

TRANSPORTATION OUTLOOK

2020



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The U.S. transportation outlook for 2020 remains consistent with that of 2019, with some new and continuing trends. The biggest takeaway from 2019 that can be anticipated for 2020 is overall transportation costs continue to rise. Rising costs are not necessarily a bad thing and they are reflective of a multitude of factors, both external and internal to the industry. These factors are a result of increased demands on transportation (largely a result of ecommerce), technological advancements, and threats of U.S. imposed tariffs on foreign trade. Regardless of the current global market, the demand for transportation has never been healthier. This summary will identify the opportunities and threats to transportation globally, nationally, regionally and locally to the Kansas City metro area.

In 2019, U.S. transportation costs rose to 11.4%, reaching 1.64 trillion dollars, or 8% of the National GDP. Transportation costs are rising for a multitude of reasons, including ecommerce increased by 14.2%, and there is an increase in demand for piece picking vs. case/pallet picking as consumers are tailoring their orders. Similarly, brick and mortar retailers are building a larger number of warehouses throughout their markets in order to remain competitive with the demands associated with ecommerce. Thus, this demand for transportation has produced

an extremely high utilization on truck fleets, driving rates up. This increased demand, coupled with a tight labor market, is driving wages even higher for both drivers and warehouse employees. The uncertainty of imposed tariffs has caused companies to increase inventory, putting a greater demand on transportation.

Although the technological advances in transportation have improved transparency of costs and gained efficiencies, it has caused prices to increase. However, it is believed the advances of 5th Generation (5G) cellular internet will reduce overall transportation costs by increasing speed of the supply chain, the number of devices allowed on the network, as well as lowering delays. The digitization of processes has negated the use of paper, while increasing precision of exchanges that offer unprecedented transparency into rates. Blockchain demonstrates great potential, but it is not the technology that is holding it back, rather, it is the lack of company participation. Collectively, these changes have improved supply chain management, but at a cost to the consumer.



Current trade wars are creating uncertainty about the future. World Trade Organization (WTO) economists expect merchandise trade volume growth to fall to 2.6% in 2019, but then rebound in 2020 to 3.0%. So, the turbulence between years is a near zero sum gain and should not cause alarm.

As mentioned, ocean freight has seen a slight increase in demand as importers have attempted to overt U.S. imposed tariffs by increasing their warehouse stocks. Therefore, shippers will likely not see any growth in next 12 months as compared to the previous.

Separate, but impacting Ocean Freight, Drewry says, “that amid a gloomy global economic outlook and rising commercial trade tensions, the forecast for container demand transport will be reduced over the next five years.” Previously, the forecasted index of supply and demand was forecasted to gradually increase until 2022, when the container industry would reach an equilibrium. New forecasts suggest that the industry now faces the current oversupply situation for several more years. “The anticipated rebalancing of the container market seems to have been postponed, which is more bad news for carriers that face substantial increases in costs as a result of the stricter 2020 fuel standards,” said Simon Heaney, senior container research manager at Drewry. Some carriers are offering premium services in order to compete in a container surplus market.

