TRANSPORTATION TRENDS, EQUIPMENT MARKETS, & THE ECONOMY

COMMERCIAL VEHICLE
DEALER DIGEST
REPORT VERSION PUBLISHED NOVEMBER 2019

2019 LAWRENCE R. KLEIN BLUE CHIP AWARD WINNER

Contributor to Blue Chip Economic Indicators and WSJ Economic Forecast Panel

SAMPLE REPORT OVERVIEW:

Thank you for your interest in ACT Research and our work. The objective of this sample report is to share an understanding of the market, economy, and insight to analysis at the time of publication. We share this report from 2017 for market context, assessment of our data, and analysis at the time of publication.

Commercial Vehicle Dealer Digest

With this report, you will receive monthly highlights on the commercial trucking sector trends, including those for publicly-traded truckload carriers, rail/intermodal, new Classes 5-8 trucks/tractors, used trucks, new trailers. It also includes quick-read graphs and explanatory captions covering the use of truck markets, transportation metrics, economics and energy prices. Additionally, this digest includes a forecast summary and forecast tables for the US and Canadian Classes 5-8 markets retail sales, as well as US trailer production forecast tables.

Click the buttons below to access more!

<u>REPORT VIDEO</u> 🔺

Report Dashboard Overview:

With your subscription to the *CV Dealer Digest*, you will gain access to our report dashboard. Below is a listing, as well as a screenshot, of this dashboard and the support material you will receive with your report.

1. PDF of Current Month Report
2. Key Items of Note
    1. Forecast Tables
    2. ACT For-Hire Trucking Survey
    3. Trucking Sector Trends
    4. Publicly Traded Truckload Carriers
    5. Rail/Intermodal Trends
    6. New Class 8 Truck Trends
    7. New MD Truck Trends
    8. Used Truck Trends
    9. New Trailer Trends
    10. U.S. Economics
    11. Forecast Summary Sections

Report Distribution & FAQs

When is the report published?
The *Commercial Vehicle Dealer Digest* is published at the end of each month.

How many individuals in my company may access the report?
ACT Research allows for a maximum distribution of 4 users per report. Additional access may be purchased at $60 per person, per report.

Can the individuals with report access be changed?
Yes, we understand that change in staff may occur. Simply call or email our team and we'll help you manage this process. There is no charge for changing users.

How do I become aware of the release of the latest publication?
A notice, via email, will be sent to those users on your distribution list upon the publication and availability of the *Commercial Vehicle Dealer Digest*. Users can then access the report via dashboard login.

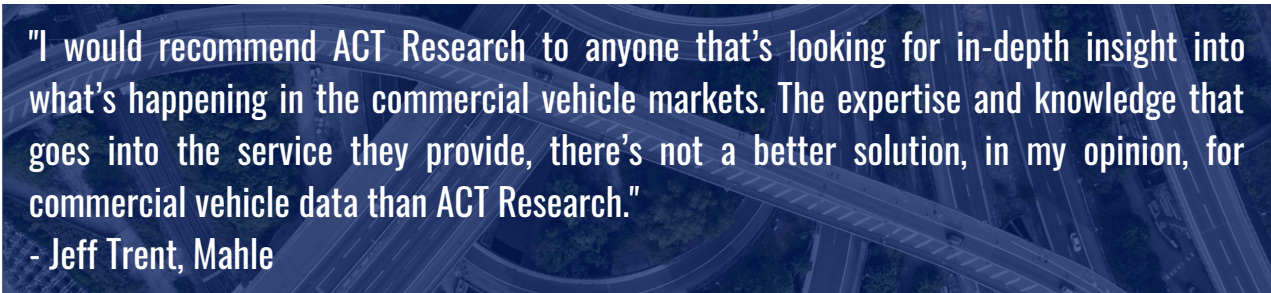**Is support for ACT Research analyst available should questions arise?**
Yes, we highly encourage our subscribers to call or email our staff with questions or concerns. Our analysts take great pride in being accessible and are willing to answer questions as needed.

May I utilize aspects of the report within my organization?
Yes, but we do request that all tables, graphs, charts, or analysis cite ACT Research as the source.

May I utilize aspects of the report for external presentations? (conferences, trade organizations, etc.)
Yes. ACT's copyright policy requires that any external presentations utilizing ACT data be sourced and cited appropriately. Furthermore, we request that external sourcing be limited to charts and/or graphs. If you are uncertain if your presentation meets our copyright requirements, contact us at 812.379.2085 or trucks@actresearch.net to inquire.

"I would recommend ACT Research to anyone that's looking for in-depth insight into what's happening in the commercial vehicle markets. The expertise and knowledge that goes into the service they provide, there's not a better solution, in my opinion, for commercial vehicle data than ACT Research."
- Jeff Trent, Mahle

ACT Research

TABLE OF CONTENTS

FORECAST SUMMARY

FORECAST SUMMARY: Given that only three months remain in this year, there were some particularly noisy changes to 2019 forecasts triggered by three one-off events.

Class 8: The nonlinear and all-time record month for US Class 8 tractor retail sales. That surge led to an-over 6,000 unit increase in US Class 8 sales expectations in 2019. Despite the sharp jump in sales expectations, the 2019 build forecast was little changed, owing to a sharper-than-previously-expected inventory drawdown.

Tank Trailers: An OEM revised 6 months of data, resulting in materially higher history and forecasts for liquid and pneumatic tank trailers. While the trailer topline rose by only 0.9%, the changes to the tank market were substantive.

Chassis: New chassis reporting led to an 1.8% decline in the total US-axled products forecast. Positively, this heretofore opaque segment will see material improvements in historical and forecast accuracy.

Those changes aside, the pattern of the forecasts in this month's report remain, for all intents, unchanged: Expectations for the Class 8 and trailer markets anticipate an accelerating pullback in build rates, as freight market conditions remain at a low ebb. While less cliff-like, MD market indicators continue to support a modest correction into 2020.

Economy: With ~80% of the NA Class 8 market and ~90% of the NA Classes 5-7 and Trailer markets beholden to the US economy, it is little wonder that this summary focuses almost exclusively on said economy. This month, it is worth touching on the weaker-than-anticipated activity in the economies of Canada and Mexico. In April, Canadian GDP expectations were pared back 50bps to 1.5%. Through Q3, the Mexican economic outlook deteriorated, falling 110bps to 0.6% GDP growth in 2019. The sharply lower Mexican economic outlook took small bites from both NA Class 8 and trailer expectations into the medium-term. Comparatively, US growth expectations, at 2.2%, are now 40bps below start-of-the-year levels. Looking to 2020, GDP growth in all three NA economics is anticipated to fall below 2%, with the US and Canada at 1.7% and Mexico rebounding to 1.4%.

Not surprisingly, the primary driver(s) of this devolution in NA economic activity and expectations are broadly the same in all three cases and can be succinctly summed up in just a few words: Trade War; Threats; Tariffs; Trump. More broadly, the slowdown in global economic activity in large part represents the fallout from the clash of economic titans that began in early 2018. The US-China trade war was cited as the trigger for recent cuts in 2019 expectations for global growth from the IMF (3.0%), OECD (2.9%), and World Bank (2.6%) – the slowest growth rate(s) since 2009.

Expanding on our five-word economic synopsis, the slowdown in global growth has impacted key industrial commodity prices, which in turn have triggered a pullback in investment/machinery demand. Owing to the freight intensity of building things, falling machinery demand negatively impacts freight volumes, leading [always] to a turn in the heavy CV demand cycle. When the freight cycle rolls over, it is typically an 18-month to 2-year trough. We date the start of the current downturn to Q4'18.

The key risk to all vehicle market forecasts, and the US economy broadly, in either direction, remains the trade war with China. If the President doubles-down from here, a greater global downturn could ensue, with the worst outcomes spreading beyond the impact of tariffs and into a global currency war. If Schedule D tariffs are put in place in December, the likelihood of recession rises.

By the same token, recent headlines suggest President's Xi and Trump are concluding that trade wars are neither good, nor easy to win, and there may be some positive movement in the offing. While it is too much to believe that either side is willing to concede, a cease-fire would be a step in the right direction and corresponds with ACT's base-case forecast. A resolution to the trade war, or at least real progress on rolling back tariffs, would set the table for stronger growth into the end of 2020, by removing uncertainty and thereby spurring growth into 2021. China appears to have the upper hand in this ongoing situation, so "victory" would likely require some degree of capitulation of US principles.

With US manufacturers and farmers struggling to compete on the tilted global playing field, the key driver of growth in the mid-term outlook is the US consumer, who remains well positioned to keep the economy out of the ditch. Job and wage growth and savings rates are all at healthy levels, supporting consumer confidence and spending.

ACT Research

FORECAST SUMMARY

Classes 5-7: Preliminary October net orders, at 16.4k, slowed to their lowest level since July 2016 nominally and December 2013 on a seasonally adjusted basis. The drop appears to be a signal that MD vehicle buyers are stepping back from the torrid pace of demand the space has enjoyed over the past year and a half. Backlogs remain elevated, but if the order softness persists, there is potential downside risk to the 2020 production and retail sales forecasts.

In the near term (2019), better-than-expected retail sales and persistent upward pressure on production have necessitated increases to both the production and retail sales forecasts. Because the industry is still accumulating inventory, a portion of the increase to build this year was pulled from 2020 build expectations.

Trailers: Beyond the already discussed changes to actual and forecast tank trailer (+1.3k) and chassis data (-10k), underlying adjustments were perhaps predictable, gravity-defying dry van production offsetting even weaker flatbed demand. At the top-line, the changes to the trailer forecast this month were small: The outlook for 2019 rose by 3k units, to 332,700 units, on continued strength in van production. Driven by adjustments to the tank trailer forecasts, the 2020 aggregate rose 1k units, to 265,200k units.

CHART OF THE MONTH: They say a picture is worth 1,000 words. One of our favorites is an overlay of the 12MMA of Class 8 net orders and actual production data. As 20 years of history show, where the order trend goes, builds follow. We took the liberty of assuming a 22k/mo. average for orders through Q4. Positively, you can see the beginning of a turn in the 12mm order average in December. With less backlog cushion, Class 8 orders in 2020 should handily outperform 2019, allowing the order average to move higher.

On the downside, we would note that every trough in the order average the past 20 years has been met with a corresponding drop in builds. In November and December, the average sits at ~15,500 units. Given the unanswered surge in orders at the end 2018, and the already lagged build downturn, perhaps there's an "it's different this time" case to make. Perhaps.
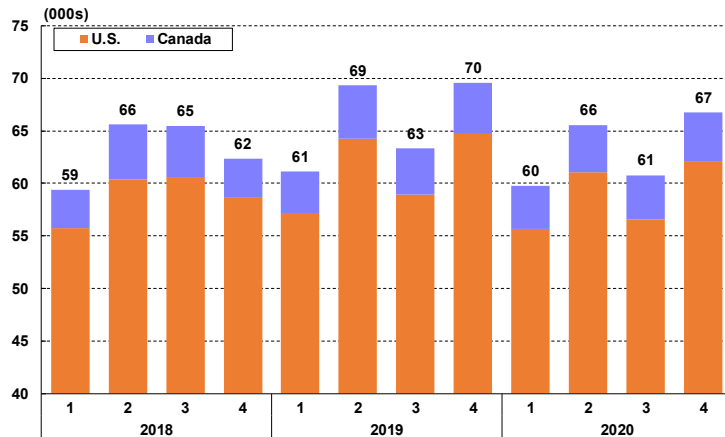
Total Class 8 N.A.: Net Orders 12 Mo. Avg. & Build
January 2001 – December 2019

Source: ACT Research Co., LLC: Copyright 2019
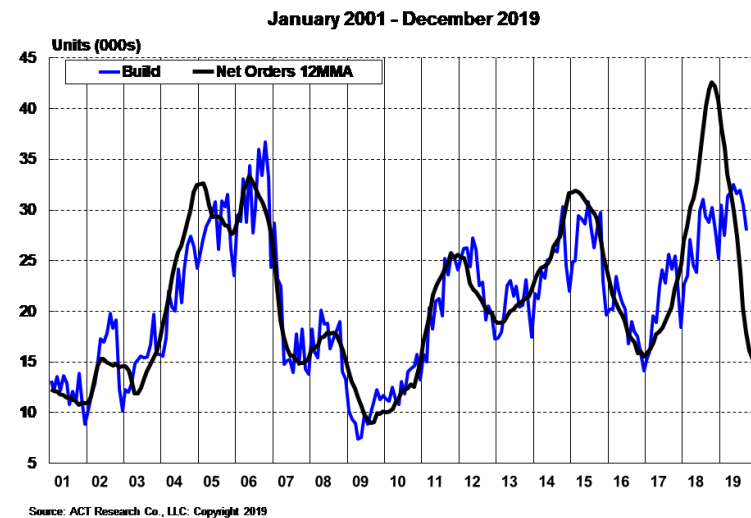
ACT Research

FORECAST SUMMARY

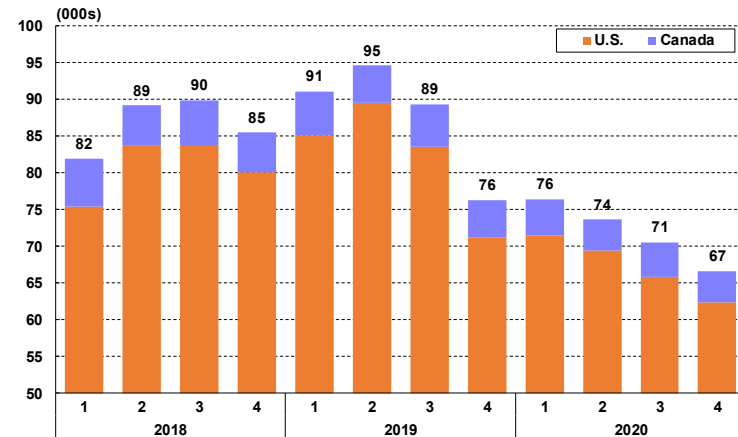### Classes 5-7: U.S. and Canada Retail Sales
Q1'18 - Q4'20

ACT Research Co., LLC: Copyright 2019

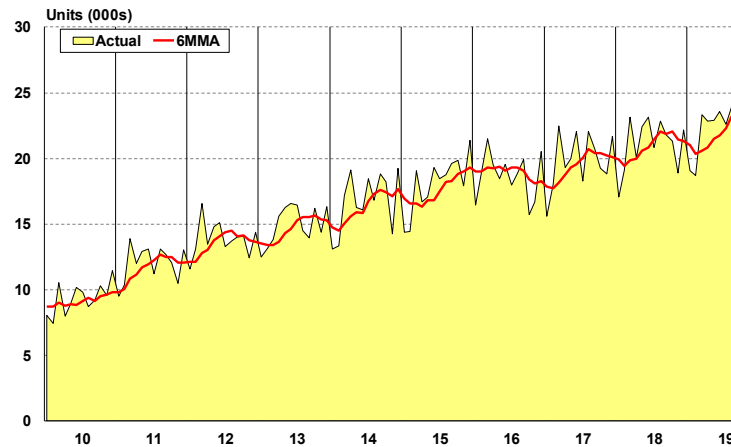### Total Trailers: U.S. and Canada Production
Q1'18 - Q4'20

