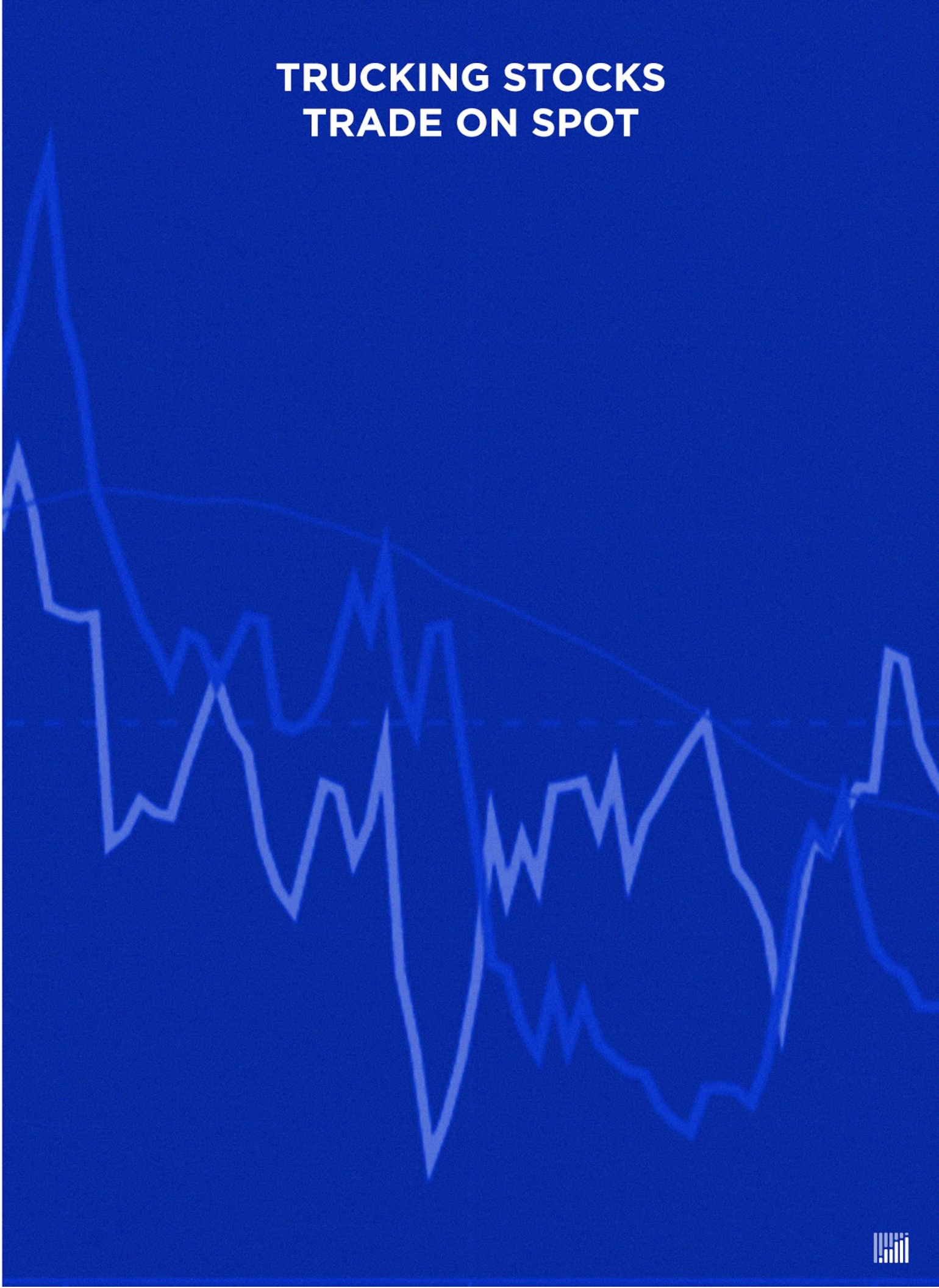
# TRUCKING STOCKS TRADE ON SPOT



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FREIGHTWAVES FREIGHTINTEL RESEARCH

