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Supply Chain Outlook: What to Expect in 2022 & Beyond

By G. Ravishankar

Dubbed the Great Supply Chain Disruption by the New York Times, pressure on the global supply chain isn't likely to let up anytime soon.

Even as the economy recovers from the impact of COVID-19, labor shortages, port congestion and manufacturing delays are throwing off the supply chain's delicate balance.

Higher demand for products is further exacerbating supply chain challenges. While some indicators might suggest that the pressure is beginning to ease, it is important to note that today's conditions are far removed from normal, and disruption is, unfortunately, likely to continue for the foreseeable future. The current geopolitical landscape might cause any easing to reverse, extending our stay in this unusual state even longer.

As a result, there's still a long road ahead and some elements, such as labor rates, may never return to pre-COVID levels.

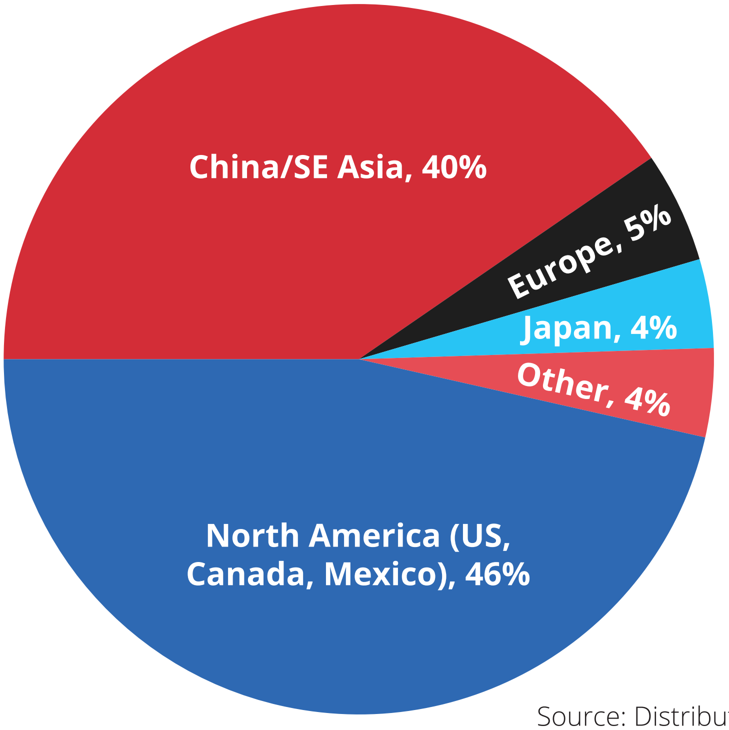
What is causing continued supply chain disruption? In this whitepaper, we combine survey findings, industry experience and our analysis of government data to discuss what might be in store for the balance of 2022 and beyond.

What is Continuing to Drive Disruption in 2022?

Any discussion of supply chain disruptions in the U.S. cannot ignore the elephant in the room: our dependence on China.

The U.S. relies heavily on China for manufacturing of components and finished goods. Total imports from China jumped 16% between 2020-2021.

Chart 1: Percentage of the products purchased in different regions



Source: Distribution Strategy Group Survey

Respondents to a Distribution Strategy Group survey said 40% of the products they purchase come from Asia (Chart 1).

Countries in Europe and other parts of the world also rely on imports from China, from components to fully assembled products. Furthermore, customer decisions are based more on price than country of origin (Chart 2 on page 4). As inflation kicks in, it drives demand for lower-priced goods produced in countries based in the Far East, adding to supply-chain pressures.

