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Retail Practice

Ten steps retailers can take to shock-proof their supply chains

In a seemingly ‘no win’ environment, retailers can take a two-speed approach to address the current shocks and build a more resilient foundation for the future.

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The ongoing COVID-19 pandemic has created the perfect storm to disrupt retail supply chains across verticals. Wild fluctuations in demand have destabilized each leg of the supply chain. Over the past 18 months, the share of household spending on goods increased for the first time in 60 years. Inventory levels fell precipitously as retailers delayed purchases during the early months of the crisis. Collectively, retailers will need to spend $39 billion to return to prepandemic inventory levels.[1]

Retailers are now sprinting to get product from manufacturer to customer, but supply chains remain snarled. Logistics carriers reduced capacity to match falling demand and have been challenged to accommodate rising volume. From ocean freight through the middle and last miles, carriers are experiencing unprecedented congestion that has caused service disruptions and rate increases. The approaching holiday season increases the urgency of tackling these challenges. According to McKinsey analysis, the concurrent disruptions have the potential to decrease earnings before interest, taxes, depreciation, and amortization (EBITDA) for retailers by 20 to 40 percent in the near term, with 15 to 20 percent of that decrease enduring if these supply-chain shocks go unaddressed.

The disruptions have forced retail supply-chain leaders to take action across multiple fronts to manage volatility and ensure product is available to meet consumer demand. To address current disruption across the supply chain and secure inventory for the fourth quarter of 2021, retail leaders will have to rethink traditional approaches. These headwinds show no signs of slowing following the holiday season. Supply-chain leaders must address several items to keep the chaos under control and successfully manage transformation in the long term:

— *See the full picture.* Leaders must understand the disruptive dynamics currently at play in each leg of the supply chain.

— *Navigate the near term.* They must pursue bold measures to mitigate disruption over the next 12 months.

— *Embed and enable resilience for the future.* They must fundamentally restructure the supply chain to mitigate long-term disruptive forces and address capability gaps to sustain new models.

Only by creating a full view of the challenge and managing these disruptions across different time horizons will retail leaders prepare their supply chains to support growth in the next normal. According to McKinsey analysis, a sustained effort can increase sales by 3.0 to 7.0 percent, improve margins by 1.5 to 2.5 percent, and boost working capital and cash flow by 15.0 percent.

See the full picture

Individual links in the supply chain are being shaped and disrupted by a mix of interlocking trends. While capacity constraints and rate increases have been present across the board, unlocking resilience will require a nuanced understanding of the conditions at each link.

Ocean inbound

The ocean-cargo industry is facing a range of challenges that are hindering the flow of global goods. The supply of container ships has been falling, with overall capacity down by 11 percent from September 2020 to June 2021. Many shippers reduced capacity in response to falling demand early in the pandemic, and the subsequent ramp-up has clogged ports. The global disruption caused by the Ever Given's blockage of the Suez Canal in April

[1] US Census Bureau, Manufacturing and Trade Inventories and Sales, March 16, 2021.

of this year is still reverberating, and Yantian port congestion sparked by COVID-19 outbreaks in May and July of 2021 has further constrained capacity.

The ocean-freight industry has also been gradually consolidating, with fewer, larger players controlling an increasing share of global capacity. The top five companies currently account for 65 percent of container capacity, a figure predicted to rise to 80 percent by 2025 (Exhibit 1). Industry consolidation has left retailers with fewer alternative carriers to augment capacity among their key partners.