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## Trucking stocks trade on spot

Publicly traded truckload stocks trade on spot market prices just like oil stocks trade on spot West Texas Intermediate (WTI) prices. This may seem illogical given "paper" rates (see Appendix A for our definition) represent 80% of an average carrier's revenue base. For the larger fleets of publicly traded carriers, this figure can average as high as 90 to 95%. However, because the market lacks transparency and real-time insight into how paper rates are trending, the best investors and traders have to go off of is spot prices. We also know from our survey work that even though the average contract freight mix is 80%, this varies materially by fleet size and depending on the operating environment. Contract freight can go as low as 70% for carriers when spot prices fall below contract rates by 10% or more for a one- to three-month period.

This correlation is more logical than it appears at first blush because spot prices always lead paper rates to the upside and downside and thus serve as one of the best leading indicators available. Because trucking is a low-margin, capital-intensive industry with high fixed costs, how spot rates are trending from a second derivative perspective is paramount because they not only determine future revenue but have an outsized impact on profits and cash flows due to the leverage embedded in carrier business models.

This is not too dissimilar to how oil and gas stocks, particularly exploration and production (E&P) companies, trade on the direction of spot WTI prices. There is a material difference in that E&Ps do not have contract rates and instead can hedge out price risk using futures. The effectiveness of employing futures depends on how the future plays out relative to market expectations (i.e. the shape of the futures curve). The same is now true of the trucking market with FreightWaves, the Nodal Exchange and K-Ratio launching trucking futures contracts.

Prior to the launch of freight futures and until widespread adoption ensues, contract freight essentially has served as a rolling hedge on revenue volatility and is effective as long as spot rates do not diverge from paper rates by 10% or more for one month or more (which we know from our survey work; see Appendix B). When this divergence occurs, paper rates are reset to market/spot rates in favor of the party with the greater negotiating leverage (whether carriers or shippers).

## "We're not exposed to spot"

We often hear trucking industry analysts and company executives say that spot prices only matter for the smallest of fleets because carriers with sizeable fleets are insulated from spot movements. At FreightWaves, we believe all carriers are in fact exposed to spot because spot movements dictate future paper rates (directionally

speaking) three to six months in advance. It is clear that the stock market agrees. If large carriers were not exposed to spot, then any time their stock sold off in conjunction with falling spot prices would be a tremendous buying opportunity with riskless profit arbitrage. Companies could endlessly buy back their own stock at a significant discount to intrinsic value to drive shareholder value or take themselves private. But neither happens.

Below are a few examples of how truckload stocks are highly correlated with underlying movements with spot market rates. We used the top five publicly traded carriers (by revenue) to demonstrate our point, keeping in mind that these same carriers typically obtain upward of 90% of their freight from contract rates. We think one would be hard-pressed to find a better correlation as can be clearly seen. The market unequivocally demonstrates that every carrier is exposed to spot. There can sometimes be temporary divergences, but they are rare and usually last no more than a couple of weeks to a month (at most) before the tight correlation reverts.

**Figure 1: KNX Stock vs. DAT Dry Van Spot**


SONAR: STOCK.KNX; DATVF.VNU

**Figure 2: SNDR Stock vs. DAT Dry Van Spot**


SONAR: STOCK.SNDR; DATVF.VNU

**Figure 3: JBHT Stock vs. DAT Dry Van Spot**


SONAR: STOCK.JBHT; DATVF.VNU

**Figure 4: LSTR Stock vs. DAT Dry Van Spot**


SONAR: STOCK.LSTR; DATVF.VNU

**Figure 5: WERN Stock vs. DAT Dry Van Spot**


SONAR: STOCK.WERN; DATVF.VNU

We believe this relationship is sound because the market trades these stocks based on the most real-time, up-to-date information available. In effect, when one thinks about it, oil and gas companies have their revenue printed on a continuous ticker tape all day long, at least directionally. Trucking companies are analogous with respect to spot, although information is available with a one-day lag. And instead of being a fungible commodity, there can be extreme variance on even a lane-by-lane, intraday basis with trucking spot rates because the carrier market is so fragmented and there are other incentive-driven considerations such as backhauls and if the driver is headed home.

