CASS FREIGHT INDEX® REPORT

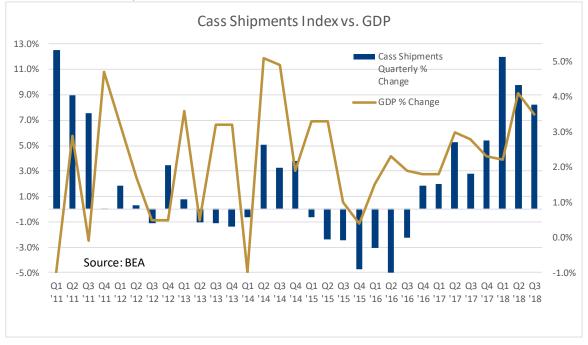
October 2018

Economic Outlook from Freight's Perspective

Transportation Economy says, "Growth Continues."

	October 2018	Year- over-year change	Month-to- month change
Shipments	1.224	6.2%	-1.4%
Expenditures	2.919	12.0%	-2.4%

The Transportation economy continues to signal solid economic growth; perhaps not at the scorching pace attained earlier this year, but still at an above average pace. Although we subdivide the economy via multiple other data feeds that represent smaller segments of the freight flows, we continue to see the Cass Freight Shipments and Expenditures Indices as one of the single strongest proxies for what is happening in the overall U.S. freight markets. The freight markets, or more accurately goods flow, has a well-earned reputation for predictive value without the emotional or anchoring biases that are found in many models which attempt to predict the broader economy.



Despite the strong pre-ship in May and June, inventories across the US economy fell in the second quarter and were a one-percentage point headwind to the GDP (the reduction of inventory is a negative to the calculation of GDP, while the increase of inventory is a positive to the calculation of GDP). Without the drop in inventories that occurred, GDP would have come in at 5.1% in 2Q!

We should also point out that we are lapping increasingly difficult comparisons, and infrastructure is showing signs of being at our near full capacity in most modes. This makes further large percentage increases in volume difficult without significant investments in people, equipment, and technology.

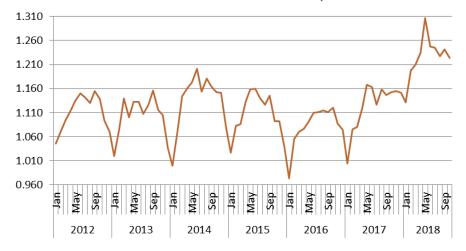
Despite all the recent turmoil in the financial markets and the resulting concerns about the strength of the economy, the Cass Freight Shipments Index is clearly signaling that the U.S. economy, at least for now, continues to be extraordinarily strong. Simply stated, when shipment volume is up 6.2%, it is the result of an expanding economy. We are hard pressed to imagine a scenario, sans a catastrophic geopolitical event, in which such a strong rate of freight flow expansion was possible or even a precursor to an economic contraction. Our confidence in this outlook is emboldened by the knowledge that, since the end of World War II (the period for which we have reliable data), there has never been an economic contraction without there first being a contraction in freight flows. Conversely, during the same period, there has never been an economic expansion without there first being an expansion in freight flows.

The Cass Expenditures Index is signaling continued strong pricing power for those in the marketplace who move freight. Demand is exceeding capacity in most modes of transportation by a significant amount. In turn, pricing power has erupted in those modes to levels that continue to spark overall inflationary concerns in the broader economy. With the Expenditures Index up 12.0%, we understand those concerns, but are comforted by two factors: the cost of fuel (and resulting fuel surcharge) is included in the Expenditures Index and the cost of diesel was up 20.9% in October; almost all modes of transportation are using the current environment of pricing power to create capacity. To the extent that pricing is materially exceeding the marginal cost of creating that capacity, market participants are investing heavily in the exact activities which kill pricing power in commodity markets (i.e., expansion of capacity with the belief that current pricing power will endure for an extended period of time).

As we explained in previous months, we do not fear long-term inflationary pressure as technology provides multiple ways to ever increase asset utilization and price discovery in all parts of the economy especially in transportation. In fact, we are continuing to see more signs that ELDs (Electronic Logging Devices), which initially hurt the capacity/utilization of truckers (especially small truckers), are becoming an ever-smaller impediment to capacity utilization. Many of the truckers which were the most adversely effected are now getting most, if not all, of the original loss in utilization back. This is especially true in the Dry Van and Reefer (temperature control) marketplaces of trucking. Even the Flatbed segment of trucking, which initially faced the greatest challenges with productivity after the adoption of ELDs, has begun to adapt.