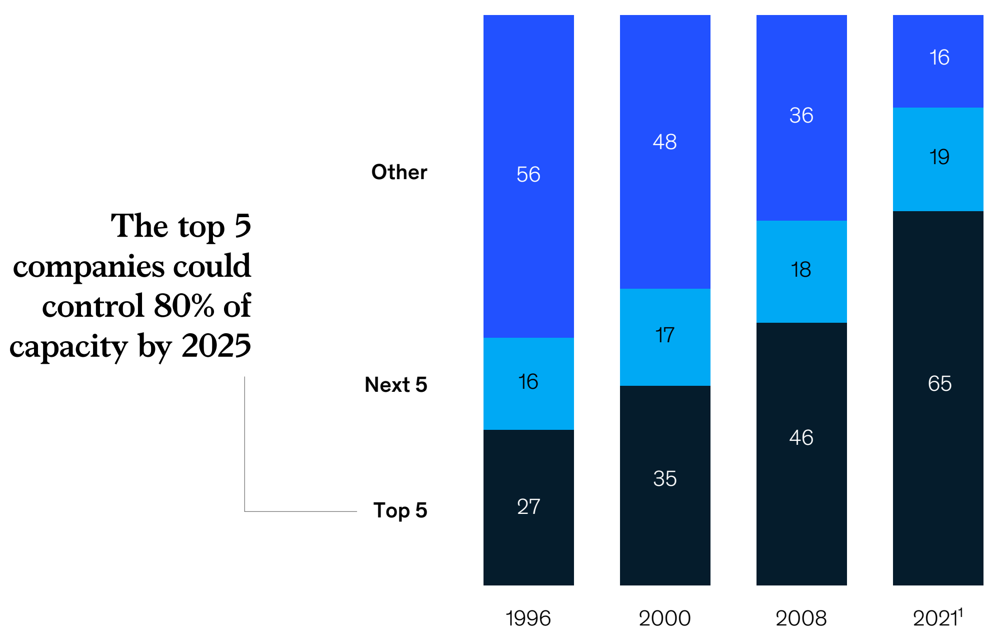
Middle mile

Retailers are facing significant cost increases and capacity constraints in their middle-mile operations. First, spot and contract rates remain in record-breaking territory as surging retail imports and peak produce shipments fuel demand for transportation services. Refrigerated (reefer) capacity is even tighter than dry van, resulting in disruptions to the fresh supply chain: the rejection of contracted rates reached approximately 50 percent. National reefer spot rates are currently 107 percent higher compared with the same time in the third quarter

Exhibit 1

The ocean shipping industry has been gradually consolidating, with fewer large players controlling capacity.

Container shipping line share, %



Note: Figures may not sum to 100%, because of rounding.
[1] As of June 17, 2021.
Source: Alphaliner

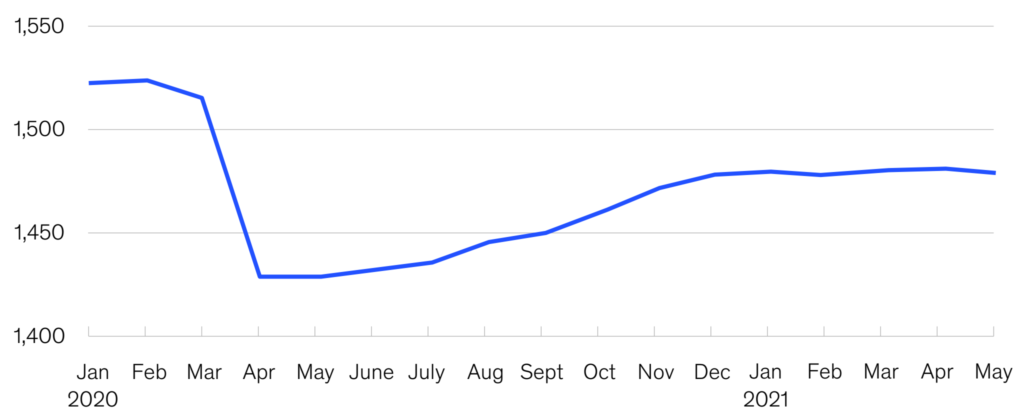
of 2020. These high spot rates have led carriers to reduce their adherence to contracts.