ACT Research Co., LLC: Copyright 2019
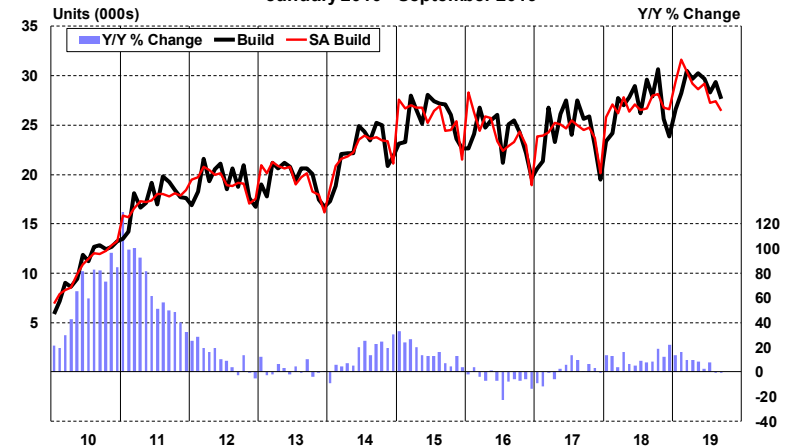
Total Classes 5-7: U.S. and Canada Retail Sales
January 2010 - August 2019

ACT Research Co., LLC: Copyright 2019

Total Trailers Build
Year Over Year Percent Change
January 2010 - September 2019

Source: ACT Research Co., LLC: Copyright 2019
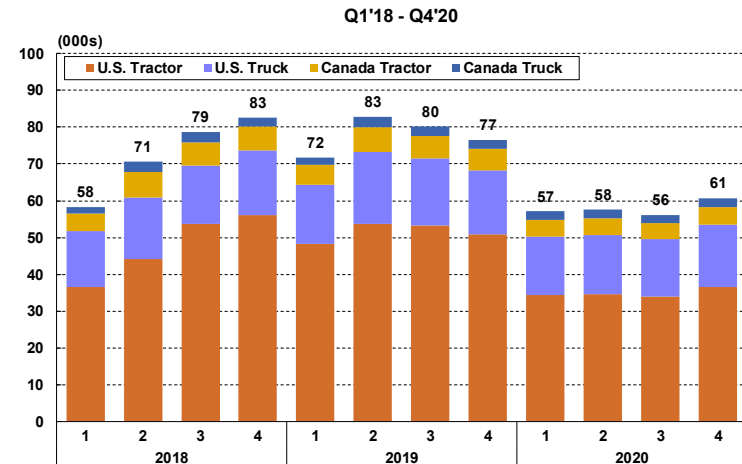
ACT Research

FORECAST SUMMARY

Class 8: Despite a high-side production surprise in September, large new inventories and deteriorating freight and rate conditions keep us cautious into the end of 2019. That said, we add an incremental bump to 2019 expectations, with the Class 8 build forecast rising 800 units, to 345,800. Looking toward next year, a drop in Mexico and a slightly quicker inventory drawdown domestically lower the 2020 forecast 3.500 units, to 233,500 units. The change to the 2020 forecast was modest, but we believe it better positions expectations between high and low-side risks in a 1.5% to 2% GDP economic scenario. Two considerations will dictate the timing and speed of the market in 2020:

The timing and speed of the rebound in freight rates: Slower and longer adds to downside risk.

The TCO desirability and secondary market value of today's "must have" spec'd tractor provides upside potential.

Given the cure for weak demand is reduced supply, September's near-record sales number was a step away from equilibrium. Sales into year-end are expected to continue adding to the overhang, before slower sales take hold in Q1.
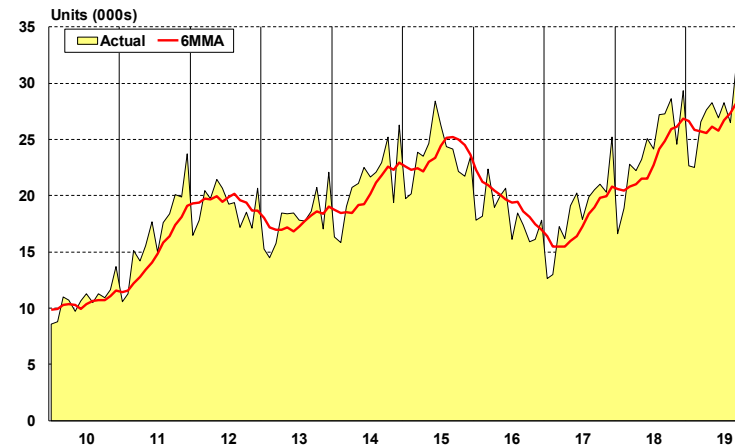
Class 8: U.S. and Canada Retail Sales
Q1'18 - Q4'20

ACT Research Co., LLC: Copyright 2019

Total Class 8: U.S. and Canada Retail Sales
January 2010 - September 2019

ACT Research Co., LLC: Copyright 2019

ACT Research

FORECAST TABLES

CLASSES 5-7 RETAIL SALES

	2018	2019 Q1	2019 Q2	2019 Q3	2019 Q4	2019	2020 Q1	2020 Q2	2020 Q3	2020 Q4	2020
U.S.											
Retail Sales	235,312	57,166	64,226	64,162	63,446	249,000	55,668	61,031	56,567	62,134	235,400
Y/Y % Change	5.4	2.6	6.4	5.9	8.2	5.8	-2.6	-5.0	-11.8	-2.1	-5.5
CANADA											
Retail Sales	17,479	3,940	5,083	5,828	5,149	20,000	4,138	4,537	4,205	4,619	17,500
Y/Y % Change	17.8	8.3	-3.2	19.1	39.4	14.4	5.0	-10.7	-27.8	-10.3	-12.5

CLASS 8 RETAIL SALES

	2018	2019 Q1	2019 Q2	2019 Q3	2019 Q4	2019	2020 Q1	2020 Q2	2020 Q3	2020 Q4	2020
U.S.											
Class 8 Tractor	190,427	48,216	53,753	57,127	50,496	209,592	34,517	34,791	33,969	36,709	139,986
Y/Y % Change	38.8	31.7	21.9	6.5	-10.0	10.1	-28.4	-35.3	-40.5	-27.3	-33.2
Class 8 Truck	65,401	16,158	19,532	20,990	17,728	74,408	15,291	15,412	15,048	16,262	62,014
Y/Y % Change	9.0	7.1	16.9	31.7	0.4	13.8	-5.4	-21.1	-28.3	-8.3	-16.7
Total Class 8	255,828	64,374	73,285	78,117	68,224	284,000	49,808	50,204	49,018	52,971	202,000
Y/Y % Change	29.7	24.5	20.6	12.2	-7.5	11.0	-22.6	-31.5	-37.3	-22.4	-28.9
CANADA											
Class 8 Tractor	24,665	5,488	6,728	5,404	5,941	23,561	4,577	4,613	4,504	4,868	18,563
Y/Y % Change	38.6	14.0	-5.3	-15.0	-7.0	-4.5	-16.6	-31.4	-16.6	-18.1	-21.2
Class 8 Truck	9,628	1,917	2,852	2,723	2,848	10,340	2,204	2,221	2,169	2,344	8,938
Y/Y % Change	15.3	3.2	5.6	3.5	16.7	7.4	15.0	-22.1	-20.4	-17.7	-13.6
Total Class 8	34,293	7,405	9,580	8,127	8,788	33,900	6,781	6,835	6,673	7,211	27,500
Y/Y % Change	31.2	11.0	-2.3	-9.6	-0.5	-1.1	-8.4	-28.7	-17.9	-17.9	-18.9

ACT Research

FORECAST TABLES

TRAILER PRODUCTION

	2018	2019 Q1	Q2	Q3	Q4	2019	2020 Q1	Q2	Q3	Q4	2020
U.S.											
Dry Vans	194,478	50,403	54,040	53,146	45,711	203,300	43,200	40,896	38,745	37,159	160,000
Y/Y % Change	6.4	10.7	6.7	5.2	-4.4	4.5	-14.3	-24.3	-27.1	-18.7	-21.3
Reefer Vans	45,930	12,641	13,458	12,925	10,976	50,000	11,075	10,560	9,639	9,526	40,800
Y/Y % Change	7.4	20.0	18.2	9.1	-9.7	8.9	-12.4	-21.5	-25.4	-13.2	-18.4
Total Vans	240,408	63,044	67,498	66,071	56,687	253,300	54,275	51,456	48,384	46,685	200,800
Y/Y % Change	6.6	12.4	8.8	6.0	-5.5	5.4	-13.9	-23.8	-26.8	-17.6	-20.7
Platforms	34,817	9,792	9,106	7,295	6,107	32,300	6,720	6,080	5,355	4,845	23,000
Y/Y % Change	47.8	21.4	-0.9	-19.1	-28.6	-7.2	-31.4	-33.2	-26.6	-20.7	-28.8
Heavy Lowbeds	4,386	1,187	1,266	1,134	913	4,500	960	1,152	1,071	917	4,100
Y/Y % Change	35.7	25.3	11.6	-2.7	-19.9	2.6	-19.1	-9.0	-5.6	0.4	-8.9
Medium Lowbeds	8,046	2,237	2,055	1,704	1,404	7,400	2,048	1,984	1,701	1,467	7,200
Y/Y % Change	29.8	17.1	-6.5	-18.1	-24.3	-8.0	-8.4	-3.5	-0.2	4.5	-2.7
Dumps	8,593	2,264	2,530	2,323	1,883	9,000	2,048	2,048	2,098	2,206	8,400
Y/Y % Change	4.9	8.6	6.0	0.1	4.5	4.7	-9.5	-19.1	-9.7	17.2	-6.7
Liquid Tanks	6,919	2,126	2,202	2,301	1,871	8,500	1,792	1,702	1,703	1,703	6,900
Y/Y % Change	23.9	19.7	28.2	37.1	7.0	22.9	-15.7	-22.7	-26.0	-9.0	-18.8
Bulk Tanks	2,048	395	389	331	235	1,350	274	306	339	381	1,300
Y/Y % Change	8.7	-13.4	-27.7	-41.3	-52.0	-34.1	-30.6	-21.3	2.4	62.1	-3.7
Total Tanks	8,967	2,521	2,591	2,632	2,106	9,850	2,066	2,008	2,042	2,084	8,200
Y/Y % Change	20.1	12.9	14.9	17.4	-5.9	9.8	-18.0	-22.5	-22.4	-1.0	-16.8
Grain/Comm.	7,846	1,858	1,938	1,814	1,690	7,300	1,600	1,728	1,512	1,460	6,300
Y/Y % Change	-1.4	-4.7	-5.8	-7.1	-10.4	-7.0	-13.9	-10.8	-16.6	-13.6	-13.7
All Other Trailers	9,894	2,392	2,631	2,379	1,698	9,100	1,854	1,856	1,890	1,600	7,200
Y/Y % Change	11.8	12.8	3.7	-7.7	-36.1	-8.0	-22.5	-29.5	-20.6	-5.8	-20.9
Total U.S. Trailers	322,957	85,295	89,615	85,352	72,488	332,750	71,571	68,312	64,053	61,264	265,200
Y/Y % Change	11.0	13.2	7.0	2.0	-9.5	3.0	-16.1	-23.8	-25.0	-15.5	-20.3
Total Canada Trailers	23,375	6,050	5,100	5,750	5,100	22,000	4,900	4,150	4,750	4,250	18,050
Y/Y % Change	44.3	-6.9	-5.1	-6.5	-4.7	-5.9	-19.0	-18.6	-17.4	-16.7	-18.0

ACT Research

HIGHLIGHTS & COMMENTARY

TRANSPORTATION

The **ACT For-Hire Trucking Survey** Volume Index (SA) returned to modest positive territory in October, at 52.0 (SA), after surging to 59.6 in September. It has now been positive three of the past four months, but just four times this year.
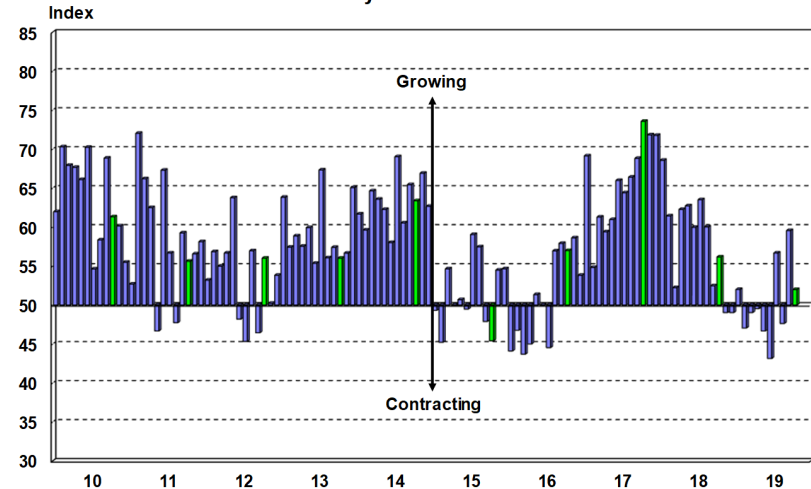
ACT's For-Hire Pricing Index returned to negative territory, at 45.8 (SA), in October, after recovering with volumes in September at 52.2. The full-year average fell to 47.7.

Seasonally adjusted, capacity contracted in October for the fourth straight month, with the index rising to 49.3, from 47.3 in September. This continues to be inconsistent with ACT's reporting of robust US Class 8 tractor retail sales, strongly suggesting private fleets continue to be responsible for ongoing capacity additions.

Fleet productivity/utilization held up well in October, at 53.9, though down from 56.3 in September, which is consistent with the slower volume growth reading and ongoing capacity discipline.

