

Equipment Focus

Truck & Trailer Outlook
Rail Equipment Outlook

Freight Focus

Shippers Update
Trucking Update
Rail Update
Intermodal Update



Trucking Update

March 2018



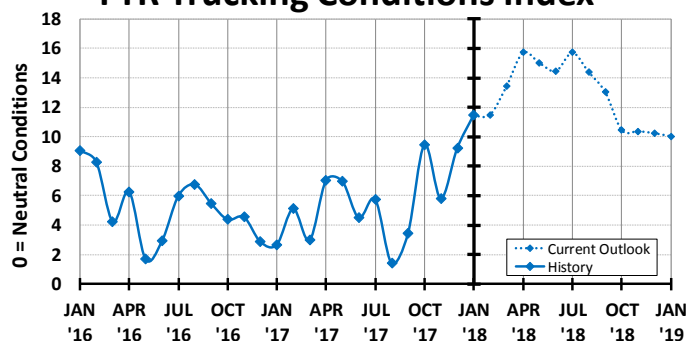
Trucking Update

March 2018

Snapshot Summary
Freight Environment
Trucking Environment
Trucking Rates
Driver Situation
Economic Environment
Tables & Charts
Notes by the Dashboard Light

THE GOOD TIMES LOOK TO CONTINUE FOR TRUCKING COMPANIES AS DEMAND REMAINS WELL ABOVE SUPPLY. RATES CONTINUE TO SURGE.

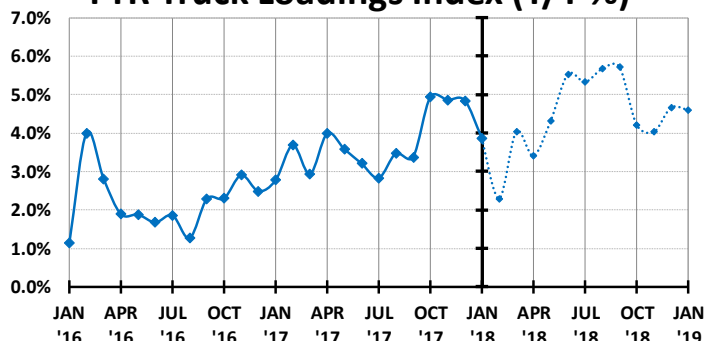
FTR Trucking Conditions Index



Source: FTR; Copyright 2018

- Trucking conditions are unusually strong for Q1, and carriers are approaching their most favorable situation in 14 years.
- The full implementation of electronic logging devices (ELDs) and growing freight demand should lead the TCI to peak in Q1 or Q2, before increased labor and equipment costs and slowing rate growth lead to modest softening.

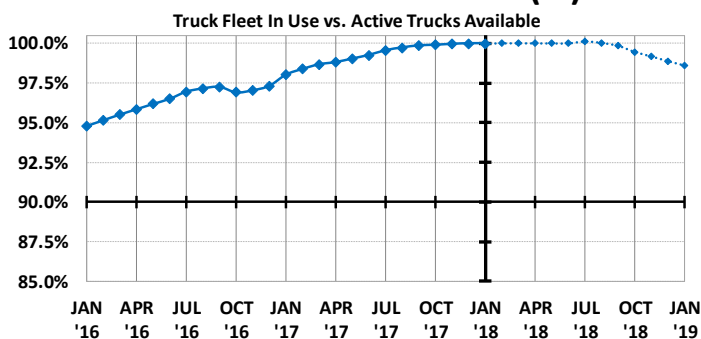
FTR Truck Loadings Index (Y/Y %)



Source: FTR; Copyright 2018 -- Index: 2000 = 100

- A strengthening economy should yield higher year-over-year loadings growth through late summer before moderating, due to comparison with the post-hurricane spike in August and September.
- Year-over-year growth naturally will be lower in 2019, but strong fundamentals and the full effects of the tax reform legislation could keep loadings healthy throughout 2019.

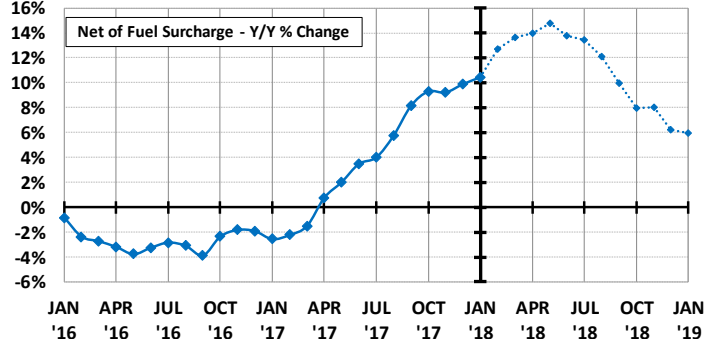
Active Truck Utilization (%)



Source: FTR; Copyright 2018 -- Historical Average = 90%

- Capacity likely will remain maxed out well into the summer. The period of full utilization will be more prolonged than the capacity crunch of late 2003/early 2004.
- Carriers are beginning to add both trucks and drivers, but not at a rate fast enough to keep pace with freight demand and capacity and productivity losses due to ELDs.
- *For a more thorough discussion of active truck utilization, see this month's commentary on page 12.*

Truckload Rates



Source: FTR; Copyright 2018

- Carriers are enjoying the strongest rate environment in years, and y/y rate growth should accelerate through Q2 before moderating based on very strong prior-year comparisons.
- The extended rollout of the ELD mandate means that rates could be even stronger than forecast, especially if fleets are unable to add drivers and trucks as quickly as they want.
- *NOTE: We have changed our rate data. See page 14 for more on these changes and their impact on the publication.*



Overview

- The typical seasonal slowdown in January and February simply did not happen this year. Year-over-year growth likely will dip in February due to an unusually strong February 2016, but it should remain positive.
- The loadings index is expected to grow on an actual basis consistently throughout 2018. Growth y/y also will be very strong until late summer when it moderates in comparison to the post-hurricane environment in 2017.
- With active truck utilization at 100% through late summer, rates will be strong.

Van & Reefer Truck Loadings

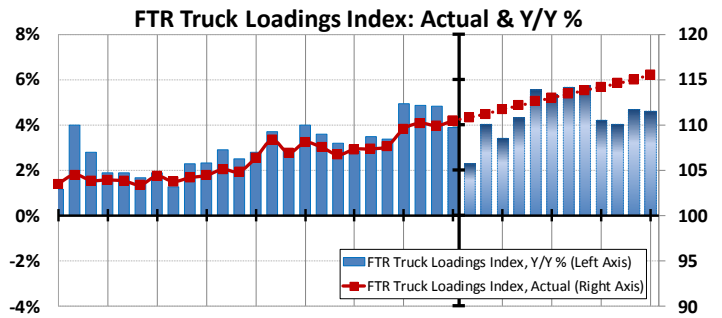
- Low unemployment and a reduction in payroll taxes could help fuel strong y/y growth in both dry van and reefer loadings through at least Q2.
- Refrigerated food volume will be bolstered by strong crop production, exports, and a generally strong economy.
- Both refrigerated and van loadings face some downside risk due to extremely tight capacity, especially in Q2 following full implementation of the ELD mandate and expiration of the current ELD waiver for transportation of agricultural commodities. This risk is much higher for dry van given that most refrigerated commodities cannot be warehoused. Instead, reefer loadings would move but at higher rates.

Flatbed & Bulk Truck Loadings

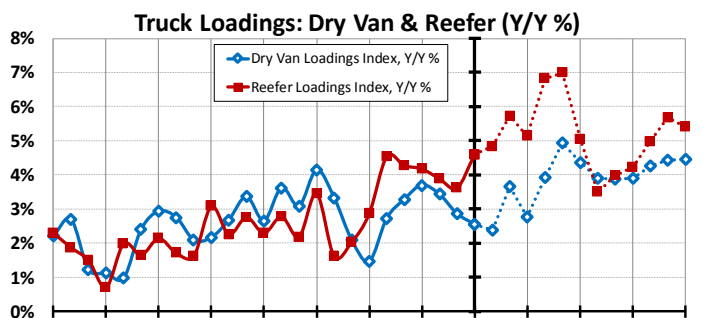
- Year-over-year growth in flatbed likely will be tempered only by the strength of 2016 and 2017. The flatbed market looks to have a great 2018. Housing starts are continuing to trend higher, and manufacturing, too, shows signs of growth. Improving energy prices and demand could mean more flatbed hauling related to hydraulic fracturing, or fracking.
- Supported by construction activity — especially stronger housing starts — bulk loadings should gather steam y/y throughout 2018, before moderating in comparison to the post-hurricane period.
- Continued rebuilding in Texas and Florida should further boost both flatbed and bulk loadings early in 2018.

