

Cass Freight Index[®] Report

March 2019



Economic Outlook from Freight's Perspective

Freight Shipments Decline Again; But Still Second-Highest March Since 2007

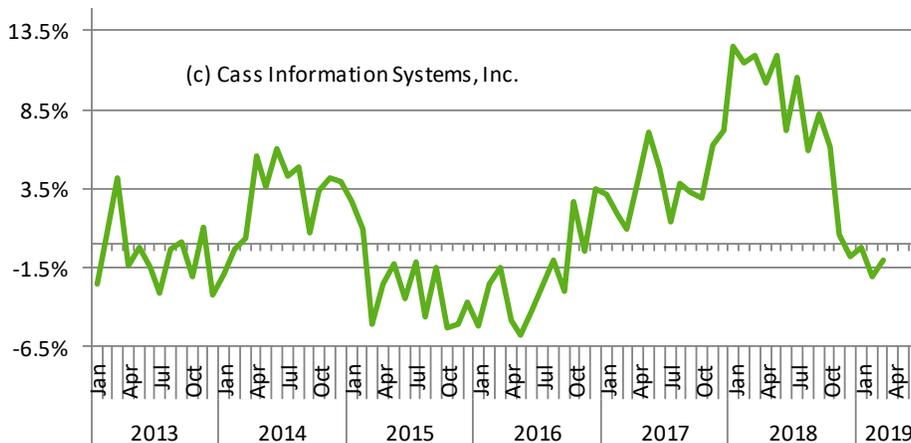
	March 2019	Year-over-year change	2 year stacked change	Month-to-month change
Shipments	1.197	-1.0%	10.8%	2.0%
Expenditures	2.889	6.1%	22.7%	0.5%

Although North American freight shipments remain higher than in most Q1s in recent history, they declined year over year in March for the fourth straight month. This could be cause for growing economic concern:

- When the December 2018 Shipments Index was negative for the first time in 24 months, we dismissed the -0.8% year-over-year decline as reflective of a tough comparison “because December 2017 was an all-time high for the month” and also because of “the stabilizing patterns we see in almost all of the underlying freight flows.”
- When January 2019 was also negative (down a mere -0.3%), we again made rationalizations, “January 2018 was ... an all-time high for the month.”
- Then February was down -2.1% and we said, “While we are still not ready to turn completely negative in our outlook, we do think it is prudent to become more alert to each additional incoming data point on freight flow volume, and are more cautious today than we have been since we began predicting the recovery of the U.S. industrial economy and the rebirth of the U.S. consumer economy in the third quarter of 2016.”
- With March down -1.0% – the fourth YoY negative month in a row – we are preparing to ‘change tack’ in our economic outlook. Yes, all of these still relatively small negative percentages are against extremely tough comparisons; yes, the two-year stacked increase was 10.8% for March; and yes, the Cass Shipments Index has gone negative before without being followed by a negative GDP. But, at a minimum, business plans and economic outlooks should be moderated or have contingency plans included or expanded.

Cass Freight Index™ - Shipments

YOY Percentage Change



We should note that the Cass Freight Index was one of the first freight flow indicators to turn positive (in October 2016) and confirm our prediction of a recovery in the U.S. economy. As we try to navigate the ebb and flow of the economy, we don't pretend to have any 'secret sauce' or incredibly complex models that have exhaustively analyzed every data point available. Instead, we place our trust in the simple notion that the movement of tangible goods is the heartbeat of the economy, and that tracking the volume and velocity of those goods has proven to be one of the most reliable methods of predicting change because of the adequate amount of forewarning that exists. We will discuss all of this in greater detail later in this report.

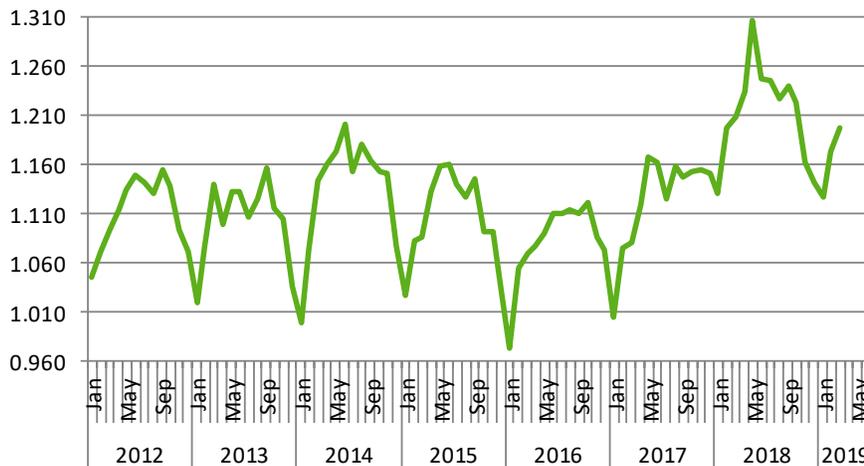
Beyond our concern that the Cass Freight Shipments Index has been negative on a YoY basis for the fourth month in a row,

- We are concerned about the severe declines in international airfreight volumes (especially in Asia) and the recent swoon in railroad volumes in auto and building materials;
- We are reassured by the sequential increase in the Cass Freight Shipments Index (up 2.0%) and the volumes in U.S. domestic trucking (especially in truckload dry van);
- We are closely watching the volumes of chemicals and other shipments via railroad, as they have lost momentum in recent weeks and may give us the first evidence of the global slowdown spreading to the U.S.

Bottom line, the data in coming weeks will indicate whether this is merely a pause in the rate of economic expansion or the beginning of an economic contraction. If a contraction occurs, then the Cass Shipments Index will have been one of the first early indicators once again.

Cass Freight Index™ - Shipments

Nominal Index Value = 100 January 1990



March 2019 was a month of continued improvement throughout most of the U.S. financial markets and mixed signals in the global financial markets. After equity, bond, and commodity valuations fell in the fall of 2018 – especially in December of last year – by a magnitude considered to be “correction levels” by most, they staged recoveries that were equally impressive in January, February, and March:

- The Dow Jones fell from 25,826 on December 3, 2018 to as low as 21,792 on December 24th before rallying throughout January, February, and March back above 26,000 (-26,300 at this writing);
- The 10-year Treasury yield, after peaking at 3.24% on November 8, 2018, has steadily fallen (2.52% at this writing). A more dovish Fed and lower economic growth are the headlines, but we maintain ‘technology has killed inflation’;
- WTI Crude Oil fell from >\$75 a barrel on October 2, 2018 to as low as \$42.53 on December 25th before rallying throughout January, February, and March (>\$64 now). WTI is at a price that proposes the world economy is stronger than airfreight volumes suggest and that should stimulate more U.S. fracking activity in the coming months.