Buying intentions rose considerably in October, to 58.5% of respondents planning to buy trucks in the next three months, from 48.3% in September (SA). This is somewhat surprising as the unsustainable pattern of low orders and peak production is at the beginning of the end. **(Pages 2-4**)

The **ATA's For-Hire Truck Tonnage Index** (SA) grew 3.5% y/y in September, from 3.2% y/y in August and 4.1% ytd versus the full-year 2018 growth rate of 6.6%. **(Page 5)**

Cass reported their Shipments Index, a broad for-hire transport volume indicator, declined 3.3% y/y in September, the tenth straight month of declines averaging -3.1%. **(Page 5)**

ACT Research's final Q3'19 **Publicly Traded Truckload Carrier Database** shows total revenue of $8.6 billion for the quarter, off 5% y/y and slightly lower from the previous quarter. **(Page 6)**

The worsening trend in NA Class I **Rail** volumes accelerated in October, which bore the brunt of the GM strike, falling 7.2% y/y. **(Pages 7, 16)**

EQUIPMENT

Even as we face the push and pull of seemingly contradictory market statistics, our **Class 8** outlook remains essentially unchanged for the short and long-term. **(Page 8)**

Activity for the total **Medium Duty** market was mixed in September, with weakness in sequential comparison, but expansion evident in longer-term performance. **(Page 9)**

Same dealer sales of **Used Class 8** equipment were uniformly weaker in September, falling 5% m/m, with y/y and ytd volumes dropping 18% and 19%, respectively. **(Pages 10, 12-14)**

We would expect some seasonal bump in **Trailer** order activity, and it does appear that the 2019-20 order season is now underway. That being said, the pace seems a bit uninspiring. **(Page 11)**

ECONOMY

Our view of the US economy remains unchanged. Economic growth is decelerating as the stimulus of the 2017 tax cut ebbs. Despite uncertainty, we are not forecasting an economy-wide recession, but are expecting "rolling recessions." Manufacturing, retail and the energy sectors are most vulnerable. Trade tension continues to be a major source of volatility, globally as well as domestically.

Real GDP growth is forecast to average 2.3% in 2019, 1.7% in 2020, and slow a bit further in 2021. The consumer sector, propelled by the fundamentals of strong employment, rising income and high levels of sentiment, provides the solid base for growth. Business expenditures will be the weak sister, constrained by rising tariff costs and uncertainty. The risks to our forecast are mainly to the downside.

The unemployment rate, currently at 3.6%, should average 3.7% in 2019 and rise a tad to 3.8% in 2020, remaining below the natural rate estimated at 4.5%. Headline inflation measures should average slightly below the Fed's preferred 2% target; measures that eliminate volatile series, such as energy and food, are the core readings, which should remain slightly above the 2% mark. Our view is likely to be tested by economic data volatility in the next several months. It may be spring of 2020 before projections are finally validated. **(Pages 17-20)**

ACT Research

ACT FOR-HIRE TRUCKING SURVEY

VOLUME INDEX: The Volume Index (SA) returned to modest positive territory in October, at 52.0 (SA), after surging to 59.6 in September. It has now been positive three of the past four months, but just four times this year.

The freight industry improvement has not been broad-based in the past few months, and we continue to see plenty of evidence that inventory building ahead of tariffs has been a key driver of recent performance, though strong consumer trends are also helping. With still-aggressive private fleet growth and a weak US manufacturing sector, choppy results will likely continue, but the past few months suggest a bottoming process is underway.

ACT For-Hire Trucking Index: Volumes
(Seasonally Adjusted)
January 2010 - October 2019

Source: ACT Research Co., LLC: Copyright 2019

PRICING INDEX: ACT's For-Hire Pricing Index returned to negative territory, at 45.8 (SA), in October, after recovering with volumes in September at 52.2. The full-year average fell to 47.7. After the pricing environment stabilized in the past few months, this is the lowest result since June. The volume improvement appeared to help the pricing picture in September, and could perhaps again ahead of December tariffs, but pressure from capacity growth persists near-term.

Unadjusted, the Freight Rate Index was 46.0 in October, down from 50.0 in September.

ACT For-Hire Trucking Index: Freight Rates
(Seasonally Adjusted)
January 2010 - October 2019

Source: ACT Research Co., LLC: Copyright 2019

---

HOW TO INTERPRET THE ACT FOR-HIRE TRUCKING INDEX:
The index is based on a survey of various sized carriers that measures degree and directional changes in selected metrics. It is a diffusion index, meaning readings above 50 show improvement and readings below 50, degradation.

ACT Research
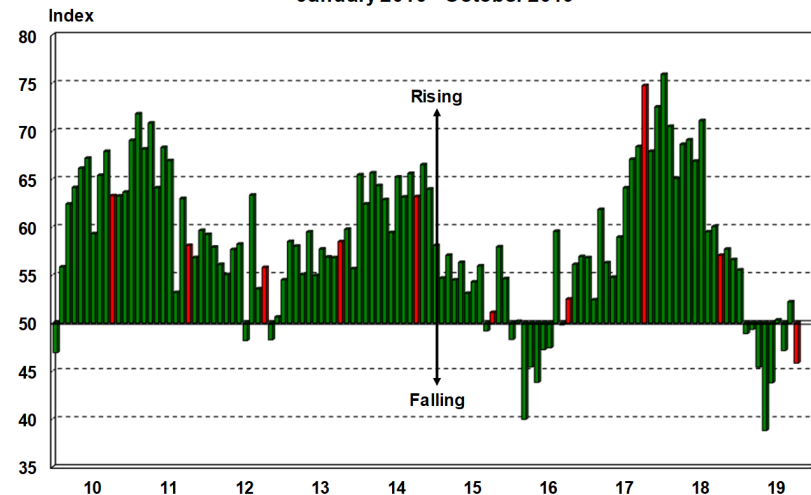
ACT FOR-HIRE TRUCKING SURVEY

CAPACITY INDEX: Seasonally adjusted, capacity contracted in October for the fourth straight month, with the index rising to 49.3, from 47.3 in September. This continues to be inconsistent with ACT's reporting of robust US Class 8 tractor retail sales, strongly suggesting private fleets continue to be responsible for ongoing capacity additions.

It is also indicative of disciplined capital spending by for-hire carriers. However, with industry production cuts still in early stages, capacity growth will continue into 2020. This suggests our Capacity Index is ahead of the industry curve, but should still be seen as a useful leading indicator here. In October, the capacity reading was 49.0 on a nominal basis, up from 47.6 in September.

ACT For-Hire Trucking Index: Fleet Capacity
(Seasonally Adjusted)
January 2010 - October 2019

Source: ACT Research Co., LLC: Copyright 2019

PRODUCTIVITY INDEX (miles/tractor): Fleet productivity/utilization held up well in October, at 53.9, though down from 56.3 in September, which is consistent with the slower volume growth reading and ongoing capacity discipline.

Utilization has been choppy and under pressure in 2019 from both soft volumes and significant capacity growth.

Unadjusted, the Productivity Index was 56.0 in October, similar to 55.8 in September.
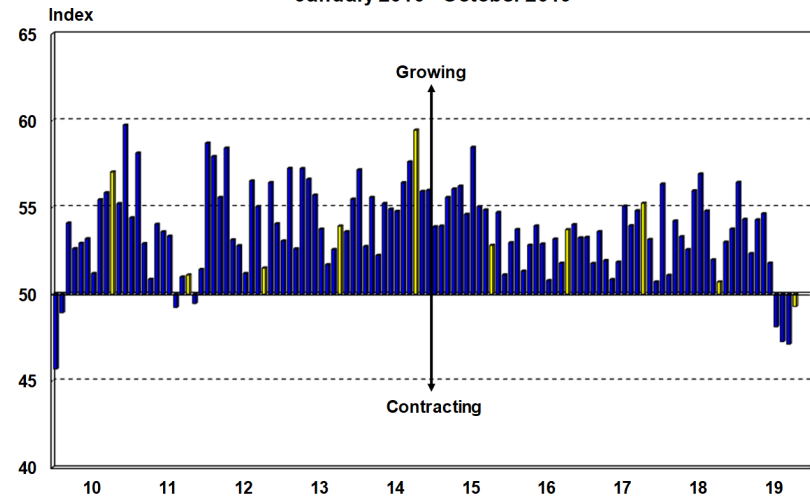
ACT For-Hire Trucking Index: Productivity
(Seasonally Adjusted)
January 2010 - October 2019

Source: ACT Research Co., LLC: Copyright 2019

HOW TO INTERPRET THE ACT FOR-HIRE TRUCKING INDEX:
The index is based on a survey of various sized carriers that measures degree and directional changes in selected metrics. It is a diffusion index, meaning readings above 50 show improvement and readings below 50, degradation.
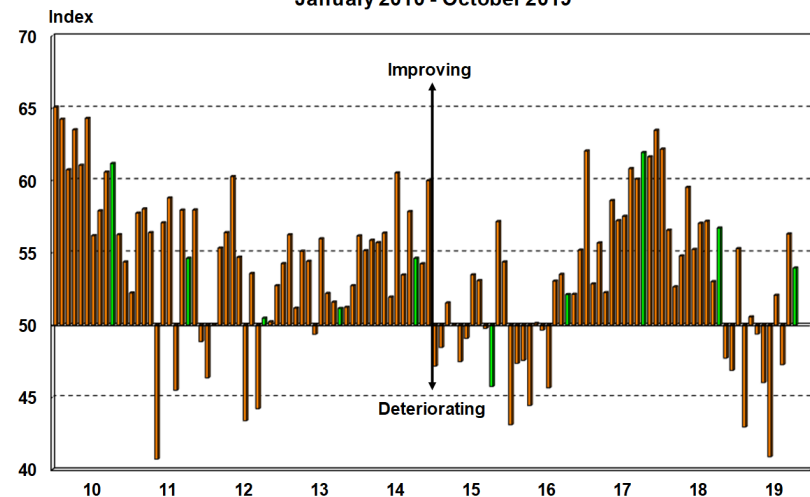
ACT Research

ACT FOR-HIRE TRUCKING SURVEY

FLEET PURCHASE INTENTIONS: Buying intentions rose considerably in October, to 58.5% of respondents planning to buy trucks in the next three months, from 48.3% in September (SA).

This is somewhat surprising as the unsustainable pattern of low orders and peak production is at the beginning of the end, but it remains below the strong 60.4% average reading of the Buying Index over the past 12 months.

ACT For-Hire Trucking Index:
% Respondents Buying Equipment Next 3 Months
(Seasonally Adjusted)
January 2010 - October 2019

SUPPLY-DEMAND BALANCE: The supply-demand balance reading was positive for the third time in four months in October, but fell to 52.7, from 62.4 in September (SA). The sequential decrease was mainly from the lower Volume Index, with a smaller negative effect from the smaller decline in the Capacity Index.

While potentially a positive leading indicator, we see two big caveats which caution against too much extrapolation. First, the volume improvement is partly related to temporary inventory building, and second, ongoing private fleet capacity additions argue it overstates the tightness in the for-hire market. That said, this may bode well for a more balanced environment next year on lower Class 8 tractor demand.

ACT For-Hire Trucking Survey: Supply-Demand Balance
Freight (Demand) Index Less Capacity (Supply) Index
(Seasonally Adjusted)
January 2011 - October 2019

Source: ACT Research Co., LLC: Copyright 2019

HOW TO INTERPRET THE ACT FOR-HIRE TRUCKING INDEX:
The index is based on a survey of various sized carriers that measures degree and directional changes in selected metrics. It is a diffusion index, meaning readings above 50 show improvement and readings below 50, degradation.

ACT Research
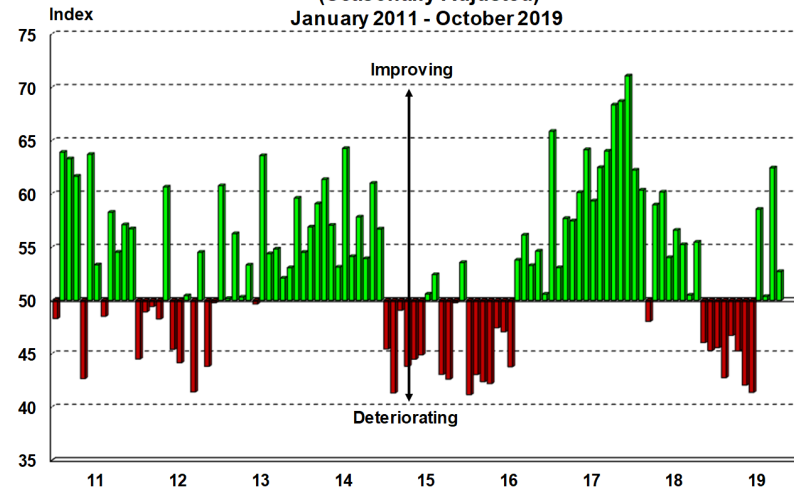
TRUCKING SECTOR TRENDS

ATA TONNAGE AND LOADS: The ATA's For-Hire Truck Tonnage Index (SA) grew 3.5% y/y in September, from 3.2% y/y in August and 4.1% ytd versus the full-year 2018 growth rate of 6.6%. The ATA's TL Loads Index (SA) rose 4.0% y/y in September, from a 4.3% y/y increase in August. We attribute much of the increase to inventory building ahead of "List 4 tariffs," and we expect growth to slow from here. On a m/m basis, the ATA Loads Index fell 1.5% in September.

CASS FREIGHT INDEX: The Cass Shipments Index declined 3.3% y/y in September, the tenth straight month of declines averaging -3.1%. Seasonally adjusted, the index fell 0.3% m/m. Culprits include private fleet growth pulling freight from for-hire markets. The Cass indices measure freight movement and spending across all transport modes, with a broader scope than just road freight but are about 80% truck (76% of spend, 83% of shipments).