Tank Loadings

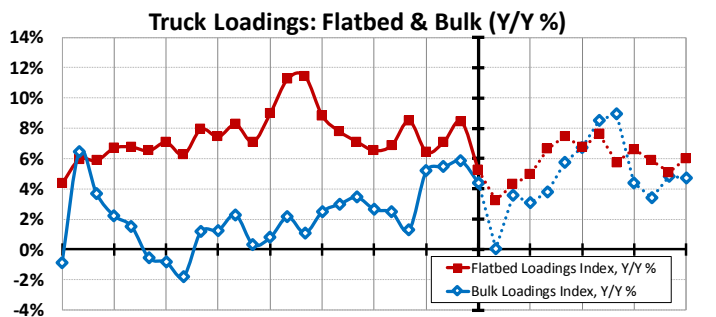
- Tank loadings should be lower y/y than in late 2018, but likely will remain in the 3% to 4% range until the fourth quarter.
- Tank volumes typically are not subject to wide variation, so growth in the anticipated range is healthy, especially considering relatively strong volumes in the second half of 2017.
- Potentially higher demand for gasoline and diesel due to strong economic conditions could exert some upward pressure on tank loadings by summer.



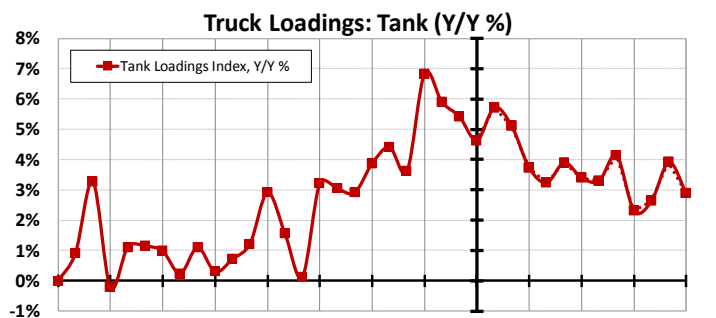
Source: FTR; Copyright 2018 -- Index: 2000 = 100



Source: FTR; Copyright 2018 -- Index: 2000 = 100



Source: FTR; Copyright 2018 -- Index: 2000 = 100

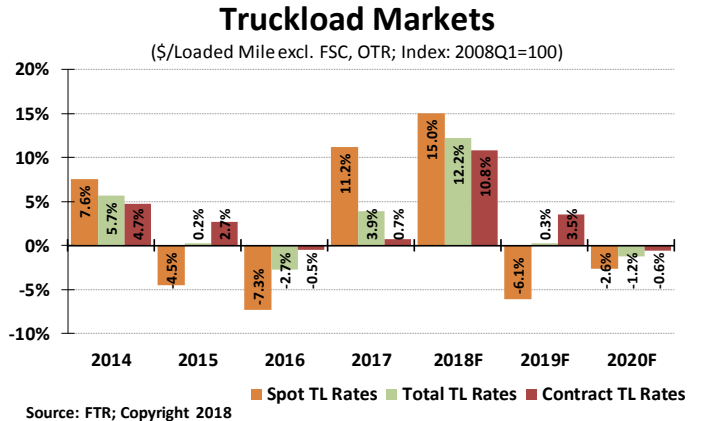


Source: FTR; Copyright 2018 -- Index: 2000 = 100



Truckload (TL) Pricing Overview

- Overall growth in truckload rates in 2018 likely will be about three times the 2017 growth rate.
- Coming off increases late in 2017, surging spot-market rates early in 2018 will put pressure on contract rates, which tend to respond to extended periods of high spot-market rates.
- Carriers will take advantage of the rare opportunity to increase margin, but rate gains will help recover their sharp increases in driver compensation and rising equipment costs.
- Shippers will face a difficult negotiating environment as they would prefer to lock in capacity, even at an inflated rate, in 2018 without committing to future-year rates that could exceed market rates at that time.



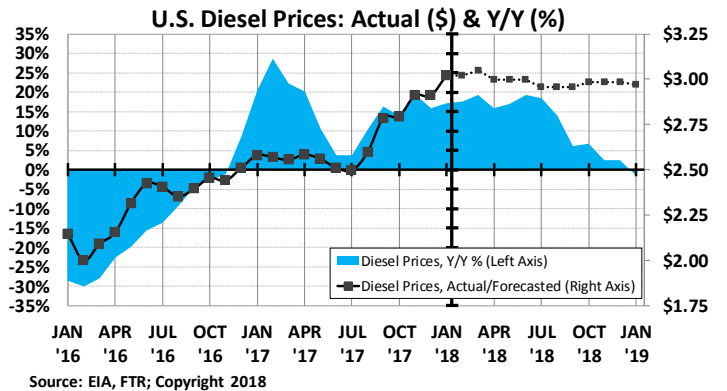
Publicly Traded Truckload Carrier Data

(000,000s)	Revenue		Net	Operating Costs					Rev./
	Freight	Fuel Sur.	Income	Total	Wages	Fuel	Rent/O-Os	Other	Loaded Mi.
2017Q3	\$2,108.9	\$266.2	\$70.6	\$2,264.8	\$707.8	\$266.4	\$668.6	\$622.0	\$1.893
Q/Q %	2.1%	5.3%	-8.2%	2.9%	0.6%	4.2%	1.8%	6.4%	3.0%
Y/Y %	-10.9%	6.9%	-8.9%	-8.9%	-10.8%	-3.3%	-12.1%	-5.4%	2.2%

Sources: Company Reports, FTR

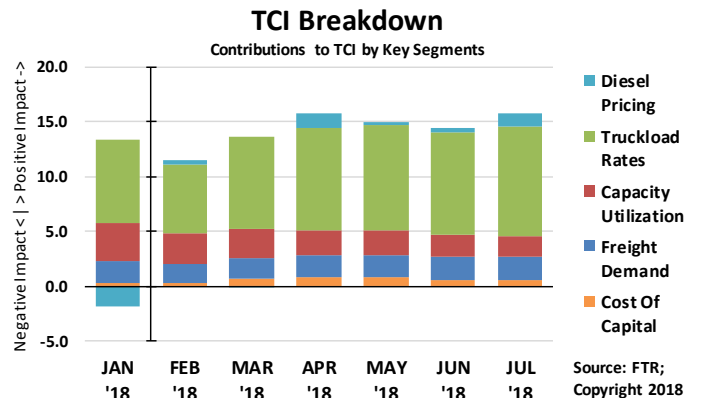
Fuel Environment

- U.S. crude prices have remained fairly stable at their highest levels in about three years. The average daily price in February was around \$62/barrel, down from more than \$63/barrel in January. Brent (global) crude hit a high for the year at \$70.53/barrel on January 24, also the highest since late 2014. Brent crude then dropped to a low of \$62.59/barrel on February 12, before recovering to between \$67 and \$68/barrel.
- Diesel prices softened slightly at the end of February after hitting a three-year high of \$3.86/gallon during the week ended February 5.
- Strong freight should keep diesel prices above \$2.90/gallon throughout 2018, with the potential for upward pressure.



TCI Breakdown

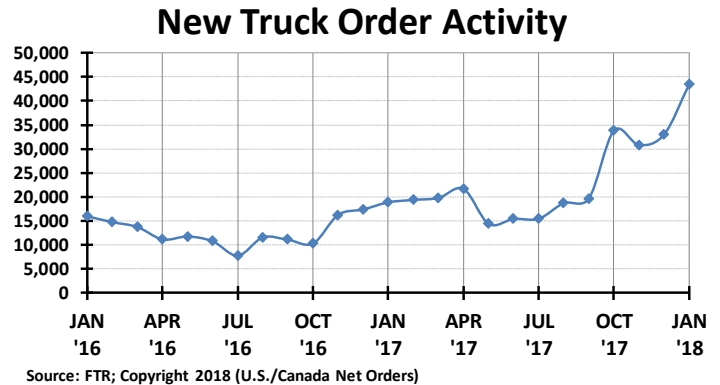
- Strengths:** Truckload Rates, Capacity Utilization, Freight Demand
 - Contract rates are now moving quickly, following the recent spot market movement. Freight demand is holding up strong. Utilization figures are running close to 100% - there isn't much upside movement possible.
- Weaknesses:** Diesel Pricing
 - Fuel pricing has stabilized but at a modestly elevated level. Recent weeks have finally shown some slight movement lower. Fuel is expected to stay close to the current level throughout 2018.





