

Navigating the Shifting Tides:

Adapting Supply Chain Strategies
in a Volatile Market



Introduction

As we reflect on what has happened in pre-pandemic, pandemic, and post-pandemic markets, the need to be flexible and adapt to changing conditions quickly has never been more important. Supply chain and transportation managers in the manufacturing/shipper community have been dealing with markets that have rapidly changed from conditions that are favorable to them to favorable to carriers and back again over the past six years. However, technology and staffing plans are made with 3-5-year horizons. This can present unique challenges to Supply Chain and Transportation leaders.

How do they achieve the demanding cost and service requirements within their businesses when market conditions can go from good to bad and back to good within that technology & staffing planning horizon? Having excess staff, paying carriers higher rates, and carrying higher inventory may allow them to achieve their service targets at the expense of their cost targets. Conversely, just-in-time inventories coupled with pushing for lower rates with carriers can achieve cost targets at the expense of staff burnout and turnover. Selecting the right technology provider (and logistics services providers) that can collaborate with the shipper to address these challenges is crucial.

Background

We are living in a VUCA world—your technology needs to enable you to succeed in this environment.

1980

In the **1980s**, the US Army started using the term **VUCA (Volatility, Uncertainty, Complexity, and Ambiguity)** in its development of strategic leadership. Looking back at the past six years, it can certainly be said that supply chain leaders need to take this concept and associated frameworks that have been put forth to manage this new reality.

These are some of the major disruptions and changes the transportation and logistics industry has faced and the profound impacts on capacity, demand, and costs.

2018

In **2018**, the Electronic Logging Device (ELD) mandate went into effect in April. This had the effect of taking some capacity out of transportation networks, causing a sudden increase in difficulty in getting loads covered and in the costs to move freight.

2019

In **2019**, a freight recession brought about by a slight drop in demand (**Industrial Production 104.1 in August 2018 to 101.3 in January 2019, import of goods dropped from \$647B in Q4 2018 to \$612B in Q4 2019**) and an excess of capacity built up in response to the 2018 spike in rates resulted in rates dropping and carriers & brokers going out of the market. Approximately 1,100 carriers went out of business that year, causing shippers & brokers to have to find other carriers to cover that freight.

2020

In **2020**, the pandemic hit the US, dropping industrial production to 84.6 in April 2020 and imports down to \$512B in Q2. Supply chains needed to be totally reworked to accommodate the lockdowns. In hindsight, it was a challenge to change distribution networks built up over time to supply offices and restaurants with toilet paper and food to fulfilling that demand through grocery stores.

As we progressed through the pandemic in **2020 and 2021**, demand transitioned from services to goods, including materials like lumber for home projects and construction. COVID relief programs to assist individuals and small businesses and help avoid a recession also increased the ability of consumers to spend. This increase in demand drove prices for transportation up significantly.

2021

By March 2021, Personal Consumption Expenditures had returned to its pre-pandemic, long-term growth trend.

2021

In 2021 and 2022, the increase in the importation of goods also caused significant port congestion on the U.S. West Coast. In addition, the Ever Given ran aground in the Suez Canal. This disrupted the

2022

flow of goods, causing network changes to be implemented. This dislocation of transportation networks also created capacity constraints, causing increased difficulties in load coverage.

2022

In 2022, Russia's invasion of Ukraine created a lot of uncertainty, particularly around the petroleum and grain markets. Combined with the closure of multiple US diesel production facilities between 2019 and 2022, totaling over 700,000 barrels per day of production, diesel fuel prices rose significantly. In addition, there were significant rail service challenges that generated the Surface Transportation Board and Congressional hearings, pushing freight from rail to truck.

To help combat the inflation brought about through increased demand and the disruptions listed above (as well as other product availability disruptions), the Federal Reserve raised interest rates starting in **March 2022**.