What stayed the same? Large multi-national companies lowered guidance and blamed slowing rates of activity in Europe and Asia. Trade talks with China continued without resolution, as incrementally more negative indications that the Chinese economy is starting to suffer are coming out at an ever-increasing pace.

What changed? The consensus outlook by prognosticators went from “there is no way 2019 growth can surpass 2018” to “perhaps not at the scorching pace of 2018, but growth at an above-average pace is still attainable in 2019.”

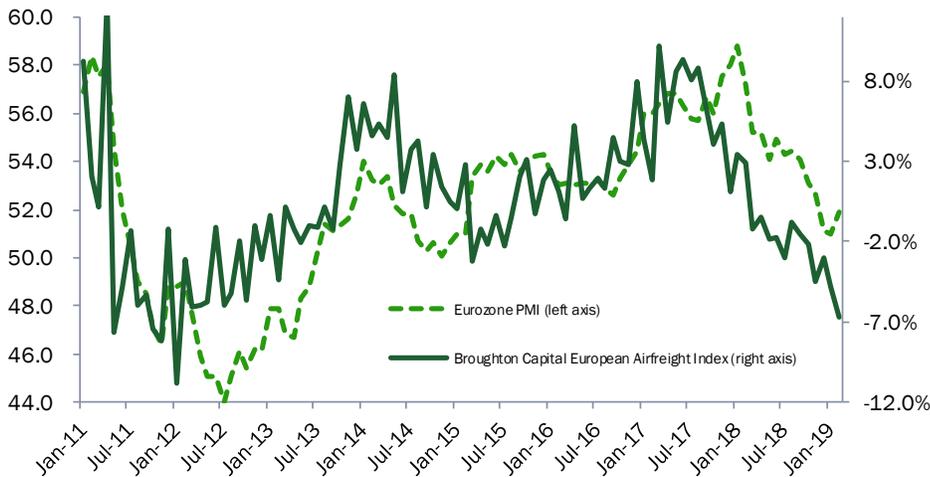
However, we would be negligent if we did not continue to acknowledge the two storm clouds on the economic horizon (one of which has gotten worse and one which has gotten better, since our last report) and elaborate on our third “yes, but...” item:

1. **The tariffs – and threats of even higher tariffs – with China**, the world’s second largest economy (even though the latest headlines and tweets keep suggesting there will be a resolution). Tariffs have throttled export volumes in some areas of the U.S. economy, most notably agriculture exports and other select raw materials. We maintain the view that there will be a resolution; that there will be a trade deal because both China and the U.S. have to reach one. But the recent Asian airfreight volumes suggest a growing risk that one or more of the Asian economies (China, South Korea, Singapore) is already sliding into recession. ***Risk has gotten worse.***
2. **The decline in WTI crude in December to as low as \$42.50 a barrel.** This did not fall below the marginal cost of production for fracked crude in almost all areas of the U.S., but it made it less profitable and significantly lowered the incentive to drill ever more holes, effectively slowing the rate of growth in the industrial economy. Crude’s ongoing rally (WTI above \$64 as we write this) gives us reprieve. Continued strength in the price of crude makes us more confident in our positive outlook for the U.S. industrial economy and less worried about global demand. ***Risk has gotten so much better that it has arguably become a positive.***
3. **Yes, but...**
 - a. The federal government shutdown is over, but not after leaving its mark. The U.S. government is more than 6.5% of the GDP. While not all government spending and services were furloughed during the shutdown, we estimate that it directly presents a >0.5 percentage point headwind to the Q1 2019 results. What is more difficult to know is the amount and rate at which the decline in output was recouped before the end of the first quarter or will be recouped in the second quarter.

- b. We should also note that the month-long shutdown makes us generally less confident in the government data that is currently being released. Accurately quantifying large bodies of data, as is required in most of the economic indicators such as the BEA (Bureau of Economic Analysis) produces, involves a certain level of estimating (which is why there are preliminary and then revised releases). The BEA is well educated and very experienced at estimating; nevertheless, they are estimating. When those responsible for making those estimates are out of the office for a month, it isn't reasonable to expect their estimates to be as precise as they would normally be. Already there have been several economic data releases that appear to be outliers. We aren't giving any of this serious credence and expect significant revisions in subsequent releases.

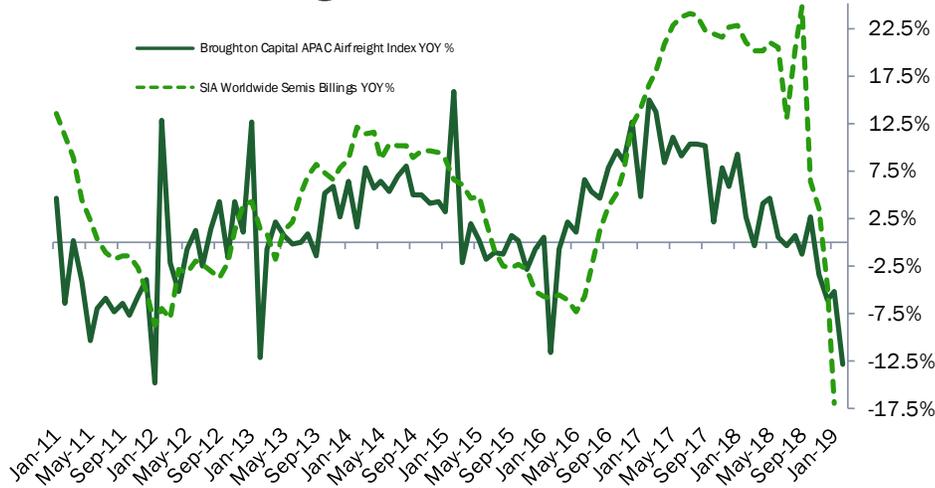
Recent airfreight volumes in Europe suggest that the region's economy has cooled. Airfreight volumes in Asia suggest that the region is on the verge of, or is already entering, a recession. As we've highlighted before, when trade tariffs slow the rate of growth for our global trading partners, it poses a real threat to the U.S. rate of economic growth.