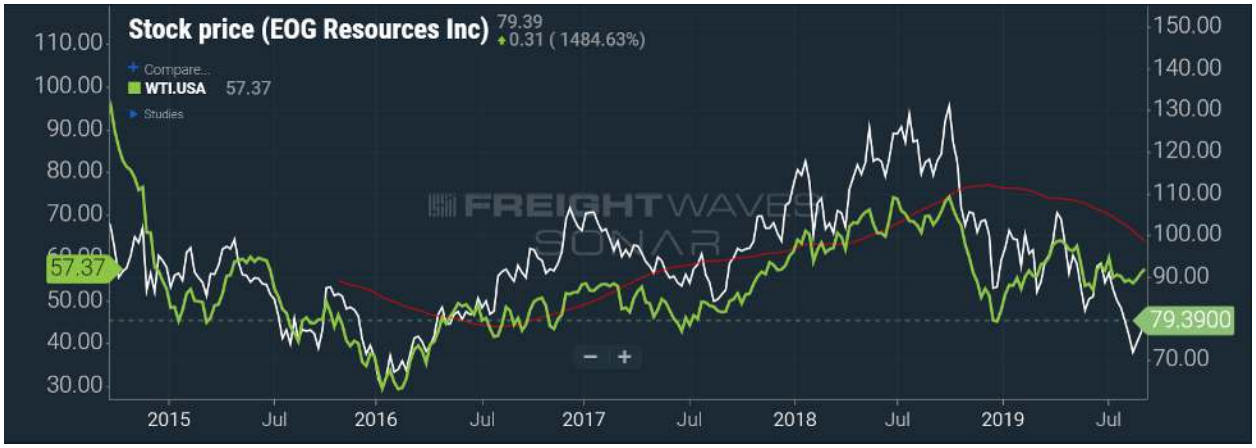
In addition, unlike paper rates, spot rates are a leading indicator and the single best predictive variable for truckload revenue and profit cycles. They are also a demand side indicator, as opposed to supply-side indicators that measure capacity such as Class 8 new truck orders, backlogs, cancellations and used truck prices. Contract rates are more of a coincident indicator that informs the market how a truckload company will do this quarter, but may not offer good insight into the next two or three quarters in a dynamic environment for trucking rates. The trucking market generally does not have visibility beyond a couple of quarters given its low barriers to entry, competitive intensity and short industry cycles. When carriers are doing too well, new capacity will quickly rush in and drive rates back down as we saw in 2019.

Next, we look at E&Ps relative to WTI spot prices. Here we use the five largest holdings in the iShares U.S. Oil & Gas Exploration & Production ETF (IEO). Again, the correlation is uncanny.

