Satish Jindel

After a year of double-digit price hikes across the trucking landscape, shippers are wondering when the days of predictable low single-digit rate increases will return.

They shouldn't have high hopes. Prices may increase at slower rate in 2019, but they're not about to drop. Current market conditions have created a "new normal," and the external factors impacting capacity — including difficulty hiring truck drivers — are not expected to change. It's possible the situation, particularly the driver shortage, could get worse.

Trucking operators have pricing leverage they haven't seen since deregulation in 1980. Even more noteworthy, this is occurring across the truckload, less-than-truckload (LTL), and parcel sectors, which limits shippers' ability to control costs by shifting freight between those segments.

In this environment, shippers and carriers need outside-the-box thinking. They need to look at solutions used by other industries to balance supply and demand that varies at different periods in a business cycle. They need to kick "bad habits" handed down from the days before deregulation and change behaviors they've ignored and enabled for years.

Carriers could do much to make the pricing process more efficient, reducing costs for them and pricing for shippers. Shippers can take steps to simplify processes, too.

There hasn't been a better time in four decades for carriers and shippers to rip up their old playbooks, especially when it comes to how they price freight, and work together to find better ways to ship. Here's where they should start.

Adopt demand-based pricing

HAVE YOU RENTED a car or purchased airline tickets online lately? Then you're familiar with demand-based pricing, which matches rates with varying levels of activity among customers. In a market where it is not practical to add capacity on short notice, demand-based pricing allows suppliers to adjust prices based on predictable changes in demand.

While the approach may be new to trucking, it has been used by the hospitality industry (such as airlines, hotels, and rental car companies) for decades. When you buy a seat on an airplane, do you pay the same rate if you book two months or two days ahead of time? Of course not.

Demand-based pricing helps customers obtain lower pricing when demand is low and even pay low prices during peak travel periods by booking the capacity in advance, which provides predictability of demand to the suppliers — predictability carriers would love to have.

In the parcel industry, peak-period pricing was implemented by UPS during certain weeks between Thanksgiving and Christmas in 2017. The peak pricing was applicable to volumes that exceeded the normal shipping volume of customers. It allowed shippers to avoid peak surcharges by shipping during the middle of that period, rather than at the busiest times.

> "The LTL industry still relies on an antiquated pricing model developed for the calculator age."

Although there are opportunities to further refine the period for which peak surcharges are applied, UPS had enough success with such pricing that it has announced its continuation during the peak period of 2018.

Highest demand times

LTL carriers experience spikes in demand at the end of month and at the end of quarter. For years, faced with excess capacity, the LTL carriers have been limited in deploying creative pricing approaches to manage such short-term spikes in demand for capacity. However, the recent tightening of LTL capacity is creating opportunity for the carriers to raise rates to improve their margins. In doing so, some carriers are taking two general rate increases a year and raising rates for shipping at all times of the year.

Such an across-the-board rate increase disregards the differences in shipping pattern for various customers. While manufacturing and industrial shippers like to get products out at end of month and/or quarter to book revenue, the retail shippers moving products from distribution centers to retail stores do not have the same need.

The LTL industry should consider implementing a pricing model that allows shippers to provide advance notice for capacity and lock prices and then use that capacity without paying

peak pricing. The advance notice for capacity utilization will provide LTL carriers ability to match capacity with the demand in the right markets and lanes.

This kind of pricing approach is quite practical in today's market where machine learning, artificial intelligence, and data analytics make it feasible for shippers to predict their needs for LTL service and share those details with the carriers. For carriers, having such advance commitment for pickup and delivery and linehaul operation provides productivity gains that would reduce cost of service.

Improved utilization reward

The result will be to reward shippers for helping carriers match capacity with demand in their entire network, which can reduce the number of partial or totally empty trailers moving due to lane imbalances. Better utilization of equipment and drivers will help carriers handle more freight with same resources, resulting in lower costs for shippers who assist with such matching of demand and capacity.