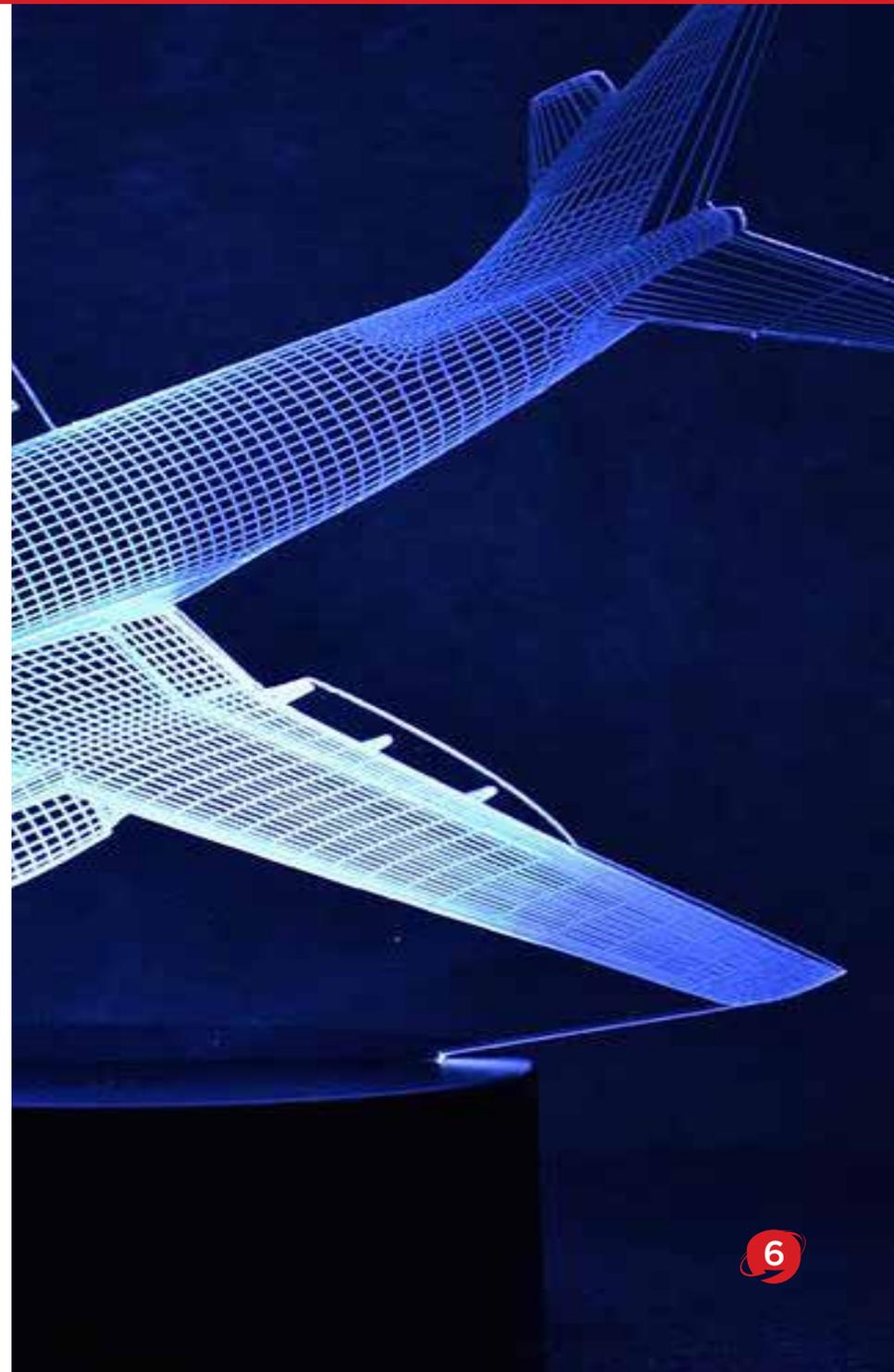
On January 1, 2020 the International Maritime Organization (IMO) will enforce new emissions standards designed to **significantly curb pollution produced by the world's ships.**

On January 1, 2020 the International Maritime Organization (IMO) will enforce new emissions standards designed to significantly curb pollution produced by the world's ships. Under a new international shipping rule, the big ships that travel the world's oceans must switch to lower sulfur fuel or find a technological solution. This law will not impact demand but will impact cost.

Finally, blockchain's technology advances for the shipping container industry are nearly matched by its challenges. Therefore, blockchain's wide spread implementation is expected to be years away, if it happens at all.

