers have cut inventories; consumer goods spending has contracted; carloads of chemicals fell, reflecting a slowdown in manufacturing. Lumber and wood carloads fell sharply as the severe recession in the housing sector continues." Fingers crossed for a second-half improvement.