ATA SA TL Loads Index

January 2010 - September 2019

Index (2015=100) / Y/Y % Chg.
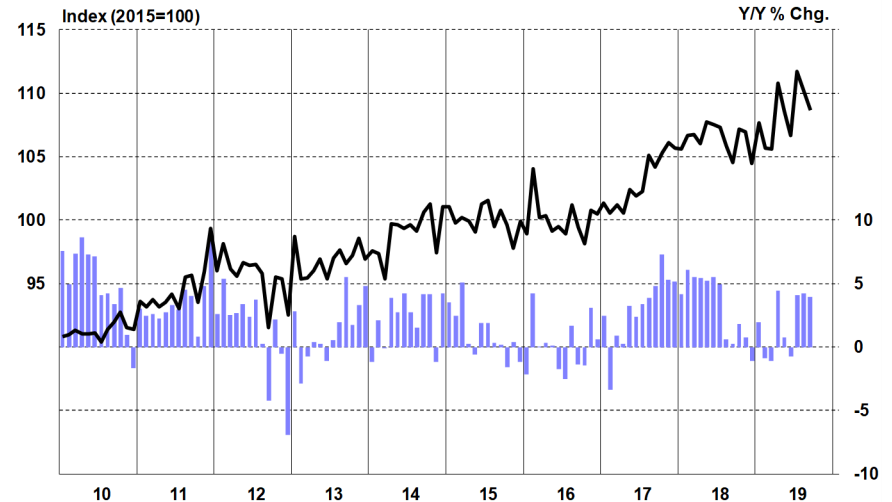
Source: American Trucking Associations, ACT Research Co., LLC: Copyright 2019

ATA SA Truck Tonnage Index

January 2010 - September 2019

Index (2015=100) / Y/Y % Chg.
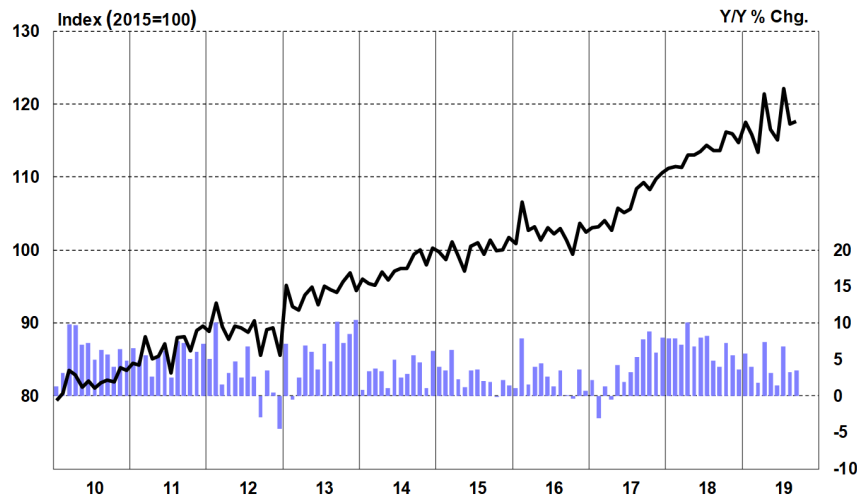
Source: American Trucking Associations, ACT Research Co., LLC: Copyright 2019

Cass Freight Index

January 2000 - September 2019

Index / Y/Y % Change

Legend: Exp Y/Y % Chg. | Ship Y/Y % Chg. | Expenditures | Shipments
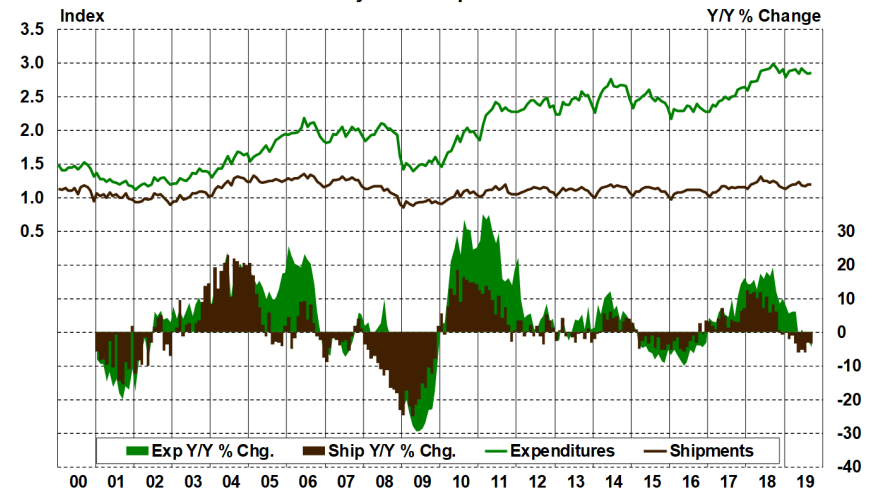
Source: Cass Logistics, ACT Research Co., LLC: Copyright 2019

ACT Research

PUBLICLY TRADED TRUCKLOAD CARRIERS

The Publicly Traded Truckload Carrier Database has been updated for financial results through Q3'19. The information is based on financial reporting from those carriers.

Total revenue declined 5% y/y for these fleets, with results down 0.6% q/q. That was the second consecutive y/y total revenue decline, following nine straight quarters of y/y revenue growth.

Net income has slid meaningfully since peaking in Q4'18. Not surprisingly, its performance patterns total revenue, down 28% y/y and the second straight negative y/y comparison. Net income for these carriers was $392 million, sliding to the lowest level since Q1'18. Carrier net income margins slid 147bp y/y, ending Q3 at 4.54%. That was similar to the 4.55% posted in Q1'18.

It is obvious that both weaker freight volumes and softer rates are taking their toll on fleet results. As a result, fleets are closing reviewing their capex plans for the upcoming year. After several years of robust investment, much lower order volume in both the power and trailer segments is the result.

TL Carrier Database: Net Income
Q1'10 - Q3'19

Source: ACT Research Co., LLC: Copyright 2019

TL Carrier Database: Total Revenue
Q1'10 - Q3'19
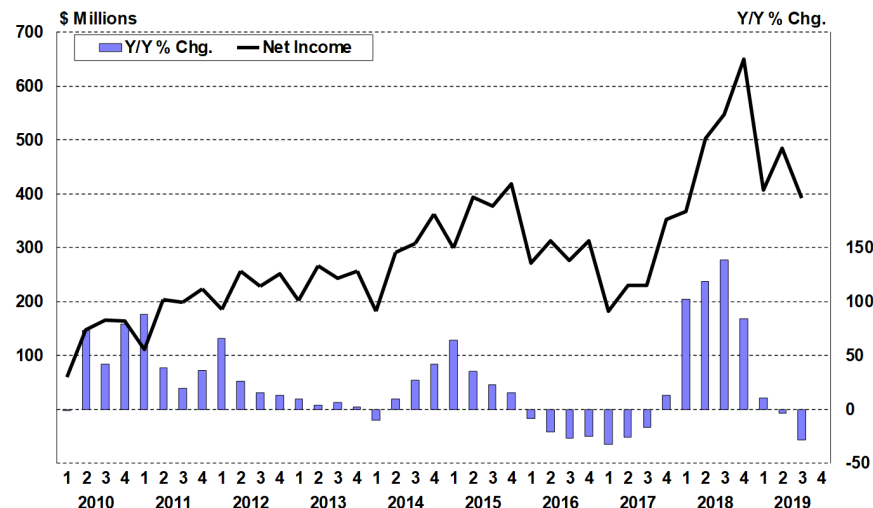
Source: ACT Research Co., LLC: Copyright 2019

TL Carrier Database: Net Income Margin
Q1'10 - Q3'19
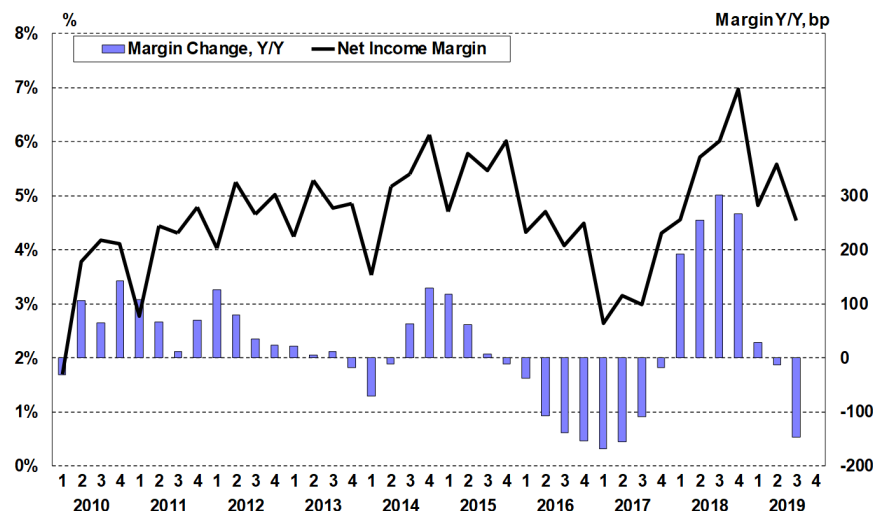
Source: ACT Research Co., LLC: Copyright 2019

ACT Research

RAIL/INTERMODAL TRENDS

The worsening trend in NA Class I rail volumes accelerated in October, which bore the brunt of the GM strike, falling 7.2% y/y, worse than the 5.5% and 3.4% respective declines in September and August. If there is good news here, this is about as bad as it typically gets for rail volume recessions, so further deterioration is less likely.

NA intermodal volumes fell 6.8% y/y in October, worse than the 4.4% drop in September and the 3.9% y/y decline in August. We expect volumes to remain down near-term, with some help from pre-tariff inventory building, though most of this benefit appears to be going to truck, as intermodal is no longer offering the cost savings it once did.

Metals and chemicals rail carloads fell 7.6% y/y in October, deteriorated from down 3.4% in September and -3.2% for Q3. The GM strike clearly had an impact, but the industrial sector was weakening prior to the strike, so the rebound as auto manufacturing ramps back up is not likely to be strong. As inputs to production, metals and chemicals tend to lead truck volumes by a few weeks. Comparisons remained tough all year, so this is a cautious leading indicator.

Intermodal as a Percentage of Total Loads
January 2010 - October 2019
(10/26/2019)
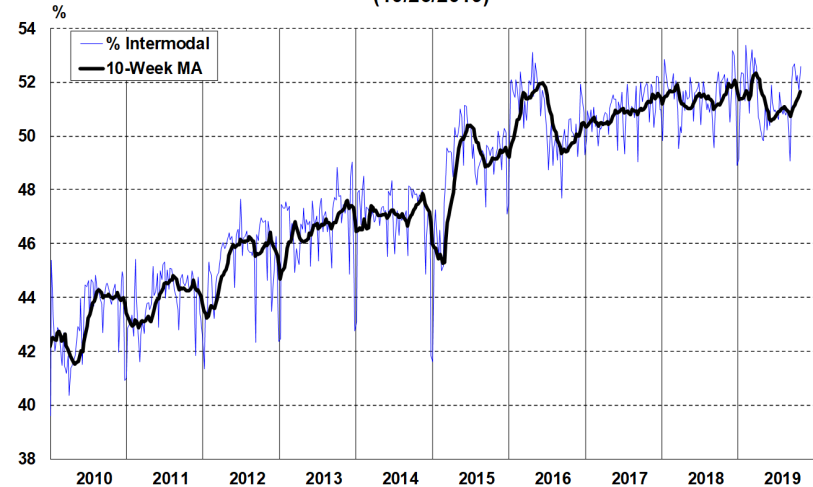
Source: Association of American Railroads, ACT Research Co., LLC: Copyright 2019

US Rail: Carloads 4-Week Moving Average
January 2010 - October 2019
(10/26/2019)
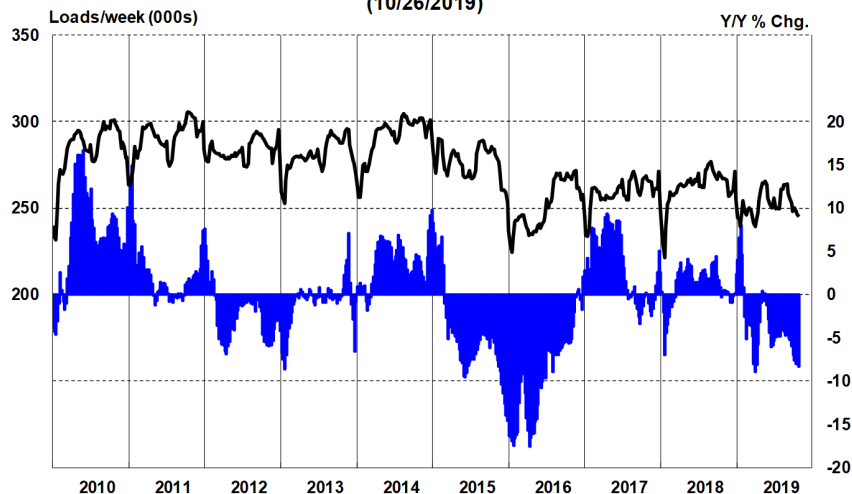
Source: Association of American Railroads, ACT Research Co., LLC: Copyright 2019

U.S. Rail: Intermodal 4-Week Moving Average
January 2010 - October 2019
(10/26/2019)
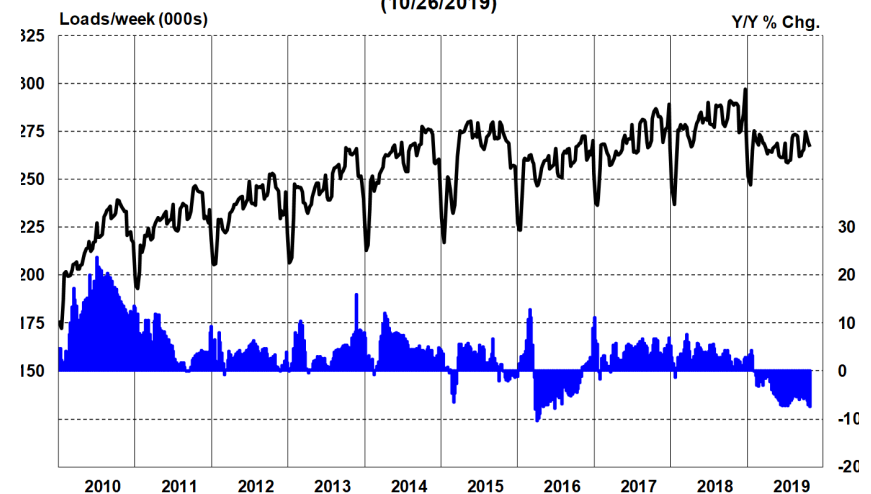
Source: Association of American Railroads, ACT Research Co., LLC: Copyright 2019

ACT Research

NEW U.S. CLASS 8 TRUCK TRENDS

Even as we face the push and pull of seemingly contradictory market statistics, our outlook remains essentially unchanged for the short- and long-term. Sales and build volumes are now assured of reaching cyclical peak levels in 2019. But this year's weak order intake dictates a substantial correction in 2020. Our long-stated view is the slowdown in economic activity and freight will result in a soft landing and not turn into a recession. After this pause, the heavy duty truck market is forecast to rebound and see three years of growth from 2021 to 2023. However, the far years of this forecast face the headwind of stringent emission controls in 2024, triggering a 2023 prebuy, followed by pay-back in the next year.