**Figure 6: COP Stock vs. WTI Spot**


SONAR: STOCK.COP; WTI.USA

**Figure 7: EOG Stock vs. WTI Spot**




SONAR: STOCK.EOG; WTI.USA

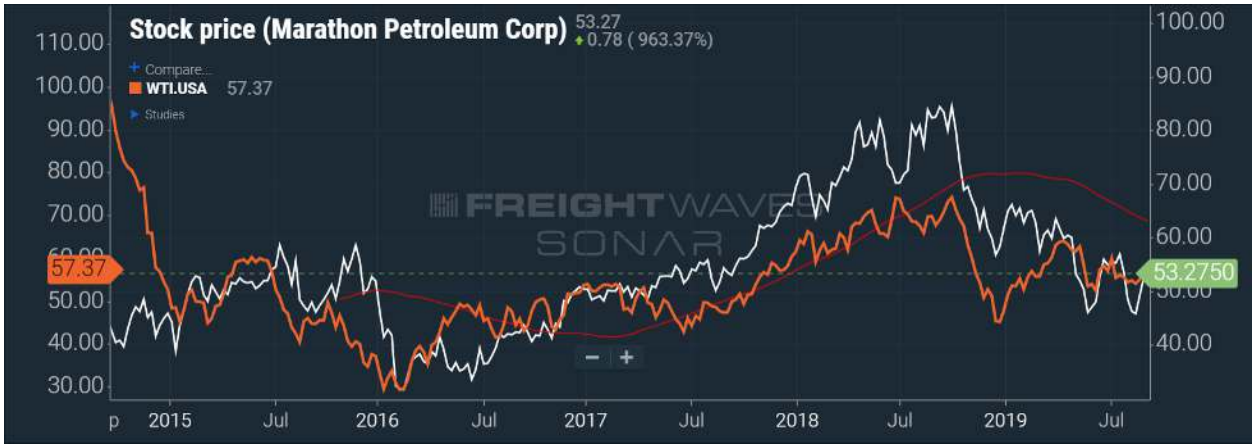
**Figure 8: PSX Stock vs. WTI Spot**


SONAR: STOCK.PSX; WTI.USA

**Figure 9: VLO Stock vs. WTI Spot**


SONAR: STOCK.VLO; WTI.USA

**Figure 10: MPC Stock vs. WTI Spot**




SONAR: STOCK.MPC; WTI.USA

## Relationship Between Real GDP and Spot Rates in Trucking

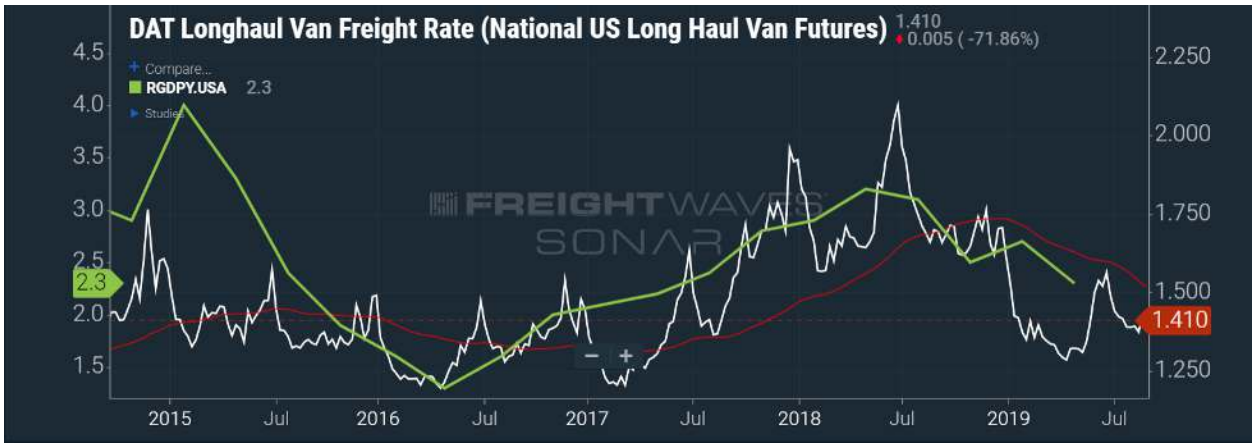
The relationship between real GDP (measured in terms of year-over-growth) and spot rates appears to exhibit a tight correlation as well. Even as the U.S. economy increasingly transitions to a service-based economy more driven by human capital and in which consumers value experiences (relative to goods), this relationship has held up well. Intuitively, this makes sense because in a strong economy, the country will be moving a lot of freight.

Based on our research, it seems it is possible to have a freight recession without a U.S. economic recession, but it is exceedingly rare to not have a freight recession when the U.S. is in an economic recession.

In early 2016, the U.S. was on the verge of a recession and the manufacturing and industrial segments of the economy were indeed in a recession. Not coincidentally, spot rates fell sharply off their 2015 highs and bottomed at about $1.25 per mile in the first half of 2016.

Then, the U.S. economy went on a 10-quarter accelerating growth spree (the longest consecutive streak in history) from early 2016 before peaking in the third quarter of 2018. Again, spot rates went on a blistering run before peaking at about $2.10 per mile in the early part of the third quarter in 2018.