European Airfreight vs. EuroZone PMI

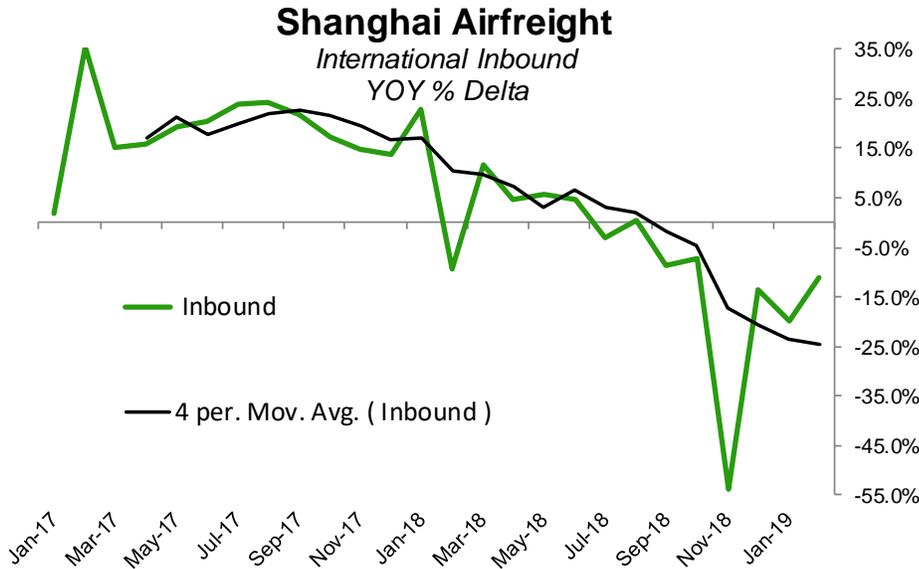


European airfreight volumes were negative since March 2018, but only by a small single-digit margins (-1% to -3%), until November 2018. Unfortunately, since then, volumes have started to further deteriorate. Our preliminary European Airfreight Index was down -6.7% in February. Although this is concerning, it's the Asian data that has become alarming.

Asia Pacific Airfreight



Asian airfreight volumes were essentially flat from June to October 2018 but have since deteriorated at an accelerating pace (November -3.5%, December -6.1%, January - 5.2%, February -13.6%). If the overall volume wasn't distressing enough, the volumes of the three largest airports (Hong Kong, Shanghai, and Incheon) are experiencing the highest rates of contraction. Even more alarming, the inbound volumes for Shanghai have plummeted. This concerns us since it is the inbound shipment of high value/low density parts and pieces that are assembled into the high-value tech devices that are shipped to the rest of the world. Hence, in markets such as Shanghai, the inbound volumes predict the outbound volumes and the strength of the high-tech manufacturing economy.

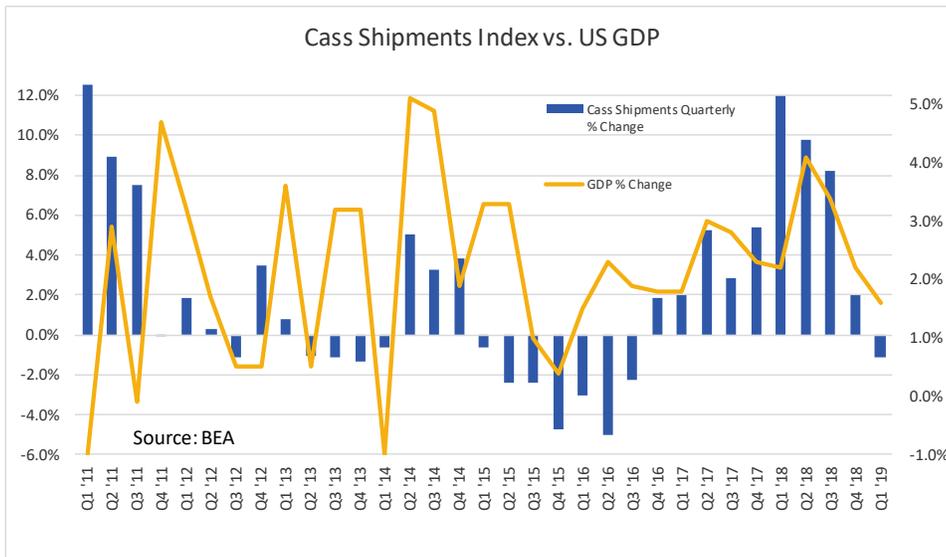


While we acknowledge the need to review the terms of trade with our global partners on an ongoing basis, we also know our economic history. The data underlying economic history is clear: the more unrestricted and robust global trade is, the more prosperous the global population becomes. Open markets of free trade are the greatest method to efficiently allocate resources and ensure that the best quality goods made by the most efficient producers are available to everyone. Unrestricted global trade lifts hundreds of millions, even billions, of the world’s population out of poverty. ‘Protectionism,’ like so many government regulations and programs, frequently produces results that are the exact opposite of the intended outcome.

While we are closely monitoring these trends and looking for signs of contagion, we are not yet finding much materially meaningful evidence of it. We continue to see the current scenario as most analogous to the 1997-1998 Asian currency crisis, but are far more concerned about the potential for recession in both Europe and Asia.

With these potential problems acknowledged, we maintain a cautiously bullish outlook since the freight markets, or more accurately goods flow, have a well-earned reputation for predictive value without the anchoring biases that are found in many models which attempt to predict the broader economy. Later in this report we will look at the specific freight flows that are signaling continued growth in specific segments of the economy. Each of these data sets supports our assertion that the Cass Shipments Index is indicative of continued economic expansion. 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

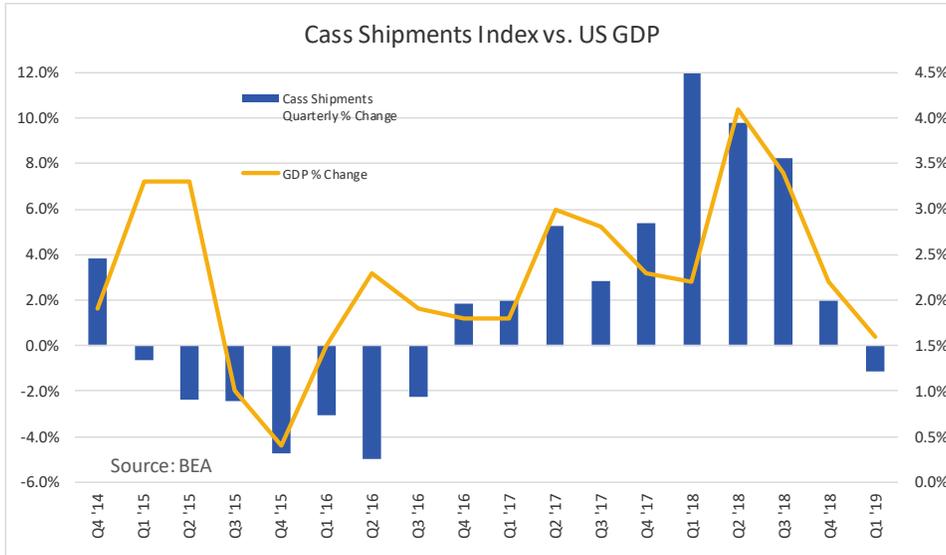
expansion without there first being an expansion in freight flows. Bottom line: even if it is at a slower rate, as long as the volume of freight continues to expand, we are not yet ready to turn outright bearish in our economic outlook for the U.S. domestic economy.



