In mid-2017, we observed an impending confluence of market factors that caused us to have some concern. TK Bardwell (VP of Logistics) and I felt that it was our responsibility to share our concerns and how they might impact our industry with our customers so they could prepare their operations and budgets accordingly. Many of the dynamics that we expected to develop actually played out very similarly to our expectations with freight demand spiking and the driver shortage peaking, resulting in a wave of rate increases in both the spot market and subsequently, the contract market.

Several of our customers inquired as to whether we would be publishing another report for 2019. In response to these inquiries, TK and I have been researching and documenting trends, and have worked together to compile our impressions of what to expect in 2019. We must remind you that neither of us purport to be infallible prognosticators and further, that our advice is not intended to be patently followed, but simply another resource for you in forming your own professional opinions to prepare budgets and operational plans for the upcoming year. TK and I indeed have a watchful and blended focus on the market factors that impact our industry, and the following will hopefully assist in enunciating our pragmatic conclusions, as well as helping you reach your own.

A general format will follow:

I. Introduction and Recap of Historical Conditions for 2018
II. 2019 Market Outlook
III. Regulations that Could/shall Impact Conditions for 2019
IV. Other Items to Watch in 2019
V. Conclusions and Recommendations

Introduction and Recap of 2018

It was evident by mid-2017 that the stars were aligning to create an extreme capacity shortage in late 2017 and 2018. The truck driver shortage was accelerating, new truck lead time was increasing, tonnage was increasing, and the ELD mandate was going to effectively remove 4% of truck capacity from the road when capacity utilization was already near 100%. Additionally, all facets of the economy began contributing during the 4th quarter of 2017 and continued building (first time in 10 years), along with unemployment already approaching 3.5 % (a 50-year low) combined with an economy that has had job growth for eight straight years. This is what caused the gulf between what the market demanded and what was able to be supplied. The aggregate of these factors has moderated somewhat. However, some foundational causes remain that will temper stabilization. Capacity utilization remains high. The driver shortage may abate but is not going away. Further, supply and demand for truck capacity are always changing independently. What causes shortages and surpluses is the fact that they move in different directions and at different rates of change. Therefore, equilibrium can exist one day, and the next day shippers can ship much more or much less, creating a shortage or surplus of capacity. It takes far more planning and time for the market to respond to changes in demand with increased or reduced supply. The one exception that effects supply quickly is regulatory changes, as we experienced with the ELD mandate.
2019 Market Outlook

The following is an examination of the truckload freight environment and the various factors that exert pressure on it. On the whole, and relative to 2018, the news is moderately good for all participants. The extremes of the transitional freight market, reeling from the painful adjustments of regulatory change in a caustic environment, are behind us and the market has somewhat stabilized. Tonnage has fallen, while the surge of truck orders, as well as a torrent of industry-wide driver recruiting efforts, are beginning to incrementally impact supply. Spot market rates should fall slightly, year-over-year, while contract rates should continue to climb, albeit at a much slower pace. However, with capacity utilization remaining high, unanticipated market stimuli could change this delicate balance rapidly. Therefore, it is prudent for the shipping community to maintain a collective finger on the market pulse, while continuing to deploy high-ROI strategies that improve their position in competing for capacity as a “shipper of choice”.

A truck with a driver is no good unless that driver has available Hours of Service with which to drive. Therefore, truck lead time, the driver shortage, and the regulatory environment related to Hours of Service are important factors in gauging the market’s ability to respond to increases in demand.

Fundamental changes to our industry are coming down the pike. Autonomous trucks, electric vehicles are among them to name a few. As these factors are already beginning to impact our industry incrementally, eventually to be transformative, it is sensible to monitor these emerging technologies.

Since August of 2017, the demand for trucks has exploded. Class 8 truck manufacturing capacity has been unable to keep pace. During that period, truck order lead time has increased from 4 months to 10 months. Trailer lead times have expanded now outside of 12 months.
Although unemployment remains low and driver turnover remains high (nationally for all trucking companies between 95 to 100%), market-wide efforts to recruit new drivers, coupled with the additional revenues now available with rate increases to attract drivers into the industry, have begun to gain traction. While the shortage is expected to continue, the degree of the shortage should subsequently begin to moderate and become more manageable. However, this is dependent upon the fragile rise and fall of the economy, and the industry success (or failure), to actually lure new drivers to our industry to replace the aging and retiring drivers happening annually, combined with the drivers being impacted by regulations and leaving the industry never to return.

