Hot Topics Briefing: Trucking Capacity

Managing Escalating Trucking Rates and Availability Risks

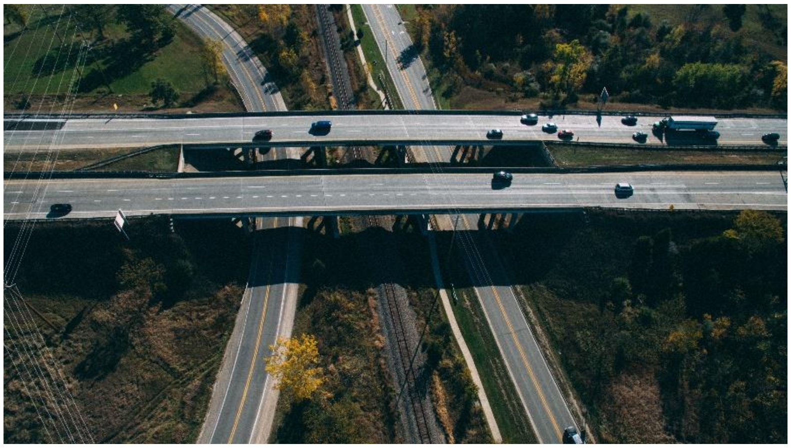
The widening gap between trucking demand and supply in the U.S. is setting in motion well-known effects of scarcity -- significant price increases and availability uncertainty. Early indicators are concerning:

- Prices rose sharply in the last quarter of 2017
- Industry analysts forecast continued increases over the next 12 months to be in the upper single-digits to the lower double-digits; estimates are as low as 5% or as high 18% [1, 2, 3]
- Predictions for spot markets are in the 20%-30% range [4, 5]
- 20% of the respondents from a study of over 1,600 shippers in late 2017 experienced capacity issues in 2017, nearly double the rate reported in 2016 [6, 7]
- Truckload capacity overages are already spilling over to LTL carriers [8], as well as to other transportation modes, with rail and air service volume projected to increase in 2018 by 22% and 28%, respectively [9]

The situation is likely to intensify over the next few years, as trucking capacity is predicted to stay constant or decrease slightly, while demand for trucking is forecasted to rise. In response to this new environment, companies are beginning to develop plans to mitigate price and availability risks. Kellogg's CFO, Fareed Khan, points out, "It's something I think that everybody's facing, so it's something that we need to manage."[10]

Constrained Capacity

At the heart of the issue is the trucking industry's inability to increase capacity due to a shortage of qualified drivers. The American Trucking Associations' (ATA) 2017 truck driver shortage analysis provides a comprehensive analysis of the situation, citing trucker demographics and the availability of job alternatives/negative perception of job-lifestyle among the major factors contributing to the truck drive shortage.[11] Approximately half of the current driver population is over the age of 49, and ATA's Chief Economist estimates that the aging population will contribute up to 49% of the overall shortage in the next decade. Contributing to the trucker supply shortage is that females only make up 6% of the overall truck driving population, yet comprise nearly 47% of all U.S. workers. In addition, the improving job market provides alternatives to long-distance truckers who desire less time away from home and more schedule consistency. Trucking capacity has also been significantly affected by recent regulation, such as changes in hours-of-service. Since the latest hours-of-service regulations went into effect in 2012, the



market has already experienced a reduction in the overall productivity (i.e., requiring more drivers to ship the same volume). However, the trucking industry has not yet borne the full impact of the new hours-of-service regulations. The new and unknown variable is how the enforcement of the hours-of-service regulations, through electronic logging devices (ELD), will further affect trucking capacity. Authorities have said they will begin to enforce the use of the ELDs in April, 2018. Initial studies based on carrier data indicate that transit times have increased by 16.2 percent for 450- to 550-mile trips and 10 percent for 750- to 1,000-mile trips since the December 2017 deadline to install ELDs.[12, 13]

Several sources reported that certain areas are being affected more than others, although none provided specific geographical information. However, many articles suggested that drivers will be more interested in providing service where they are most likely to be profitable. Thus, routes that pose a greater risk to productivity due to congestion or weather may be the hardest hit.