Second, labor shortages have hobbled the middle mile. Transportation and trucking employment continues to recover, gradually climbing out of a low-water mark in April 2020 (Exhibit 2). However, this trajectory is not enough to keep pace with demand. According to the US Bureau of Labor Statistics, the sector gained only 3,800 jobs during the first

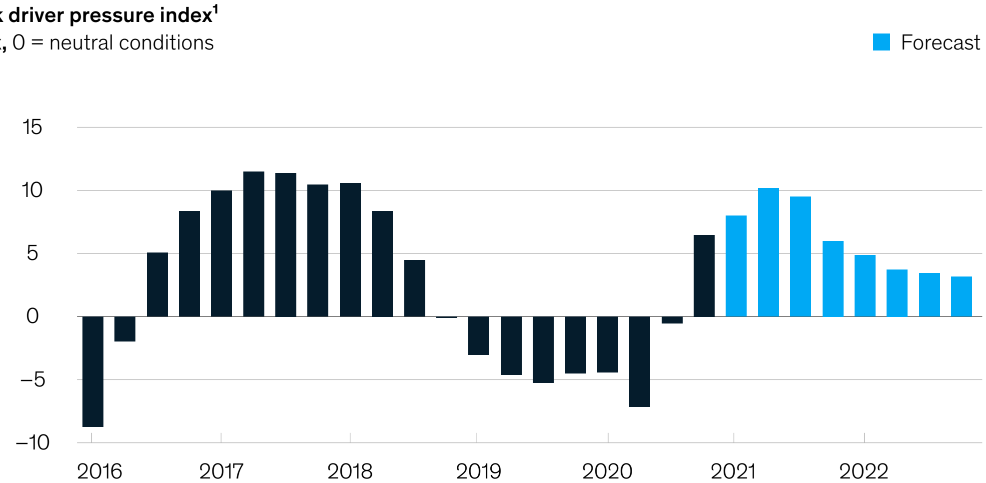
Exhibit 2

The industry is also struggling with driver attrition, putting additional pressure on rates.

Truck transportation employees in the United States
Total number of employees, thousands



Truck driver pressure index[1]
Index, 0 = neutral conditions



[1] Positive = greater pressure on driver availability; negative = less pressure on driver availability; 0 = neutral conditions.
Source: FTR Transportation Intelligence; US Bureau of Labor Statistics

three months of 2021. The forecasts for the Truck Driver Pressure Index for 2021 are higher than 2020, and low driver availability is further exacerbating matters.

Warehousing

Within warehousing, several factors are contributing to rising costs. Vacancy levels have dropped to all-time lows, while high absorption rates pushed rents 4.2 percent higher year over year in the first quarter of 2021 to $6.39 per square foot. Only nine of the top 50 US markets experienced rent declines during this period.[2]

At the same time, warehouse wages have returned to peak pandemic levels despite growth in employment. Retailers are competing for warehouse talent as they hire to expand capacity, offering increased pay, bonuses, and benefits. Amazon, for example, has announced that it is raising average starting wages to $18 per hour to attract more hourly workers, while Target plans to offer free undergraduate degrees to 340,000 staff members. Average hourly wages have climbed steadily from $17.59 in September 2020 to $18.68 in May 2021 (compared with a peak rate of $18.79 in August 2020).[3]