This regression-to-the-mean for 2020, after a near all-time record 2019, has been a staple of our forecasts since March 2018. As a result, our subscribers have had almost seven quarters of yellow-light signals on the upcoming correction.
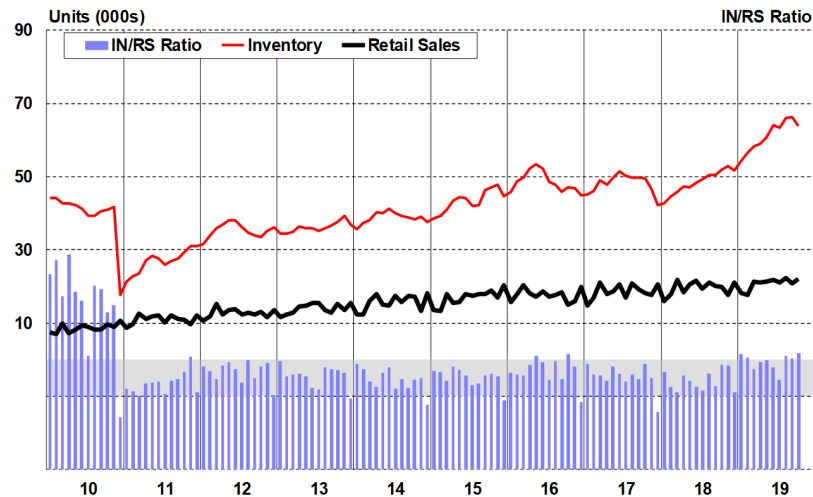
U.S. Class 8: Net Orders
January 2010 - October 2019

Source: ACT Research Co., LLC: Copyright 2019

### U.S. Class 8: Inventory & Retail Sales Ratio
January 2010 - October 2019
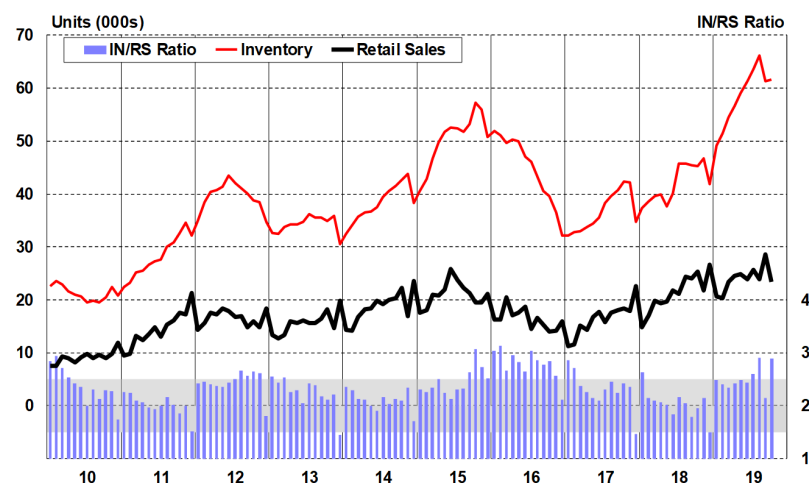
Source: ACT Research Co., LLC: Copyright 2019

U.S. Class 8: Backlog and Backlog/Build Ratio
January 2010 - October 2019
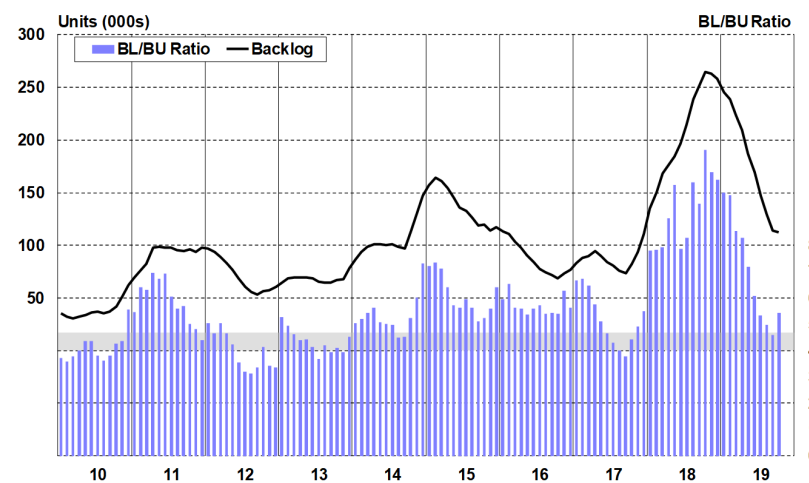
Source: ACT Research Co., LLC: Copyright 2019

ACT Research

NEW U.S. MEDIUM DUTY TRUCK TRENDS

Activity for the total MD market was mixed in September, with weakness in sequential comparison, but expansion evident in longer-term performance. Customers clearly remain concerned about the near-term future, as demonstrated by the continuing pullback in order activity.

Simultaneously, they continue to demand and purchase vehicles, driving build and sales to near-record levels of performance.

It is not entirely clear how the recent announcements of production slowdowns and layoffs at several of the manufacturers will impact the situation, but logically, production should slow, putting an end to the current cycle.

Build in excess of orders for the seventh consecutive month in September resulted in a further backlog decline. Linking the smaller backlog and higher per-day build resulted in a BL/BU ratio for medium duty trucks of 2.5 months.

U.S. Classes 5-7: Net Orders
January 2010 - October 2019
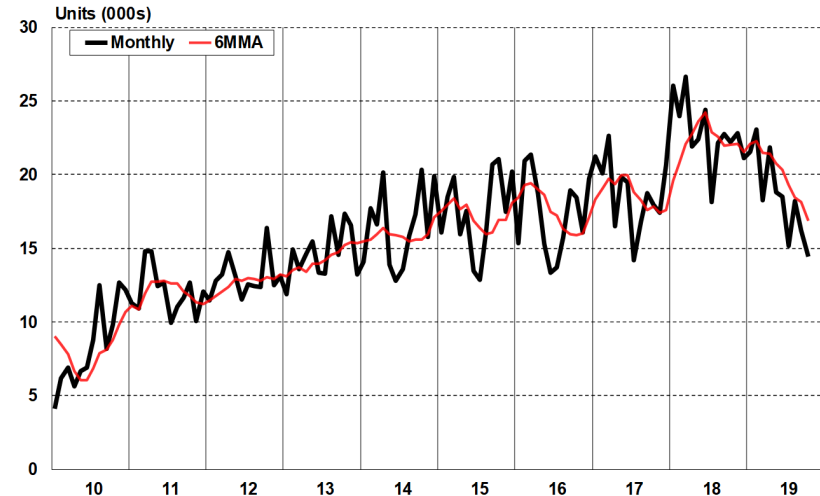
Source: ACT Research Co., LLC: Copyright 2019

U.S. Classes 5-7: Inventory & Retail Sales
January 2010 - October 2019

Source: ACT Research Co., LLC: Copyright 2019

U.S. Classes 5-7: Backlog and Backlog/Build Ratio
January 2010 - October 2019
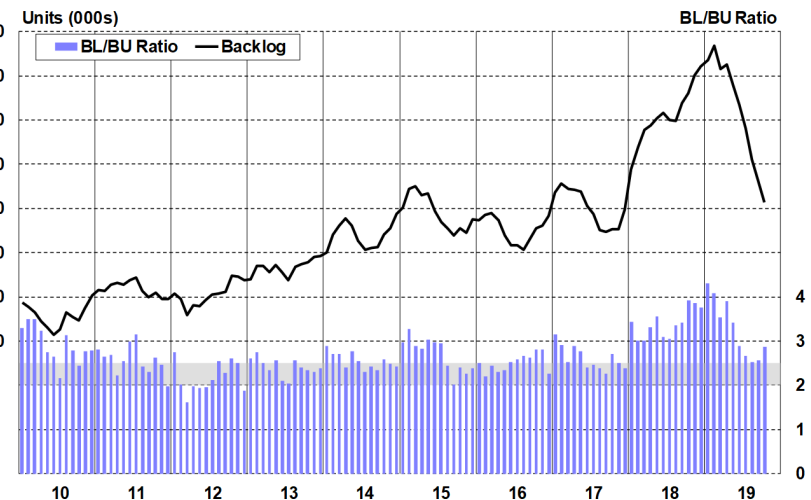
Source: ACT Research Co., LLC: Copyright 2019

ACT Research

USED TRUCK TRENDS

Same dealer sales of used Class 8 equipment were uniformly weaker in September, falling 5% m/m, with y/y and ytd volumes dropping 18% and 19%, respectively. It is not unusual to see September volumes decline from August; however, the decay is generally smaller, based on seasonal analysis. Compared to September 2018, retail and wholesale activity was softer. On a ytd basis, all three segments were weaker, though to varying degrees. Looking ahead to next month, volumes in October typically swell relative to September.

September average sale prices declined 3% m/m. Longer term, prices remained mixed, with y/y prices marking their second consecutive sequential decline (-7%), something last seen in September 2017. YTD pressure continued to mount in August, with prices now up by 6%, the smallest gain of the year. Tough comparisons against strong prices in 2H'18 are now making it difficult for prices to improve. More importantly, weakness in the freight markets, excess freight hauling capacity, and an increasing used truck inventory are combining to push used truck prices lower for the remainder of the year and well into 2020.

Class 8: U.S. Used Truck Sales
January 2009 - September 2019 (Not Seasonally Adjusted)
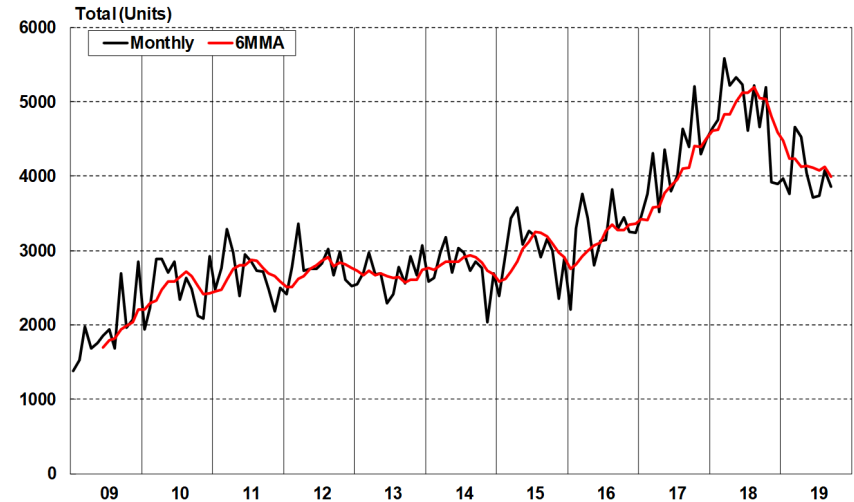
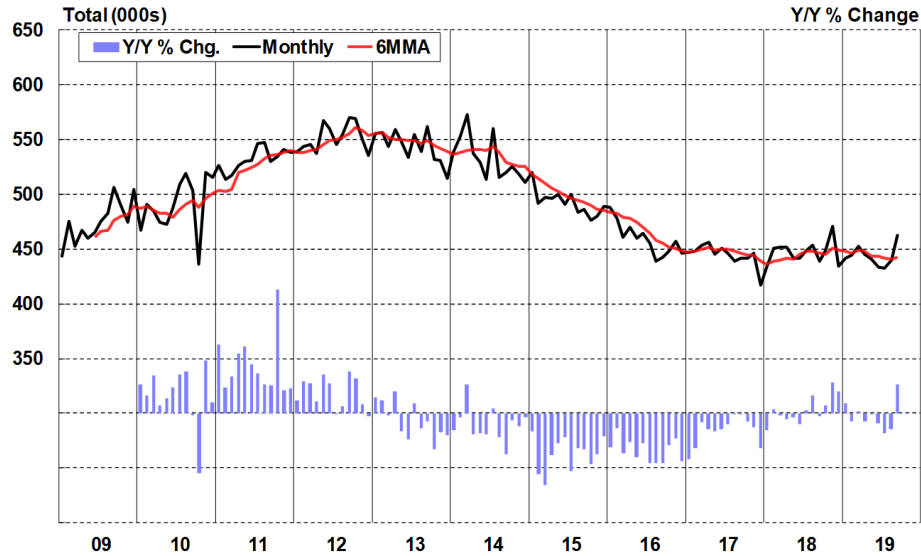Source: ACT Research Co., LLC: Copyright 2019

Class 8: U.S. Used Truck Average Sale Price
January 2009 - September 2019

Source: ACT Research Co., LLC: Copyright 2019

ACT's USED CLASS 8 SUMMARY – September (F) 2019

TOTAL CLASS 8	UNITS (Same Dealer Sales)	AVERAGE PRICE	AVERAGE MILES	AVERAGE AGE
MONTH/ MONTH	↓ -5%	↓ -3%	↑ 5%	↓ -3%
YEAR/ YEAR	↓ -18%	↓ -7%	↑ 5%	↑ 4%
YTD/ YTD	↓ -19%	↑ 6%	↔ 0%	↑ 4%
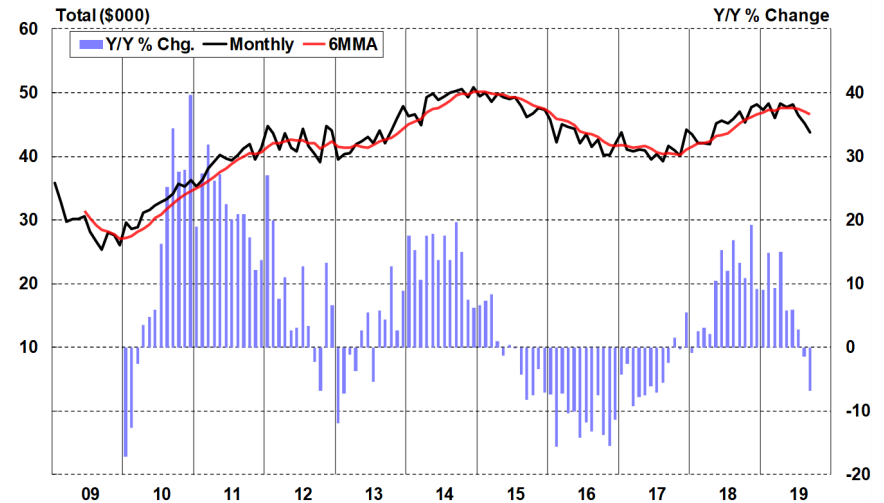
ACT Research

NEW TRAILER TRENDS

We would expect some seasonal bump in order activity, and it does appear that the 2019-20 order season is now underway. That being said, the pace seems a bit uninspiring, as order volumes continue to fall well short of current production levels. When viewed against this time last year, the perspective is even more disappointing, although to be fair, that comparison is to the highest order levels in industry history.

Let's take the shorter-term perspective to verify the start of the order season. New orders were up 44% m/m, while net volume was up 73%. That's a dramatic difference in new/net performance, driven by less significant cancellation volume in September. August's cancellations were potentially driven by some cancel/re-order activity, likely shifting some delivery times into next year. Given the combination of a relatively thin orderboard and the length of the material component order pipeline (i.e. into early 2020), we would expect cancellation volumes to continue to ease. That occurred in September, although the rate was still higher than normal targets suggest.