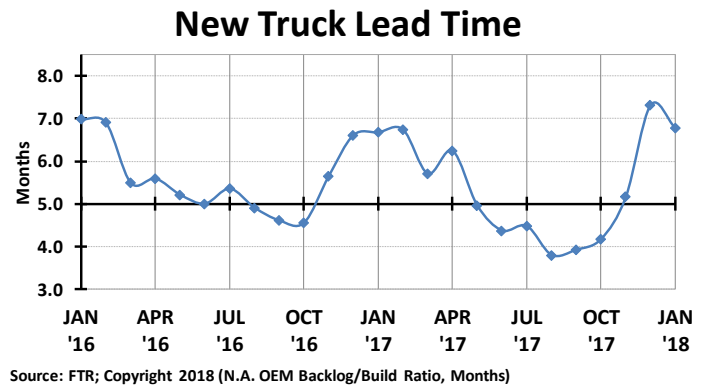
New Truck Order Activity

- January net orders for U.S. and Canada Class 8 trucks were 43,500 units. Orders were the second highest level ever. Orders were robust for the fourth consecutive month, as many fleets want to reserve production slots to handle replacement and substantial expansion demands. Order backlogs jumped again to the highest total since May 2015. Production recovered as expected.
- January net orders were up 32% m/m and up an impressive 130% y/y. Fleets are responding to a capacity crunch in the marketplace created by sturdy freight growth. This is accentuated by lower productivity as fleets implement ELDs. Fleets need more trucks and are placing orders for delivery throughout 2018. Order backlogs are now 59% higher than a year ago.
- Trucks sales are expected to be much higher this year, as a growing economy and a strong manufacturing sector continue to produce higher freight levels. Orders should fall back to more modest levels in February. Production rose in January after the usual December slowdown. U.S. orders were up 26% m/m and 115% y/y. Canada orders were up 83% m/m



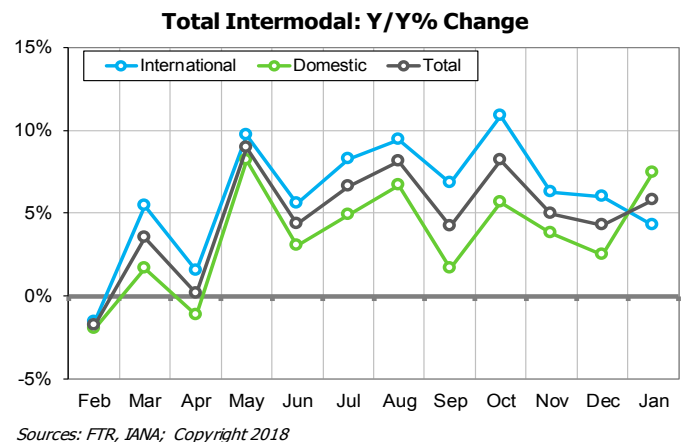
New Truck Lead Time

- For trucks ordered in January, the calculated average time from order to delivery jumped to 7.4 months (from 6.1). There may be a few build slots open in Q1, but it may be difficult to find trucks in Q2. The OEMs will be straining to increase production rates to handle the onslaught of recent orders.
- The Class 8 market has begun to pick up some serious speed. Retail sales had their normal January slump, but it should be a strong and steady increase from here. Inventories rose in January, but may not be sufficient to handle the expected jump in demand. Many of the recent orders are for dealer stock.
- U.S. trailer orders had another great order month in January at 39,800 units, up 21% y/y. Production also recovered from a seasonally slow December. The trailer market also will have another robust year in 2018 due to the market factors previously mentioned. Flatbeds and Reefers are hot markets.



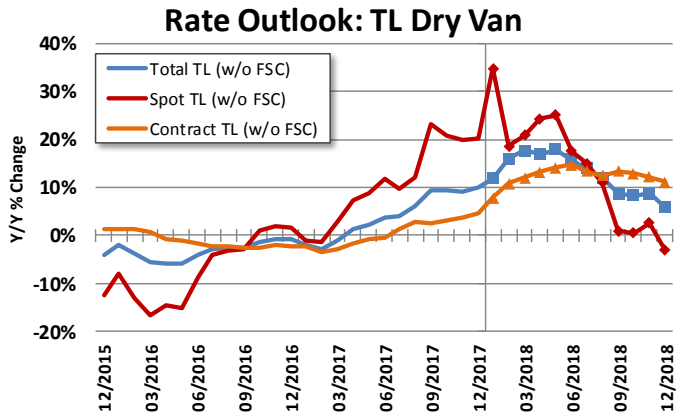
Intermodal

- Domestic intermodal led the way in January with a strong start to the year. The strong growth came as shippers grapple with tight trucking capacity and significantly higher rates.
- International demand growth slowed after peaking in October 2017, but still remained near 5%. There has been some discussion among carriers and shippers of some international volumes shifting from the US west coast to ports in Canada.
- Stronger domestic volume growth helped offset the slowing international gains and helped keep overall intermodal growth above 5% in January.
- Domestic volume gains are forecast to remain robust throughout 2018.

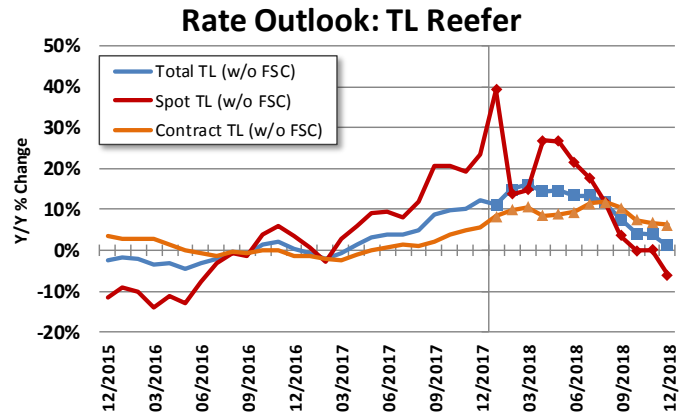




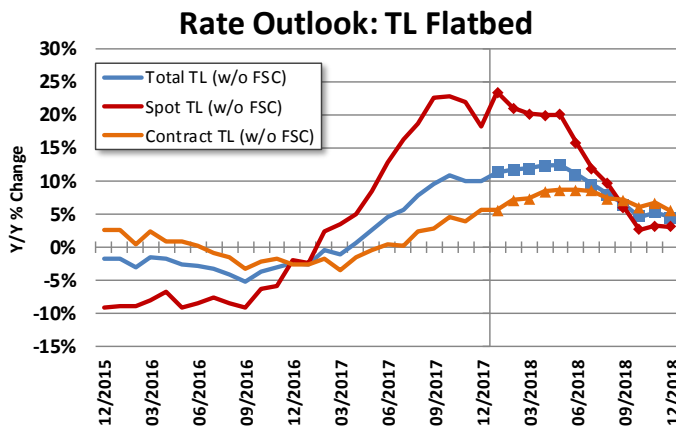
TRUCKING RATES



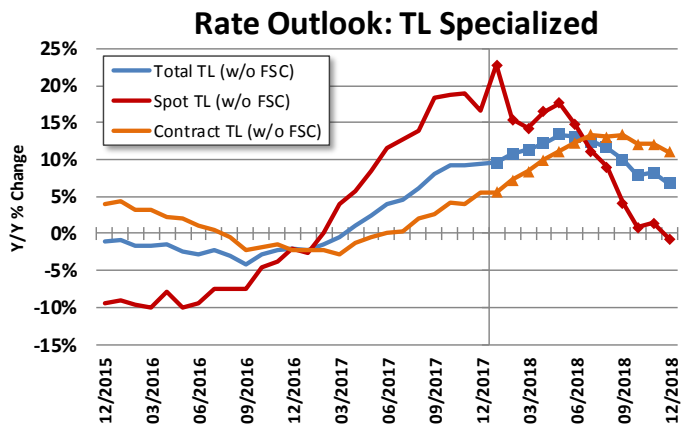
Source: FTR; Copyright 2018



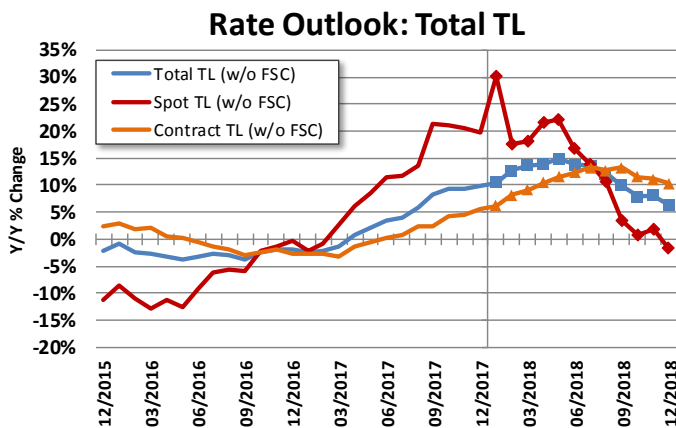
Source: FTR; Copyright 2018



Source: FTR; Copyright 2018



Source: FTR; Copyright 2018



Source: FTR; Copyright 2018

Enhancements to FTR's Truck Rate Data

FTR is excited to introduce our new truck rate data. We have incorporated additional industry data and are now able to break out both our history and forecasts by contract versus spot rates.

Read more about these enhancements on page 14.