One positive note for the foodservice industry is that it may not be affected by the driver shortage to the same degree as the rest of the trucking industry. A 2017 study conducted by the International Foodservice Distributors Association (IFDA) found that driver pay in the foodservice industry is 30% higher than trucker pay in general.[14] Therefore, the incentive is greater for truckers to work in foodservice versus in other industries, such as construction, automobile, chemicals, and petroleum transport. The down-side, of course, is that higher trucker pay will likely contribute to higher shipping rates for foodservice customers.

Increasing Demand

According to IBISWorld Industry Market Research, the primary demand determinants for long-distance and local-specialized trucking services include trends in industrial production, retail and wholesale sales, consumer spending, and import/export activity.[15, 16] There appears to be broad agreement among economists and industry analysts that these demand determinants are on the rise.

- Federal Reserve reported that industrial production was 3.7% higher in January than it was a year earlier, and 107.2% higher compared with 2012[17]
- The number of U.S. industry enterprises rose at an annualized rate of 4.0% in 2017[18]
- U.S. Census Bureau recently reported a 3.6% increase in its advance estimate of U.S. retail and food services between January 2017 and January 2018[19]
- Personal consumption is expected to grow 2% in 2018 according to Congressional Budget Office, Bureau of Economic Analysis[20]
- U.S. import and export services both grew by more than 25% in 2017[21]
- Shippers who used cross-border services for U.S. - Canada and U.S. - Mexico increased by 4.89% and 4.22%, respectively[22]
- World Economic Forum expects the global economy and trade to continue to grow citing “the International Monetary Fund (IMF) has raised its growth forecasts for 2018 and 2019 to 3.9%”[23]

Another factor that is likely to affect trucking demand is the 2018 individual and corporate tax rate reductions. Tax changes may further increase consumer spending and industrial production. The IMF's update to its World Economic Outlook reported that "the US tax policy changes are expected to stimulate activity, with the short-term impact in the United States mostly driven by the investment response to the corporate income tax cuts."[24] Finally, growing consumer trends such as online shopping, expectations of 1-2 day delivery, and local sourcing are all driving the need for more and structurally different truck-based transportation needs.

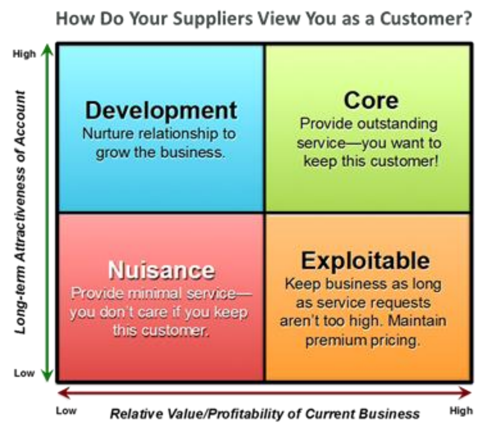
The net result of the current macro- and micro-economic environment is that trucking demand is expected to grow by 27% for long-distance freight and by 100% for local specialized freight over next 5 years as compared to the previous 5 years.[25, 26]

Managing the Situation

Tyson, Hormel Foods, B&G Foods Inc., and General Mills have all said they would pass along higher freight cost to their customers.[27, 28] Tyson's CEO, Tom Hayes, stated that they have already begun negotiating price increases with retailers and foodservice operators.[29] Although, this strategy may ease cost pressure in the short-term, there is a limit to how much and how long costs can be passed along to customers, and it may not even be a feasible option for certain companies. Therefore, you may need to consider additional options to mitigate price and availability risks over the mid-term, i.e., while demand for trucking is projected to exceed capacity. Two productive strategies for this situation are to become the customer of choice for your carriers and stay current with traditional and emerging supply chain best practices that are appropriate for your business.

Strategy 1 - Become a Customer of Choice: When capacity is constrained, carriers need to decide how to allocate capacity among its customers. The reality of the situation is that carriers evaluate your company's value compared to its other customers, just as your company does with its customers. Many downstream customers, particularly wholesalers and retailers of perishable goods, are highly dependent on regular, timely delivery services. As trucking capacity tightens, consider assessing how your carriers view you as a customer and whether your "ranking" poses a risk to getting regular and timely delivery service. According to Dave Rusch, CEO of truckload carrier CRST International, "Our capacity is going to go to our best customers, so what we do is turn down other freight. And we are turning down freight every single day. When someone asks us for additional trucks we examine whether the customer warrants the extra capacity. If so, we will pull that capacity from lower customers. All of our shippers are important but there are some in which the yield is not there."[30] As the below Figure suggests, consider the importance and desirability of your current business, as well as the long-term attractiveness or your account – which category of customer are you?[31]