Cass Freight Index™ - Shipments



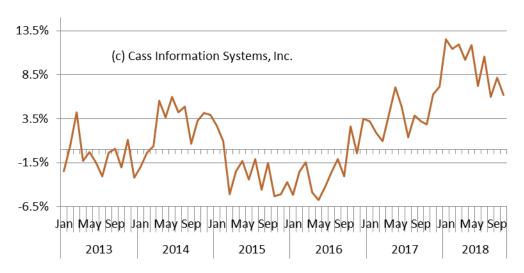


Transportation Continues to be a Leading Indicator

Shipments first turned positive 25 months ago, while expenditures turned positive 22 months ago. The current level of volume and pricing growth is signaling that the U.S. economy is growing, but that level of growth may have reached its short-term expansion limit. The 6.2% YoY increase in the October Cass Shipments Index is yet another data point confirming that the strength in the U.S. economy continues. This is a deceleration from the low double-digit levels achieved in the first five months of 2018, and even a slight deceleration from the 8.2% achieved last month. We are confident that the increased spending on equipment, technology, and people will eventually result in increased capacity in most transportation modes. That said, many modes are continuing to report "limited amounts of capacity" or even "no capacity" at any price shippers are willing to pay.

Cass Freight Index™ - Shipments

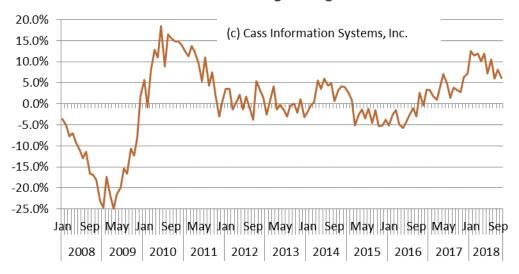
YOY Percentage Change



The YoY percentage change is notable because the freight recovery started in the second half of 2016 (i.e., tougher comparison) and because only when comparisons were weak (i.e., 2009-2010) were the percentage increases so high. Said another way, we normally only see such high percentage increases in volume when related to easy comparisons. That these percentage increases are still strong and strong against tough comparisons explains why our economic outlook continues to be bullish, why transportation capacity is constrained, and why realized pricing is so strong.

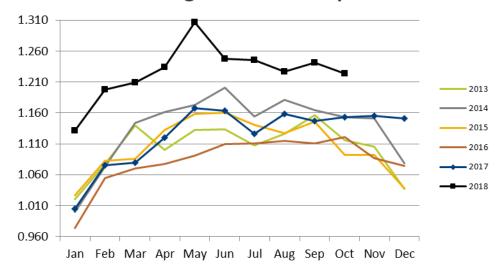
Cass Freight Index™ - Shipments

YOY Percentage Change

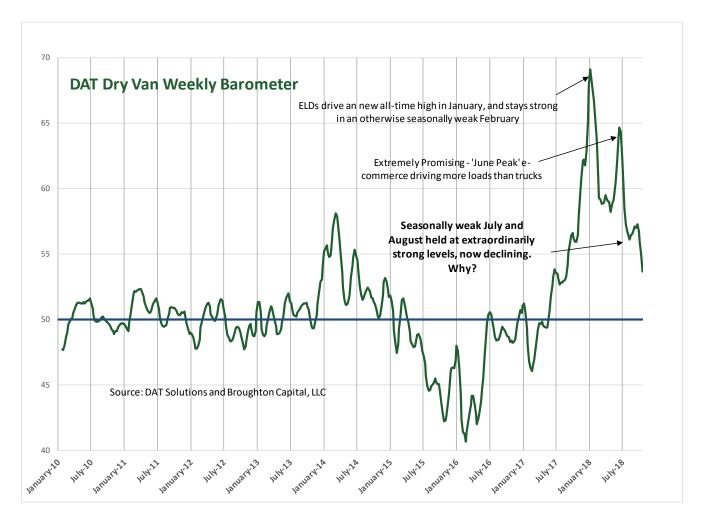


With the first ten months of 2018 'in the record books', it is clear that 2018 will be an extraordinarily strong year for transportation and the economy. March through October exceeded all levels attained in all months in 2014 (a very strong year) while February was roughly equal to the peak month in 2014 (June 2014 - 1.201 vs February 2018 - 1.198). A YoY stacked chart (see below) highlights that, similar to the pattern which began in November and December 2017, the shipments index is still exceeding all previous respective months by a significant margin.