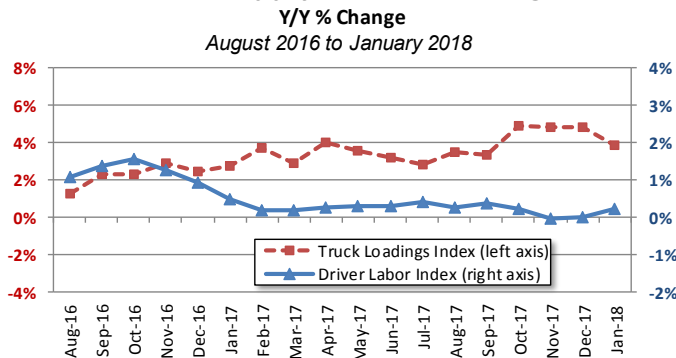


Driver Situation: FTR Driver Labor Metrics

Driver Labor Environment

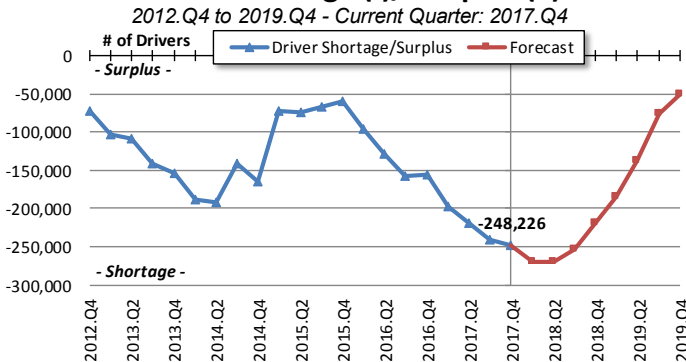
- The shortage of drivers is the most severe since 2013/2014.
- Many carriers have recently announced higher wages and sign-on bonuses to recruit drivers.
- Although freight volume is unusually strong, the persistence of elevated spot-market demand and rates through the typically soft months of January and February suggest a widespread lack of capacity and critical need for drivers.
- Mandatory ELDs are contributing to the shortage in two ways. First, loss of productivity creates a need for more drivers to haul the same freight. Second, an unknown number of drivers likely have quit to avoid ELDs.
- For a more thorough discussion of the driver shortage, see this month's commentary on page 12.

Driver Supply & Truck Loadings



Source: FTR; Copyright 2018 by FTR (www.FTRintel.com)

Driver Shortage (-)/ Surplus (+)



Source: FTR; Copyright 2018 by FTR (www.FTRintel.com)

Employment Indicators

	Nov	Dec	Jan	Impact
Unemployment Rate (%)	4.1	4.1	4.1	▲
Total Payroll Employment (000's)	147,450	147,610	147,810	▲
%Change (M/M)	0.1	0.1	0.1	
%Change (Y/Y)	1.5	1.5	1.5	
Job Creation	216 k	160 k	200 k	
Personal Income (% Change)	0.3	0.4	-	▲
Service-Providing Industries	127,204	127,309	127,452	▲
• Retail	15,887	15,861	15,877	▲
Manufacturing	12,519	12,540	12,555	▲
Construction	7,030	7,063	7,099	▲
Total Transportation & Warehousing	5,228	5,239	5,250	▲
Truck Transportation	1,457	1,458	1,460	●

Source: Bureau of Labor Statistics

Market Indicators

	Nov	Dec	Jan	Impact
Composite Driver Index				
Driver Labor Index (1992=100) *	125.2	125.2	125.4	●
%Change (M/M)	-0.4	0.0	0.1	
%Change (Y/Y)	0.0	0.0	0.2	
* ▽ - Loosening; ▲ - Tightening; ● - Neutral				
Freight Demand Index				
Truck Loads Index (1992=100)	138.8	138.4	139.1	▲
%Change (M/M)	0.5	-0.2	0.5	
%Change (Y/Y)	4.9	4.8	3.9	

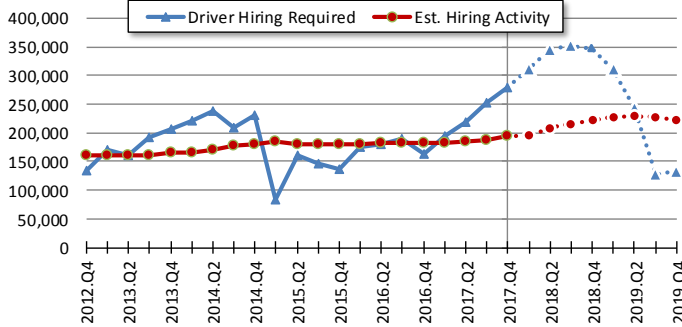
NEAR-TERM QUARTERLY OUTLOOK

	HISTORY		FORECAST		
	2017'Q3	2017'Q4	2018'Q1	2018'Q2	2018'Q3
HEAVY-DUTY TRUCK CAPACITY	93.9%	94.4%	95.0%	95.3%	95.5%
CL. 8 TRUCK LOADS (000's)	182,009	186,150	187,768	190,011	192,157
% Change, Q/Q	0.0	2.3	0.9	1.2	1.1
% Change, Y/Y	3.2	4.9	3.4	4.4	5.6
DRIVER LABOR INDEX	125.7	125.2	125.6	125.8	125.8
% Change, Q/Q	0.5	-0.4	0.3	0.2	0.0
% Change, Y/Y	0.4	0.0	0.4	0.5	0.1
TRUCK SHARE OF EMPLOYMENT INDEX 1992 = 100	150.2	153.5	156.1	158.8	161.1
DRIVER HIRING REQUIRED Thousands of Drivers (000's)	251.8	278.9	312.7	346.3	352.8
ESTIMATED HIRING ACTIVITY Thousands of Drivers (000's)	186.8	194.0	195.3	208.9	215.2
DRIVER SHORTAGE(-)/SURPLUS(+) Thousands of Drivers (000's)	-240.5	-248.2	-270.0	-269.4	-253.0



Driver Hiring Pipeline

2012.Q4 to 2019.Q4 - Current Quarter: 2017.Q4

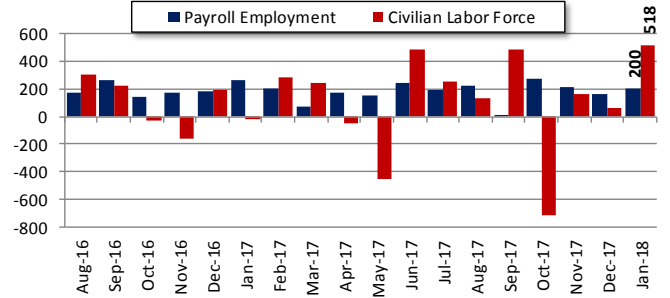


Source: FTR; Copyright 2018 by FTR (www.FTRintel.com)

Payroll Employment & Labor Force

M/M Change (000s)

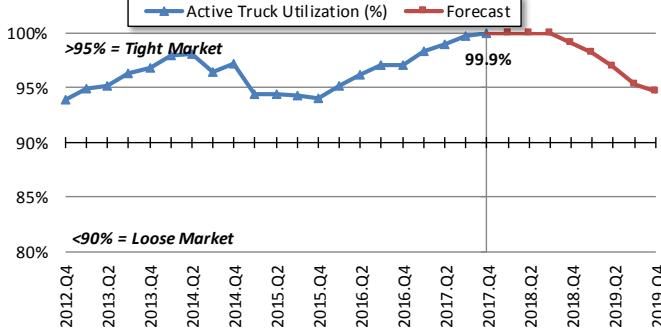
August 2016 to January 2018



Source: BLS; Copyright 2018 by FTR (www.FTRintel.com)

Active Truck Utilization

2012.Q4 to 2019.Q4 - Current Quarter: 2017.Q4

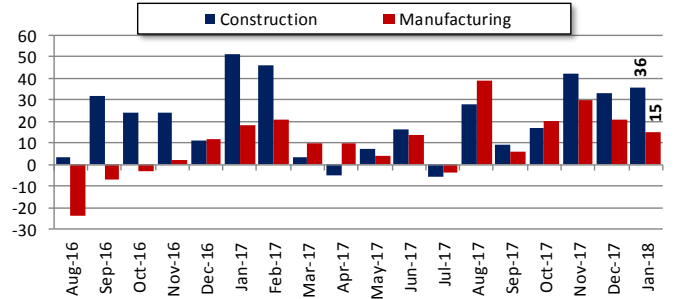


Source: FTR; Copyright 2018 by FTR (www.FTRintel.com)

Construction & Manufacturing

Employment, M/M Change (000s)

August 2016 to January 2018

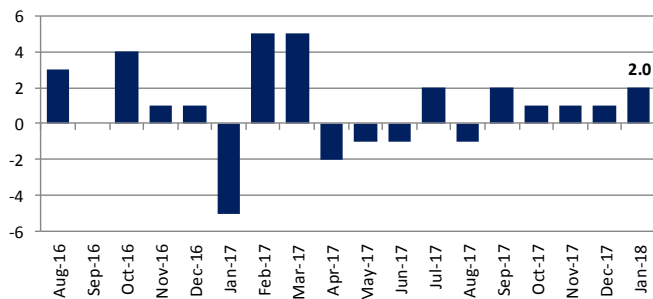


Source: BLS; Copyright 2018 by FTR (www.FTRintel.com)

Truck Transportation

Employment, M/M Change (000s)

August 2016 to January 2018

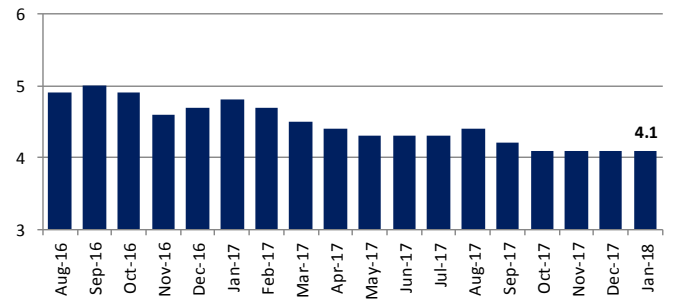


Source: BLS; Copyright 2018 by FTR (www.FTRintel.com)