**Figure 11: DAT Dry Van Spot vs. U.S. Real GDP (Year-over-Year)**




## Appendix A: Contract Rates vs. Paper Rates

We refer to contract rates as “paper rates.” This is due to the fact that contract rates in trucking and brokerage do not have guarantees for specified volumes or capacity at specified rates for the duration of the contract. Each lane can be accepted or rejected based on capacity or rates and can be rebid by either side at any time.

The main reason paper rates are rebid during the “contracted” period is that the spread between paper and spot rates widens to the point that it does not make economic sense for one of the parties to continue tendering or accepting loads based on the paper rates in place. Either the spread between rates has increased to the point where the shipper can cut costs by moving loads to the spot market or the freight broker is underwater when buying transportation in the spot market above the paper rates in place. Carriers too can choose to allocate a portion of their capacity to the spot market if spot rates meaningfully exceed paper rates.

The tendency for the paper/spot spread to widen and then narrow explains why the spot market leads paper rates either up or down, depending on classic supply and demand fundamentals.

When the spread between paper and spot rates widens to the point it makes no economic sense to continue the agreement, either the shipper, carrier or freight broker is incentivized to mark the paper rates to market. This means either side will rebid the paper rates closer to the spot market. A shipper actively rebids when the spot market declines below the existing paper rate, and a trucking carrier or freight broker actively rebids when the spot market moves above the existing paper rate.

The Freight Intel Group has recently conducted research on the magnitude and duration of the paper/spot spread necessary to trigger significant movements of volume and capacity from the contract market to the spot market. A survey of more than 500 shippers, carriers and brokers found that, on average, the spread needs to widen to between 5 and 15% for more than one month to prompt a shift in volume and capacity.

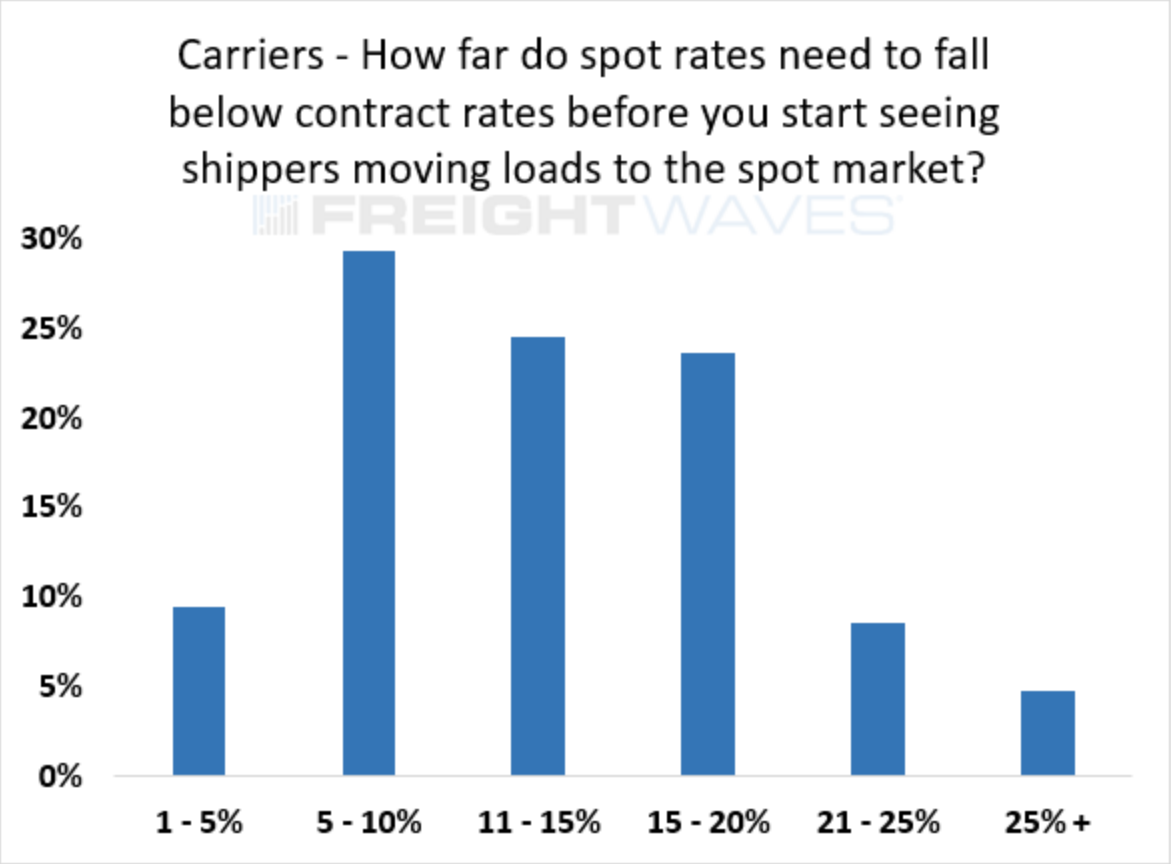
Once these conditions are met on the downside, shippers start moving loads to the spot market to reduce costs. When met on the upside, shippers must move loads to the spot market to find capacity that has evaporated as freight brokers and carriers reject tenders at the paper rates and move their attention and trucks to capitalize on the spot market.