As we predicted in this report two months ago, “Current consensus estimates of the GDP for the 4th quarter are now predicting 2.7%. Using the Cass Shipments Index as a predictive proxy, this would leave us believing the number reported (now at the end of February) may fall short of those estimates.”

Last month in this report, we went on to point out, “Hence, we weren’t surprised by the 2.6% that was reported in the initial estimate, and won’t be surprised if the second estimate and final report include further downward revisions.” **The revised estimate of the GDP for the 4th quarter fell to 2.2%.**

Although we also subdivide the economy via multiple other data feeds that represent smaller segments of freight flows, **the Cass Freight Shipments and Expenditures Indexes are two of the strongest proxies for what is happening in the overall U.S. freight markets, and as a result they are strong predictive indicators for the U.S. economy.** We understand that there are other broad proxies for freight flows, but they are either less frequent (only once a quarter) or less timely (reported >4 weeks after the month ended).



Using recent events as examples, we would remind our readers of a few of the fundamental factors that create disparity between the rate of change in goods flow and the rate of change reported as GDP:

- Despite the strong pre-ship that was experienced in May and June of 2018 as firms tried to get ahead of the tariffs, inventories across the U.S. economy actually 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 2018.
- As we predicted last month, import volumes (especially import container volumes), produced a 0.4 percentage point headwind to the reported GDP in 4Q 2018. Household consumption and private investment remain strong, while the production of both goods and services continues to post solid rates of growth. Unfortunately, the current trade disputes have dampened export growth, and together with the surge of import volume, there is a disconnect between the actual pace of economic growth and the reported GDP in 4Q 2018 (since all imports are counted as a negative and all exports are counted as a positive to the calculation of GDP).

Other reasons the reported economic results in coming months are poised to be lower in 2019 (still expanding, but at a percentage rate less than in early 2018):

- lapping increasingly difficult comparisons;
- infrastructure in many industries showing signs of being at or near full capacity;
- infrastructure in most modes of transportation at or near full capacity;
- unemployment low enough to make growing the active workforce incredibly challenging.

Hence, further large percentage increases in the short term are increasingly difficult without significant investments in equipment and technology. Setting aside all the intricacies about the limitations on the rate of growth that’s possible (on top of already strong growth), the Cass Shipments Index has turned negative and is now signaling economic stagnation with the potential for contraction.

Transportation Continues to be a Leading Indicator

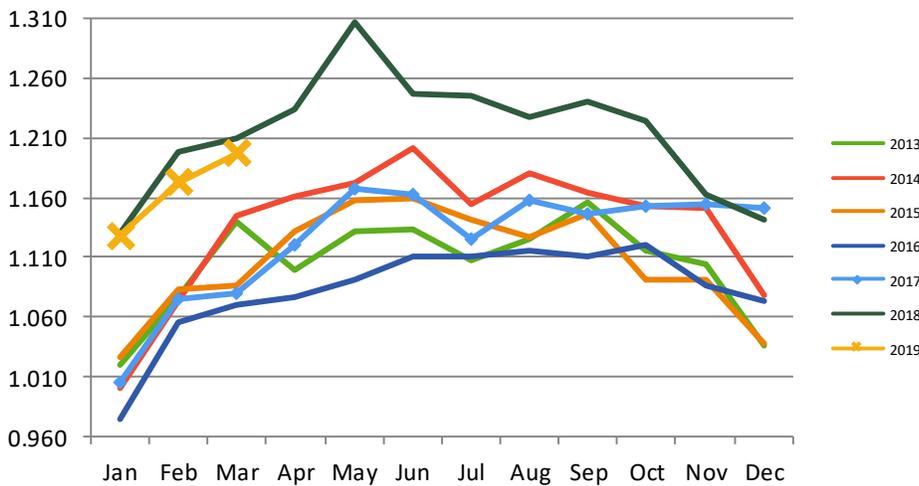
Shipments first turned positive 30 months ago (October 2016), while expenditures turned positive 27 months ago, both providing some of the first indications of the robust acceleration in the U.S. economy that was coming. Despite shipments contracting again this month for the fourth month in a row, the 2-year stacked rate of growth remains at a bullish 10.8% and is reflective of how much economic growth occurred in 2017 and 2018.

Cass Freight Index™ - Shipments
Two Year Percentage Change



Viewing the percentage change on a 2-year basis loses the predictive value of the index, but provides perspective on how strong the recent expansion has been. With this context, the small rate of the November 2018 YoY percentage increase and the rate of the recent (March, February, January 2019, December 2018) YoY percentage decreases seem less concerning. Alternatively, this highlights how severe the 2015-2016 industrial slowdown actually was.

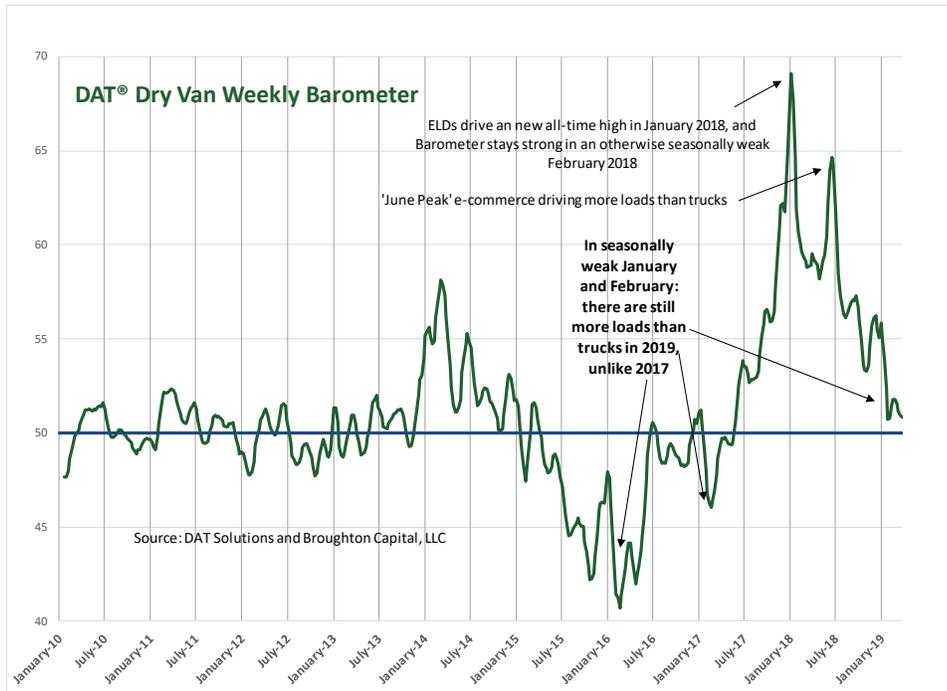
Cass Freight Index™ - Shipments



With all of 2018 now in the record books, it is clear that 2018 was an extraordinarily strong year for transportation and the economy. Every month from March to October exceeded the highest point 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), which is extraordinary. A YoY stacked chart (see above) highlights the surge to higher levels that began in November and December 2017.