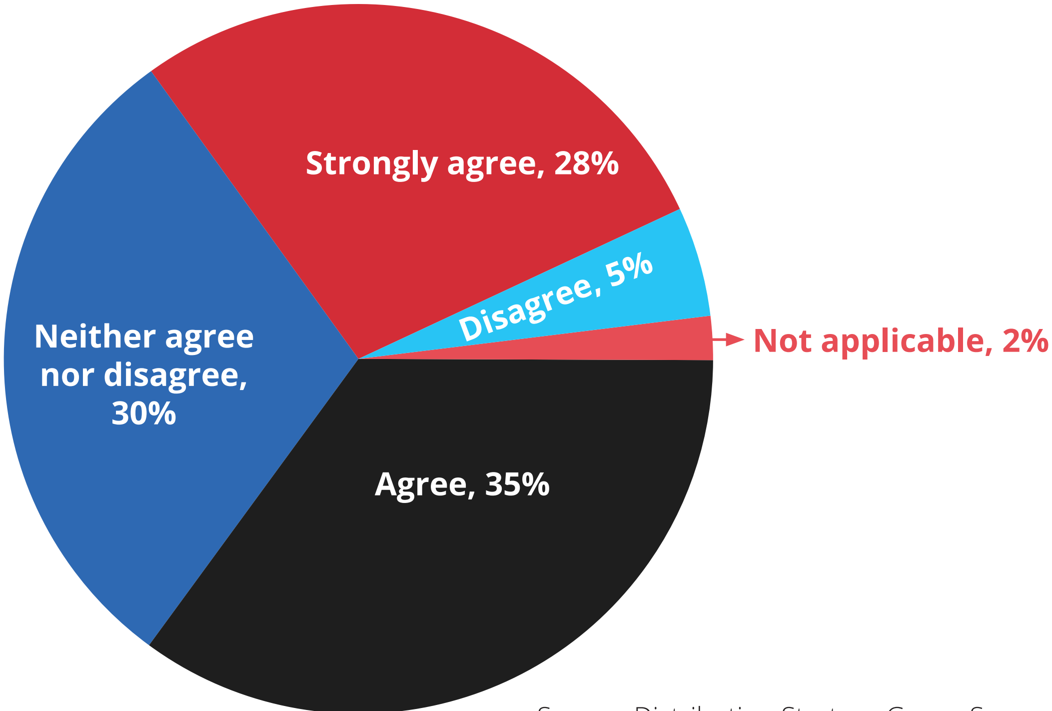
Any disruptions in China are eventually felt in other parts of the world.

China

China has had its fair share of problems over the past two years. The surge in demand for manufactured products comes at a particularly tough time due to labor shortages, the rising cost of materials, internal transportation disruptions and power issues.

Like the U.S., China is facing a labor shortage in the manufacturing sector. Workers below the age of 40 do not want to work in facto-

Chart 2: Our customers choose products based more on price than where they were made or assembled. Agree or Disagree?



Source: Distribution Strategy Group Survey

ries and instead gravitate toward less strenuous and higher-paying service jobs. This means that China is understaffed in manufacturing.

In 2021, power shortages plagued China. The provinces in the north rely on coal to fuel their factories. However, regional flooding in the area halted coal production and led to widespread power outages. In the south, regional droughts put a strain on hydropower production. The government has implemented power rationing in regions, forcing companies to operate at half time or less. There is no sign that these problems will be resolved anytime soon.

Although they are lessening, COVID-related lockdowns also continue to hamper production in several provinces, including Zhejiang and Guangdong – regions in the "consumer belt" that produce a sizable portion of the products handled by U.S. distributors. Recently, the cities of Shanghai and Shenzhen announced they would be resuming lockdowns and shutting factories, resulting in delays. Shutdowns related to continued concerns over COVID and power rationing coincided with the Chinese New Year, a major national holiday for many East and Southeast Asian countries. Because of this, the Chinese government extended the holiday period in 2022 in many provinces. This unusual extension halted production and shipping across the country for 15-30 days.

Transportation issues, whether it be container shipping or trucking/rail-related, further complicate matters because they are the lifeblood of moving goods around the world. Chart 3 on page 6 illustrates the general flow of goods, as well as the major issues facing key points along the transportation network.