Total Trailers: Net Orders
Year over Year Percent Change
January 2010 - September 2019

Source: ACT Research Co., LLC; Copyright 2019

Total Trailers Backlog & Backlog/Build Ratio
January 2010 - September 2019
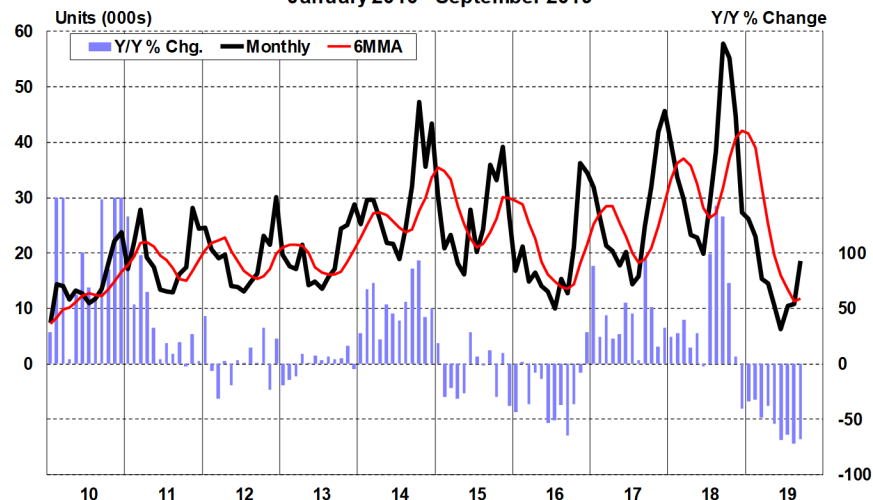
Source: ACT Research Co., LLC; Copyright 2019

Net Order Ratio
U.S. Trailers & U.S. Cl. 8 Tractors
January 2010 - September 2019
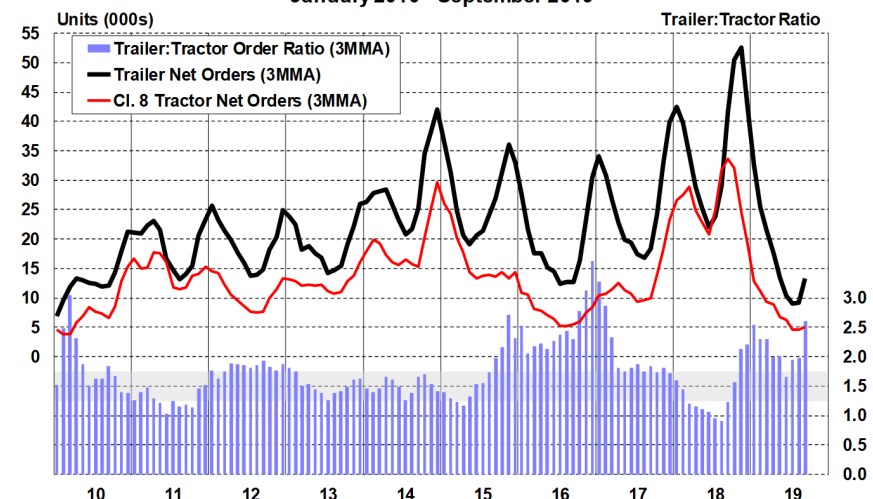
Source: ACT Research Co., LLC; Copyright 2019

ACT Research

APPENDIX – USED TRUCKS

Class 8: U.S. Used Truck Average Miles
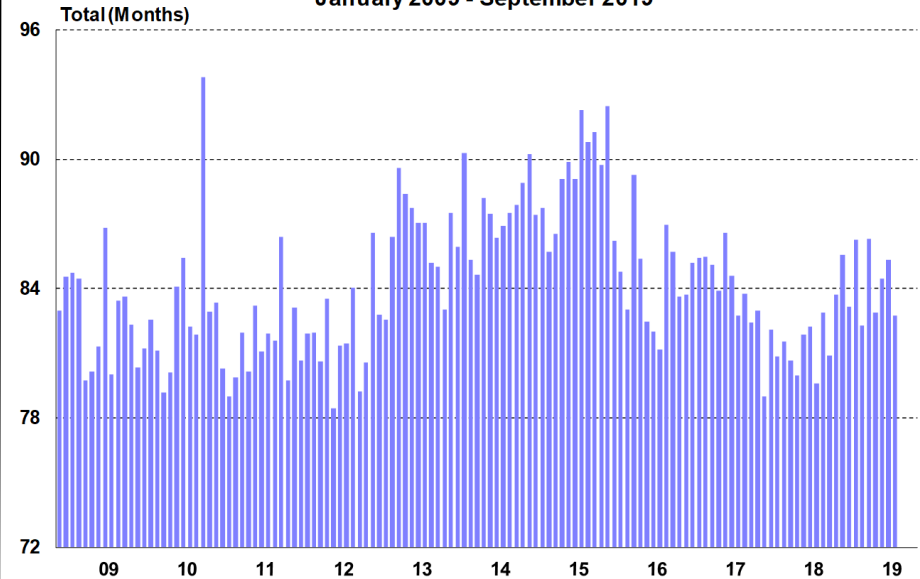### January 2009 - September 2019

Source: ACT Research Co., LLC: Copyright 2019

A 5% m/m and y/y rise in used Class 8 average mileage added downward pressure to prices.

Class 8: U.S. Used Truck Average Age
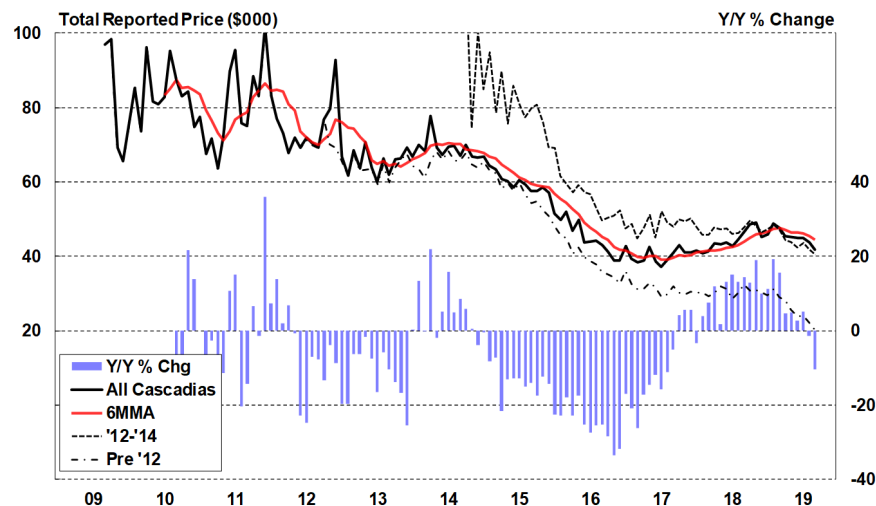### January 2009 - September 2019

Source: ACT Research Co., LLC: Copyright 2019

The average age of used Class 8 trucks was down 3% m/m, at 83 months, but up 4% y/y.

ACT Research

APPENDIX – USED TRUCKS

Freightliner Cascadia Average Sale Price
January 2009 - September 2019

Kenworth T680 Average Sale Price
January 2009 - September 2019
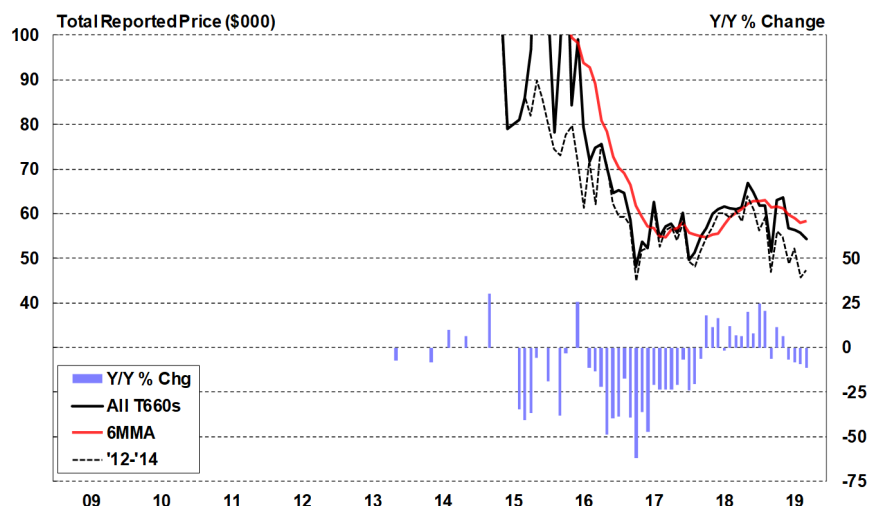
International Prostar Average Sale Price
January 2009 - September 2019
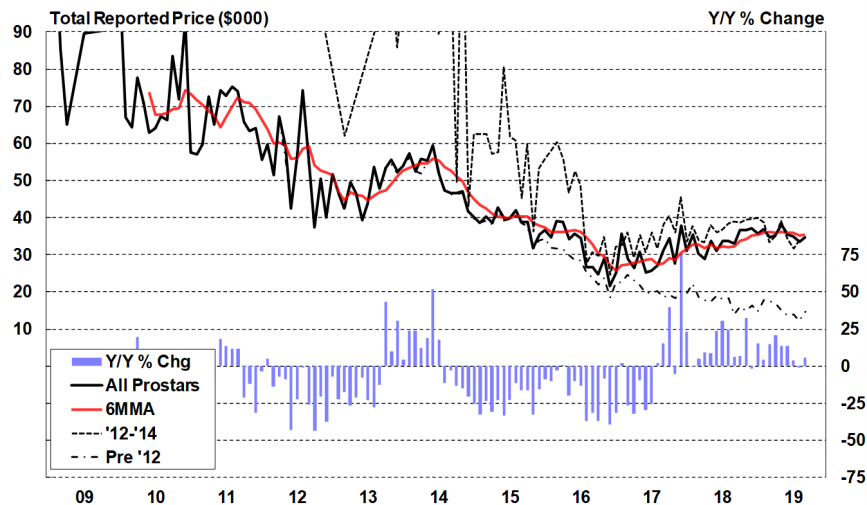
Freightliner Cascadia	The avg selling price for the Cascadia marked it largest y/y loss (-11%) in more than two years.
International ProStar	The avg selling price of ProStars found stable footing in September, rising 4% m/m and 6% y/y.
Kenworth T680	The average selling price of the T680 fell m/m (-3%) and y/y (-11%) for the 4th straight month.

ACT Research

APPENDIX – USED TRUCKS

Mack CH613 Average Sale Price
January 2009 - September 2019

Source: ACT Research Co., LLC: Copyright 2019

Volvo 670 Average Sale Price
January 2009 - September 2019

Source: ACT Research Co., LLC: Copyright 2019

Peterbilt 389 Average Sale Price
January 2009 - September 2019
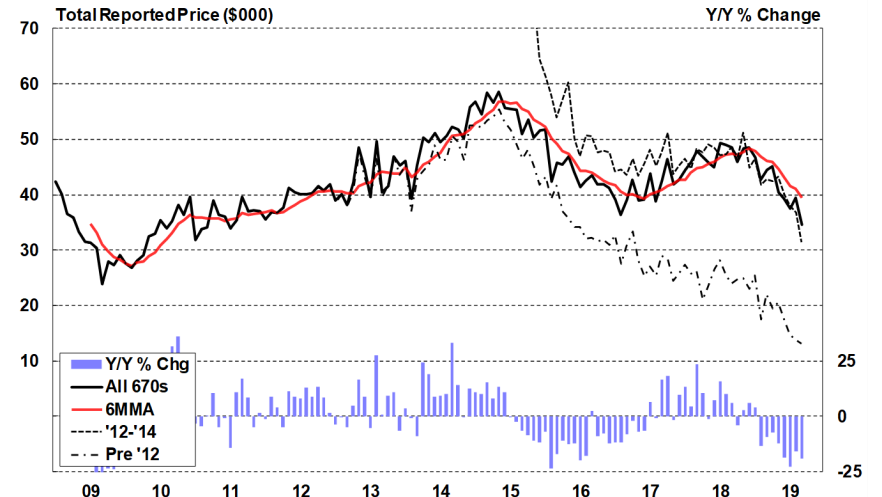
Source: ACT Research Co., LLC: Copyright 2019

Mack CH613	Down 26% y/y, the average selling price for the CH613 recorded its largest yearly loss since 2015.
Peterbilt 389	The average selling price of the 389 increased 2% m/m, and was flat compared to last September.
Volvo 670	After a small uptick in August, the average selling price of 670s lost 12% m/m and was down 19% y/y.

ACT Research

APPENDIX – TRANSPORTATION METRICS

DAT Trendlines Spot & Contract Rates: Dry Vans

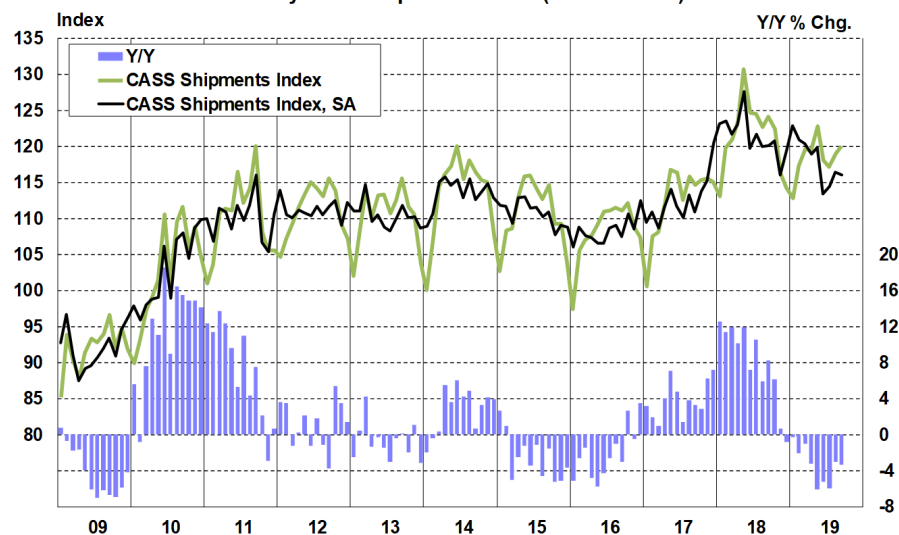### January 2009 - October 2019
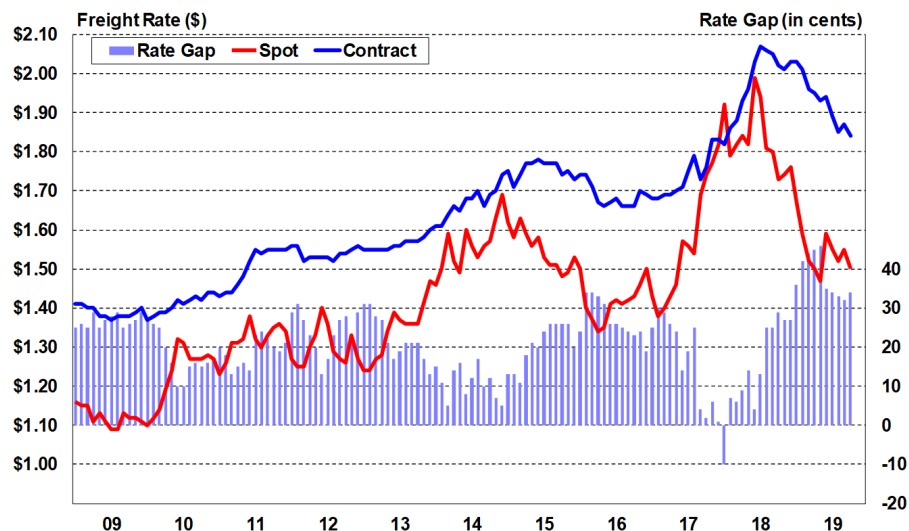
Source: DAT Solutions, ACT Research Co., LLC: Copyright 2019

DAT's dry van spot rate per mile, net fuel, fell 13.3% in October, less negative than the 13.9% drop in September. Seasonally adjusted, dry van spot rates were down 3.1% m/m from September.