Unemployment Rate

Monthly Rate (%)

August 2016 to January 2018



Source: BLS; Copyright 2018 by FTR (www.FTRintel.com)



MONTHLY BUSINESS & ECONOMIC HIGHLIGHTS

January's Economic Environment	●	Another solid month of economic data, but conditions have eased back ever so slightly after a strong runup to end 2017.					
INDUSTRIAL PRODUCTION	Oct	Nov	Dec	Jan	Impact	Y/Y Chg.	Comments
Total Industrial Production	1.7%	0.3%	0.4%	-0.1%	●	3.7%	The good news is that the big gains seen at the start of Q4 have been sustained. Unfortunately, manufacturing has been essentially flat for the last few months.
Total Manufacturing	1.4%	0.3%	0.0%	0.1%	●	2.0%	
Automobile and Light Duty Motor Vehicle Production	2.7%	-1.4%	3.4%	1.2%	●	-2.8%	
BUSINESS INDICATORS							
Unemployment Rate	4.1%	4.1%	4.1%	4.1%	▲	-70 bp	On Repeat: Another strong month for business conditions. Employment continues to grow and most business conditions have seen solid gains over the last year.
Job Creation (Payroll Employment)	271k	216k	160k	200k	▲	2,114k	
ISM Manufacturing Index	58.7	58.2	59.3	59.1	▲	310 bp	
CONSUMER INDICATORS							
Consumer Confidence (Conference Board)	126.2	128.6	123.1	125.4	▲	13.8 pts	Housing activity is picking back up - but so are mortgage rates. Consumer optimism remains strong, yet retail sales have stalled out the last two months.
Housing Starts	8.8%	3.0%	-6.9%	9.7%	▲	7.3%	
Retail Sales	0.7%	0.8%	0.0%	-0.3%	●	3.6%	
Consumer Price Index	0.1%	0.3%	0.2%	0.5%	●	2.1%	
OIL AND FUEL							
National Avg. Diesel/Gal.	2.794	2.909	2.909	3.018	▼	17.0%	Diesel prices are now drifting back down, but are still at or above the \$3 mark. This is elevated but not a detriment.
W. Texas Int. Crude Oil (\$Bbl.)	51.58	56.64	57.88	63.70	▼	21.3%	

See the next page for an expanded set of monthly indicators

Overview

■ The U.S. economy is healthy and growing, and that is before the stimulus packages start to kick in. The consumer is solid, and future spending will be supported by rising wages. The industrial sector is fairly strong, supported by a weak dollar and accelerating global growth. In this atmosphere, inflationary pressures are starting to build. The new Chair of the Federal Reserve will continue tightening monetary policy. Yields in the bond market are also rising and borrowing costs are increasing. The stimulus will add to GDP growth, but only for a relatively short term. A couple of quarters of growth near 4% is quite possible. In 2020-21 the stimulus will fade and growth will return to its long term trend.

Forecast

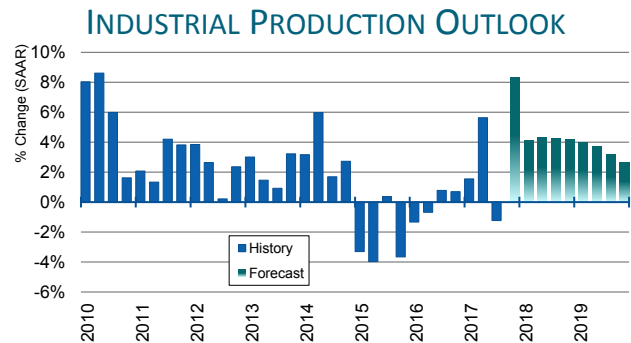
■ The economy is about to receive the full benefits of the deficit-financed tax cuts and the extra spending passed by Congress. Growth will accelerate in the next two years. Unemployment will head to possible record lows. In this atmosphere the economy may overheat, with intensifying inflationary pressures. Since the determinants of growth won't change, the economy will revert to its long term growth path in 2020-21. Landing an overheated economy will take some deft policy making. A hard landing is likely to follow an overheated economy. 2018-19 will be good, but growth will slow sharply in 2020-21, and recession risks will rise.

Economic Forecast Summary Table

	<u>Q1F</u>	<u>Q2F</u>	<u>2018F</u>	<u>2019F</u>
Real GDP	3.0%	3.5%	3.1%	3.0%
Industrial Production (IP)	4.1%	4.3%	4.4%	3.8%
Consumer Price Index (CPI)	2.9%	2.3%	2.5%	2.4%

F - Forecast

Sources: FTR, Witte Econometrics



Sources: FTR, Witte Econometrics





MONTHLY BUSINESS & ECONOMIC INDICATORS

INDUSTRIAL PRODUCTION	Oct	Nov	Dec	Jan	Impact	YY Chg.	Comments
Total Industrial Production	1.7%	0.3%	0.4%	-0.1%	●	3.7%	The good news is that the big gains seen at the start of Q4 have been sustained. Unfortunately, manufacturing has been essentially flat for the last few months.
Durable Manufacturing	0.5%	0.4%	0.2%	0.2%	▲	2.5%	
Non-Durable Manufacturing	2.3%	0.1%	-0.3%	0.0%	●	1.6%	
Total Manufacturing	1.4%	0.3%	0.0%	0.1%	●	2.0%	
Iron Ore Mining	0.2%	2.3%	-1.2%	0.9%	▲	22.4%	
Food	-0.3%	-0.2%	0.2%	-0.4%	●	2.6%	
Wood Product	-0.3%	3.0%	0.0%	-1.4%	●	2.4%	
Paper	-1.3%	2.0%	1.1%	-0.4%	●	0.5%	
Chemicals	5.4%	-0.2%	-0.7%	0.4%	▲	2.6%	
Nonmetallic Mineral Product	0.2%	1.2%	1.8%	-2.1%	●	3.0%	
Primary Metal	-0.3%	1.2%	-1.3%	1.4%	▲	1.2%	
Fabricated Metal Product	0.6%	0.4%	0.0%	-0.3%	●	3.4%	
Automobile and Light Duty Motor Vehicle Production	2.7%	-1.4%	3.4%	1.2%	●	-2.8%	

BUSINESS INDICATORS

Unemployment Rate	4.1%	4.1%	4.1%	4.1%	▲	-70 bp	On Repeat: Another strong month for business conditions. Employment continues to grow and most business conditions have seen solid gains over the last year.
Job Creation (Payroll Employment)	271k	216k	160k	200k	▲	2,114k	
ISM Manufacturing Index	58.7	58.2	59.3	59.1	▲	310 bp	
Leading Economic Indicators	1.3%	0.4%	0.6%	1.0%	▲	0.067	
Total Bus. Inventory/Retail Sales Ratio	1.35	1.33	1.33	--	●	-4 bp	
Business Inventories	-0.1%	0.5%	0.4%	--	▲	3.2%	
Durable Goods Orders	-0.4%	1.7%	2.8%	--	▲	11.5%	
Core Capital Goods Orders	0.8%	0.1%	-0.6%	--	●	8.0%	
West Coast Port Container Activity (TEU's)	-3.2%	5.3%	-1.4%	--	●	7.4%	
Chicago Fed National Activity Index (3 month moving average)	0.36	0.43	0.42	--	▲	32 bp	
S&P 500	2,557.0	2,593.6	2,664.3	2,789.8	▲	22.6%	

CONSUMER INDICATORS

Consumer Confidence (Conference Board)	126.2	128.6	123.1	125.4	▲	13.8 pts	Housing activity is picking back up - but so are mortgage rates. Consumer optimism remains strong, yet retail sales have stalled out the last two months.
Housing Starts	8.8%	3.0%	-6.9%	9.7%	▲	7.3%	
Building Permits	7.4%	-1.0%	-0.2%	7.4%	▲	7.4%	
New Home Sales	-6.3%	15.0%	-9.3%	--	●	14.1%	
Existing Home Sales	2.4%	5.1%	-3.6%	--	●	1.1%	
Retail Sales	0.7%	0.8%	0.0%	-0.3%	●	3.6%	
Consumer Price Index	0.1%	0.3%	0.2%	0.5%	●	2.1%	

OIL AND FUEL MARKETS

National Avg. Diesel/Gal.	2.794	2.909	2.909	3.018	▼	17.0%	Diesel prices are now drifting back down, but are still at or above the \$3 mark. This is elevated but not a detriment.
W. Texas Int. Crude Oil (\$Bbl.)	51.58	56.64	57.88	63.70	▼	21.3%	