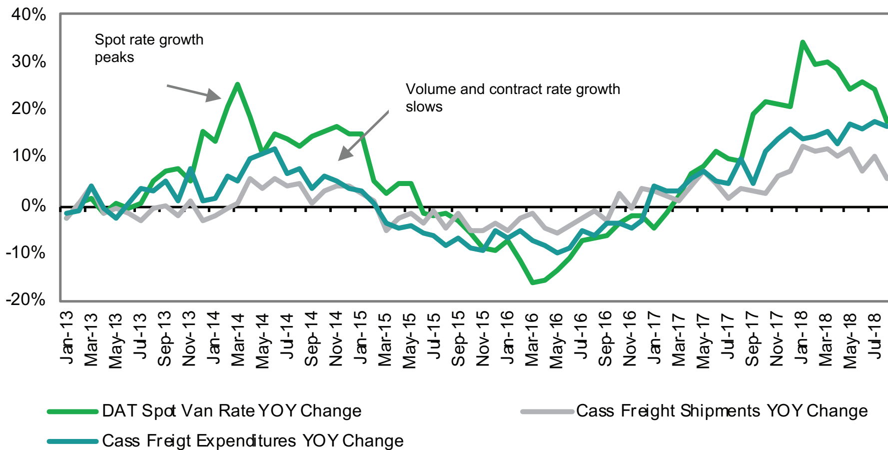
For the truckload segment, which is experiencing an unprecedented shortage of drivers, a new pricing model is needed to eliminate empty miles and unutilized or underutilized time within drivers' hours of service now monitored via electronic logs. Demand-based pricing that allows shippers to book capacity will help carriers' position capacity in the right places to eliminate empty miles.

Such conversion of empty miles into paid miles would increase truckload capacity by 12 percent, which is much greater than the shortage of capacity because of scarcity of drivers experienced by the truckload segment. It will also help shippers gain additional capacity at more predictable rates during spikes in demand and avoid paying much higher spot market rates.

With tight capacity prevailing in all three trucking segments and extensive data available on the projected needs of the shipping community, the industry should implement demand-based pricing to optimize the tight capacity. Such approach should expand capacity for carriers without adding drivers, increase income for drivers, and reduce the cost for the shippers.

It's time to tear up trucking's pricing playbook

Innovation and "outside-the-box" thinking needed to help shippers and trucking companies kick old, bad habits and bring pricing into the 21st century



Eliminate LTL deficit rating

THE LTL INDUSTRY has long practiced what can best be described as "deficit rating." For those who think that it's somehow counterintuitive to have a pricing model designed to create a loss or to reduce operating margins, rest assured, it is.

Like many other bad habits acquired over the decades, the LTL industry routinely prices its services to give away money. In this case, carriers charge the same amount per hundredweight to recognize economies of scale that result from an increase in weight.

The problem is caused by the weight bands used to recognize such economies.

Pricing in the LTL and parcel industries has been primarily determined by two factors: shipment weight and the distance between origin and destination. Since parcel carriers handle weights ranging from 1 to 150 pounds, parcel rates change with each pound. However, the LTL industry handles shipment weights with a much wider range, from 100 pounds to 10,000 pounds.

So, during the 1970s, LTL carriers developed pricing bands that range from 100 to 500 pounds, 501 to 1,000 pounds, 1,001 pounds to 2,000 pounds, 2,001 to 5,000 pounds, and 5,001 to 10,000 pounds. As a result, LTL carriers have the same rate per hundredweight for all shipments ranging from 100 to 500 pounds and similarly for all shipments ranging from 2,001 to 5,000 pounds.

Billing by weight

To make matters worse, to avoid charging more for a lighter shipment than a heavier shipment, LTL carriers rate the shipment at its actual weight at the higher hundredweight rate, then compare it to what the charge would be at a higher weight with a lower hundredweight rate, and then bill for the lower amount.