**U.S. Economy is at Full-Employment**

![U.S. Economy graph](image_url)
While supply has indeed made headway toward balance since mid-year 2018, the degree to which existing supply is being utilized remains very high and combined with the challenging environment for bringing in new personnel, this balance will remain volatile for at least the next five years. Therefore, unanticipated changes in demand can consume surplus capacity easily, thrusting the market into turmoil once again where shippers must compete fiercely for capacity.

Expectations on freight volumes are a mixed bag. However, the consensus appears to be that recessionary patterns, nor rapid increases are expected in 2019. The two largest threats to the health of
the economy, and thus, freight volumes, are inflationary pressures and the effects of trade war maneuvers. Although the impending tariffs appeared to create some “pull-forward” or synthetic demand that will be met with reciprocal reductions as an adjustment, this adjustment is not currently causing a great deal of concern among economists. There is, however, increasing pressure for the Administration to resolve the tariff and trade war issues soon (particularly with China), as industries and manufacturers have certainly been impacted in the short term and continued flux in this area may not play out well. Inflationary pressures are mounting and will force monetary policy to respond with higher interest rates, which will put a significant damper on the economy. However, no major changes are expected in 2019 and freight volumes should remain relatively static if there are not major, unanticipated economic events.

Although 2019 still shows growth at reasonable expectations, (followed by a slowdown of growth, but still growth for 2020) forecasts for Real GDP growth don’t match the robust numbers of 2018.

### Real Gross Domestic Product Growth

<table>
<thead>
<tr>
<th>Year</th>
<th>Forecast</th>
<th>2017</th>
<th>2018</th>
<th>2019</th>
<th>2020</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td>1.8%</td>
<td>2.8%</td>
<td>4.2%</td>
<td>1.9%</td>
</tr>
<tr>
<td></td>
<td>Annualized Rates</td>
<td>3.0%</td>
<td>2.3%</td>
<td>3.5%</td>
<td>1.5%</td>
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<tr>
<td></td>
<td>Sources: BEA &amp; ATA</td>
<td>2.2%</td>
<td>2.4%</td>
<td>2.6%</td>
<td>1.6%</td>
</tr>
<tr>
<td></td>
<td></td>
<td>2.6%</td>
<td>2.3%</td>
<td>2.5%</td>
<td>1.6%</td>
</tr>
</tbody>
</table>

### ATA NSA Truck Tonnage Index Trends & Straight-Line Forecast

Exhibit 14: Straight-Line Forecast for Monthly YoY % Change in NSA Truck Tonnage Index

Source: ATA, Morgan Stanley Research; Note: We have adjusted February 2012 data due to the extra workday resulting from leap year.
**FTR Truck Loadings Index: Actual & Y/Y %**

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

**INDUSTRIAL PRODUCTION OUTLOOK**

- **Source:** FTR, Witte Econometrics
Aggregate measures suggest conditions that have departed volatility and shortage, and found some semblance of sustainable equilibrium. The Q4 retail peak failed to lift the market to its expected degree. This could signal a weaker start to 2019 than anticipated. In spite of this, the consensus expectation remains that carriers will continue to maintain leverage and healthy market conditions.
Regulatory Environment

While the ELD mandate and its harshest effects are behind us, the implementation of Drug and Alcohol Clearinghouse in January of 2020, will begin to squeeze the supply of drivers in 2019. The mandate is for an electronic database containing records of violations of drug and alcohol prohibitions. Such violations will include positive drug or alcohol test results, refusals, and other drug and alcohol violations for drivers required to have a commercial driver’s license (CDL). When a driver completes the return-to-duty process, this information will also be recorded in the Clearinghouse. Many carriers will steer clear of these re-established drivers, for liability and safety reasons, forcing many of these drivers into other professions.

Other regulations creating issues within our industry are FMCSA’s expansion from a 5 panel drug testing to a 10 panel effective January 1, 2018. FMCSA added four synthetic opiate drugs along with the drug MDA. The addition of these drugs to testing is intended to address the nationwide epidemic of prescription painkiller abuse. We as an industry have supported testing for safety purposes, and have been very successful in cleaning up our industry since drug testing became initially mandated as current drivers continue to be randomly tested along with semi-annual re-certifications. However, all carriers are experiencing increased failure rates for new hires coming into the industry. This will continue to be an issue going forward, until current initiatives begin to impact addictions.