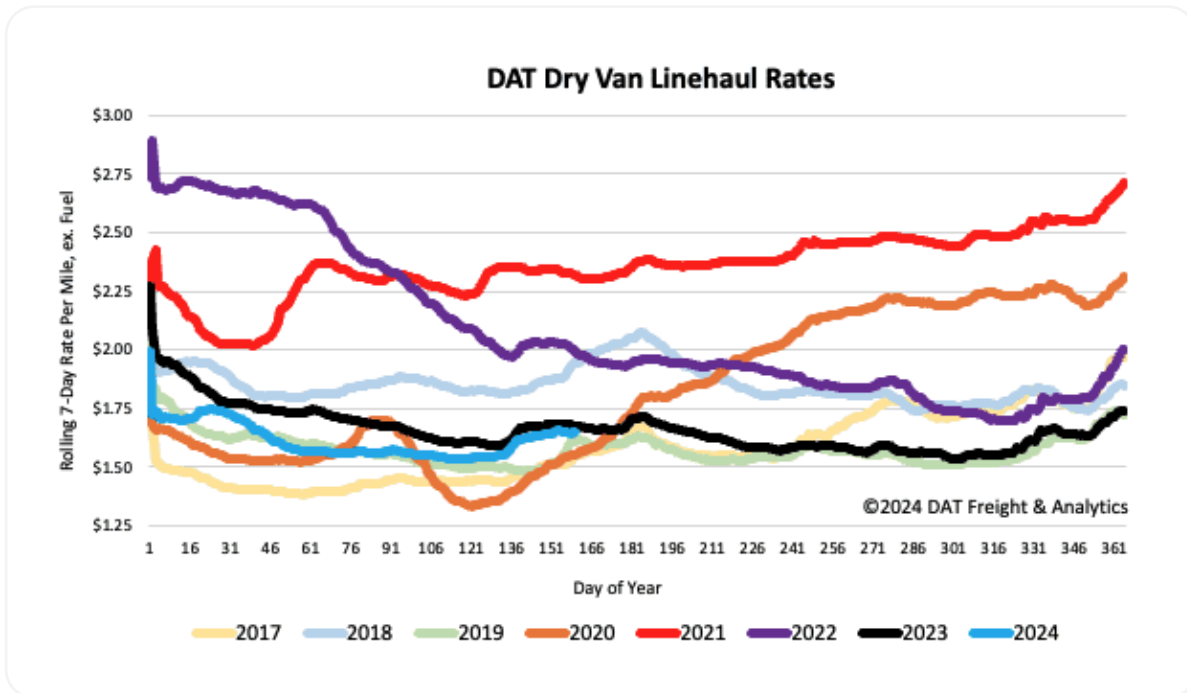
By the end of 2022, US Industrial Production and Goods Import peaked and have leveled out at around 103 and \$800B respectively.



This leveling off of demand, coupled with network stabilization, resulted in falling prices for transportation. **For example, in June 2022, DAT's national average dry van rate for contract shipments was \$3.29 per mile.** That rate is now \$2.46. Carriers are falling out of the market, although the rate of change has been dampened somewhat due to longer-term loans at lower interest rates made available to carriers as part of COVID relief and cash reserves built up when rates were high.

To get a visual of what has happened to the transportation market over this period, attached is a graph from DAT on dry van rates in the spot market from January 2017 to June 2024. While this shows rates, it is also a lagging predictor of capacity. As rates rise, carriers and brokers enter the market; as they fall, they exit the market.

This creates a tremendous amount of volatility in load coverage for shippers. In tight markets, the carriers that they have relied upon may not be able to cover a shipment that they could in looser markets. In looser markets, carriers that shippers relied on to move those shipments may no longer be available.



It would be naïve to expect that we will transition to a much less VUCA world any time soon. This means that as a shipper plans their technology and staffing approaches for managing transportation, they need to have a strategic plan for dealing with a VUCA world.

Contracts with technology providers (such as Transportation Management Systems) tend to be three to five years in length. Recruiting, onboarding, developing, and retaining transportation management professionals can take years.

How does a company select a solution that enables them to deal with a VUCA world?

How can shippers succeed in the current market where carriers are going out of the market in a fashion similar to the freight recession of 2019 without jeopardizing their future?

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Addressing a VUCA World for Supply Chain & Transportation Leaders

In 2014, Harvard Business Review published an article with suggestions on Strategic Planning and “What VUCA Really Means for You”. Their suggestions on increasing staff (capacity and capabilities) and inventory are extremely difficult for shippers, particularly in commodity markets. The cost to carry that inventory and the cost to be able to attract, retain, and develop the staff required can be much greater than the company can realistically support. Having time to conduct the experimentation they suggest for dealing with ambiguity would exacerbate the cost & difficulty associated with staffing. However, their suggestion on information and data collection can be implemented more easily.