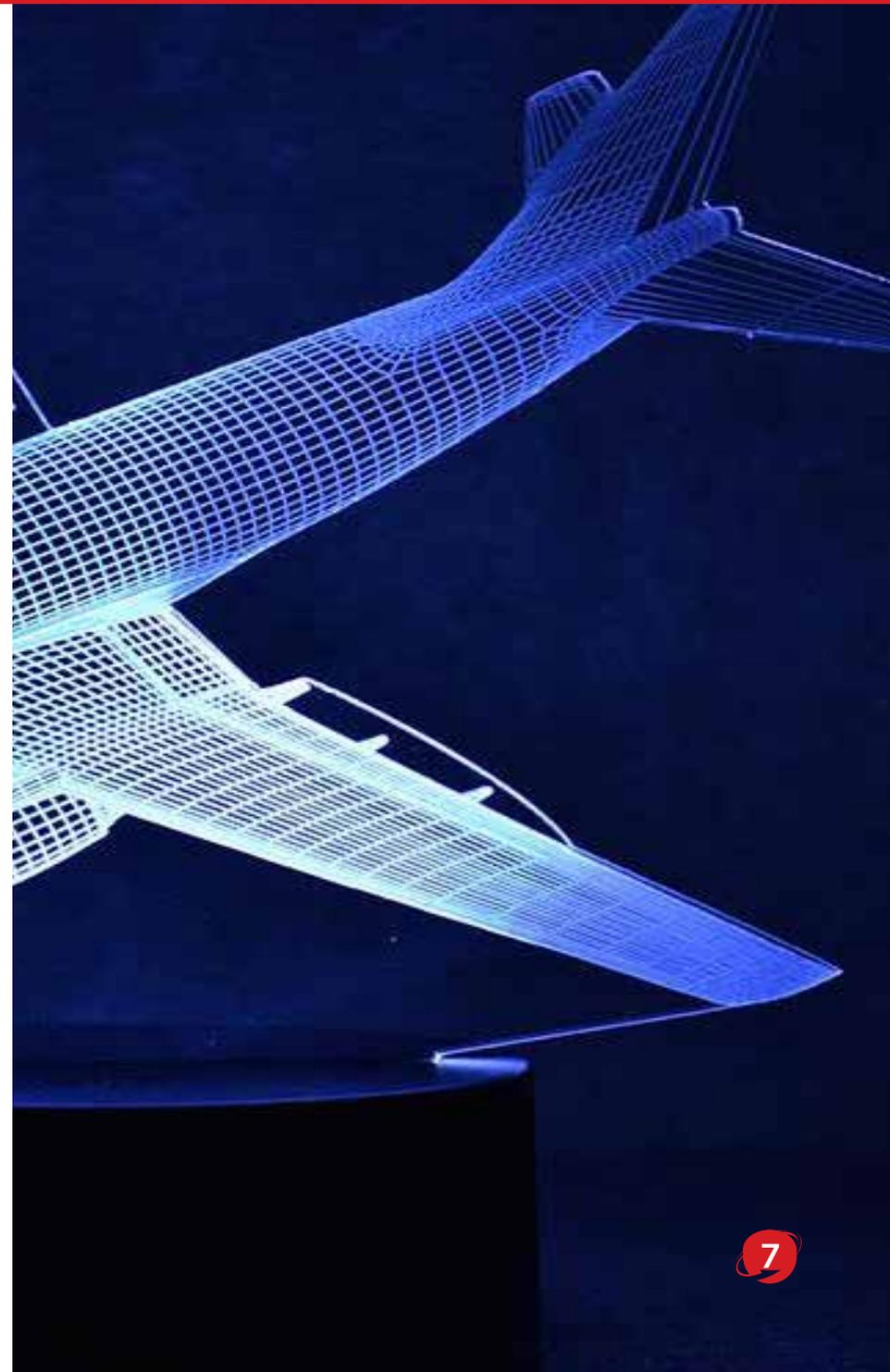
Global Freight Overview says, “With retail sales projected to increase by five to six percent in 2019, freight transport volume and demand will experience rapid growth.” With ecommerce picking up and the increased demand for quicker deliveries, air cargo is expected to grow by, on average, 4.9% (Freight Tonne Kilometers (FTKs) flown) for the next five years according to IATA Economics. However, IATA in March 2019, downgraded their forecast 0.5% to 4.4%. This decline is attributed to a slow start in 2018, now affecting 2019. What is unclear is whether the annual anticipated growth of 4.9% will close this gap in 2020.

According to the May 2019 Air Freight Market assessment: while land and ship freight remain favorable options, air freight is still considered the quickest and most reliable mode of transportation. In terms of freight tons - kilometers (FTK), air transport registered 9.7% growth in 2017, nearly triple that of 2016. This demonstrates the demand for air freight is strong, and it grew at two times the growth rate of the expansion of global trade (4.3% - 2017). The key driver to this increase is ecommerce, despite air freight being the more expensive mode



of transportation. This demonstrates that consumers value speed of delivery over costs. This scenario brings opportunities for 3PLs and warehouse services to integrate with the air ecommerce channel. Additionally, the growth in global cross-border ecommerce is anticipated to further increase the demand for air freight.

That said, the growing demand for air freight transportation services has created challenges for providers. Air freight providers need to work on implementing air efficient solutions and incorporating technologies to ensure cost-effective services. From a supply chain perspective, warehousing operations need to be developed to accommodate the global increase in air freight.



Demand for truck freight capacity is continuing to drop from 2018. The increase in truck sales in late 2018 and 2019 is increasing volume to haul freight. These two conditions are creating a truck supply that is greater than the freight need; thus amplifying the dropping freight demand. The, ACT Research freight forecast reported dry van truckload (TL) net fuel fell nearly 19% year-over-year in April and more than 3% on a month-over-month basis for March. This is more than twice the annual historical drop for April. According to Tim Denoyer, ACT Research's VP and Senior Analyst, "Freight remains soft, as expected, and while we see reasons for recovery in the second half of 2019, escalating trade tensions rise with the risk of a freight recession." Denoyer also states, "...tractor retail sales are on fire, adding capacity to the market at an unfortunate time for truckers as shippers are increasingly targeting freight cost savings...". Ben Ames predicts that the U.S. freight market will stay in positive territory through 2020, and that "wild-card" variables such as the rise in extreme weather events and

wide swings in politics could affect both supply and demand. However, despite these variables, U.S. freight will continue to grow through 2020. The industry is strong, thanks to a healthy economy at both the consumer and industrial level.

