## NEW TRUCK ORDERS RUNNING BELOW REPLACEMENT DEMAND SHOULD BOOST CARRIER PROFITS IN 2020

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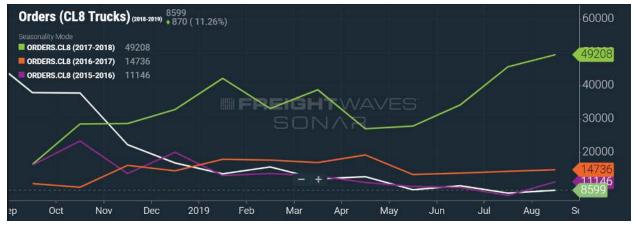
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# New truck orders running below replacement demand should boost carrier profits in 2020

The Seasonally Adjusted Annual Rate (SAAR) for new Class 8 truck orders in 2019 is trending at approximately 150,000. Note that this number includes orders for interstate, intrastate and private fleets. We estimate total replacement demand in the neighborhood of 250,000 to 300,000 trucks annually based on there being roughly 1.6 million total for-hire tractors in market and an 18 percent replacement rate (roughly six years). This 275,000 replacement rate at the midpoint could be conservative and understated because it works out to just a 12 percent replacement rate (or roughly an eight-year replacement cycle) relative to the 2.3 million total trucks in market including private fleets.

Therefore, the trucking market is looking at a shortfall of 125,000 trucks in 2019 compared to replacement demand. Relative to the 2.3 million in total tractors including private fleets, this equates to more than 5 percent of capacity being taken out of the market. When combined with recent volumes (OTVI.USA) increasing almost 5 percent year-over-year for the last two months, we think the setup for the trucking market in 2020 is beginning to look quite attractive.



#### Figure 1: Class 8 New Truck Orders 2015-2018

Source: SONAR (ORDERS.CL8), ACT, Bank of America Merrill Lynch

	<u>2014</u>	<u>2015</u>	<u>2016</u>	<u>2017</u>	<u>2018</u>	2019e Ann.
CI 8 New Truck Total	380,167	289,745	186,628	296,509	490,129	150,000
Y/Y Growth	42%	-24%	-36%	59%	65%	-69%
Monthly Average	31,681	24,145	15,552	24,709	40,844	12,500
Replacement Rate	275,000	275,000	275,000	275,000	275,000	275,000
Capacity Addition/Removal	105,167	14,745	-88,372	21,509	215,129	-125,000
Addition/Removal % of Capacity	4.6%	0.6%	-3.9%	0.9%	9.5%	-5.5%
Total Trucks in Market incl. PFs	2,268,959	2,268,959	2,268,959	2,268,959	2,268,959	2,268,959

#### Figure 2: Capacity Addition/Removal Based on New Truck Orders

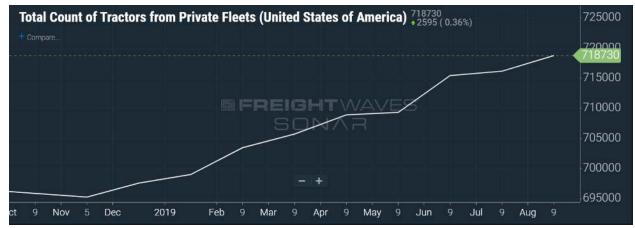
Source: FreightWaves, ACT, Bank of America Merrill Lynch



#### **Figure 3: Total For-Hire Tractors in Market**

Source: SONAR (FCFH.USA)

#### **Figure 4: Total Private Fleet Tractors in Market**



Source: SONAR (TCPF.USA)