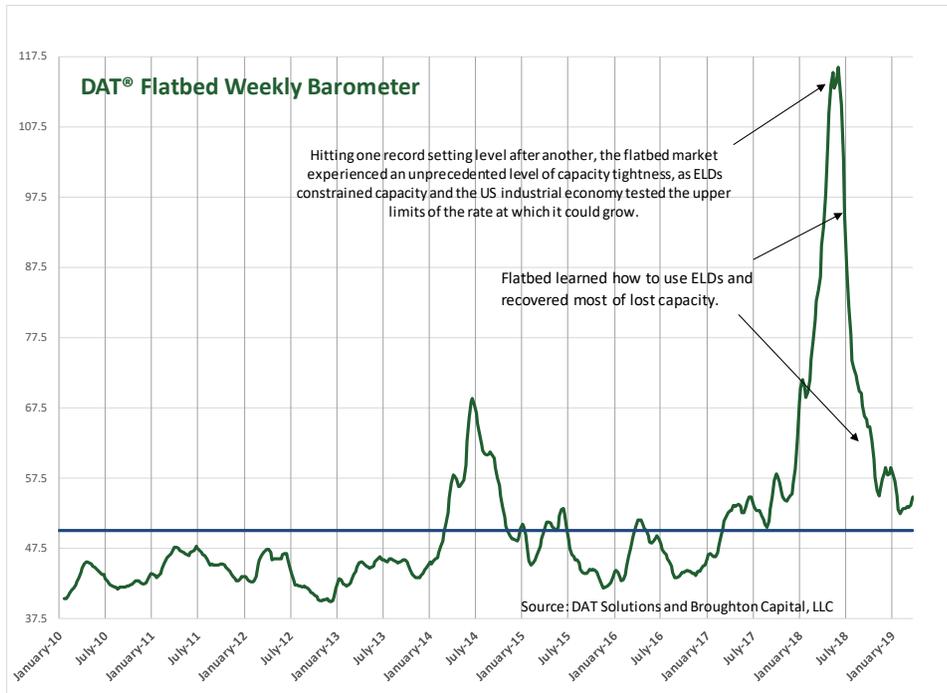
However, as we have already outlined, if the contractions in international airfreight develop into more severe international economic contractions, the risk of contagion to the U.S. economy increases.

The Consumer Economy - We should also note that dry van trucking volume serves a similar role to container volume in predicting retail sales. Especially when studied using the DAT Dry Van Barometer, a clear pattern of strong volume growth exceeding capacity growth, which is driving pricing power, remains.



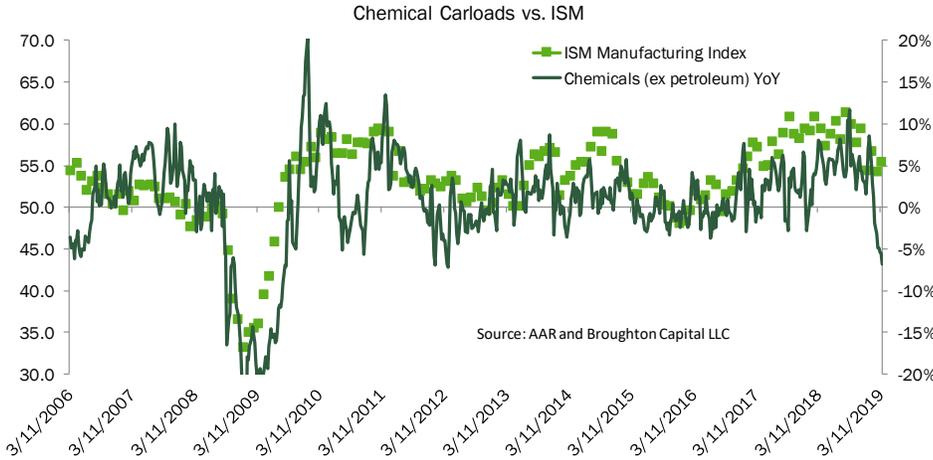
Key Takeaway - the DAT Dry Van Barometer is a real-time indication of demand exceeding capacity, even during the seasonally softest part of the year. We see this as an indication that the consumer economy is not only alive and well, but growing.

The Industrial Economy - With the surge in the price of WTI crude back above \$45 a barrel in October of 2016, the industrial economy's rate of deceleration first eased and then began a steady improvement led by the fracking of DUCs (drilled uncompleted wells), first in the fields with a lower marginal production cost (i.e., Permian and Eagle Ford) and now with oil back above \$50 a barrel (WTI is above \$64 a barrel as we write this) the U.S. oil industry is now fracking new wells in all the major shale fields. We would note that 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. **As long as WTI crude oil stays above the marginal cost of production in the major U.S. fracking fields, we expect to see continued industrial economic growth.**

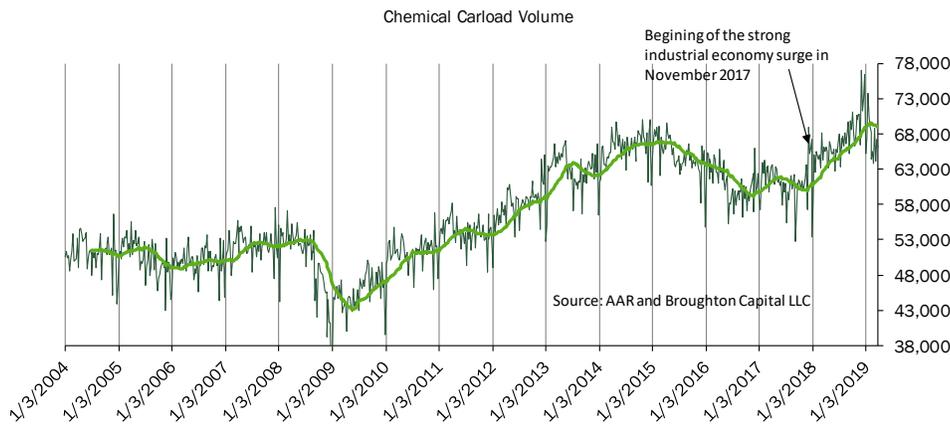


Just as the DAT Dry Van Barometer indicating that demand exceeds capacity is a positive sign for the consumer economy, the DAT Flatbed Barometer indicating that demand exceeds capacity is a positive sign that the U.S. industrial economy is still healthy.