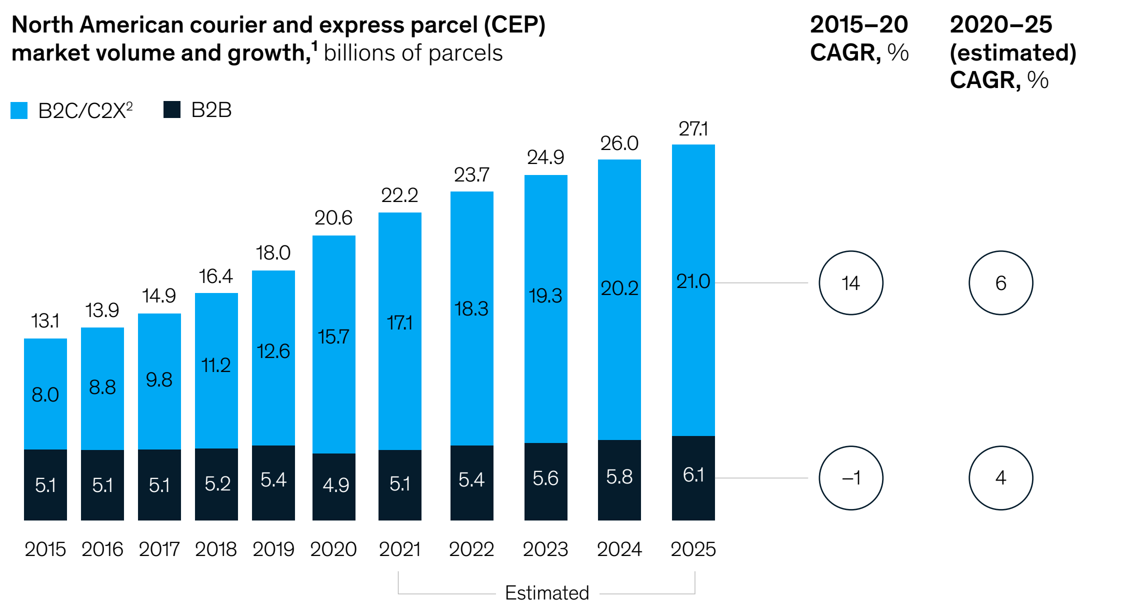
Last mile

Direct to consumer last mile shipments have risen 14 percent per year from 2015 to 2020, driven primarily by the expansion of residential B2C delivery from accelerated e-commerce demand (Exhibit 3). In contrast, B2B volumes were flat during

[2] Gillam Campbell et al., *Industrial Tenant Demand Study*, Jones Lang LaSalle (JLL), June 27, 2021, us.jll.com.
[3] "Current employment statistics: Employment and earnings table B-8a," US Bureau of Labor Statistics, last modified October 8, 2021, bls.gov.

Exhibit 3

E-commerce has increased B2C courier and express parcel volumes by 14 percent per year, while B2B volumes have remained flat.



[1] Includes CEPs and small packets; excludes heavyweight.
[2] Consumer to everyone.
Source: Effigy Consulting

this period. Parcel integrators have responded by revising their B2C strategies and adjusting price and service levels. Although demand for B2C delivery continues to grow, national carriers have focused their investments in the B2B side of the business, given the channel's more attractive margin and ROIC profile.

Therefore, current capacity investments by large integrators and the US Postal Service are insufficient to meet growing B2C parcel demand. Parcel providers have raised prices and added surcharges to account for the impact of increased B2C volumes on their networks. According to McKinsey analysis, that means retailers may need to pay between $1.15 and $6.15 per package in additional surcharges through October, and more increases are likely in the fall. The longest-distance shipments (zone five or higher) are expected to increase 15 to 40 percent.

Navigate the near term

Taken together, these trends have shaken supply chains and forced retail leaders to spend months trying to put out fires. They have also turned conventional supply-chain-management principles on their head in many markets, as legacy cost-optimization approaches such as vendor consolidation and just-in-time capacity are no longer sufficient to guarantee inventory will be available in the right place at the right time.

By taking a broader, total-cost-of-ownership (TCO) view that includes the full risk of stock-outs and missed sales, resilient retailers are pursuing bold near-term actions. Looking across retail verticals, we see seven actions supply-chain leaders must take to manage the chaos and mitigate disruptions:

1. **Stand up a digital control tower**
   Navigating the manifold disruptions will require retailers to maintain an end-to-end visibility to quickly identify issues and collaborate across functions to resolve them. However, the vast majority of retail supply chains are tracked and governed through multiple, often disconnected data systems managed by different teams. Implementing a digital control tower that connects data systems and generates insights across the end-to-end supply chain can create transparency and accelerate response times once bottlenecks are identified. In our experience, this approach typically improves fill rate by 10 percent and reduces excess inventory by more than 30 percent.