"Our capacity is going to go to our best customers…"
CEO of CRST International



One key area to assess is whether your current practices, across all of your operation locations, are eroding the carrier's margins. For example, is your freight being packed and palletized properly, do your facilities lack a freight dock or have extremely tight maneuvering yards, are drivers kept waiting to deliver freight to a consignee, pick up freight, or obtain confirmation of delivery? You may also consider reducing your carriers' risk by negotiating late delivery penalties in cases where the delays are completely outside their control, such as weather and congestion. In addition, evaluate simple practices at your operating locations that may mistreat drivers and make their lifestyle more difficult, such as restricting access to restrooms. Finally, shippers can become a more attractive customer by paying invoices early, thus, improving the carrier's cash flow and reducing their working capital. Larger shippers can also consider reverse factoring arrangements, which creates a supply chain finance relationship among shippers, carriers, and a financial institution. The primary purpose of a reverse factoring arrangement is to provide suppliers immediate payment; however, such arrangements can also help both parties improve other areas in their business relationship.

The next level of engagement is to increase your long-term attractiveness with your key carriers. SCM World's advice is to treat logistics as a service function, not a cost center: "Too many business leaders still think of logistics and transportation simply in terms of cost. While shipping expense is obviously something to control, it is also inexorably tied to service"[32], and service failure in the food industry involving timeliness, freshness, quality and safety can be extremely costly. To the extent that this is true with your important carriers, consider finding ways to move beyond transactional based relationships that are typically used with simple commodity suppliers. However, many managers often experience difficulty in implementing more complex relationships that offer the potential to provide mutual value. The story of Bob Evans Farms and Gordon Food Service provides detailed insight on how to jointly identify and actualize opportunities for top- and bottom-line growth.[33] Using the collaboration framework[34], these companies explicitly discussed their business goals for the relationship in terms of asset/cost efficiencies, service improvements, marketing advantage, and profit/growth. They discovered many goals were similar for both companies, including reducing the current number of proprietary stock-keeping units and proprietary vendors used by Bob Evans, offering Gordon Foods freight management services to Bob Evan's suppliers, and jointly exploring opportunities to hedge commodity prices against market fluctuations. Their business arrangement netted each party double-digit millions of dollars and solidified priority delivery service availability.

Strategy 2 – Reenergize Supply Chain Best Practices: Staying current with traditional and emerging supply chain best practices can also mitigate price increases and availability uncertainty. The overall need or cost for transportation can be significantly reduced by developing or improving:

- Forecasting for materials and finished goods through real-time inventory monitoring and advanced analytics
- Internal communication/coordination of the sales plans and operations plans (S&OP)
- External communication/coordination on promotions and order scheduling with suppliers and customers
- Visibility into real-time distribution management
- Buying practices such as volume consolidation in conjunction with master purchasing agreements, and conducting regular price analyses with market and industry averages for transactional arrangements
- Distributed inventory models that fulfill deliveries with goods already located at brick and mortar stores
- Distribution network design to balance overall facility cost, inventory cost, transportation cost, and service level. Current designs may need to be re-evaluated based on changing prices, increasing volume, new demand patterns, and carrier preferences.

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Endnotes:

[1] Black, Thomas (2018, Feb 9). There Aren't Enough Truckers, and That's Pinching U.S. Profits. *Bloomberg*. Retrieved from https://www.bloomberg.com/news/articles/2018-02-09/there-aren-t-enough-truckers-and-that-spinching-u-s-profits

[2] Cassidy, William (2018, Jan 23). Shippers told to brace for record US trucking rates. *JOC.com*. Retrieved from https://www.joc.com/trucking-logistics/shippers-told-brace-record-us-trucking-rates_20180123.html

[3] Kilcarr, Sean (2018, Jan 22). Survey: Truck capacity top shipper concern. *FleetOwner*. Retrieved from http://www.fleetowner.com/trucks/survey-truck-capacity-top-shipper-concern

[4] Lockridge, Evan (2018, Jan 25). Trucking Capacity Crunch Leading to Record Freight. *Fleet Management.* Retrieved from http://www.truckinginfo.com/channel/fleet-management/news/story/2018/01/what-s-pushing-truck-capacity-tighter.aspx

[5] Jindel, Satish (2018, Feb 14). Analysis: Rising US truck rates compel shippers to rethink practices. *JOC.com*. Retrieved from https://www.joc.com/trucking-logistics/analysis-rising-us-truck-rates-compel-shippers-rethink-practices_20180214.html

[6] Kilcarr, *op. cit.,* 3.