So, if those HBR suggestions are mostly outdated and hard to implement for shippers, especially commodity shippers, what should they do? The key comes down to partner selection, both for Technology Providers and Logistics Service Providers.



With respect to technology, let's specifically look at Transportation Management System (TMS) capabilities.

First, the technology platform selection must automate as many processes as possible. Leaders should look at this in a light beyond reducing manual labor cost. In a tight market, your team often ends up working excess hours to ensure load coverage, pickup and delivery window achievement, and accurate invoice approval. Even in a loose market, these tasks can take up so much time that the highly skilled talent that you have invested in does not have enough time to conduct the analytics, continuous improvement, scenario planning, and network design required to properly plan for the next tight market. If they are unable to do that strategic work at that time, they will end up burnt out

As previously mentioned, the current market is favorable to shippers, while carriers are still dropping out of the market. The most notable in the past year are Yellow and Convoy, and CH Robinson recently making news for reducing the size of its commercial team.

This means your team is probably focused on two things:

- How do I find carriers & brokers to replace the lost capacity?
- How do I continue to ensure my rates stay in line with the market?

Digitizing the process to identify carriers that may be interested in your freight is imperative. Gone are the days when you could rely on the statement, "I know all the carriers that serve our markets." Using digital tools to find potential carriers and facilitate the screening process (i.e., safety record, operating authority, insurance levels, ability to comply with tracking requirements, etc.) is immensely valuable. This enables your team to get those fundamental questions out of the way quickly and only spend their valuable time meeting with potential service providers that meet those basic needs.

Also important is how you manage the relationship with your existing providers and their associated rates. The multi-year agreement is really a thing of the past when it comes to rates. Those agreements should call out all non-rate related items (such as the requirements above, payment terms, etc.). Rates will need to be much more flexible, and not just to take money out of the carrier's pocket (although price gouging does happen, that should be managed more tactically when possible). How the carrier's network aligned with yours when the market was tight could have dramatically changed in market conditions. Carriers' ability to retain drivers in a looser market may reduce their attraction and on-boarding costs, and their ability to have drivers available to cover your loads.

Being able to conduct interim bids easily so that your rates match the market easily is a must.





In addition, automating your spot bidding process can deliver a huge win for your team. While you do not have to vet your existing carriers to assess whether you want to do business with them or not, the process of reviewing spot bids submitted by them, ensuring they are aligned to market, and selecting the best one while the truck is still available is a challenge. This is why brokerages have increased their share of the freight market by about **five times over the past 25 years** - but those brokerages have costs and, of course, have profit expectations. Being able to simplify this process by automating the bid review and acceptance steps, with a linkage to audit of the future invoice, can enable improved load coverage and reduce costs without creating an increased burden on your already stretched team.

Finally, the ability to easily change your dispatching process to align with market conditions is a must. It needs to be able to be done through the user interface by a reasonably seasoned user, not through code changes or be required to be done by the TMS provider. For example, in a loose market you may allow more time for your carriers to respond to load coverage requests or prioritize service level over price. In a tight market, you may need to have the process run much more quickly, and perhaps only be based upon price. Or you may find that service-/price-based plans won't work in a tight market, and you need to develop partnerships with your carriers to move a portion (or all) of the freight on a given lane. In a loose market, you may do more spot bidding with your carriers, but rely on negotiated rates more in a tight market.

The scenarios will also depend on your business. Are you making products that can ship in generic equipment between freight intensive origins and destinations, or are you shipping product in specialized equipment? Or can you use generic equipment, but your origins are hundreds of miles away from other shippers using similar equipment? Or is your business so complex that it is made up of two or more of those scenarios? Having a configurable TMS that can handle different business models AND different market conditions, and be able to switch between them easily, is required.



In short, make sure that your TMS:

- Has a variety of plans for how you tender your freight to your carriers (i.e., price, service, allocations, dedicated, spot bidding, optimization of multiple loads, etc.).
- Has the ability to stack those plans to create a dynamic routing guide and re-sequence those plans to best address current market conditions.
- Has the ability to collaborate with your carriers to update rates more frequently than the annual or multi-year bid basis.
- Enables these steps to be performed by a reasonably sophisticated user on your team quickly and easily.