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 railroad. Our assertion is simple: it is almost impossible to manufacture, or even assemble, anything in mass quantity without chemicals. As a result, there has historically been a very tight relationship between the railroad chemical carload volume and the ISM Manufacturing Index.

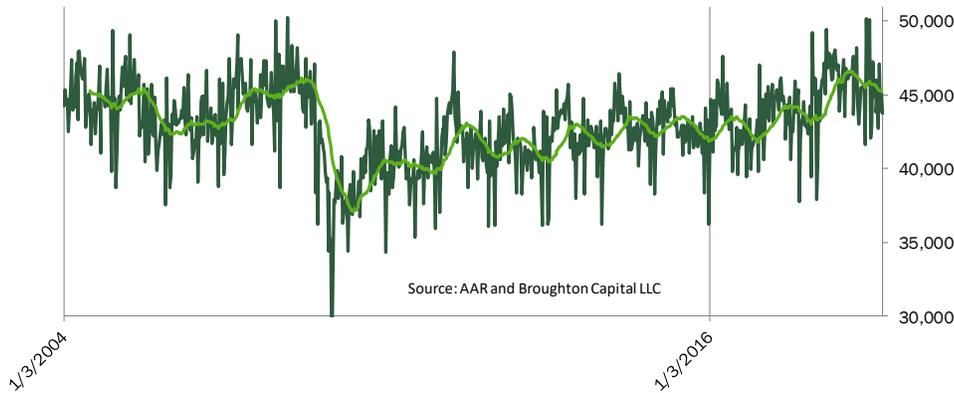


We should note that, after reaching strong volume increases (up 5.0% to 8.5% YoY in January and early February), the last few weeks have been lower (six-week moving average is 0.9%), although not severely enough or for a long-enough period of time to by themselves make a change in our forecast. However, as we outlined earlier, we are closely watching for signs that the consequences of the absence of trade agreements and ongoing trade talks (which we assert are the primary cause for the slowdowns in international airfreight), are spreading to the U.S. industrial economy. We also know that chemical volume shipped by railroads has historically been one of the earliest and most reliable indicators on this matter.



When viewed on a nominal basis, the chemical carload volume looked bullish for U.S. industrial production until recently.

Chemicals (ex petroleum) Carloads

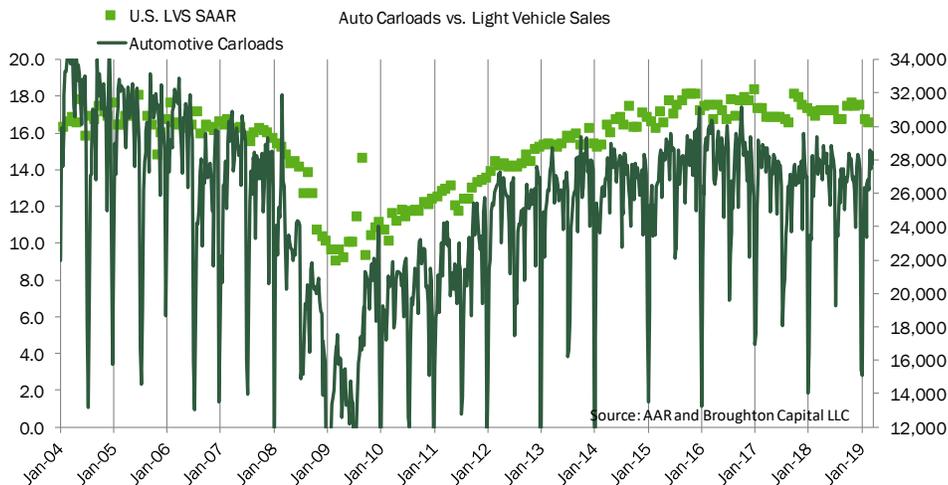


For those who might argue that the strength in chemicals is only a by-product of the growth in crude by rail, we have stripped out the petroleum carloads from the chemical carload volume. This suggests an equally bullish outlook for U.S. industrial production, at least for the short to intermediate term.

Metals Carloads vs. US Steel Mill Orders



Again, although it's too early to definitively tell, it appears that until recently, the steel industry was accelerating in the U.S. in the wake of the trade talks.



Dissimilar to steel, the auto industry is not immune to the trade talks and is not adding to our bullish outlook for the industrial economy in the U.S., at least for the short-term. Without material increases in volume in coming weeks, the auto industry appears to be a headwind to growth in 2019.

Enough About Volume and Demand, What About Pricing?

The Cass Freight Expenditures Index is signalling continued, but muted, overall pricing power for those in the marketplace who move freight. Demand is still exceeding capacity in most modes of transportation, albeit not to the degree it was during most of 2018. Since this is the seasonally weakest part of the year, it is not normally prudent to use current capacity utilization rates to predict a change in pricing trends - except in circumstances such as last year when demand far exceeded capacity, even during the seasonally softer period.

With the Cass Freight Expenditures Index up 6.1% in March and the two-year stacked increase of 22.7%, we understand why there are those who are concerned about inflation. But we continue to point out four factors:

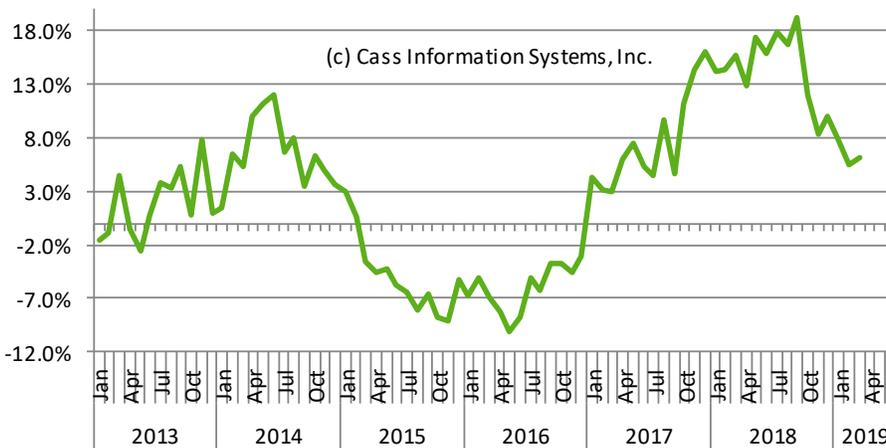
1. Almost all modes of transportation are using the current environment of pricing power to create capacity, which will first dampen and eventually kill pricing power;
2. Spot pricing (not including fuel surcharge) in all three modes of truckload freight (dry van, reefer, and flatbed) has already been falling for nine months. Spot

pricing, using dry van as a proxy, has fallen 21.7% from its peak in June 2018 and is now 26.5% below contract pricing (which we see as unsustainable);