U.S. Economic & Manufacturing Activity

GDP Components <i>Billions of 2005\$, SAAR*</i>	2018				2019				2017	2018	2019
	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Annual		
Real GDP	17,403	17,552	17,697	17,834	17,966	18,097	18,222	18,345	17,093	17,621	18,158
% Change (SAAR)	3.0%	3.5%	3.3%	3.1%	3.0%	3.0%	2.8%	2.7%	2.3%	3.1%	3.0%
Consumer Expenditures	12,097	12,190	12,278	12,372	12,460	12,546	12,631	12,716	11,889	12,234	12,588
% Change (SAAR)	2.3%	3.1%	2.9%	3.1%	2.9%	2.8%	2.8%	2.7%	2.7%	2.9%	2.9%
Residential Fixed Investment	618	632	644	656	667	677	686	695	597	638	681
% Change (SAAR)	10.1%	9.0%	8.3%	7.7%	6.9%	6.2%	5.5%	4.9%	1.7%	6.7%	6.9%
Change-Business Inventories	26.2	43.2	61.0	61.3	61.6	61.8	62.1	62.4	13.6	47.9	62.0
Real Exports	2,254	2,277	2,301	2,325	2,350	2,375	2,398	2,421	2,191	2,289	2,386
% Change (SAAR)	4.5%	4.2%	4.3%	4.3%	4.3%	4.3%	3.9%	3.9%	3.4%	4.5%	4.2%
Real Imports	2,919	2,962	3,008	3,051	3,095	3,137	3,175	3,211	2,813	2,985	3,155
% Change (SAAR)	5.2%	6.1%	6.3%	5.9%	5.8%	5.5%	5.0%	4.7%	3.9%	6.1%	5.7%
Output of Goods-Producing Sector	8,274	8,411	8,539	8,651	8,760	8,867	8,965	9,058	7,970	8,469	8,912
% Change (SAAR)	5.7%	6.8%	6.2%	5.3%	5.1%	5.0%	4.5%	4.2%	3.9%	6.3%	5.2%
Housing Starts - Millions	1.26	1.27	1.29	1.30	1.31	1.31	1.31	1.31	1.21	1.28	1.31
% Change (SAAR)	3.1%	3.6%	5.7%	4.7%	0.8%	0.3%	0.5%	0.2%	2.5%	6.2%	2.1%
CPI Index	2.49	2.51	2.52	2.53	2.55	2.56	2.58	2.60	2.45	2.51	2.57
% Change (SAAR)	2.9%	2.3%	2.0%	2.3%	2.5%	2.5%	2.5%	2.5%	2.1%	2.5%	2.4%
Auto Sales - Millions (SAAR)	17.2	17.3	17.2	17.2	17.1	17.1	17.0	17.0	17.2	17.2	17.1
3 Month T-Bill Rate, %	1.5	1.6	1.8	2.0	2.2	2.3	2.6	2.7	0.9	1.7	2.5
Moody AAA Bonds, %	3.7	3.8	4.0	4.1	4.2	4.3	4.4	4.5	3.7	3.9	4.4
Unemployment Rate, %	4.1	4.0	4.0	3.9	3.9	3.9	3.8	3.8	4.4	4.0	3.8
Federal Surplus, \$ (SAAR)	-759.8	-846.8	-945.9	-1,023.5	-1,066.9	-1,077.6	-1,096.4	-1,112.0	-664.5	-894.0	-1,088.2
Industrial Production (IP) <i>Index: 2007 = 100, SAAR*</i>	2018				2019				2017	2018	2019
	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Annual		
Non-Durables	104.1	105.1	105.9	106.7	107.4	108.2	108.8	109.3	102.7	105.5	108.4
% Change (SAAR)	1.8%	3.7%	3.2%	2.9%	2.9%	2.7%	2.2%	1.9%	1.3%	2.7%	2.8%
Durables	108.9	110.6	112.1	113.6	115.1	116.5	117.7	118.7	106.1	111.3	117.0
% Change (SAAR)	5.1%	6.4%	5.7%	5.5%	5.4%	5.0%	4.1%	3.4%	1.9%	4.9%	5.2%
Total IP (includes Mining & Utilities)	108.0	109.1	110.3	111.4	112.5	113.5	114.4	115.2	105.1	109.7	113.9
% Change (SAAR)	4.1%	4.3%	4.3%	4.2%	4.0%	3.7%	3.2%	2.6%	2.0%	4.4%	3.8%

* - SAAR is Seasonally Adjusted Annual Rates or Seasonally Adjusted Quarter to Quarter Changes at Annual Rates.

Sources: Witte Econometrics; FTR



U.S. Truck Freight: Commodity Groups & Trailer Types

SEASONALLY ADJUSTED 000s of Loadings Originated	MONTH							QUARTER				
	PRELIMINARY ¹			FORECAST				PRELIMINARY ¹		FORECAST		
	Nov-17	Dec-17	Jan-18	Feb-18	Mar-18	Apr-18	May-18	17'Q3	17'Q4	18'Q1	18'Q2	18'Q3
Total Truck Loadings	62,212	62,065	62,379	62,582	62,808	63,093	63,338	182,009	186,150	187,768	190,011	192,157
Truck Utilization Rate (%)³	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	99.7%	99.9%	100.0%	100.0%	100.0%
Commodity Groups												
Food & Kindred Products	12,380	12,340	12,481	12,525	12,574	12,639	12,693	37,621	37,242	37,580	38,078	38,554
Stone, Clay, Glass & Concrete	5,664	5,790	5,734	5,761	5,789	5,818	5,847	16,581	17,046	17,284	17,540	17,794
Nonmetallic Minerals, Except Fuels	9,444	9,195	9,208	9,202	9,217	9,271	9,313	26,287	27,868	27,628	27,946	28,437
Chemicals & Allied Products	2,981	2,933	2,998	3,009	3,015	3,008	3,012	8,706	8,886	9,022	9,038	9,106
Transportation Equipment	5,672	5,718	5,684	5,699	5,722	5,778	5,797	16,429	17,044	17,105	17,379	17,329
Other	26,070	26,087	26,273	26,386	26,491	26,578	26,676	76,385	78,065	79,150	80,030	80,936
Trailer Types												
Dry Van	22,436	22,482	22,571	22,647	22,733	22,854	22,942	66,767	67,353	67,951	68,818	69,468
Reefer Van	4,415	4,405	4,445	4,463	4,482	4,506	4,527	13,204	13,249	13,390	13,579	13,754
Flatbed	7,521	7,614	7,599	7,637	7,675	7,712	7,750	22,111	22,568	22,911	23,249	23,590
Bulk	27,840	27,563	27,764	27,835	27,918	28,021	28,120	79,927	82,980	83,516	84,366	85,345
Y/Y % Change ²												
Total Truck Loadings	4.9%	4.8%	3.9%	2.3%	4.0%	3.4%	4.3%	3.2%	4.9%	3.4%	4.4%	5.6%
Commodity Groups												
Food & Kindred Products	6.6%	5.3%	4.4%	4.6%	5.2%	3.3%	4.8%	6.3%	6.5%	4.7%	4.7%	2.5%
Stone, Clay, Glass & Concrete	7.3%	10.0%	4.3%	1.1%	1.7%	4.2%	5.2%	8.5%	8.2%	2.4%	5.4%	7.3%
Nonmetallic Minerals, Except Fuels	4.7%	5.2%	2.0%	-7.0%	-1.8%	2.2%	2.9%	-0.8%	4.7%	-2.4%	3.3%	8.2%
Chemicals & Allied Products	6.0%	4.7%	5.5%	8.2%	7.2%	6.0%	3.4%	3.7%	6.0%	6.9%	4.6%	4.6%
Transportation Equipment	2.4%	2.7%	2.4%	1.5%	4.8%	1.9%	3.9%	-0.4%	2.3%	2.9%	3.8%	5.5%
Other	4.0%	3.9%	4.3%	4.6%	5.7%	3.8%	4.6%	2.9%	3.9%	4.9%	4.6%	6.0%
Trailer Types												
Dry Van	3.4%	2.9%	2.6%	2.4%	3.7%	2.8%	3.9%	2.5%	3.3%	2.9%	3.9%	4.0%
Reefer Van	3.9%	3.6%	4.6%	4.8%	5.7%	5.1%	6.8%	3.9%	3.9%	5.0%	6.3%	4.2%
Flatbed	7.1%	8.4%	5.2%	3.2%	4.3%	5.0%	6.6%	7.3%	7.3%	4.2%	6.4%	6.7%
Bulk	5.6%	5.7%	4.5%	1.6%	4.0%	3.2%	3.6%	2.6%	5.7%	3.3%	4.0%	6.8%

ANNUAL	THOUSANDS OF TRUCK LOADINGS (000s)				% CHANGE				
	PRELIM ¹	FORECAST			PRELIMINARY ¹		FORECAST		
	2017	2018	2019	2020	2016	2017	2018	2019	2020
Total Truck Loadings	731,747	764,092	794,952	815,613	2.2%	3.7%	4.4%	4.0%	2.6%
Truck Utilization Rate (%)³					96.4%	99.3%	99.8%	96.3%	96.6%
Commodity Groups									
Food & Kindred Products	147,122	153,156	159,916	165,534	1.7%	5.3%	4.1%	4.4%	3.5%
Stone, Clay, Glass & Concrete	67,162	70,632	74,389	76,766	10.7%	10.3%	5.2%	5.3%	3.2%
Nonmetallic Minerals, Except Fuels	109,527	112,757	118,150	121,439	2.5%	0.8%	2.9%	4.8%	2.8%
Chemicals & Allied Products	34,669	36,318	37,139	37,918	0.7%	3.3%	4.8%	2.3%	2.1%
Transportation Equipment	66,851	69,352	70,450	69,842	4.7%	2.6%	3.7%	1.6%	-0.9%
Other	306,415	321,878	334,908	344,115	0.4%	3.0%	5.0%	4.0%	2.7%
Trailer Types									
Dry Van	266,432	276,416	286,594	293,586	2.2%	3.0%	3.7%	3.7%	2.4%
Reefer Van	51,972	54,629	57,194	59,260	2.0%	3.2%	5.1%	4.7%	3.6%
Flatbed	88,517	93,637	98,594	101,649	6.7%	8.2%	5.8%	5.3%	3.1%
Bulk	324,825	339,410	352,570	361,119	1.1%	3.2%	4.5%	3.9%	2.4%

Notes:

¹ - Preliminary Data: Based on economic data and subject to revision until annual freight data is available.