And make sure you ask your team two key questions:

- When was the last time we updated our contractual rates with our carriers?

- When was the last time we reviewed our tendering plans to make sure that they are aligned to current market conditions?

If you do not get good answers from your team on these questions, then ask the follow-up question, “What would it take to do so”? If that answer points to the TMS not facilitating what your team needs, then follow-up with the TMS provider to make sure your team knows all its capabilities. Your team is stretched and may not have had the time to deeply explore the capabilities of the current provider. From there you can determine what you need to do next with respect to your TMS needs from a technology standpoint.

Within the current environment and the context of your business model, it is important to make sure that:

- Your rates align with the market.

- You are adding qualified carriers to make up for any capacity that you have lost.
 - This includes evaluating if you have the proper mix of carriers vs brokers for your business.

- Your tendering strategies allow more time for lower-cost carriers in your network to accept the freight.

- If you have done those three steps, then you can also prioritize by service level then price to help drive increased customer satisfaction.

If your TMS automates the spot bidding process, you can leverage that to improve your cost position while still providing volume to your carrier base.

Logistics Service Providers

For this discussion, we will consider Logistics Service Providers (LSPs) that provide labor and expertise as part of their business to help shippers cover freight. They are typically grouped into three categories

Brokers

Brokers provide load coverage services on a load-by-load basis. They relieve your team of having to contact carriers outside of your network, as they have a network of their own and can get bids from them on your behalf, while providing you with a rate quote relatively quickly for you to assess. That rate is typically all-in, including carrier cost, fuel, broker costs, and broker margin.

3PLs (third-party logistics)

3PLs (third-party logistics) are similar to a broker, but often handle a defined portion or maybe even all of your freight. They often provide contract rates for the shipper for the lanes that they handle. That rate is typically all-in, but some 3PLs add extra fees for things such as technology costs.

4PLs (fourth-party logistics)

4PLs (fourth-party logistics) handle more of the outsourced work that your team does, but also decouples the provision (and cost of that labor) from the carrier cost. The pricing for the labor cost is typically either a flat fee per month, or an additional price per shipment.



As you are thinking about how to make your staffing needs more flexible throughout the planning period, you are probably going to evaluate 3PL and 4PL solutions. In that evaluation, you want to make sure they have the business expertise, acumen, and technology deployment to manage your transportation in a VUCA world.

In addition, make sure that there is business model alignment between you and the selected provider. For example, if you value rate predictability highly to more easily manage your budget, you will likely lean towards a 3PL that will provide committed rates for a defined period of time. If you want to make sure that you have transparency in each transaction, and the ability to have rates that move more quickly with the market, you might lean more towards a 4PL. Within the 4PL model, you might favor a flat fee for budget management, or a per shipment fee to align your costs with your business revenue.

When looking at outside sources of staffing flexibility, you'll again want to make sure that you evaluate the expertise and acumen of their team to manage your business, the technology they are using to make sure it provides the capability, transparency, and continuous improvement tools you need, and that their business model aligns with yours.

In the current market, if you have existing relationships with technology providers, 3PLs, and/or 4PLs, leverage that to identify industry best practices that are applicable to your business model. They typically have a broader view of the market than a single shipper can achieve, and this can help accelerate innovation within your business. If you do not, start the outreach process to identify qualified partners in this area.



Doing this while the market is more favorable to shippers may seem counterintuitive. However, if you wait until you need such relationships to attempt to start this process, your team will not have the time available to conduct it properly and you will not be able to get the help you need before the market conditions change again.

Conclusion

The last six years have proven that supply chain professionals are living in a VUCA world, and they need to expect that to continue within any reasonable planning horizon. To succeed, they need to make sure that their technology and staffing plans enable them to address all four components—volatility, uncertainty, complexity, ambiguity—and specifically that they have partnered with the right TMS and Logistics Service Providers to do so.

In the current environment, this means reviewing their carrier/broker partners, rates, and tendering plans to align with the reality of the current supply/demand balance in transportation and the ongoing exit of carriers and brokers from the market.

The IntelliTrans TMS software offers a single integrated tool with automated functionality, improving logistics operations. It provides integrated multi-modal execution, exception management tools, visibility tools, analytics, and carrier scorecards for unmatched transparency and control of your transportation network.

Learn more at www.intellitrans.com/transportation-management-software.

About IntelliTrans

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