Cass Freight Index™ - Shipments

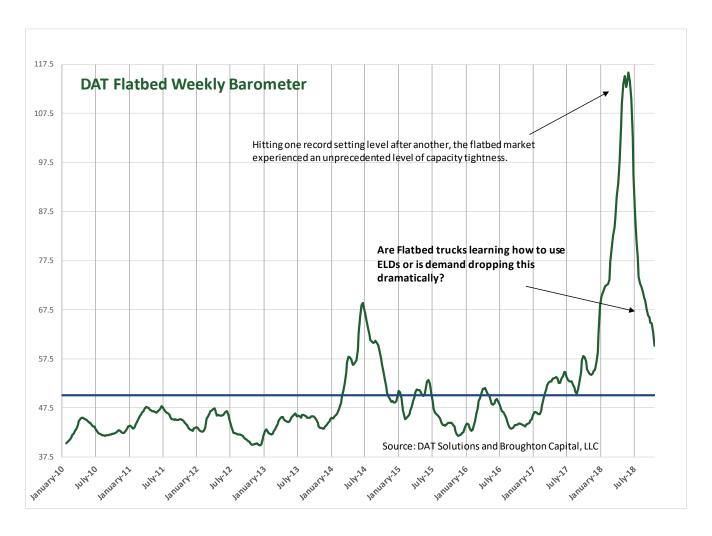


As we have discussed in previous reports, Dry Van trucking volume serves a similar role to container volume in predicting retail sales. When studied using the DAT Dry Van Barometer, a clear pattern of strong volume growth that exceeds capacity growth, which is driving pricing power, remains.



Bottom line - the DAT Dry Van Barometer is giving us real-time indications of stronger demand and tighter capacity in this key freight group. Indicating that <u>the consumer economy is not only alive and well, but growing robustly.</u>

The Industrial Economy - Indications of accelerating strength have been coming from several modes of transportation, but none more visibly than in flatbed trucking which we view as a key heavy industrial indicator:



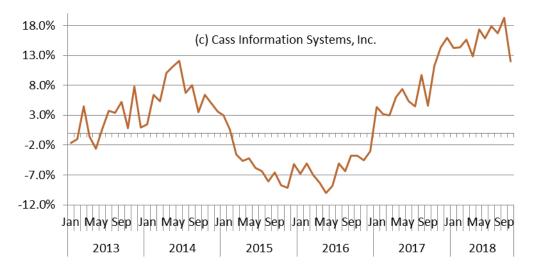
In a similar fashion to the DAT Dry-Van Barometer, the DAT Flatbed Barometer is indicating that <u>the U.S.</u> Industrial economy is alive and well and accelerating.

Data from the rail industry mirrors the data coming out of the flatbed segment of trucking. We have asserted for years that one of the best predictive indicators of U.S. domestic industrial activity is the chemical carload volume moved via rail. Our assertion is simple: it is almost impossible to manufacture, or even assemble, anything in mass quantity without consuming chemicals. In order to spend a little more time focusing on the consumer and technology economies, we have left the chemical carloads and industrial economy discussion out of this report. We will return to that data in future months, as data and events warrant.

Given the higher price of oil (resulting in higher fuel surcharges), and the strength in rates being experienced in sectors such as flatbed and chemical railroading, it should come as no surprise that the Cass Freight Expenditures Index is reporting such overall strength in transportation spending.

Cass Freight Index™ - Expenditures

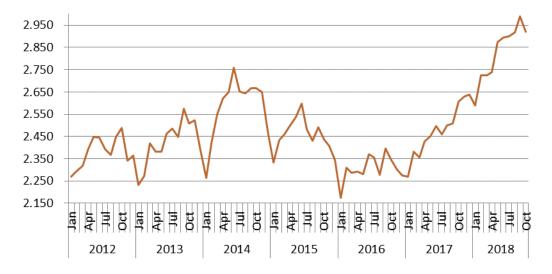
YOY Percentage Change



With all of the recent strength in demand, it follows that Cass Freight Expenditures Index also posted strong percentage increases throughout 2017, and that has continued throughout 2018. As we commented on the Shipments Index, we have to go back to the easy comparisons of 2009-2010 to find such large percentage increases and the current comparison is anything but easy. We have commented repeatedly that this was indictive of an economy that is continuing to expand. October's 12.0% increase signals that capacity is tight, demand is strong, and shippers are willing to pay up for services to get goods picked up and delivered in all modes throughout the transportation industry. The October percentage increase is less than September's 19.3% primarily because this October's increase was on top of an 11.2% increase in 2017, while the September 2017 increase was on top of a less impressive 4.6%. Put another way, the two year stacked increase (2018 vs. 2016) in Expenditures was 24.8% in September and 24.6% in October.

Cass Freight Index™ - Expenditures

Nominal Index Value = 100 January 1990



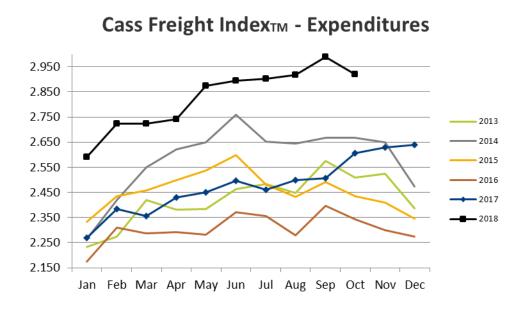
Viewing the Cass Freight Expenditures Index on nominal basis shows how positive the trajectory has been in the last year. On a nominal basis the index has now exceeded the all-time high established back in June 2014, and appears poised to stay at record levels with ease in the coming months.