² - Y/Y % Change: Current period vs. year-ago period.

³ - Truck Utilization Rate: Trucks in use as a percentage (%) of trucks actively competing for freight.

Total Truck Loadings includes both Tractor/Trailer Loadings and Straight Truck Loadings.

Source: FTR; Copyright 2018



SEEING THE BIG PICTURE ON DRIVERS AND CAPACITY

History, hiring dynamics, and addressable inefficiencies are keys to understanding

Perhaps the most common question we get these days: how can we forecast an improvement in the driver shortage and a softening in truck utilization by the end of the year? People raise numerous concerns to the notion that either the labor situation or capacity could change so quickly:

- The national unemployment rate is at its lowest level in 17 years;
- Employment in labor-competitive sectors like construction and manufacturing is growing, albeit modestly;
- Freight demand is strong and growing; and
- Mandatory electronic logging devices (ELDs) are hurting productivity and pushing drivers to quit.

These arguments are valid, but they don't tell the full story. They overlook historical context, hiring dynamics, and the potential impact of productivity improvements.

Defining our terms

Before we launch into a discussion of the driver shortage and active truck utilization, we need to be clear about what our figures represent. For example, some clients have questioned the wide gap between FTR's driver shortage numbers and those reported by the American Trucking Associations. This is no mystery. ATA limits its analysis to over-the-road Class 8 tractor-trailer drivers, while FTR's represent the entire heavy truck market. However, shortages tend to be most severe in the Class 8 tractor-trailer arena, especially in the long-haul segment.

FTR's approach to understanding fleet utilization is to compare trucks loaded to trucks available for dispatch. Our model attempts to remove from the calculation unseated trucks and equipment idled for maintenance. Because of this focus on *active* truck utilization, our estimates naturally will show higher utilization rates than if we compared trucks loaded to all registered commercial vehicles (our Total Truck Utilization metric).

Viewing through a wider lens

Given all the headwinds acknowledged earlier, some have questioned how the industry could reduce the shortage by 50,000 by the end of 2018 and by 200,000 by the end of 2019.

Within the narrow context of the past five years, this change certainly is hard to believe. However, if you look at the data over the past 25 years, you will see that we are experiencing the second-worst driver shortage ever, topped only by late 2003/early 2004. Moreover, the turnaround following the worst of the shortage was faster than what we are forecasting for 2018 and 2019.

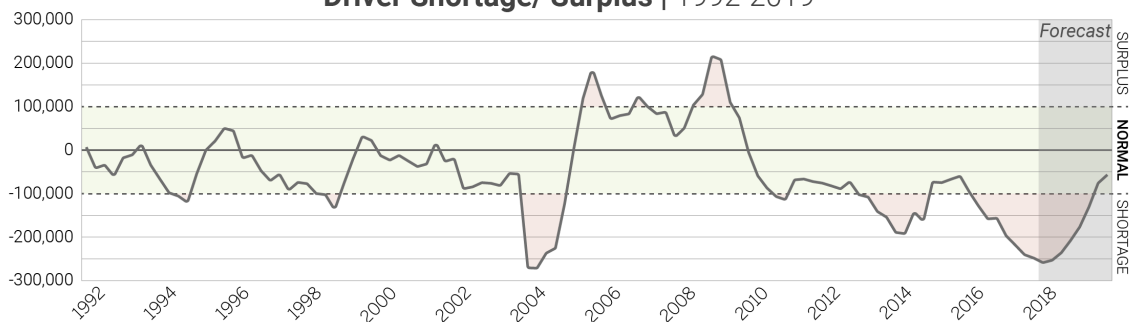
Even if the driver shortage contracts by 50,000 by Q4, the shortage would still be worse than at any point between 2005Q1 and 2017Q2.

Our latest forecast has active truck utilization at 100% well into the third quarter before easing. We have received fewer questions about the duration of our forecasted period of full utilization than about the basis for our expectation that the capacity situation will begin to ease by the end of the year.

Again, the historical context is important. The current and forecasted capacity crunch is the most severe FTR has ever recorded. The 2003-2004 period of full utilization was as bad, but it didn't last as long. Moreover, the easing that begins by Q4 is very slight. The forecasted 98.2% active truck utilization in 2019Q1 still would be higher than any quarter between 2004Q4 and 2017Q1. Even the 94.8% utilization forecast by the end of 2019 would be higher than at any point between mid-2005 and the beginning of 2013, except for a couple of quarters at the end of 2010 and beginning of 2011.

So before we address the factors we see leading to an easing of the driver shortage and capacity crunch, we need to accept that when viewed over the long term the forecast changes are quite small. *(continued on next page)*

Driver Shortage/ Surplus | 1992-2019



Source: FTR

Copyright 2018, FTR used on page 13)



(Continued from page 12)

Recognizing the dynamics of recruiting

As we saw in 2003 and 2004, severe driver shortages can recover at a robust rate once hitting the peak. It's rare that the trucking industry can sync its driver needs and recruiting efforts precisely. Turnover is a chronic problem even in more stable times, and carriers' recruiting programs typically are geared toward stealing drivers from each other. They recruit in media aimed at current active drivers. Because freight demand can be volatile, carriers often are slow to change course and develop strategies to attract new or former drivers.

Recruiting tactics we begin to see once carriers recognize a longer-term shortage include higher wages and revival of sign-on bonuses, both of which are occurring. Carriers also begin to reconsider their hiring standards to determine where they can be more flexible while maintaining safe operations. For example, carriers develop additional training/requirement programs that allow them to bring on drivers.

These efforts take time to implement but often pay off handsomely once in place. The result often is a disconnect between need and supply. We currently are in a period where the need is outstripping supply. At some point, though, many carriers will see the reverse. Our driver hiring pipeline forecast has hiring needs greater than hiring activity until 2019Q2, followed by a period when carriers are bringing on more drivers than they should need. This might sound illogical, but it certainly squares with the truck buying activity we are seeing. The process doesn't start and stop on a dime.

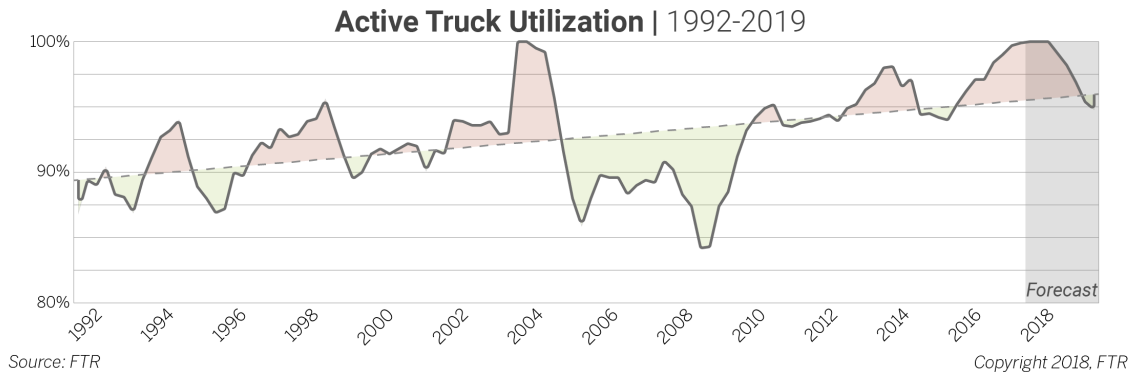
Reducing the need for drivers

The driver shortage has been growing since the beginning of 2016, but the ELD mandate has added fuel to the fire, especially in terms of lost productivity. With a stretched-out implementation period and growing freight demand, FTR expects active capacity to be maxed out well into the third quarter even with additions of trucks and drivers.

By the second half of this year, however, we anticipate productivity enhancements will begin to offset the impact of ELDs. Measures like drop-and-hook, better scheduling for pickups and deliveries, faster dock turnarounds, better coordination among shippers through intermediaries, and so on, will eke out more driver time and miles. Higher rates motivate shippers to be much more flexible on steps that increase carrier productivity. Without changing the number of available drivers, the shortage will contract because fewer drivers will be needed.

A messy path

The elements outlined above — impact of ELDs, success of recruiting efforts, value of productivity improvements, etc. — are difficult to forecast with precision because they involve more than understanding economics. Forecasting drivers and capacity requires assumptions about how carriers and drivers will respond to uncommon situations. It requires constant research, reflection, and validation. Stay tuned.