Here are details of this pricing insanity for two real-life shipments. The first shipment of Class 100 weighing 950 pounds was moved from ZIP code 29073 to ZIP 75201. The actual charges were computed at $2,933 but billed at $2,460, a reduction of $473, or 19 percent. The second shipment of Class 60 weighing 4,500 pounds was moved from ZIPs 30301 to 23211. The actual charges were computed at $3,801 but billed at $3,276, a reduction of $525, or 16 percent.

1988
LTL carriers use rate tables that date back to before many pricing analysts were even born.

Let's get this right: The carriers take on extra work (including reweighing the shipments) to collect lower charges by adjusting the weight to a higher number so they can apply a lower rate per hundredweight to charge less than if it was just billed at its actual weight of 4,500 pounds.

Common sense would indicate that if a shipper has a lower rate for a 5,000-pound shipment, then it should be told to put extra product in the shipment to increase the weight. That doesn't happen, however.

The parcel carriers also have lower rate for heavier parcels but do not apply such deficit rating to billing. For some shippers, parcel contract rates on a 5-pound package are higher than on a 6-pound package. However, our ShipMatrix database on hundreds of millions of parcels shows that parcel carriers do not charge a 5-pound parcel at the lower 6-pound parcel rate.

Lower margins in the LTL industry can be attributed to the antiquated LTL pricing model. LTL carriers use rate tables that date back to 1988, before many pricing analysts were even born. In addition, with several hundred rate tariffs and a very aggressive discount structure — exceeding 90 percent in some cases — the mattress retail business, with its even 80 percent off list price offers, has more pricing discipline. While carriers and shippers are familiar with such aspects of LTL pricing, few are aware of the problems created by deficit pricing.

Antiquated pricing

This deficit rating practice actually dates to the regulated era of 1970s. It made sense then since the LTL carriers had to depend on basic calculators to determine charges as computers were not available. However, over these 40-plus years, although the LTL industry has invested hundreds of millions of dollars in powerful computers to handle more weight bands, it still relies on an

antiquated pricing model developed for the calculator age.

LTL carriers should replace their weight bands with smaller increments. This could start with 100-pound bands and over time be reduced to 50 or even 10 pounds. With extensive computing power used by the LTL industry in many other functions of the business, changing the weight bands should be a high priority.

A positive result of eliminating deficit rating will be fewer invoice adjustments by audit and payment firms. While that will not be welcome news for those firms, it will be a blessing for the carriers and their shippers.

For decades, LTL carriers have complained about their inability to improve operating margins, claiming their sector is more fragmented than parcel. However, they fail to notice that a far more fragmented truckload industry has a healthier pricing model and operates at higher operating margins.

With capacity tight in all trucking segments, LTL carriers should get rid of deficit rating to increase operating margins sorely needed to match the profitability of parcel and truckload carriers, and to reinvest in drivers, equipment and technology.

Price and report cubic attributes

FOR DECADES, PUBLICLY owned LTL carriers have released tonnage information about the shipments handled. And, consequently, sell-side investment analysts have focused on that measure to assess the operating results and to forecast the future performance of the carriers.

However, during past several years, the industry and the analyst community have made a big deal of the need to convert to dimensional pricing instead of the classification system of the regulated era that ended in 1980.

As parcel carriers deployed dimensioning machines to capture actual dimensions of each and every parcel, LTL carriers started to take interest in capturing real-time cubic data on heavier shipments as they became more aware that their linehaul trailers cube out before exceeding the gross weight limit. As a result, Cubiscan, Mettler Toledo, and Freightsnap developed machines that provide LTL carriers with similar capability as the parcel carriers to capture true dimensions of the heavy shipments for better costing and billing.

While the adoption of such dim machines had a slow start, it has ramped up rapidly and now most of the top 20 LTL carriers, who control over 85 percent of the LTL market, have a few too many such machines in use. The payback has been instant and is helping improve the operating margins of the LTL industry.