Additionally, current FMCSA standard for testing is urinalysis. Urinalysis is effective in detecting drug use within 2 to 5 days. This has been mostly effective as the industry maintains random testing of all drivers. However, many trucking companies are beginning to continue to do urinalysis as required by FMCSA, but are adding hair follicle testing to their screening for new hires and/or current driving personnel. Hair follicle testing (known in the industry as psychmedics hair testing), can detect drug usage for up to 90 days. Currently, FMCSA does not recognize this method for driver certification, so fleets that voluntarily do hair follicle testing are currently paying to have both tests performed. However, FMCSA is currently considering allowing trucking companies to choose between the two tests for their DOT-mandated pre-employment drug tests. With increased failure rates with urinalysis with expanded drug panels, this will likely shrink the pool of incoming drivers even more, however, should be the long term path chosen.

Currently, FMCSA regulations require that commercial truck drivers must be at least 21 years of age to cross state lines. Our youth finishing high school, can join the military, and defend our country with lethal weapons, however regulations restrict them from participating in interstate commerce. This creates a challenge in the trucking industry, as young people not choosing to continue their conventional education past high school, have generally made a career choice by age 21, and may never consider the trucking profession. Therefore, the Department of Transportation has enacted a pilot program that will soon allow some drivers as young as 18 to begin to fill driver ranks. This initiative is very important for the future of the trucking industry, however, must move forward slowly and with oversight.

Lastly relating to driver shortage, expect to see the trucking industry continue to turn to immigrants coming to the United States and filing for citizenship to fill some of the strong demand for drivers. The trucking industry provides a promising, well-paid job in return for high quality and dependable professionals, which makes for a mutually beneficial solution for both the prospective immigrants and the industry. Canada is well ahead of the United States in this area, so expect this trend to ramp up moving forward.
Labor, particularly the driver shortage, has most certainly impacted the spot and contract market, and has most likely created a new watershed level for long term rates, as driver wages have been depressed for far too long. Over the Road driver pay, has not kept up with inflation nor comparative wages overall for at least the last 10 years, thus, we expect labor costs and driver availability to remain the top and most focused issue for our industry in the near future.

With all this being taken into consideration, we have observed large trucking companies begin to reduce the size of their fleets for the last three years, and small fleets have followed in suit for the last two years. We do not anticipate either of these two trends to change this pattern and return to adding capacity back anytime soon until availability of new driver pool improves and shows sustainability.

For-Hire TL Tractor Changes: Large vs Small Fleets

<table>
<thead>
<tr>
<th></th>
<th>2016</th>
<th>2017</th>
<th>2018 YTD</th>
</tr>
</thead>
<tbody>
<tr>
<td>Large Tls</td>
<td>-1.3%</td>
<td>-5.0%</td>
<td>-5.0%</td>
</tr>
<tr>
<td>Small Tls</td>
<td>5.1%</td>
<td>-0.2%</td>
<td>-0.2%</td>
</tr>
</tbody>
</table>

Small Fleet: Less than $30 million in annual revenue

Includes company tractors and independent contractor equipment; 2018 data is through September

Source: ATA's Trucking Activity Report

Other Items to watch that could impact conditions:

1. Fuel Costs

Fuel being the second largest component of trucking companies’ expenses, the fluctuation of fuel costs can certainly impact conditions. We are not that far removed from the 2008 Real Estate Bubble to forget that the tipping point of that year, was also impacted by the costs of gasoline and diesel. At the time, gasoline and diesel were approximately $4.25 and $4.60 per gallon at the time. Consumers couldn’t fill up their cars to go to work and make their mortgage payments at the same time, and a return of those conditions could precede the next economic slowdown. Although we are experiencing a marked regression in pricing currently due to market conditions exhibited by over-production for current lagging demand, increased inventories as a result, and the price of the U. S. Dollar internationally, this trend is not expected to continue:
One item to note regarding energy costs is the impact of regulations on shipping lines requiring them to begin using only low sulfur diesel mandated January 1, 2020. Trucking companies have been using low sulfur diesel since 2007, however all ship lines will fall under the same requirements on enforcement date. The impact of this on the eventual costs of diesel fuel and its availability has not been determined, however, must be monitored throughout 2019 for its potential impact. Lastly, spikes in fuel could increase prices and deter retail and B2B consumption, having a converse effect on the freight market balance.