## Appendix B: Survey of Carriers Regarding When Shippers Increasingly Use the Spot Market

We surveyed hundreds of carriers, shippers and brokers to determine how far (in terms of magnitude) and how long (in terms of duration) spot must diverge from contract rates before shippers increasingly tap the spot market. And conversely, how far must spot rise above contract rates before carriers no longer honor freight (and shift to the spot market) and brokers seek to renegotiate contract rates with shippers.

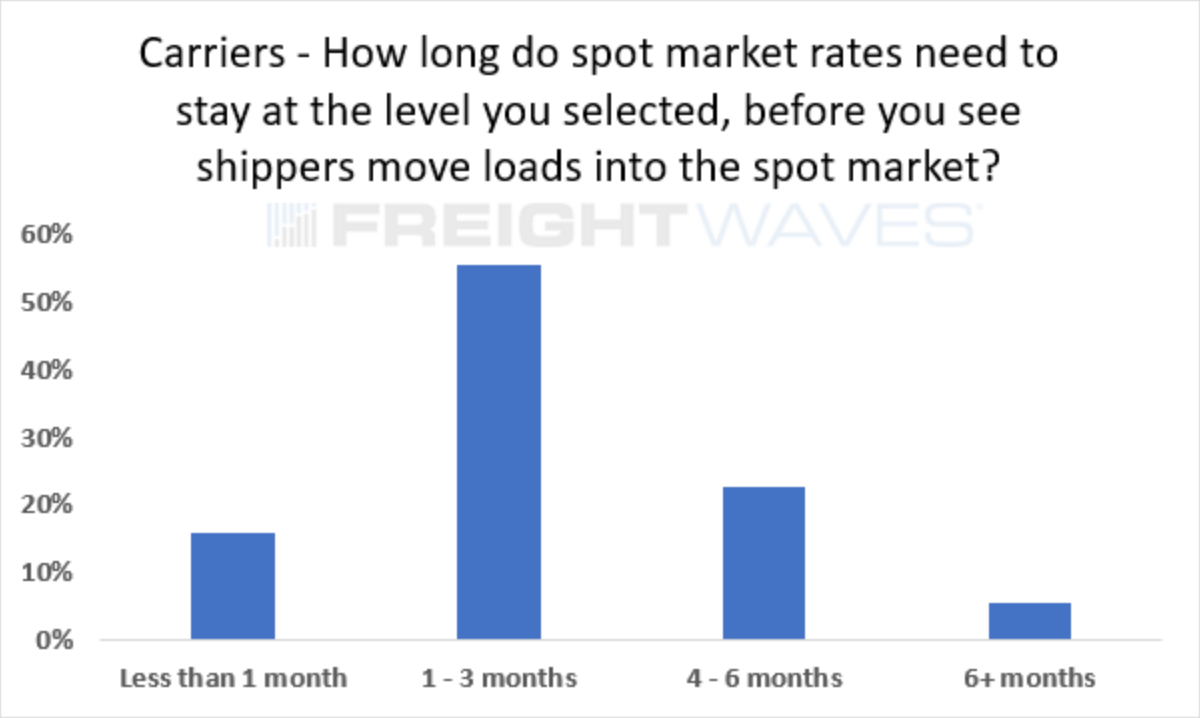
The answers to this question were clear and resounding for all parties. Spot must fall below contract rates by 10 to 15% and stay there for one to three months before shippers will increasingly tap the spot market. When they do so, and these conditions are present, the spot mix of freight for shippers generally rises to about 30% from a normal average of 20%.