Cubic data lacking

While these changes are welcome developments, LTL carriers have failed to incorporate shipment dimensional characteristics in their list of key performance indicators measured internally and reported externally. The carriers still focus on weight per shipment and length of haul. Not one LTL carrier publicly reports cubic data on shipment.

As long as the carriers fail to share such information, the sell-side analysts are limited in giving credit to carriers that are doing a better job of getting paid for the cubic capacity of their network — how much of their trailers they fill, rather than how much weight they carry. This was evident in the research reports on the second-quarter earnings results and the August operating performance of Old Dominion Freight Line and Arcbest's ABF Freight System.

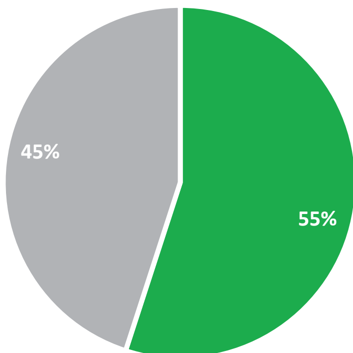
While both carriers significantly improved their operating margins, the analysts were disappointed that tonnage did not improve, thereby completely overlooking the progress both carriers may have made in doing a better job of pricing and billing for cubic attributes of their shipments and thereby getting more revenue while handling less weight.

As evidence of the need for carriers to report cubic information, consider that in the second quarter of 2016, XPO Logistics' best quarter of LTL operating ratio improvement since the Con-way acquisition, tonnage per day declined 7.4 percent while revenue per hundredweight grew 2.6 percent, and operating ratio improved 6.9 percent. However, in addition to change in cubic attributes, other factors such as length of haul

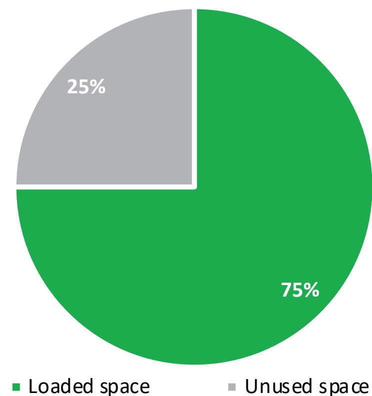
Empty space in LTL trailers wastes capacity

LTL trailers "weigh out" or lack floor space for more freight

Pick up and delivery trailers



Linehaul trailers



▪ Loaded space ▪ Unused space

Source: SJ Consulting

© 2018 IHS Markit

and mix of customers can impact hundredweight. Hence the need for separate reporting on cubic attributes.

Some would argue that reporting the cubic dimensions of the shipment is not practical at present, with only a portion of the shipments being measured. So, until further progress is made on capturing actual shipment density, the industry can utilize the National Motor Freight Classification system by reporting distribution of shipments by the 18 freight classes.

Yes, I am advocating use of NMFC classes and supporting continued use of this system that I have previously said should be abandoned. The LTL carriers receive NMFC class on bill of lading for every shipment and use such class data to invoice the customers. They just need to aggregate the data and report it for the investment community.

It is quite likely that some LTL carriers have not instituted measures for capturing dimensional attributes as part of their internal KPIs. For them, it is imperative they start doing so to recognize the progress or lack of it in their ability to capture the cost and value associated with dimensional attributes of shipments handled.

> "Yes, I am advocating use of NMFC classes and supporting continued use of this system that I have previously said should be abandoned."

What's the true cost?

Failure to do so will result in these carriers not recognizing the true shipping cost and pricing some shipments below true cost, thereby having those shipments dumped on them by shippers who would like to avoid paying higher charges for those shipments to other carriers.

