

## Post-Pandemic Scenarios Supply Chain Second in a Series

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*Covid-19 has profoundly affected commerce and global trade. New consumer patterns are emerging, which will persist after the pandemic ebbs. We project three lasting changes to supply chain strategy*

- *“Last Mile” Disintermediation - growth in direct delivery; decline in brick and mortar*
  - *A fundamental shift in the risk vs. cost tradeoff*
  - *Rethinking global supply chain*
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### *Idea in Brief*

Supply chain decisions – for example, what, where and how much to buy; and how much inventory to hold and where – frequently involve a tradeoff between cost and risk. Optimizing this tradeoff has emerged as an important discipline for large organizations, especially large multinational conglomerates that rely on global supply chains. However, it is worth noting that these very same optimization tradeoffs are made in a less formal manner by households as well. **COVID-19 has permanently altered how supply chain decisions will be made going forward – for both organizations and their customers.**

To create informed projections about these and other issues, our team has conducted a structured, iterative group forecasting exercise. Our forecasting methodology is outlined at the end of this paper.

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### **Post Pandemic Scenarios – Supply Chain**

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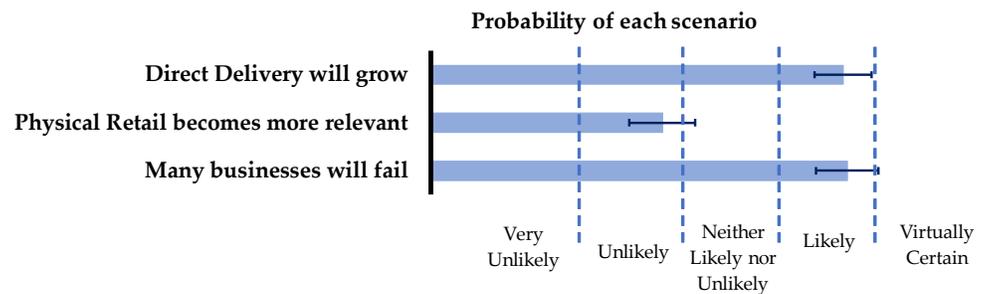
## I. “Last Mile” Disintermediation

Disintermediation is the removal of intermediaries from a supply chain, or “cutting out the middlemen.” Our panel was nearly unanimous in agreeing that accelerated disintermediation on the consumer end – the “last mile” of the supply chain – is likely.

The advancement of technology had enabled and substantially eased direct delivery processes well before the pandemic, with customers already accustomed to the convenience of online ordering. Households and businesses adapted quickly during the pandemic to ordering virtually all categories of goods on-line, something that is likely to persist after the pandemic ends. A consequence of this “shopping at the click of a button” is the reduced need for physical intermediaries – primarily traditional brick & mortar stores.

Recent times have seen a rise in direct to consumer (D2C) sales whereby wholesalers or manufacturers bypass traditional distribution channels (intermediaries) and this trend is likely to accelerate. Zappos, Casper Mattress, Harry’s Razors, and Warby Parker are some of the examples of companies that became household names without a physical presence. Even traditional stores like Home Depot and Walmart are active in D2C - indeed many of the items they offer are only available online. It is worth noting that this growth has been enabled by the rise in online marketplaces like Amazon that allows D2C sellers to vastly expand their reach to consumers.

*Accelerated disintermediation in the “Last Mile” of the supply chain.*



### Implications:

The increased willingness of consumers to order on-line, bypassing traditional brick & mortar stores, creates both opportunities and threats for the sellers (and their upstream suppliers).

First, to survive physical stores will need to modify their business models to become more relevant and to add meaningful value to the purchasing experience. In our panel’s collective view, most physical store operators are unlikely to succeed in this.

The resulting elimination of low value-add intermediaries implies savings and efficiency gains for upstream sellers – for example due to the benefits of pooling merchandise in large warehouses at low-cost locations and elimination of in-store sales staff. However, it also requires wholesalers to have an innovative mindset, one that can quickly and dynamically understand the evolving tastes of consumers and adapt to them quickly. Small missteps can be very costly especially in the age of social media.

Firms that aggressively exploit the potential from increased direct delivery may be able to quickly gain market share from the companies that are forced to exit. Further, since every single transaction is now electronically captured, firms need to be innovative in the use of data to drive consumer insights that expand market share.

More importantly, firms that effectively deploy innovative business models will have an advantage. For example, “buy online pick up in store” that allows firms to shorten the delivery window may enable some brick and mortar retailers to expand their customer base. Many grocery retailers have emphasized this model during the pandemic, and consumers have found it to be both safe and convenient. Other mechanisms include customization of products (think Nike Shoes) or as in the case of pure D2C sellers Warby Parker and Bonobos, opening stores that allow customers to “touch-and-feel” before ordering online.

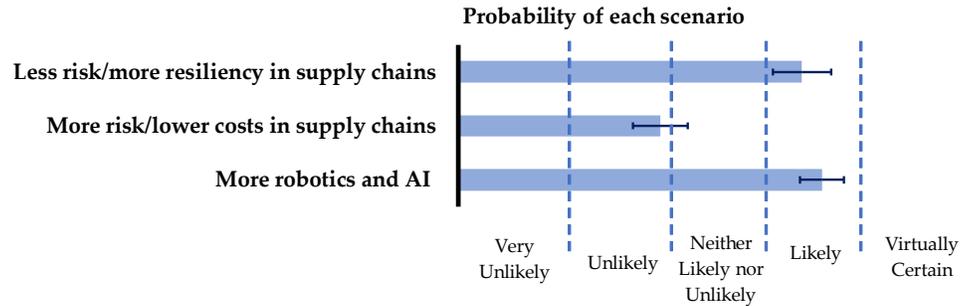
More fundamentally, physical intermediaries will need to ensure that their business model provides a safe shopping experience, and provides meaningful benefits relative to direct delivery.