2. Freight Rates

Freight rates have reached a new watershed level, in that market conditions relating to labor and fuel costs will not provide much chance at ever returning to substantially lower pricing ever again. However the rate of increases have been stabilizing after the capacity crunch. We believe that rates will continue to rise during 2019, but at a much slower pace.

### For-Hire TL & LTL Pricing Proxies

<table>
<thead>
<tr>
<th>Category</th>
<th>2016</th>
<th>2017</th>
<th>Q3 2018</th>
<th>Jan-Sep 2018</th>
</tr>
</thead>
<tbody>
<tr>
<td>Dry Van</td>
<td>-3.4%</td>
<td>0.1%</td>
<td>17.8%</td>
<td>18.1%</td>
</tr>
<tr>
<td>Temp Controlled</td>
<td>1.6%</td>
<td>3.4%</td>
<td>14.7%</td>
<td>13.1%</td>
</tr>
<tr>
<td>Flatbed</td>
<td>-3.0%</td>
<td>2.3%</td>
<td>14.6%</td>
<td>12.1%</td>
</tr>
<tr>
<td>Tank Truck</td>
<td>-1.7%</td>
<td>4.5%</td>
<td>20.2%</td>
<td>17.3%</td>
</tr>
<tr>
<td>Short-Haul (≤500 miles)</td>
<td>-0.6%</td>
<td>2.0%</td>
<td>18.4%</td>
<td>18.1%</td>
</tr>
<tr>
<td>Long-Haul (≥1,000 miles)</td>
<td>-15.4%</td>
<td>3.7%</td>
<td>16.3%</td>
<td>14.0%</td>
</tr>
<tr>
<td>LTL</td>
<td>1.4%</td>
<td>0.0%</td>
<td>7.0%</td>
<td>6.7%</td>
</tr>
</tbody>
</table>

Truckload: Average Revenue per Mile; LTL: Average Revenue per Ton; (Excludes FSC Revenue)

**Source:** ATA's Trucking Activity Report
The spot market generally predicts (with much more volatility) where eventual contract rates will trend, thus, continued monitoring of the spot market could assist transportation managers in preparing and adjusting budgets going forward.

3. Electric Vehicles

We are currently monitoring the design and successes being made in electric and battery technology. There are now trucks that can provide up to 400 mile hauls on one charge. As we saw in the natural gas arena, promising technology can certainly be impacted by market conditions. Natural gas was seen to be a much less volatile source of energy than gasoline or diesel, but the stability of electricity costs are even better yet. The potential that electric vehicles can have is astounding. If progress in this technology can continue to offset the obvious cost differences in the price of the units themselves, energy costs will certainly be more stable and less costly going forward, along with lower costs in maintenance. With the length of haul getting better and reduced operating costs, we can see this technology impacting local and regional markets sooner than long hauls.

4. Autonomous Vehicles

At every national trucking industry meeting, the buzz in the discussions surrounds the future of autonomous vehicles. With labor and benefits being the largest cost factor in income statements, the obvious promise for increased efficiency comes through automation. In reality, totally driverless trucks will not become the norm anywhere in the foreseeable future. The potential for the inevitable accidents surrounding autonomous vehicles, will most certainly impact the ability for this technology’s ability to move forward. We actually serve on the Insurance Task Force Committee within American Trucking Association’s leadership, where we have a seat at the table where policy surrounding this technology is evolving. Who will be inevitably liable for such incidents, is throttling back implementation of this technology, as advancements are well outpacing public acceptance.

The American Trucking Association’s stance is that we will probably not see totally “driverless”, but rather technology assisted drivers, similar to the airline industry. Technology exists to fly and land planes without pilots (and has existed for some time), but who of us are ready to buy a ticket without an experienced pilot and copilot in the cockpit? Even though the systems designed are much faster and more reliable than human function in most instances, it is that shrinking instance that a human still can observe and react more dependably in some circumstances. Public safety will be paramount, and eventual liability will continue to impact the progression of this technology.

In the policy discussions, it is very obvious that this will follow the same path as most technology progressions. The technology companies will require hold harmless policies in order for any of us to gain access to the technology, removing their eventual risk in the systems. Then the liability will fall to the truck (or automobile) manufacturers or the consumer or companies buying (and driving) the vehicles for eventual liable parties. Insurance companies involved in the policy making don’t want eventual liability to fall onto the manufacturers through product warranty liability, as management of that risk is too unwieldy and potentially unpredictable.
They prefer that it moves towards the consumer or truckers’ liability, as they already have analytics and processes in place to manage and more reliably predict the risk. Therein lies the rub. What trucking companies are going to be the mavericks, knowing that they will be blazing a trail in this area, and putting their balance sheets and equity at risk through the process? With as much at risk for future impact on our economy, we do expect the government may choose to provide some framework for liability issues to move this technology forward.