3. The cost of fuel (and resulting fuel surcharge) is included in the Expenditures Index, and while the cost of diesel was up 3.0% in March (suggesting higher fuel surcharges in coming weeks), we don't see it as the driving factor given the small percentage;
4. Whether driven by capacity addition/creation or lower fuel surcharges (or a combination of both, which is our best guess) the Expenditures Index is sequentially declining: the March 2019 Index is down 3.4% from its peak in September 2018.

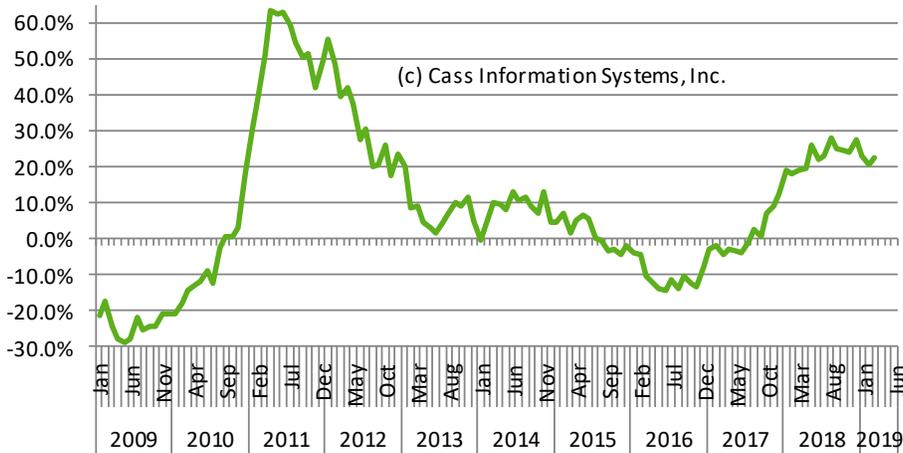
As we explained in previous months, we do not fear long-term inflationary pressure as technology provides multiple ways to ever increase asset utilization and price discovery in all parts of the economy, but especially in transportation. In fact, we are continuing to see more evidence that ELDs (Electronic Logging Devices), which initially hurt the capacity/utilization of truckers (especially small truckers), are becoming an ever-smaller impediment to capacity utilization and in some cases actually improving utilization to levels above those achieved before ELD adoption. Many of the truckers who were the most adversely affected 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, is learning to adapt.

Cass Freight Index™ - Expenditures
 YOY Percentage Change



With all the recent strength in demand, it follows that the Cass Freight Expenditures Index also posted strong percentage increases throughout 2017 that continued throughout 2018 and into 2019. 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. The current comparison is anything but easy. We have commented repeatedly that this was indicative of an economy that is continuing to expand. The March 6.1% increase signals that capacity is still constrained, demand is solid, and shippers are willing to pay up for services to get goods picked up and delivered in modes throughout the transportation industry.

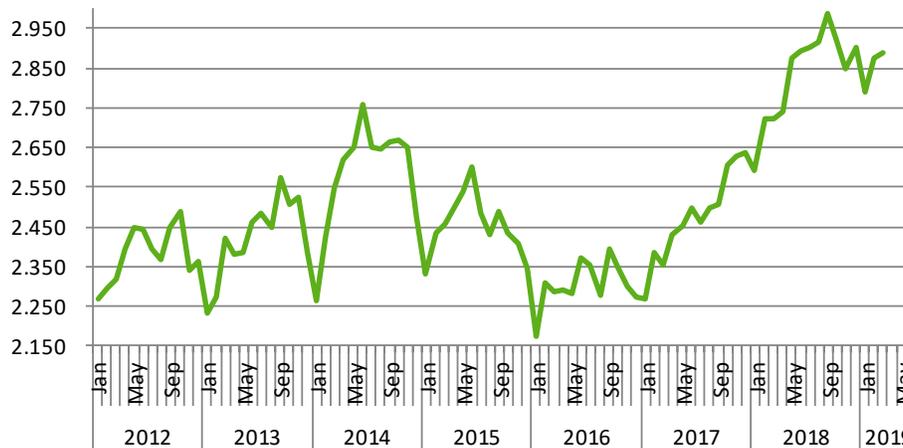
Cass Freight Index™ - Expenditures Two Year Percentage Change



While the rate of the Cass Freight Expenditures Index percentage increase has been declining in recent months, this is in part because the current and recent monthly increases are on top of strong double-digit increases from October 2017 through October 2018. Viewed another way that provides more perspective, the two-year stacked increase (2018 vs. 2016) in expenditures was 24.8% in September, 24.6% in October, 23.9% in November, 27.7% in December, 23.1% in January, 20.6% in February, and 22.7% in March.

Cass Freight Index™ - Expenditures

Nominal Index Value = 100 January 1990



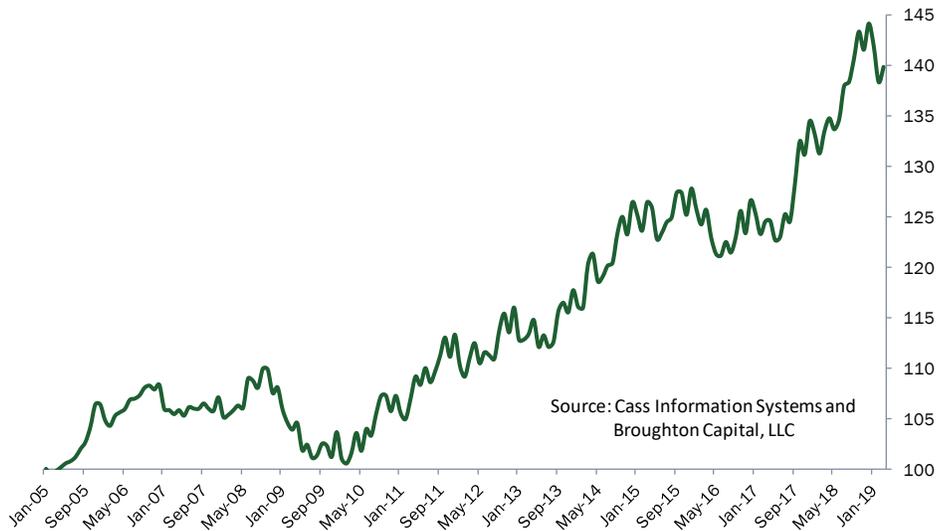
Viewing the Cass Freight Expenditures Index on nominal basis shows how positive the trajectory has been over the last two years. On a nominal basis, the Index first exceeded the all-time high established back in June 2014, and has then stayed near record levels. To put the strength of the underlying pricing in perspective, we should remind readers that the price of oil was at or above \$100 a barrel throughout most of 2014, vs. the price today of ~\$64 a barrel.