2. **Strategically allocate inventory in the near term**
   Many retailers were forced to make difficult trade-offs on how to deploy and manage inventory to best meet customer demand and protect sales during the peak months of the pandemic. Continuing to pull levers such as prioritizing markets for inventory deployment and ensuring promotional plans align with the pipeline of available and expected inventory can help retailers mitigate immediate disruptions and shore up resilience through the holiday season.

3. **Optimize and prioritize purchase-order flows by mode**
   To ensure that critical inventory is available when needed, retailers should prioritize purchase-order flows accordingly—for example, by front-loading floor-set and peak-season orders. Alternative transport modes (such as air freight) should also be considered even if they have traditionally been more costly. Taking a TCO view of supply-chain decisions can help retailers identify and appropriately prioritize critical inventory. In the near term, this will require retailers to lean on existing analytics capabilities. In the long term, investments in advanced analytics can automate the risk-assessment process and enable the dynamic assessment based on real-time visibility into inventory levels and recent supply-chain performance.

4. **Reduce risk through strategic supplier fragmentation**
   Retailers should resist the temptation to concentrate too much of their business with one supplier in pursuit of volume discounts. Fragmenting the supplier base can help mitigate

capacity constraints at the individual supplier level and create opportunities to augment capacity as demand continues to fluctuate. This approach can look different at each leg of the supply chain.

Within ocean freight, retailers should revisit their arrangements with existing shipping carriers and explore options such as non-vessel-operating common carriers (NVOCCs) and freight forwarders to increase the probability that one of the counterparties will have capacity when needed.

In the middle and last miles, partnering with regional and local carriers can provide access when national carriers throttle capacity or implement surcharges. Since the spike in spot rates led many middle-mile drivers to leave their employers and start their own independent trucking companies, the landscape has become more atomized. The freight brokerage industry has thousands of small, local brokers that make first contact with these new trucking companies and arrange touchpoints for national-scale retailers. Similarly, expanding volumes have spawned a slate of new players, such as LaserShip, Lone Star Overnight (LSO), and PITT OHIO, that provide last-mile capacity, often at a 10 to 30 percent discount in their coverage areas.

Last, in warehousing, retailers have an opportunity to forge on-demand partnerships to secure space needed for short-term spikes. Tech services (for example, Flexe and Ware2Go) provide retailers with access to short-term capacity to meet periodic spikes without adding permanent space.

5. **Build longer-term supplier partnerships**
   Across supply-chain segments, investing in longer-term contracts (18 to 36 months) can reduce price volatility and enable suppliers to prioritize certain strategic accounts over those perceived to be more short term and transactional. This approach can be especially effective in ocean freight and warehousing. Freight carriers have publicly announced their intent to prioritize multiyear contracts when managing capacity and to design pricing models based on length of commitment. In warehousing, rents are nearly guaranteed to rise significantly with each contract cycle. Locking in longer-term contracts can convince landlords to limit rent increases during renegotiations on expiring contracts. Retailers should explore extended contracts with warehouse partners that include fixed annual increases as a way to secure capacity and predictable costs.

6. **Double down on efficiency**
   Optimizing operational performance to make the best use of existing capacity at each leg of the supply chain can help mitigate constraints in the near term. In the middle mile, capacity constraints have changed the breakeven math for transportation planners that may

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have previously favored other priorities, such as rush orders. Planners must now prioritize efficiency to reduce the total number of loads and refresh their assumptions to strike the right balance between truck utilization and speed. The breakeven math has also changed within the four walls of the warehouse: as labor costs increase, the value of productivity improvements also rises. Retailers can emphasize productivity improvements (such as redesigning warehouses, revisiting engineered labor standards, and investing in lean operations) as a form of risk mitigation to protect against disruption from labor shortfalls.