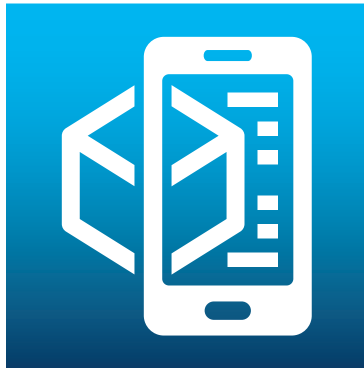
If a carrier thinks its profitability is not negatively affected by this, it just needs to look back at the fate of Consolidated Freightways, which filed for bankruptcy in 2001 because it failed to fully understand the cost of serving shipments it was handling.

The focus on tonnage is understandable. Nearly all LTL carriers can provide the weight per shipment and the load factor per linehaul trailer in pounds. Even though cubic capacity of the trailers is the bigger constraint than weight, many LTL carriers still do not capture the cubic load factors of the linehaul trailers.

With tight LTL capacity and growing concern by shippers about further increase in LTL charges, the LTL carriers need to embrace development and measurement of metrics that will allow them to increase the cubic load

factor of the linehaul trailers from 75 percent to 90 percent.

That will yield instant increase in operating margin of 3 to 5 percent that the industry needs to reinvest in its drivers, rolling stock and technology.



Digitize the bill of lading

SHIPPERS CAN AND should stop using paper bills of lading. If truck drivers can live without paper logbooks, shippers can scrap paper BOLs. Savings for carriers and shippers will result.

In the 1970s, shippers used typewriters to generate paper business documents that were mailed and received within three to five days. In contrast, shippers now generate written documents via computers or mobile phones, transmitting them via the internet, with recipients getting them within seconds.

This transformation has not been lost on the transportation industry. Parcel carriers have gained huge traction with shippers transmitting parcel details, including origin and destination addresses, parcel weight, and much more, in advance of the pickup. Some shippers even provide parcel dimensions.

For the carriers, there are operational advantages to getting details in an electronic format before pickup, including that it ensures the pickup vehicle has adequate capacity for the expected number of parcels, it avoids billing errors, it prevents misrouting, and it helps carriers achieve higher cube load factor in the intercity linehaul network.

Details needed early

The operational needs to get shipment details in advance are even greater for the LTL industry because of the diversity of shipments handled — rolls of carpet, overhead garage doors, vehicle transmissions, auto body parts, pallets of boxes, and farm implements, etc. Even so, LTL carriers have not pushed for elimination of the paper bill of lading. On the contrary, many LTL sales representatives hand new customers a stack of paper BOLs.

In addition, while shippers are demanding real-time visibility from the carriers on the delivery status of every load, they refuse to convert from paper to digital BOLs.

After 20 years of seeking shipper cooperation to convert paper BOLs to electronic documents, the LTL industry still handles about 75 percent of shipments tendered using paper. In contrast, UPS and FedEx handle less than 5 percent of parcels that are tendered using paper air bill. This contrast can only be fathomed when the percentages are converted into absolute numbers. For benchmark, the parcel industry handles more than 47 million parcels on an average day. With 95 percent of parcels tendered via electronic manifest, shippers are using digital media to tender more than 44 million parcels per day.

With the LTL industry handling 640,000 shipments per day, LTL shippers tender 40 million shipments in a whole year via electronic method. This full-year figure for LTL shipments is less than a one-day figure for the parcel carriers. With many shippers using both LTL and parcel services, it is logical that most shippers can easily convert from paper to digital media for tendering LTL shipments.

75% of the LTL industry is still tendered using paper.

90% of the parcel carrier market is controlled by the the top three carriers.

Truckload carriers run 11% of miles unloaded

Operational inefficiencies lead to “deadheading” between loads

Carrier	Empty Mile % - 2017
Covenant	9.90%
JB Hunt (TL segment)	16.40%
Knight	12.90%
Marten (TL Segment)	8.30%
PAM Transport	6.80%
Swift (TL Segment)	11.50%
Swift (Refrigerated)	7.50%
USA Truck	13.00%
Werner	12.50%
Average Reporting	11.00%

	Empty Mile Range - 2017
Medium-Sized Private Carriers	9% to 12.5%

Source: Source: SJ Consulting Group, company data ©2018 IHS Markit

That would have a far-reaching impact on helping the carriers control the cost of LTL service. The pickup operation still utilizes just the floor area of the trailer, which results in use of longer trailers and thereby about 50 percent cubic capacity utilization of pickup trailers.