Putting it all in Perspective - the Background Story

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. Since fuel surcharges are included in the Expenditures Index, the price of diesel fuel was a positive bias in 2017 (fuel was up as much as 75% on a YoY basis, on average up 15.0%) and continued to be in the 2018 data (on average up 19.9%), albeit to an ever-lesser degree by the end of the year.

After being a positive bias throughout 2017 and 2018, diesel (at \$3.093 a gallon on a national average basis, up a mere 1.7% YoY as we write this) is not yet poised to be much of a bias (positive or negative) in coming months of 2019. Despite this, we are seeing continued improvements in the pricing power of truckers and intermodal shippers.

Cass Truckload Linehaul Index



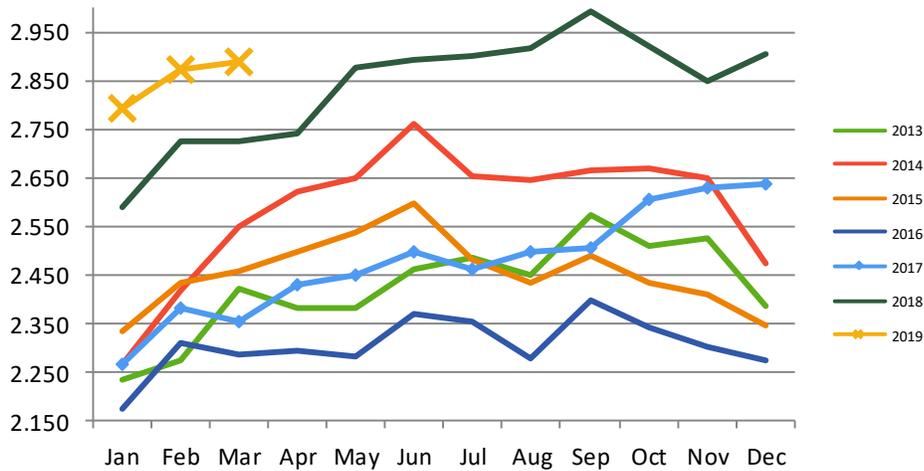
As an example, the proprietary Cass Truckload Linehaul Index (which measures linehaul rates and does not include fuel) rose 4.8% on a YoY basis in the month of March to 139.9 (just shy of the all-time record high, set in December 2018 at 144.2) and is now 12.0% higher than it was two years ago.

The proprietary Cass Intermodal Price Index (which does include fuel), increased 6.1% in March to 151.9, establishing a new all-time record high on a nominal basis, surpassing the previous highs set in January 2019 (151.0) and October 2018 (147.3) ([see those reports here](#) for more details on the data and the underlying trends).

Like the Cass Freight Shipments Index, the Cass Freight Expenditures Index, when viewed on a nominal YoY stacked basis, highlights that:

- the monthly Expenditures Index exceeded all previous levels for each month respectively throughout 2018;
- since May 2018, it has even exceeded all previous levels in any month of any year;
- January, February and March of 2019 are not only well above January, February and March of 2018, but are above the peak of 2014. **Since oil was markedly higher in 2013 and 2014 (and hence included a much larger fuel surcharge), this data is reflective of stronger core pricing.**

Cass Freight Index™ - Expenditures



We'd remind readers of two fundamental rules for marketplaces: volume leads pricing, and the long-term value of a commodity is the marginal cost of producing it.

- Repeatedly, we have watched in a host of different markets that volume goes up before pricing starts to improve and volume goes down before pricing starts to weaken. Even in markets as basic as the weather, the number of hours of sunshine (sunrise to sunset) starts to decline long before the temperature starts to fall. Volume leads pricing.
- Especially to the extent that pricing materially exceeds the marginal cost of creating capacity, market participants will invest heavily in the exact activities which kill pricing power in commodity markets (i.e. expansion of capacity with the belief that the current pricing power will endure for an extended period of time). Transportation may not be a pure commodity marketplace, and we appreciate that there are segments where customers are more motivated by the speed and reliability of the service than the price, but overall, transportation is a commodity-like industry. Significant increases in price are used to attract new workers (drivers, pilots, etc.), buy newer, more efficient equipment (with larger capacity when available), and purchase ever more sophisticated technology to increase asset utilization. Pricing power will continue until capacity is expanded enough to meet demand. As capacity eventually grows faster than demand, because participants in commodity markets (especially if the participants are highly fragmented) always overshoot, pricing will fall. Pricing continues to fall until it is below the cost of adding incremental capacity, at which point the incentive to add any incremental capacity is gone, and pricing stabilizes as long

as demand holds steady. If pricing continues to fall dramatically - because too much capacity was created or because demand has contracted - capacity will be destroyed or at least idled until pricing stabilizes. This process may create significant oscillations in pricing above and below the marginal cost of creating capacity in the short term, but those increases and decreases in pricing will be around the marginal cost of production.

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 \$28 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 quantamental 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. In the fall of 2015, he began predicting that the decline in the price of oil would lead to a contraction in the U.S. industrial economy, and in the third quarter of 2016 predicted that the U.S. industrial and consumer economy were about to be dramatically better.

He is currently expressing growing concern about the deceleration in the European and Asian freight flows, and sees a growing risk of recession in many of the European and Asian countries. He believes the U.S. economy remains in a growth mode, but is carefully watching for signs of contagion from the global slowdown, and believes that it is imperative that agreements are reached with our major trading partners as quickly as is prudently possible.

But fear not, he believes that the potential for growth in the U.S. economy in coming years, especially the industrial economy and the tech economy, is dramatically underestimated. He predicts the U.S. tech economy will continue to expand and dominate the global tech economy; and the U.S. tech economy is already beginning to drive a renaissance of productivity and precision in the U.S. industrial economy that will ultimately restore it to global dominance.

Other indexes published by Cass and Donald Broughton:

Cass Truckload Linehaul Index® - measures fluctuations in U.S. truckload linehaul rates

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