Cass Shipments Index

January 2009 - September 2019 (01'1990=100)

Source: Cass Information Systems, ACT Research Co., LLC: Copyright 2019

The Cass Shipments Index declined 3.3% y/y in September, the tenth straight month of declines averaging -3.1%. Seasonally adjusted, the index fell 0.3% m/m.
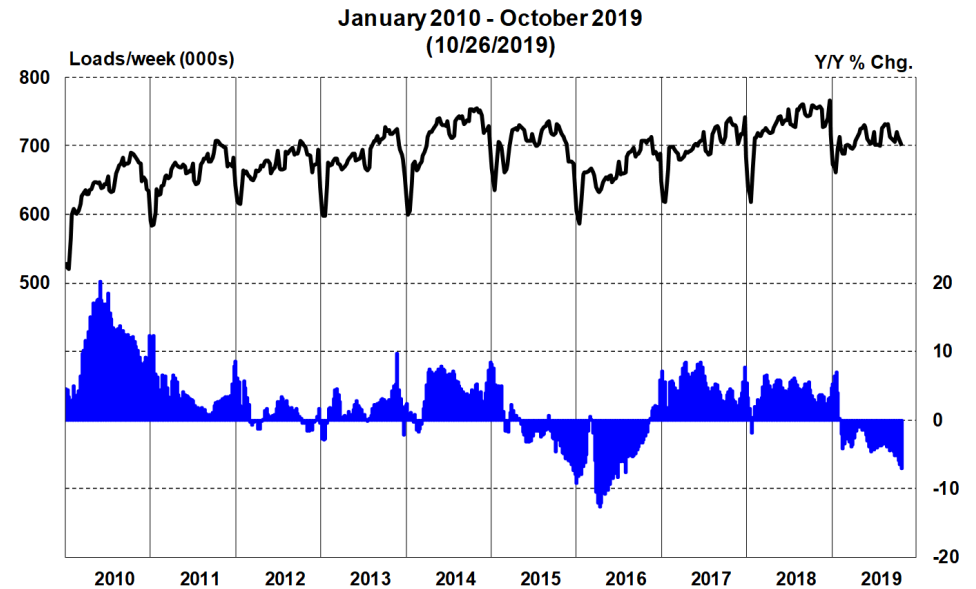
ACT Research

APPENDIX – TRANSPORTATION METRICS

N.A. Ports: Loaded Containers

January 2010 - September 2019

Source: ACT Research Co., LLC: Copyright 2019
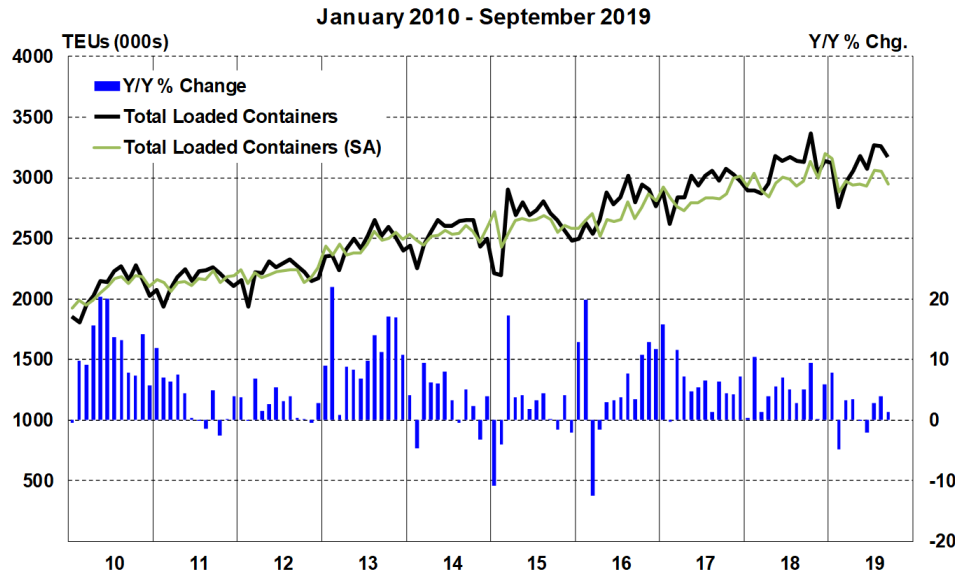
NA container imports at the top twelve ports fell 0.8% y/y in September, after a 5.0% increase in August. On a seasonally adjusted basis, import TEUs fell 2.8% m/m in September.

N.A. Rail: Total Traffic 4-Week Moving Average

January 2010 - October 2019
(10/26/2019)

Source: Association of American Railroads, ACT Research Co., LLC: Copyright 2019

The worsening trend in NA Class I rail volumes accelerated in October, which bore the brunt of the GM strike.
Falling 7.2% y/y, this was worse than the 5.5% and 3.4% respective declines in September and August.

ACT Research

APPENDIX – ECONOMICS

Real Gross Domestic Product
Q/Q at SAAR
Q1'10 - Q4'20

Percent Change

ANNUAL

+2.9% +2.2% +1.7%
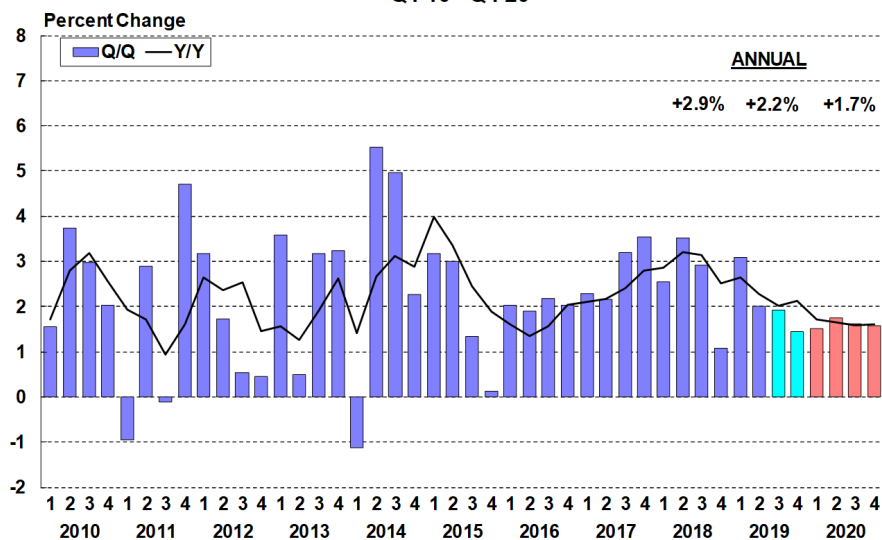
Source: BEA, ACT Research Co., LLC: Copyright 2019

Real GDP growth is forecast to average 2.3% in 2019, 1.7% in 2020, and slow a bit further in 2021. The risks to our forecast are mainly to the downside.

ACT U.S. Freight Composite
Q/Q at SAAR, Y/Y
Q1'10 - Q4'20

Percent Change

ANNUAL

+3.7% +2.6% +2.3%
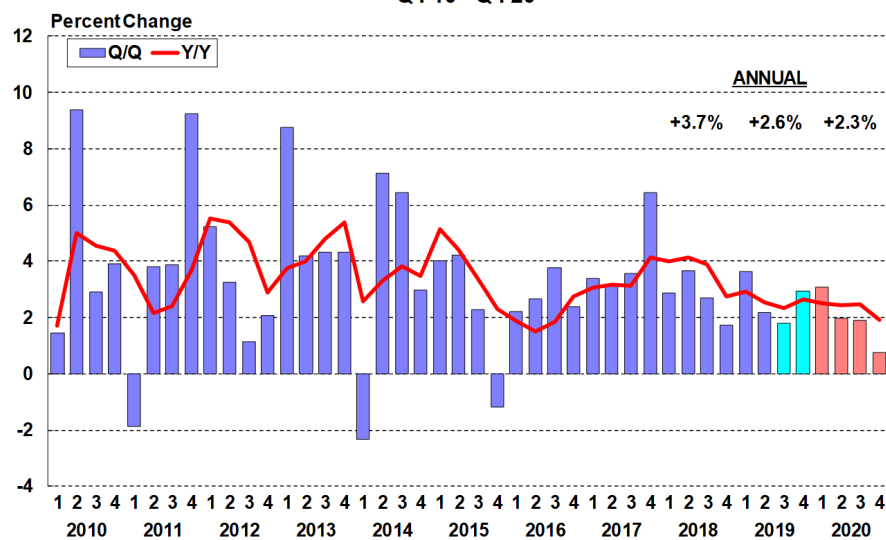
Source: ACT Research Co., LLC: Copyright 2019

ACT's freight composite growth 2019 expectation is for 2.6% y/y growth, with 2020 posting the weakest numbers since 2015.
We expect that weakness in key freight generating sectors will be the major factor driving the market.

ACT Research

Real Business Investment: Equipment & Software
### Percent Change Q/Q at SAAR
Q1'10 - Q3'19
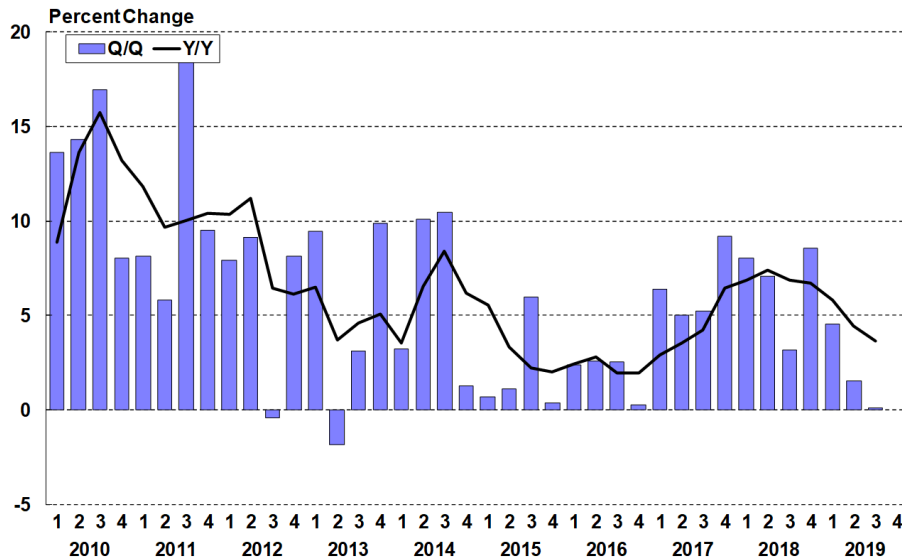
Source: BEA, ACT Research Co., LLC: Copyright 2019

Business fixed investment fell 3.0%, only the second decline after three years of constant increases. Spending on equipment also was negative, -3.8%; significant weakness in aircraft was the cause, while truck outlays rose 8.3%.

Industrial Production Index
January 2010 - September 2019
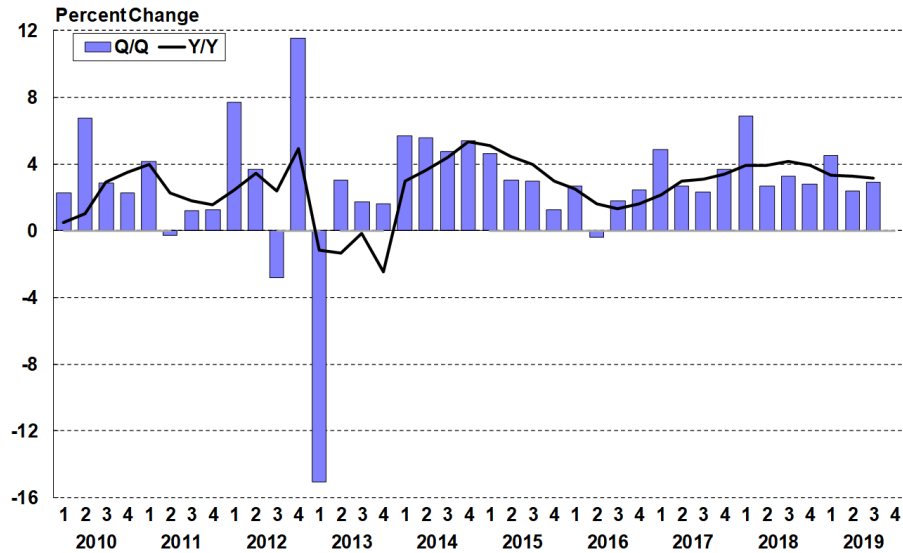### Index 2002 = 100 (SAAR)
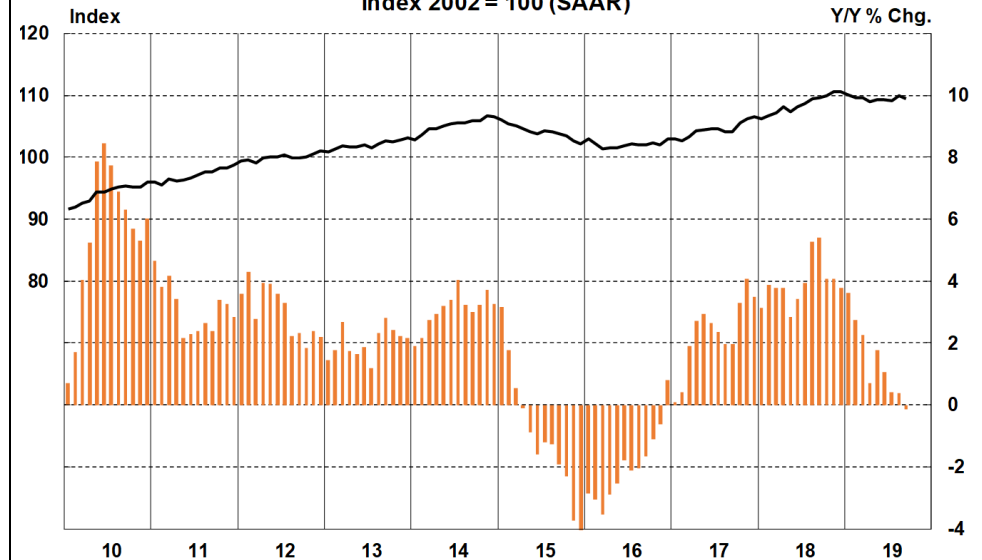
Source: Federal Reserve, ACT Research Co., LLC: Copyright 2019

September industrial production fell 0.4% (-0.1% y/y), after a +0.8% August; all components were positive in August, but the opposite was true for September.