In contrast, parcel carriers use more than 80 percent of the cubic capacity of the package vans in pickup operations.

Physical attributes

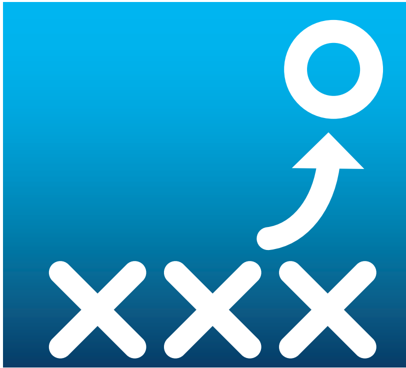
For the linehaul, with huge variation in the shape and size of shipments, LTL carriers have a greater need than parcel carriers to gain the physical attributes of shipments in advance to achieve better cube utilization of the intercity linehaul trailers.

While ignoring the needs of LTL carriers to convert paper to electronic media, the same shippers are sending notices to their suppliers requiring them to sign up for ACH payment to avoid the cost of mailing hard copy checks. This requirement is primarily to eliminate the administrative cost and postage of mailing a check.

Shippers fail to realize that the cost of handling a paper BOL is many times more than the cost of mailing a check. Yet, the same shippers fail to comply with LTL carriers’ request to use the electronic manifest and to provide advance transmission of shipment details.

No doubt, the parcel carriers have had greater success in this regard partly because the top three carriers control 90 percent of the market. In contrast, the fragmented LTL industry created opportunity for shippers to leverage one carrier against the other to resist dropping the use of paper BOL.

With tight capacity in LTL and truckload segments, now is the perfect time for LTL carriers to target reduction of paper BOLs from 75 percent to below 50 percent by 2019, and for shippers to make the switch and claim their share of the benefits.



should not feel bad about increasing their profit margins. The higher income they receive will still fall short of recovering the decline experienced in the last several years, especially 2016.

This supply and demand imbalance offers an opportunity for shippers to assess their shipping practices. They will find their inefficiencies are responsible for more cost in absolute dollars than the increase in expenditure that results from higher rates. JOC

Satish Jindel is president of SJ Consulting Group, a consulting firm focused on transportation sector with offices in Pittsburgh, Pennsylvania, and Jaipur, India.

Use existing capacity efficiently

IN SPITE OF all attempts to improve trucking utilization, about 15 percent of capacity is still wasted.

That's often attributable to factors shippers can control or change, such as how they pack and palletize freight.

Shippers also waste capacity by keeping drivers waiting to deliver or pick up freight; handling more deliveries and pickups from facilities without a freight dock or with a very tight maneuvering yard; and keeping drivers waiting to obtain confirmation of delivery.

ShipMatrix data on billions of parcels and LTL shipments show that even with new dimensional charges, there are still many parcels that are shipped with excessive cube. This problem is not limited to parcel shipments but gets manifested in higher cube in LTL and truckload shipments, thereby adding to higher transportation cost.

Rate increase alert

At least one large trucking company last year alerted its customers to budget for a 10 percent increase in transportation rates in 2018. The company went to great lengths to explain the various factors that were contributing to such a projection.

Did shippers receive an explanation from Apple for charging more than $1,000 for its new 10x iPhone? When have shippers received any explanation from Microsoft for major increases in prices for its software and hardware products?

Shippers would like to see carriers add capacity to avoid rate increases in this tight market. However, when the trucking industry had excess capacity in the past, the shippers were quick to demand lower prices and squeeze carrier margins. In this market, the carriers