Shipping Delays & Costs

The most heavily trafficked shipping routes fall between Asia and North America and Asia and Northern Europe. Several factors, including container shortages, have caused shipping delays and spikes in transportation costs.

Chinese companies control 96% of dry-container production and 100% of refrigerated container production. Unfortunately, a shortage of raw materials combined with power outages and labor concerns has led to a decline in container manufacturing. Containers that cost between $1,600 and $1,800 two years ago have doubled or even tripled in price as the overall container shortage reached about 600,000 units.

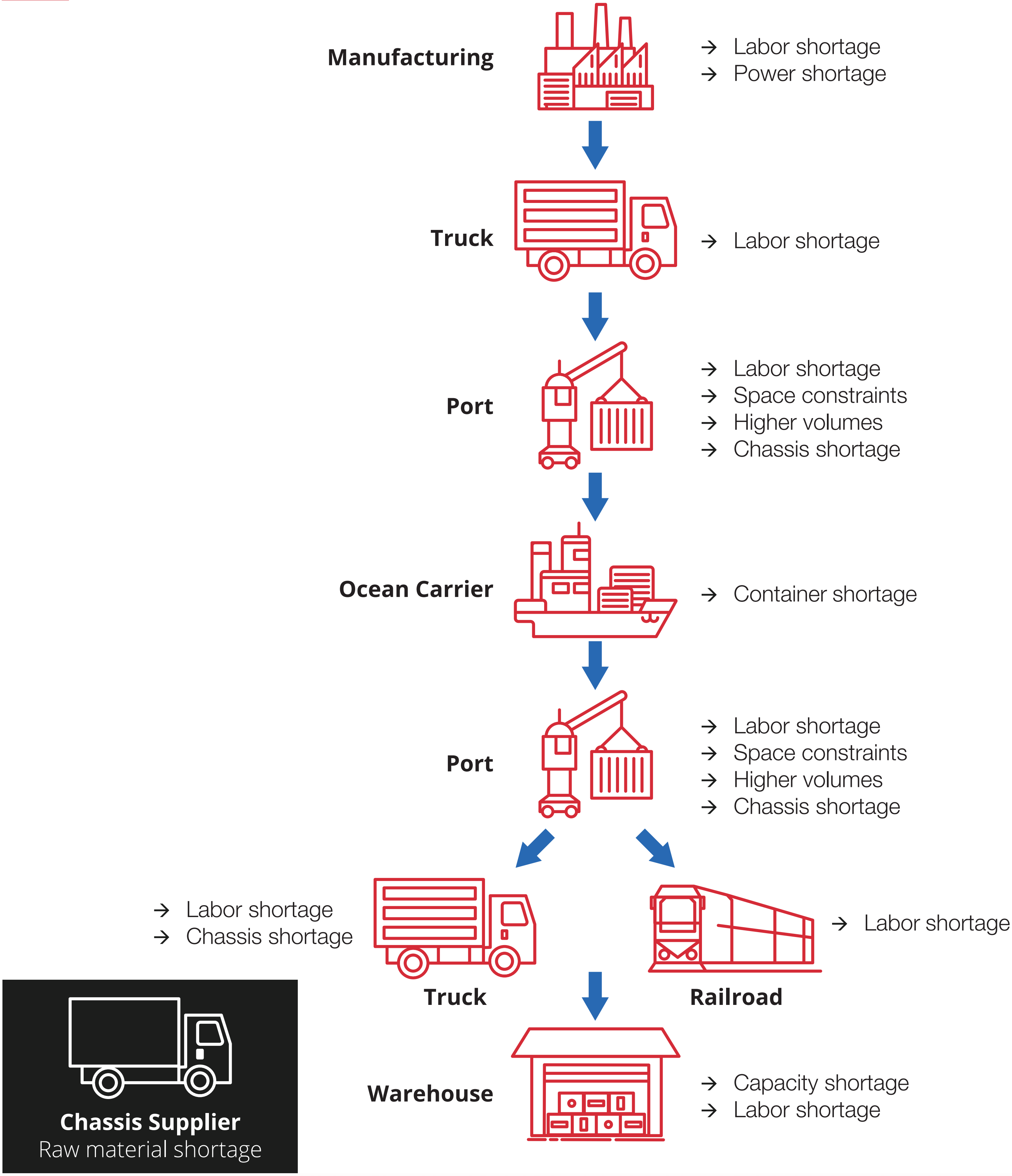
The flow of containers through global shipping channels slowed in 2019-20. Although there has always been a gap between containers received and shipped back, that difference has grown since COVID-19. As demand surged, containers shipped from China were not returning at the same rates. A significant drop in truck chassis and drivers means containers are piling high in ports. As a result, containers are not making their way back to their point of origin, contributing to the imbalance, driving up prices and further straining distribution.