ACT Research
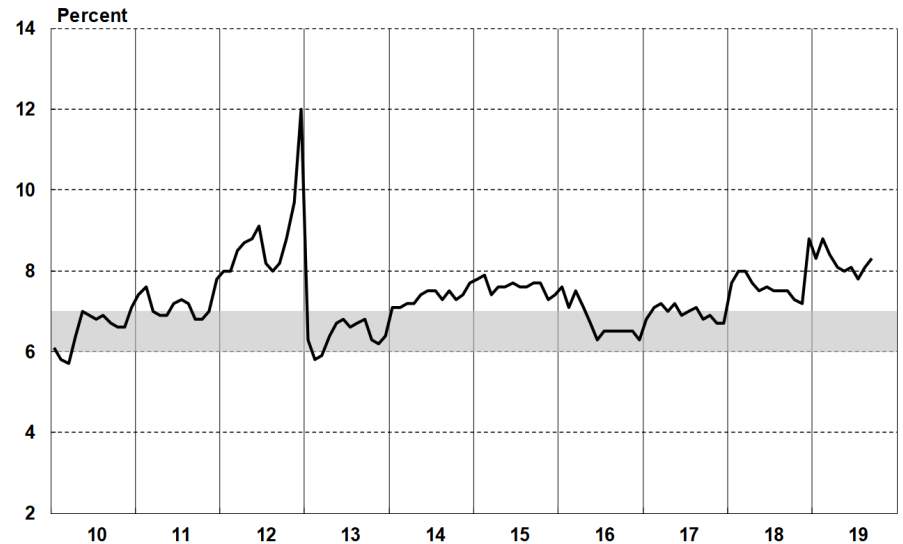
APPENDIX – ECONOMICS

Real Disposable Personal Income
Percent Change Q/Q at SAAR
Q1'10 - Q3'19

Source: BEA, ACT Research Co., LLC: Copyright 2019

September personal income rose 0.3% (4.9% y/y) and August's was raised to 0.5% (4.6% y/y). Real disposable income grew a solid 0.3% (3.5% y/y).

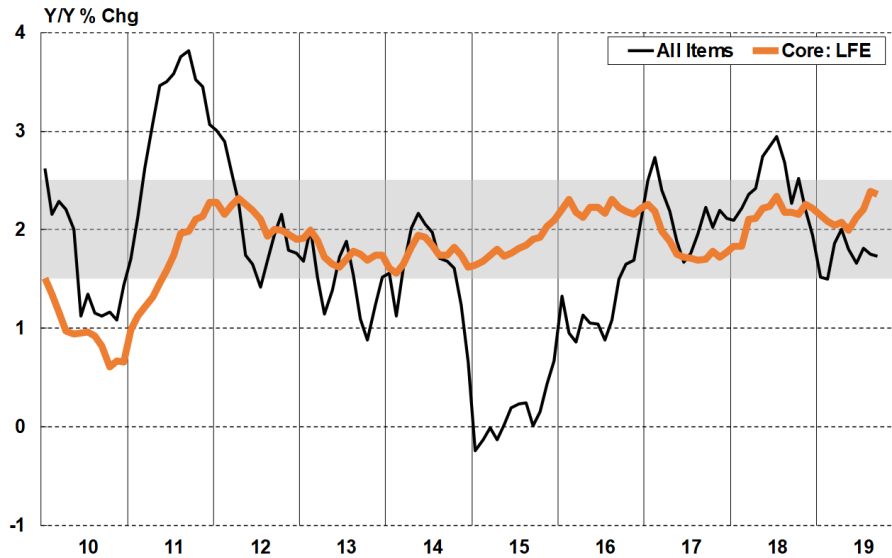### Personal Savings Rate
January 2010 - September 2019

Source: BEA, ACT Research Co., LLC: Copyright 2019

The saving rate climbed to 8.3%, a 0.5% increase from August, as personal income growth outpaced personal consumption expenditure growth.

ACT Research

APPENDIX – ECONOMICS

Consumer Price Index: All Items and Core Rate
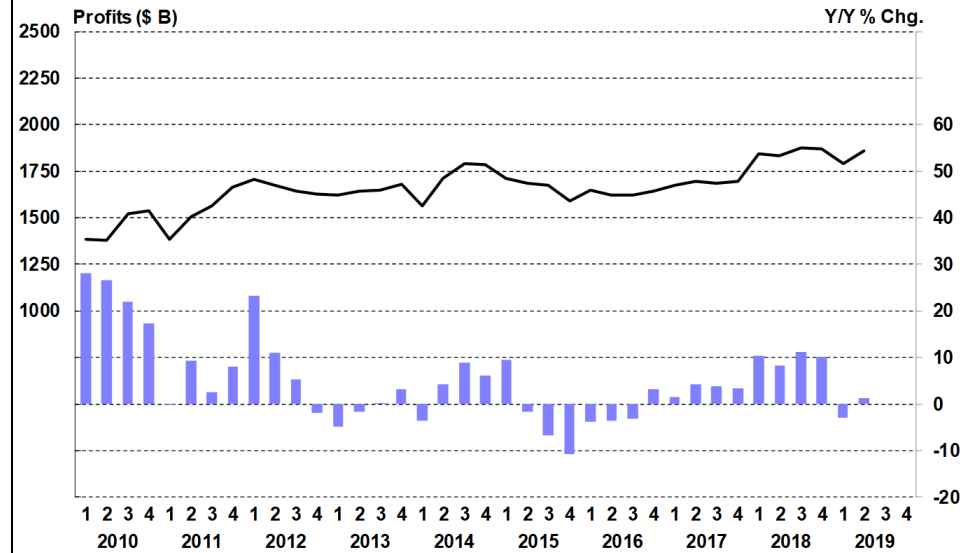### January 2010 - September 2019

Source: BLS, ACT Research Co., LLC: Copyright 2019

CPI inflation pressures appear to be firming. Nonetheless, our take on infla-tion remains moderate. September core CPI rose 0.1% (2.4% y/y), after an August rise of 0.3% (2.4% y/y). Declines in apparel, commodities, and used cars led to the slowing.

Adjusted Corporate After Tax Profits
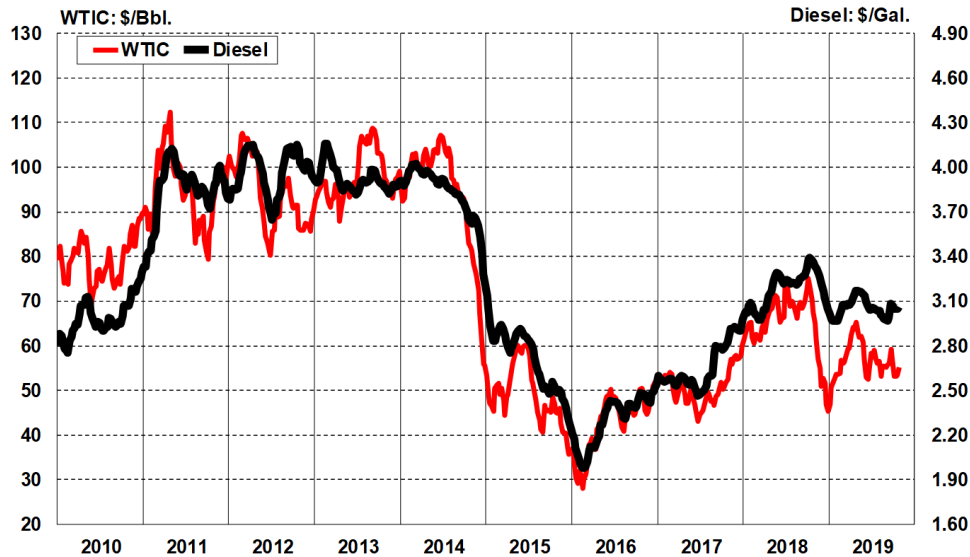### Q1'00 - Q2'19 (SAAR)

Source: ACT Research Co., LLC: Copyright 2019

A disappointing Q1'19 decline followed 9 quarters of y/y gains. Q2 performance was also lackluster. Y/Y results are likely to generate review of both staffing and capital investment for the upcoming year.

ACT Research

APPENDIX – ENERGY PRICES

Diesel Fuel & Spot Crude Oil (WTIC) Prices
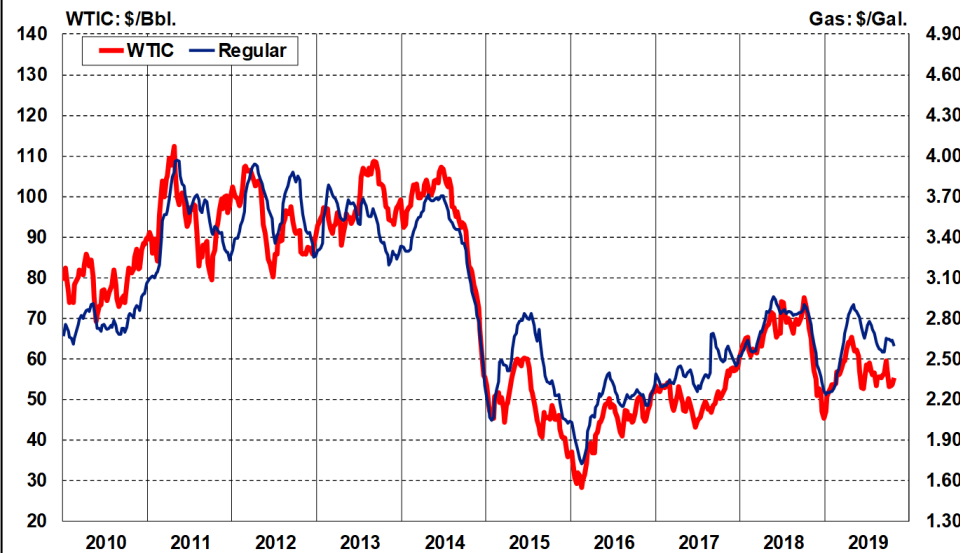### 2010 - 2019 (Week 43)

Source: EIA, ACT Research Co., LLC: Copyright 2019

Crude oil price movement remains focused on how tariff and trade influence global energy demand. Energy prices are still a bargain. At the start of November, WTI prices stood at $55 (Brent was $60.50), $10 and 15% cheaper than year-ago levels.

Gasoline & Spot Crude Oil (WTIC) Prices
2010 - 2019 (Week 43)

Source: EIA, ACT Research Co., LLC: Copyright 2019

Gasoline prices at the pump are around $2.70, $0.14 and 5% cheaper than last year. We have assumed that WTI crude prices will remain in the $50 to $60 range until a China/US trade agreement will generate upward energy price pressure.

ACT Research

APPENDIX – ENERGY PRICES

Spot Natural Gas Prices: Henry Hub
2010 - 2019 (Week 43)

Wellhead: $/1MBTU

Source: EIA, ACT Research Co., LLC: Copyright 2019

U.S. Rig Count by Trajectory
January 2008 - November 2019
(11/01/2019)

Units (000s)

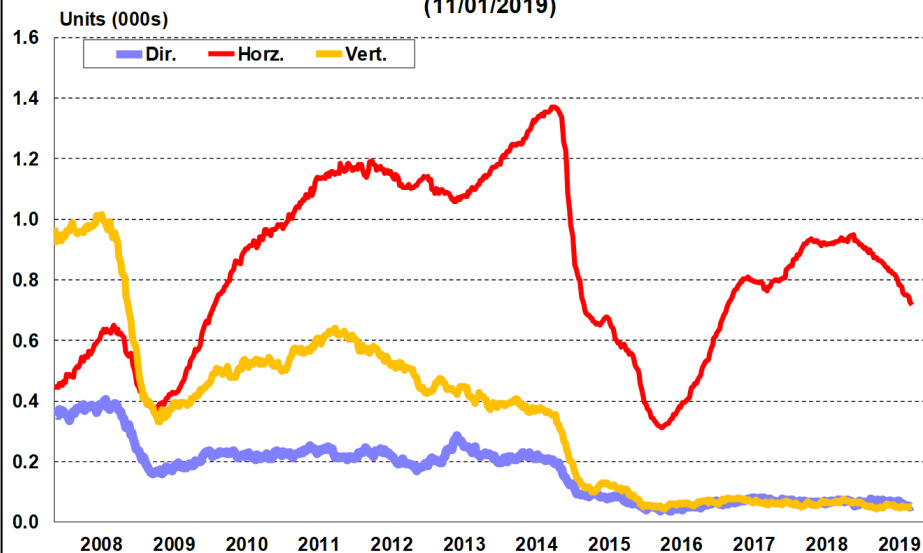Source: Baker Hughes Rig Counts, ACT Research Co., LLC: Copyright 2019

Natural gas prices should now begin their seasonal upward march. With the exception of a brief uptick in late September, natural gas prices per million BTU have, since the summer, been mainly in the $2.10 to $2.25 range.

Rig counts continue to decline, as lower energy prices provide little incentive for additional investment. Any uptick in prices will first be met with efforts to bring partially completed wells into production, delaying an initial surge of new well investment.

ACT Research

ACT Research

COMMERCIAL VEHICLE DEALER DIGEST

2019 LAWRENCE R. KLEIN BLUE CHIP AWARD WINNER

Contributor to Blue Chip Economic Indicators and WSJ Economic Forecast Panel

ACT Research Co. 2023

www.actresearch.net