Putting it all in Perspective

Expenditures (or the total amount spent on freight) turned positive for the first time in 23 months in January 2017, albeit against an easy comparison. Not since 2011—when the economy was still climbing out of the recession—had this index been so low. Our Expenditures Index in January 2016 was the worst in five years, as demand had weakened and crude oil had fallen below \$30 a barrel. Although February and March of 2016 were also weak, they were not nearly as weak as January 2016 and hence a slightly tougher comp. Since fuel surcharges are included in the Expenditures Index, fuel was a positive bias in 2017 and continues to be in the current data.

Throughout much of 2017 fuel was up as much as 30% on a YoY basis (diesel is at \$3.317 a gallon on a national average basis as we write this), and we have pointed out that part of the Expenditures increase was a result of the relatively steady increase in the price of fuel and the related fuel surcharges. The YoY increase attributable to fuel is now less than it was throughout most of 2017, but still significant. We are also continuing to see greater pricing power for truckers and intermodal shippers. As an example, the proprietary Cass Truckload Linehaul Index (which measures linehaul rates and does not include fuel) rose 8.2% on a YoY basis in the month of October to 143.4, setting yet another all-time high on a nominal basis. The proprietary Cass Intermodal Price Index (which does include fuel), increased 10.9% in October to 147.3, also an all-time high on a nominal basis (see those reports here for more details on the data and the underlying trends).

We should also remind readers of a fundamental rule of marketplaces: volume leads pricing. Repeatedly we have watched in a host of different markets, that volume goes up before pricing starts to increase and volume goes down before pricing starts to weaken.



About the Cass Freight Index

The Cass Freight Index represents monthly levels of shipment activity, in terms of volume of shipments and expenditures for freight shipments. Cass Information Systems processes more than \$25 billion in annual freight payables on behalf of its clients. The Cass Freight Index is based upon the domestic freight shipments of hundreds of Cass clients representing a broad spectrum of industries. The index uses January 1990 as its base month. Visit http://www.cassinfo.com/frtindex.html or call 314-506-5500 to get detailed information about the Cass Freight Index, including historical data.

About the Author: Donald Broughton

Founder and Managing Partner of Broughton Capital, a deep data driven quantimental economic and equity research firm.

Prior to starting Broughton Capital, Mr. Broughton spent nine years as the Chief Market Strategist and Senior Transportation Analyst for Avondale Partners. Before that, Mr. Broughton spent over twelve years at A.G. Edwards. At A.G. Edwards, in addition to being the Senior Transportation Analyst, he was the Group Leader of the Industrial Analysts and served on the firm's Investment Strategy Committee. Prior to going to Wall Street, Mr. Broughton spent eight years in various distribution and operations management roles in the beverage industry, including serving as the Corporate Manager of Distribution for Dr. Pepper/Seven-Up companies and Chief Operating Officer for Bevmark Concepts.

Many in the transportation industry know him for his quarterly tracking of trucking bankruptcies. He is also known for his development of a 'Value to Density Spectrum' study of the tangible goods flow and its economic ramifications.

Broughton's equity research has earned acclaim and is regularly quoted by The Wall Street Journal, Bloomberg, Fortune, Forbes, and numerous other national media outlets. He is a frequent guest on CNBC, Nightly Business Report, CNN, Fox, NPR and other broadcast media.

His stock-picking performance has been repeatedly recognized by The Wall Street Journal, which has ranked him in its "Best on the Street" survey for his picks in both the cargo and railroad industry groups. Forbes has highlighted his performance in its "When Picky Analysts Pick" series. He has been ranked by Zacks Investment Research and Starmine as a 5-Star Analyst (their highest ranking) based on the historical performance of his recommendations.

Beginning in mid-2006, Broughton published reports warning of an impending economic slowdown and by early 2007 published reports explaining why a recession was coming. In early 2009, as the world became convinced that the 'sky was falling' he upgraded large cap industrials and names such as FedEx and Union Pacific. More recently, in July of 2010 and again in September 2011 his "Blue Car Report" explained why fears of a double dip were severely overblown and outlined why the market would have significant rallies by the end of those years. He believes that the current market is struggling to digest the end of the industrial-led recovery and the beginning of the consumer-led recovery in this cycle. But fear not, the consumer both in the U.S. and globally is about to be better than expected.

Other indexes published by Cass and Donald Broughton:

Cass Truckload Linehaul Index – measures fluctuations in U.S. truckload linehaul rates **Cass Intermodal Price Index** – measures fluctuations in U.S. domestic intermodal costs Visit http://bit.ly/s9inig to view or subscribe.



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