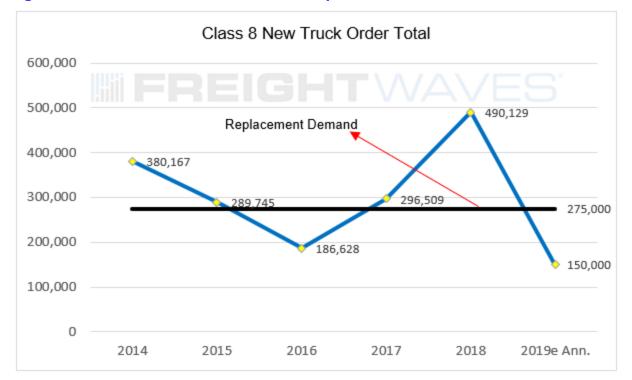
Interstate For-Hire Carriers				Intrastate For-Hire Carriers					
Fleet Size	Total FH Int.	Total Tractors	%Total Fleets	%Total Tractors	Fleet Size	Total FH Intr.	Total Tractors	%Total Fleets	%Total Tractor
1	88,405	88,405	50%	6%	1	23,774	23,774	62%	21%
2 to 3	39,425	87,421	22%	6%	2 to 3	8,831	17,284	23%	15%
4 to 20	37,694	263,451	21%	18%	4 to 20	5,488	24,972	14%	22%
21 to 55	7,419	206,442	4%	14%	21 to 55	388	7,051	1%	6%
56 to 100	1,834	121,703	1%	8%	56 to 100	58	2,325	0%	2%
101 to 550	1,487	276,230	1%	19%	101 to 550	19	2,747	0%	2%
551 to 5,000	198	219,136	0%	15%	551 to 5,000	3	5675	0%	5%
5,000+	20	170,678	0%	12%	5,000+	3	29,102	0%	26%
	176,482	1,433,466				38,564	112,930		
	In	nterstate Private			V V Z	in	trastate Private	Carriers	
Fleet Size		iterstate Private Total Tractors	Carriers	%Total Tractors	Fleet Size		trastate Private Total Tractors		%Total Tractors
			Carriers %Total Fleets 23%						%Total Tractors 14%
1 2 to 3	Total Pr Int.	Total Tractors	Carriers %Total Fleets 23% 29%	%Total Tractors	Fleet Size	Total Pr Intr.	Total Tractors	%Total Fleets 33% 34%	14% 23%
1 2 to 3	Total Pr Int. 19,368	Total Tractors 19,368	Carriers %Total Fleets 23%	%Total Tractors 3%	Fleet Size	Total Pr Intr. 21,528	Total Tractors 21,528	%Total Fleets 33%	14%
1 2 to 3 4 to 20	Total Pr Int. 19,368 24,764	Total Tractors 19,368 45,390	Carriers %Total Fleets 23% 29%	%Total Tractors 3% 8%	Fleet Size	Total Pr Intr. 21,528 22,131	Total Tractors 21,528 35,516	%Total Fleets 33% 34%	14% 23%
1 2 to 3 4 to 20 21 to 55	Total Pr Int. 19,368 24,764 30,907	Total Tractors 19,368 45,390 130,782	Carriers %Total Fleets 23% 29% 36%	%Total Tractors 3% 8% 23%	Fleet Size 1 2 to 3 4 to 20	Total Pr Intr. 21,528 22,131 18,781	Total Tractors 21,528 35,516 58,465	%Total Fleets 33% 34% 29%	14% 23% 38%
Fleet Size 1 2 to 3 4 to 20 21 to 55 56 to 100 101 to 550	Total Pr Int. 19,368 24,764 30,907 6,273	Total Tractors 19,368 45,390 130,782 77,924	Carriers %Total Fleets 23% 29% 36% 7%	%Total Tractors 3% 8% 23% 14%	Fleet Size 1 2 to 3 4 to 20 21 to 55	Total Pr Intr. 21,528 22,131 18,781 2,069	Total Tractors 21,528 35,516 58,465 19,319	%Total Fleets 33% 34% 29% 3%	14% 23% 38% 13%
1 2 to 3 4 to 20 21 to 55 56 to 100	Total Pr Int. 19,368 24,764 30,907 6,273 1,702	Total Tractors 19,368 45,390 130,782 77,924 45,262	Carriers %Total Fleets 23% 29% 36% 7% 2%	%Total Tractors 3% 8% 23% 14% 8%	Fleet Size 1 2 to 3 4 to 20 21 to 55 56 to 100	Total Pr Intr. 21,528 22,131 18,781 2,069 330	Total Tractors           21,528           35,516           58,465           19,319           6,904	%Total Fleets 33% 34% 29% 3% 1%	14% 23% 38% 13% 5%
1 2 to 3 4 to 20 21 to 55 56 to 100 101 to 550 551 to 5,000	Total Pr Int. 19,368 24,764 30,907 6,273 1,702 1,445	Total Tractors 19,368 45,390 130,782 77,924 45,262 94,497	Carriers %Total Fleets 23% 29% 36% 7% 2% 2%	%Total Tractors 3% 8% 23% 14% 8% 17%	Fleet Size 1 2 to 3 4 to 20 21 to 55 56 to 100 101 to 550	Total Pr Intr. 21,528 22,131 18,781 2,069 330 198	Total Tractors 21,528 35,516 58,465 19,319 6,904 6,590	%Total Fleets 33% 34% 29% 3% 1% 0%	14% 23% 38% 13% 5% 4%
1 2 to 3 4 to 20 21 to 55 56 to 100 101 to 550	Total Pr Int.           19,368           24,764           30,907           6,273           1,702           1,445           309	Total Tractors           19,368           45,390           130,782           77,924           45,262           94,497           104,400	Carriers %Total Fleets 23% 29% 36% 7% 2% 2% 2% 0%	%Total Tractors 3% 8% 23% 14% 8% 17% 18%	Fleet Size 1 2 to 3 4 to 20 21 to 55 56 to 100 101 to 550 551 to 5,000	Total Pr Intr. 21,528 22,131 18,781 2,069 330 198 19	Total Tractors           21,528           35,516           58,465           19,319           6,904           6,590           4,929	%Total Fleets 33% 29% 3% 1% 0% 0%	14% 23% 38% 13% 5% 4% 3%