We do see technology in this area that could move into mainstream much faster. It is known as “Platooning” technology, whereby there is a driver in a lead truck followed by several others, functioning in his traditional manner. However, they will avail themselves of new proven technologies in “lane assist” functions, “adaptive cruise control”, and “collision avoidance systems” already being utilized today. The drivers in trucks following behind a lead truck do not have to be physically driving. The second and subsequent trucks are actually digitally attached to the lead vehicle, and mimic every move the lead vehicle makes. Speed, following distance, lane departures all can be controlled by the lead vehicle. This technology has proven to react more quickly and more reliably in this circumstance than a human possibly could. As such, a conventional “safe following distance” is not necessary. Not only will the trucks “draft” each other much like in a Nascar race, and thus, will be significantly more fuel efficient, but they will require less space on the road. This becomes very interesting, in that eventually a driver with available hours can be leading the “platoon”, until they come upon a mandatory rest break, while the driver in the following vehicle could possibly be gaining available driving time, and can move their vehicle to the lead when they have available hours. With this kind of potential for improved efficiencies, combined with a much safer integral step than full autonomy, we see this as technology that could be engaged sooner than later, while the risk management issues continue to evolve. This technology would also allow for drivers to potentially get paid while earning back available driving time in the secondary vehicles, instead of sitting in a rest area accumulating available driving time while earning nothing.

**Conclusions and Recommendations**

The market can catch its collective breath. Yes, we are over the hump. Yes, shippers and carriers alike can produce a budget for 2019 that should approach eventual reality much more closely than those proposed as we were entering 2018. While some future recession awaits us, it is becoming less and less likely that 2019 is the year in which it will occur. Factors contributing to the great ELD-related capacity crunch have mostly abated. Challenges remain, but “stability” is the word that best describes what to expect in 2019. That being said, BR Williams does have a few recommendations for our shipper partners to optimize their supply chain-related experience in 2019.

- While spot market rates did, for the first time in several years, exceed contract rates in 2018, that trend should reverse in 2019. Utilizing spot quotes should, at times, generate savings for your organization, as well as provide a temperature gauge of the market that may shape your logistics procurement strategy
- Don’t let high-value capacity get away. Talk to your carriers about what would make your business more attractive to them, and lock them into contractual business
• Create strategies to reduce detention. Facilities where detention is common result in these shippers developing a reputation for such. Carriers are connected like never before and avoid these shippers, or charge enough on the front end to warrant the trouble.

• Find ways to provide more advance notice. This increases the likelihood that your asset-based carriers will have availability and increases the likelihood that your 3PL’s will be successful in sourcing affordable capacity.

• Partner with companies that possess the tools that you require today and what you are likely to require tomorrow. Supply chain services companies that offer a broad suite of services (assets, 3PL, warehousing-related) are inherently more likely to bend and flex around your organization’s ever evolving needs.

• We are actually seeing prudent, large entities becoming more intentional with their balance in their transportation spend between their private fleets (most are shrinking their fleets), contract carriers and 3PL’s. Consider exploring this possibility as it is a definitive trend among successful shippers.

• Because there are drawbacks and benefits in working with asset-based carriers vs 3PL’s, a blend is often where optimal outcomes are produced. With talented, informed staff, throttling up and throttling back as needed, may position your organization to enjoy the best of all worlds and enables companies to respond more quickly with more options. Working with providers that have asset and non-asset components offer the added benefits of one-stop-shop, less moving parts, and fewer total vendors, while also availing themselves of combined counsel to make more informed decisions.

Greg Brown, Chairman and CEO

Thomas K. Bardwell, VP Logistics

About BR Williams:
With humble beginnings back in 1958, BR Williams has grown into an award-winning supply chain management company servicing all 48 contiguous states and Canada. With facilities in Mobile AL; Piedmont, AL; Tallahassee, FL; Anniston, AL (two facilities); Eastaboga, AL; and Oxford, AL, B.R. Williams’ distribution network supports over 50 customers and another 2,550 in the Trucking and Logistics divisions. Industries served include the following: automotive, defense, home improvement, education, food raw materials, textiles, chemical, industrial packaging, metals (finished goods), highway safety and more.

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