**Figure 12: Carriers — How far do spot rates need to fall below contract before shippers start moving loads to the spot market?**



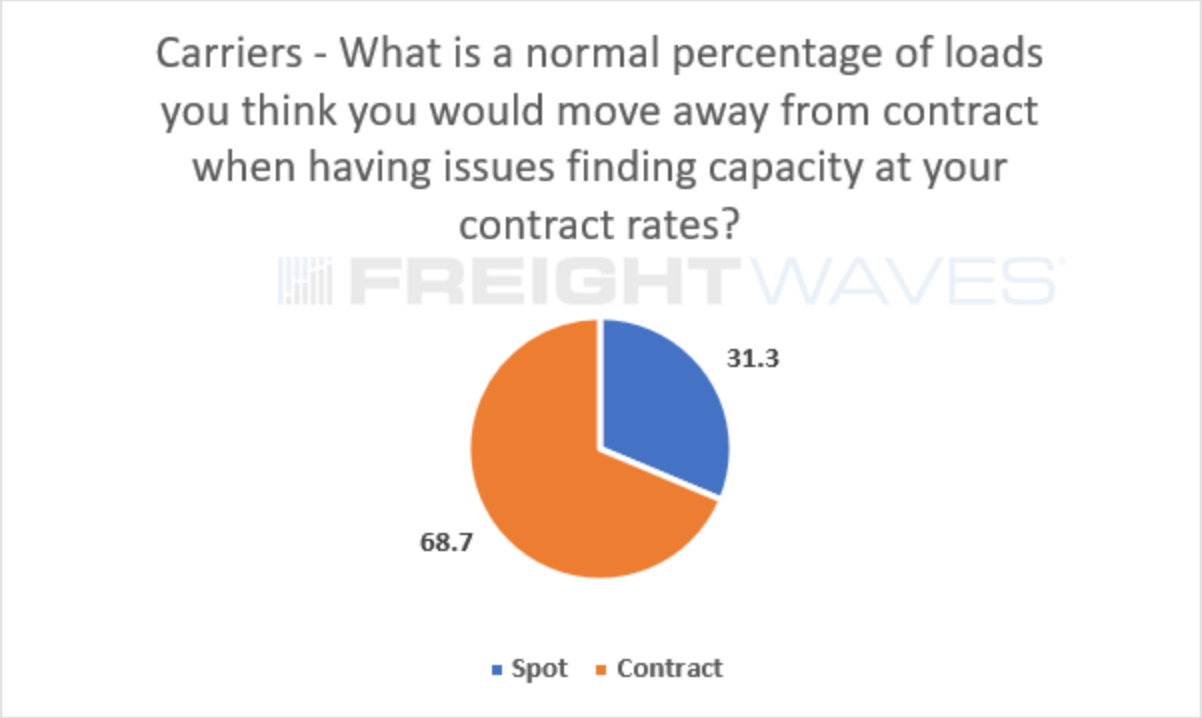

Source: FreightWaves

**Figure 13: Carriers — How long do spot market rates need to drop (and stay down) below contract before shippers increasingly move loads to the spot market?**




Source: FreightWaves

**Figure 14: Carriers — If spot rates fall below contract by [your specified percentage] and stay there for [your specified time range], what percentage of loads do shippers move to the spot market?**




Source: FreightWaves

## FreightWaves Freight Intel Contacts

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

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

**Andrew Cox,** Research Analyst
(615) 495-4507, acox@freightwaves.com