#### Figure 5: Granular Breakdown of Total Tractors in Market by Fleet Size

Source: FreightWaves

## Running Below Replacement Demand is Eventually a Very Bullish Signal

In the chart below, we show the annual Class 8 new truck orders and compare them to replacement demand of 275,000 trucks. New truck orders have been negative on a year-over-year basis for 10 straight months dating back to November of 2018 and in recent months have been tracking down more than 80 percent year-over-year. Reducing the annual truck orders into a monthly average shows 2019 at 13,610 trucks, a decline of 67 percent compared to an average of 40,844 per month in 2018.



#### Figure 6: Class 8 New Truck Orders vs. Replacement Demand

Source: FreightWaves, ACT, Bank of America Merrill Lynch

In lean years like 2016 and 2019, when new orders run below replacement demand, the market is cleansed of excess capacity, which sets up the industry for the next upcycle. This jives well with the spot market, too. When dry van, linehaul spot rates peaked at \$2.10 per mile in mid-to-late 2018, adding over 490,000 trucks to the market eventually swamped demand, causing spot rates to fall by 40 percent – all the way down to \$1.25 per mile in early 2019. At \$1.25 per mile (or approximately \$1.70 including diesel), the market is close to breaching operating cost per mile and capacity begins to exit.

The annualized run-rate of 150,000 truck orders in 2019 is down 55 percent compared to the five-year average annual new truck orders from 2014-2018 of approximately 330,000, suggesting a real wash-out this time around. We view this as an unsustainable rate of capacity leaving the market and further confirmation of a bullish setup, especially with volumes starting to sustainably turn up. Finally, while we acknowledge this is not a perfect indicator as not all trucks may have actually exited the market as demonstrated by used truck prices holding up, we do believe it to be directionally accurate.

Taken all together, the macro outlook for trucking in 2020 is starting to look bullish and like the next upturn is on the horizon with volumes (OTVI.USA) increasing almost 5 percent year-over-year for the last two months, high trucking bankruptcies, spot



rates bottoming out near operating cost per mile and contract rates finally inflecting negative year-over-year.

### FreightWaves Freight Intel Contacts

**Seth Holm,** Senior Research Analyst (404) 840-2064, <u>sholm@freightwaves.com</u>

**Kevin Hill,** Director of Research (646) 731-4735, <u>khill@freightwaves.com</u>

Andrew Cox, Research Analyst (615) 495-4507, <u>acox@freightwaves.com</u>