With over 140,000 miles of rail to maintain and a continuous need to improve rail freight operations safety, the industry continues to leverage technology for solutions. This makes rail freight more reliable and reduces the risk for shippers. This is great news for rail freight shippers. Although it comes at a cost (rail companies invest an estimated \$25 Billion a year in safety) the return on investment makes rail freight an even more viable shipping solution than before. Some of the rail technology advancements include GPS, drone use, ground penetrating radars, and the most advanced technology, Positive Train Control (PTC), where trains can be stopped remotely in order to prevent accidents caused from human error. Although many companies are using this already (implementation started in 2018), it will be fully implemented across the industry by 2020. Additionally, the Federal Railroad Administration (FRA) announced more than \$326 million in grants to support railroad infrastructure, aiding many state and local railroad projects. Locally, Kansas State University will be awarded \$2.6M to pursue their Rail Safety Program.

U.S. rail carload and intermodal originations in June 2019 were 2,099,368...down 6.3% or 141,175 carloads and intermodal units from June 2018. However, four of the 20 carload commodity

categories (petroleum & petroleum products, nonmetallic minerals, chemicals) tracked by the Association of American Railroads (AAR) each month saw carload gains in June 2019 compared with June 2018. Coal, crushed stone, sand & gravel, grain were the commodities that declined. According to John T. Gray, AAR Senior Vice President, “June marked the fifth straight monthly decline for total U.S. rail carloads and for U.S. intermodal traffic.” The future rail freight sees chemical freight at about 8% of total U.S. rail freight carloads...it is strong and growing.

From an economics perspective, rail freight of general goods (excluding grains and coal) might see a long-term growth rate of 0% to 2% year-over-year through 2025/2035. This recognizes that trucking will dominate the transport of general merchandise over rail freight. Coal growth is clearly slowing, and without a break-through of regulatory engineering and alternative fuel pricing no rail freight company is projecting long term growth. Crude oil by rail freight is at best viewed as a medium-term growth, subject to a cheaper alternative to new pipeline construction. According to Railinc the railcar fleet will maintain 1.6+ million units in its inventory.

...the industry
continues to
leverage technology
for solutions.



National Labor Force Data

Unemployment dropped from 3.7% in 2018 to 3.3% in 2019 and is expected to be sustained through 2020. Nonfarm employment increased by 224,000 in June, and hourly earnings rose to 3.1 % over the last 12 months. Soft labor numbers can be attributed to tariff tensions.

U.S. Bureau of Labor Statistics (BLS) June 5, 2019 states, “Unemployment for the Kansas City Metropolitan area is at 3.1%.” Average weekly wages are \$1,200 or more as compared to the national average of \$1,472 according to the Department of Labor. The largest employment in the Kansas City region for 2019 is manufacturing, professional and technical services, healthcare and transportation. Workforce remains healthy as total nonfarm employment in the Kansas City region added almost 12,000 new jobs in 2018. According to BLS, Missouri and Kansas added close to 20,000 jobs within the last year.



The Kansas City region is located in the geographical center of the continental United States and North America, right in America's heartland. This region continues to become one of the nation's largest hubs for transportation and logistics operations. With an extensive rail and highway infrastructure, the region is an ideal location for intermodal activity.

Workforce remains healthy as the total nonfarm employment in Kansas City metro area added almost 12,000 new jobs in 2018, and in 2019, KC is projected to add more than 11,000 new jobs. Of those 11,000 new jobs an expected 1,300 jobs will be in the production, trade, transportation and utilities.

An aerial, high-angle photograph of a port at night. The scene is illuminated by bright lights, likely from the port's infrastructure. In the foreground and middle ground, there are numerous stacks of shipping containers in various colors, including blue, red, and white. A yellow forklift is visible in the lower center, moving through the stacks. In the background, several large cargo ships are docked at the pier, with their lights reflecting on the water. The overall atmosphere is one of active industrial operations.

The logistics outlook for 2020 is healthy and the Kansas City region is benefiting despite the few variables creating spot markets (a spot market is a public financial market in which financial instruments or commodities are traded for immediate delivery). The overall market continues to support the need for quick, reliable transportation. Air freight is still in high demand, due to the increase in shipping and warehousing as a result of ecommerce and anticipated tariffs. Good news, general consensus seems to believe the effect from tariffs is expected to be short lived, so shipping trends should return to normal. The national and Kansas City logistics market continues to grow and therefore the logistics industry should stay focused on their core functions and not be distracted by these spot markets. The second half of 2019, and 2020 outlook is anticipated to continue on the same growth trend. Kansas City remains a smart port.



TRANSPORTATION & LOGISTICS ACROSS THE KC REGION

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