7. **Consider investing in dedicated or private fleet capacity**
   If external suppliers and internal productivity improvements together cannot bridge the gap to secure the required capacity, retailers with large, dedicated contract fleets can consider taking their operations in-house. Dedicated, private fleets are more expensive and add some management complexity, but many large trucking companies will prioritize service to dedicated customers over others, even using over-the-road (OTR) truckers to do dedicated moves to ensure service. This approach can increase reliability and reduce cost, since truckers pulled in from the OTR fleet work at the dedicated rate, rather than at the higher spot rate.

Embed and enable resilience for the future

The headwinds creating volatility across today's supply chains do not show signs of slowing after this holiday season. While bold near-term actions will ensure continuity of supply for retailers' immediate needs and lay the foundation for future flexibility, fortifying supply chains against continued shocks will require a thorough approach to embedding resilience (and the capabilities that enable resilience) for the long haul. This goal will require retailers not only to rethink their network design and strategic supplier-partnership approach but also examine their operating models and invest thoughtfully in their technology and analytics.

In our experience, effective supply-chain transformation efforts center on three themes that embed resilience and unlock value in the long term.

8. **Clean-sheet the end-to-end network**
   Since the network of the past will no longer be able to serve the needs of a more volatile future, retailers must remap supplier mix, locations, geographies, and existing assets (including distribution-center locations and routing). Recent disruptions in international trade have exposed vulnerabilities in retailers' current supplier and geographic mix. Resetting the full supply chain must start with a reevaluation of where products are sourced and how the risk of disruption factors into the decision. Within the distribution network, clean-sheet efforts must take an integrated network approach to make the most of retailers' physical assets. Beyond the existing distribution-center network, stores can function as delivery hubs for e-commerce orders. Routine replenishment runs can bring e-commerce orders to stores—for the buy online, pick up in store model—or serve as couriers over the final mile.

9. **Operate cross-functionally to change buying and planning behaviors**
   Retailers will need to make longer-term decisions on how better to coordinate buys, optimize assortment, and ensure they are minimizing disruptions to deliveries. They should take several factors into account. Accelerating timelines and planning can have a direct impact on freight availability and rates: the sooner retailers submit orders, the more likely the orders are to be accepted. Similarly, reducing SKU complexity can mitigate the risk of stock-

outs by creating more flexibility further down the supply chain. Allocating inventory across an integrated network can enable retailers to locate goods closer to their ultimate destination, reducing cost and increasing the likelihood of achieving promised service levels. Advanced analytics is bringing more accuracy to unlock the value of forward deployment without adversely affecting working capital. Pulling these levers will require new operating models that enable seamless collaboration across supply chain, merchandising, planning, and buying functions, as well as a holistic view of how decisions in each function affect the total business.

10. **Invest in automation and analytics investments**
    Retailers can explore investments in advanced-analytics technologies and automation (including robotics) to improve service and reduce TCO to the network. Integrated analytics platforms can create industrial-strength end-to-end visibility by bringing together insights from supply chain, merchandising, planning, and buying to enable a TCO view across the go-to-market process. These tools create a shared fact base to enable more cross-functional decision making while streamlining transactional work that builds time into the process. Meanwhile, effective automation of distribution centers alone could boost profitability by 300 to 700 basis points. Traditionally, automation business cases considered only the benefit of reduced labor hours. In today's world of high absenteeism and attrition, automation is a way to increase service levels and reduce the risk of lost sales from stock-outs. A McKinsey survey of supply-chain executives found 64 percent of respondents now cite automating warehouse roles as the top digitization and automation priority.

As supply-chain disruptions continue, volatility and uncertainty are here to stay for the foreseeable future. However, retailers have the opportunity to regain control by addressing these disruptions head-on in the near term and using these measures to lay the groundwork for future resilience. Once the immediate situation is stabilized, retail leaders will need to reimagine their supply chains to prepare for the next normal, starting with a clean-sheet view and empowering their organizations through new ways of working and future-ready tools.

None of the actions detailed above will have an instant impact or happen on their own. Still, retailers with the vision to transform their supply chain can capture a significant payoff. And just as important, these efforts will embed long-term resilience to help retailers weather future disruptions.

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