For more commentary on the current economic outlook and the state of the industry, subscribe to our blog:

<http://blog.ftrintel.com>



Enhancements to FTR's Truck Rate Data

An Important Enhancement

Starting in this month's report you will notice several important enhancements. FTR is excited to introduce our new truck rate data. We have incorporated additional industry data and are now able to break out both our history and forecasts by contract versus spot rates. Our ability to help you pinpoint pressure points in the marketplace is greatly enhanced by this change. Of course, this creates necessary changes to the data that we are reporting in our publications and databases.

Rate Segments

You will notice that we have made changes to the types of data that are being shown. We have added a new category: Specialized. We are now utilizing: Total TL, Dry Van, Refrigerated, Flatbed, Specialized, and LTL. We are collecting and analyzing the data both with and without the effects of fuel, but most of the data shown in the report is focused on rates excluding fuel surcharge impacts. Please note that this change necessitated the removal of the Tank and Bulk rates.

TL Cost Breakdown

We have removed the cost breakdown for the TL sector. Our change in data and methodology that allowed us to expand the types of rates rendered the cost data obsolete.

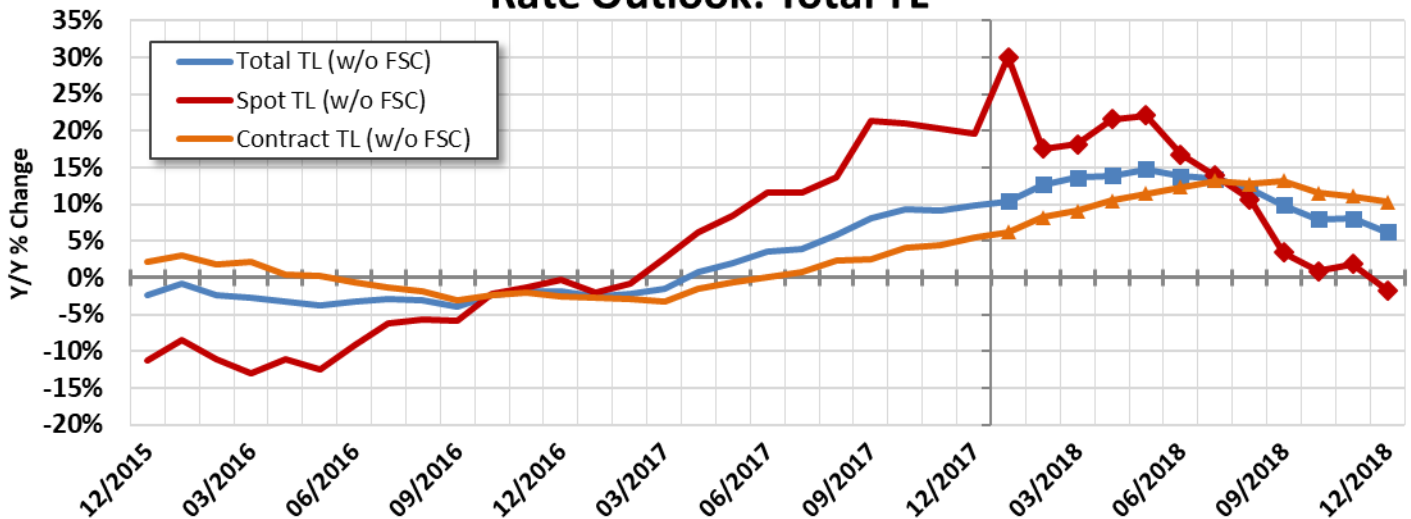
A More Complete Picture

With the inclusion of both spot and contract rate data we are now able to give a more complete picture of the TL market. If you compare our prior month's results to this month's you will notice that the Total TL numbers are higher than previous. This is due to the inclusion of additional spot market data that was previously unavailable. With the spot market running 20-30% ahead of last year our overall rate growth is generally stronger than previously stated.

For those that get the database upgrade you will see similar changes to the underlying data that is reported every month. We apologize for the need to make changes to data that you use and incorporate into your monthly reporting and analysis. However, the additional rate breakdowns will provide substantial market insights that were previously not available.

Have questions? We are always here to help. Please reach out to our Customer Relations Team (support@frintel.com) and they will gladly assist you in getting the answers you need.

Rate Outlook: Total TL



Source: FTR; Copyright 2018



GLOSSARY

AVERAGE LENGTH-OF-HAUL

Tonmiles divided by tons.

INTERMODAL

Rail Intermodal Loadings of Units Originated. Contains International and Domestic Containers as well as Trailers shipped via rail.

SAAR

Seasonally Adjusted Annual Rate

STCC

Standard Transportation Commodity Code (Similar to the SIC/NAICS Codes with a few added categories designed for transportation movements)

TON

Ton Originated by specific mode (i.e. one ton of coal shipped by rail and then by water would be shown as two tons of coal).

This is Domestic Traffic Only. Export movements are included only as far as the border or to a port in which it will be directly exported. The same is true for Imports. An import is counted once it reaches the border or a port.

Tons are shown in thousands, actual seasonally adjusted.

TONMILE

One ton moved one mile.

TRUCK LOADINGS

Truck loadings is the estimated number of truck loads originated in the United States plus truck loads that come to U.S. destinations from Mexico and Canada. It is tons divided by the average tons per truck.

TRUCKING CONDITIONS INDEX

This index tracks the deviation from trend in fifteen different metrics that represent five major conditions in the U.S. truck market. The major conditions are: volumes, active capacity utilization, fuel, cost of capital, bankruptcies. The index tracks level, rate of change, and expectations for each major condition. The fifteen individual metrics are combined into a single weighted average index that tracks the market conditions that influence fleet behavior. A positive score represents good, optimistic conditions; a negative score represents bad, pessimistic conditions.

“ACTIVE” TRUCK UTILIZATION RATE

This metric calculates the percentage of the population of active trucks that is required to move the U.S. truck freight. In general, a figure above 95% indicates a tight market where the majority of the truck population is at work. A figure below 90% indicates a weak market where a significant portion of the truck population is idle.

HOW DOES FTR DEFINE THE DRIVER SHORTAGE?

There are 3 main impacts to the shortage: demographics, the business cycle, and regulations.

Demographic changes in any given year are small and only add up after a significant time span. Business cycles create natural shortages (and surpluses) that stem from typical economic activity. Regulations vary across the industry and much of the time the predictions of timing are fraught with peril due to governmental considerations.

FTR's driver shortage estimate includes all 3 components due to our understanding of economic conditions, overall market sizing, and quantifying regulatory impacts on truck productivity. It is relatively easy for us to tease out the impacts of the business cycle versus regulations. It is harder to pull out a purely demographic number - since it is relatively small in any given year. The standard reported figures are a good estimate to use in that regard.

SOURCES

ASSOCIATION OF AMERICAN RAILROADS

Profiles of U.S. Railroads Database; Freight Commodity Statistics; Railroad Facts; Weekly Rail Traffic Report

AVONDALE PARTNERS

Trucking Bankruptcies

BUREAU OF LABOR STATISTICS (BLS)

Payroll Employment, Consumer Price Index, Producer Price Index

CASS INFORMATION SYSTEMS

Cass Freight Index

CONFERENCE BOARD

Leading Economic Indicators, Consumer Confidence Index

ENO PUBLICATIONS

Transportation in America

FEDERAL RESERVE

Industrial Production Statistics, Chicago Fed National Activity Index

FTR

Freight Forecasting Model

INDIANA UNIVERSITY

Center for Econometric Modeling Research (CEMR)

INSTITUTE FOR SUPPLY MANAGEMENT (ISM)

ISM Manufacturing Index

SURFACE TRANSPORTATION BOARD (FORMERLY ICC)

Public Use Waybill

TRUCK/TRAILER OEMS

Monthly Market Indicators

U.S. CENSUS BUREAU

Economic Census, Monthly Indicators

U.S. DEPARTMENT OF AGRICULTURE

Crop Reports

U.S. DEPARTMENT OF COMMERCE

Industrial Reports; Commodity Flow Surveys, Monthly Indicators

U.S. DEPARTMENT OF ENERGY

Coal Statistics; Petroleum Statistics; Natural Gas Statistics, Fuel Prices

U.S. GEOLOGICAL SURVEY

Minerals Commodity Summaries

U.S. FOREST SERVICE

Timber Statistics

U.S. NATIONAL OCEANIC AND ATMOSPHERIC ADMINISTRATION

Fisheries Report

WARD'S AUTOMOTIVE GROUP

RS-3S Report, FS-3 Report

WATERBORNE COMMERCE STATISTICS CENTER-

U.S. ARMY CORPS OF ENGINEERS

Waterborne Commerce of the United States – Part 5, National Summaries

WEST COAST PORTS

Container Activity: Los Angeles, Long Beach, Oakland, Tacoma, Seattle,



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FTR
Transportation Intelligence

FTR Freight Focus: Trucking Update
Written and Published by:

FTR
1720 N. Kinser Pike
Bloomington, IN 47404
Phone: (888) 988-1699
Fax: (877) 222-9060
International: (812) 988-1699
Email: ftr@ftrintel.com
Website: www.FTRintel.com