[7] Lockridge, *op. cit.,* 4.

[8] Cassidy, *op. cit.,* 2.

[9] Kilcarr, *op. cit.,* 3.

[10] Black, *op. cit.,* 1.

[11] Costello, Bob (2017, Oct). Truck Driver Shortage Analysis 2017. *American Trucking Associations*. Retrieved from http://www.trucking.org/ATA%20Docs/News%20and%20Information/Reports%20Trends%20and%20Statistics/10%206%2015%20ATAs%20Driver%20Shortage%20Report%202015.pdf

[12] Cassidy, William (2018, Feb 16). ELD mandate delaying US truck shipments. *JOC.com*. Retrieved from https://www.joc.com/trucking-logistics/eld-mandate-delaying-us-truck-shipment-delays_20180216.html

[13] Black, *op. cit.,* 1.

[14] Kilcarr, Sean (2017, Oct 26). Survey: Higher-than-average pay for foodservice drivers. *FleetOwner*. Retrieved from http://www.fleetowner.com/driver-management/survey-higher-average-pay-foodservice-drivers

[15] Rivera, Edward (2017, Nov). IBISWorld Industry Report 48412: Long-Distance Freight Trucking in the US. *IBIS World*.

[16] Sayler, Brian (2017, Jun). IBISWorld Industry Report 48422: Local Specialized Freight Trucking in the US. *IBIS World*.

[17] (2018, Feb 15). Industrial Production and Capacity Utilization - G.17. *The Board of Governors of the Federal Reserve System*. Retrieved from https://www.federalreserve.gov/Releases/g17/current/default.htm

[18] Rivera, *op. cit.,* 15.

[19] (2018, Feb 14) Advance Monthly Sales for Retail and Food Services, Release Number: CB18-19. *U.S. Census Bureau*. Retrieved from https://www.census.gov/retail/marts/www/marts_current.pdf

[20] (2017, Jan) The Budget and Economic Outlook: 2017 To 2027. Congressional Budget Office, Bureau of Economic Analysis. Retrieved from https://www.cbo.gov/sites/default/files/115th-congress-2017-2018/reports/52370-breakout-chapter2.pdf

[21, 22] Kilcarr, *op. cit.,* 3.

[23, 24] Hardach, Sophie (2018, Jan 22). This is how much the global economy will grow in 2018, according to the IMF. *World Economic Forum*. Retrieved from https://www.weforum.org/agenda/2018/01/embargoed-this-is-how-much-the-global-economy-will-grow-in-2018/

[25] Rivera, *op. cit.,* 15.

[26] Slayer, *op. cit.,* 16.

[27] Black, *op. cit.,* 1.

[28, 29] Reuters Staff (2018, Feb 17). Corporation's Dilemma: Raising Prices to Cover Higher Transport Costs. *Reuters*. Retrieved from https://www.dairyherd.com/article/corporations-dilemma-raising-prices-cover-higher-transport-costs

[30] Ashe, Ari (2018, Mar 12) More surcharges, rejected freight sting US truck shippers. *JOC.com*

[31] (2018) Purchasing & Supply Management: Enhancing Competitiveness and Customer Value. *MyEducator*.

[32] O'Marah, Kevin (2018, Mar 1). 3 Supply Chain Lessons from the KFC Fowl-Up. *Forbes: Logistics & Transportation*. Retrieved from https://www.forbes.com/sites/kevinomarah/2018/03/01/three-supply-chain-lessons-from-the-kfc-fowl-up/#2dd4a3f01cb1

[33] Lambert, D., and Enz, M., (2015). Co-creating value: The next level in customer-supplier relationships *CSCMP's Supply Chain Quarterly*, Qtr. 3.

[34] Lambert, D., and Knemeyer, M. (2004). We're in This Together. *Harvard Business Review*, 82(12), pp. 114-122.