## *II. Re-evaluation of cost vs. risk tradeoffs*

A 2019 survey by Deloitte asked purchasing managers of major corporations to identify the biggest risks their organizations face. Ten major risks were identified, including trade wars, economic downturn, and internal complexity. Global pandemic was not even on the list.

Our panelists have concluded that the vulnerability to disruption exposed by the pandemic will compel companies and senior supply chain executives to rethink their assumptions about risk, disruption, and sourcing strategies. We conclude that it is likely that supply chain managers will, on balance, opt for more effective risk management, and accept the higher operating costs involved.

*Shift in risk vs. cost tradeoff – supply chain executives will accept higher costs to more effectively protect against supply chain disruption*



### *Implications:*

At its heart, supply chain strategy is an effort to optimize the tradeoffs and risks inherent in supply chain decisions. For example, higher safety stocks reduce risk of running out, but increase inventory holding costs; offshoring reduces labor expenses but increases supply chain complexity and the risk of disruption; faster delivery times (e.g. air vs. ocean) make supply chains more responsive but add cost; and supplier diversification enhances flexibility but adds to complexity and cost.

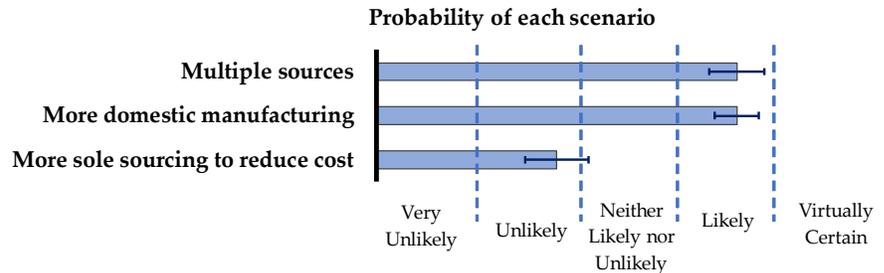
The pandemic has shone a new light on how managers perceive the tradeoffs in supply chain decision-making, in particular increasing the perceived risk of unexpected supply chain disruption, and the resulting need for supply chains to be more resilient, as exemplified by shortages of masks, pasta, and toilet paper. Not only is the pandemic a new category of risk to be listed in the Deloitte survey, it also amplifies many of the risks that purchasing managers have already identified, including risk of economic downturn, natural disasters, and tension in the US-China trade relationship. This renewed appreciation of supply chain risk is likely to result in larger safety stocks, diversification of suppliers, backup supply sources, onshoring some manufacturing and actions to reduce cycle times.

Successful supply chain executives will be those who reassess their organization's risk vs. cost tradeoff and find innovative ways to cost-effectively reduce risk to be better prepared for the next, inevitable supply chain disruption.

### *III. Rethinking global supply lines*

One specific outcome of the pandemic identified by our panelists is the likelihood that organizations will revise their global supplier strategy – specifically, reducing reliance on sourcing from other countries, and diversifying their supplier base, especially for critical components. Related to this, our panelists consider it likely that investment in domestic manufacturing and associated technologies such as robotics and AI (e.g., Amazon Robotics, formerly known as Kiva Systems) will

expand in response. An increase in domestic manufacturing is facilitated by the likelihood that significant unemployment caused by the COVID shutdown will persist, providing a ready availability of supply chain workers.



### Implications:

This trend implies a significant redesign of the US economy, to include

- enhancement of manufacturing capacity
- realignment of supply lines from raw materials through finished products
- increased vertical integration that allows managers to have greater control of the firms' resources – physical, financial, and human
- increased application of advanced technologies such as robotics
- repositioning of the US workforce away from low-value added direct customer contact and towards more technologically-enabled knowledge work.

Suppliers, both in the US and overseas, will make resiliency and pandemic response capability a part of their value proposition.

Successful firms will be those that strategically plan their investments – where, when, how – in the resources necessary to innovate their supply chains. This includes investment in (i) technologies to modernize manufacturing and distribution; (ii) employee skills and education, such as those related to artificial intelligence, machine learning, and operations management, many of which have eroded in the US over the past decades, as more and more manufacturing has moved overseas; and (iii) relationships with their upstream suppliers and downstream customers to increase their organizations' responsiveness and flexibility.

More generally, it requires an innovative mindset, so that organizations and their supply chains are better prepared to respond when the next inevitable pandemic hits. In the famous words of General Dwight D. Eisenhower, *"You will not find it difficult to prove that battles, campaigns, and even wars have been won or lost primarily because of logistics."*<sup>1</sup>

<sup>1</sup> <https://www.heritage.org/military-strength-topical-essays/2019-essays/logistics-the-lifeblood-military-power>

Winning firm  
will be those  
that innovate  
and re-think  
their supply  
chains

## *Methodology*

To develop perspectives on the post-pandemic environment, our research and consulting divisions conducted an extensive scenario planning effort based on the Delphi method. In total, a panel of 27 senior leaders independently assessed and rated over 130 discrete future scenarios and assigned probabilities to each.

Our panel was constructed to represent a diverse cross-section of organizations, including senior leaders in business, education, the non-profit sector, health care, finance and government. The result is a rich database, consisting of over 7,000 data points, providing insights into the future we will all face together after the Covid pandemic is resolved.

## *About the Authors*

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## *About Opus Faveo*

Opus Faveo Innovation Development is an innovation strategy and venture development firm. Through its Institutional and Corporate Innovation strategy practice, the firm provides actionable solutions to leadership in academia, government and the private sector, increasing innovation impact through stakeholder engagement, rigorous analysis, and effective communication and outreach programs.

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