Dock and Land Transport

Many supply-chain issues are closer to home than some may realize. Port congestion, labor shortages and a sharp drop in chassis and truck availability have thrown a wrench into everyday operations in the U.S. Manufacturing delays in the production of spare parts and skyrocketing raw-material prices has limited repair of existing chassis. This has driven up used-chassis prices.

Companies are also making fewer trucks due to semiconductor chip shortages, and heightened demand has led to low availability.

Chart 3: Shipping and transportation disruptions



For distribution to be successful, a container must be unloaded from the ship, placed onto a chassis and transported from the port to its destination in a timely manner. Unfortunately, containers are arriving at these ports en masse with nowhere to store them and no way to transport them.

Ports are overloaded and gridlocked and have resorted to stacking containers higher than normal to speed up the unloading of ships. However, this has made it difficult to access containers at the bottom of the pile, slowing down the movement of containers off the docks.

Labor Scarcity and Costs

Businesses at every point in the supply chain are struggling to find workers. Low wages and difficult working conditions have resulted in high turnover rates and fewer applicants in manufacturing, shipping, ports and trucking.

A lack of workers has led to fierce competition between businesses. Amazon is reportedly paying $25 per hour plus benefits in some areas to recruit new warehouse workers, drivers and other personnel. Experts believe that the current climate has reset warehouse labor and trucking wages, and they may not come back down.

While many positions working on a dock do not have formal educational requirements, developing the required skills is a slow process. Specialized areas such as dock-crane operators require additional certifications. As older generations retire, young workers do not appear eager to take their place, even though companies are offering higher wages.

Outside of the U.S., COVID and geopolitical conflicts continue to put pressure on overseas hiring. About one-third of the two million people who work in merchant shipping are Filipino, a group hit hard by COVID-19. An additional 14% of workers are from Russia or Ukraine and the current conflict in those areas has hindered rail shipments through the region. Because nearly half of the workforce in the shipping industry is tied to these two groups, there has been a disproportionate impact on the merchant shipping industry.

The Outlook

It will take time for the supply chain to stabilize. Although COVID-19 may have been the spark that started it all, other circumstances are fueling the fire.

The truck and chassis shortage will probably continue through 2022. There is a lack of parts for new trucks, and old trucks are in high demand. Until chip and spare-part manufacturing catch up, older trucks will remain expensive, and shortages will likely continue.

Disruption at ports may take longer to correct. One reason for this is the time it takes to hire and train new employees in specialized roles. Unfortunately, this high ramp-up time combined with continued labor shortages means that ports will continue to experience a lack of skilled workers for two or more years. Many major ports have announced plans to expand their facilities, but construction will not alleviate the issues in the short run.

Continuing issues in China. Although the government is addressing the power issues, it has not announced when power rationing will end. China may be starting to solve its coal problems by increasing imports and raising the quotas local companies are allowed to produce. Unfortunately, this conflicts with the country's plan to migrate away from the use of coal. Ongoing COVID-related lockdowns are going to continue to affect the supply of goods.

Ukraine conflict. Because many containers are shipped back to China along rail routes that run via Eastern Europe, shortages are likely to persist, and transportation prices will remain high as the conflict in Ukraine continues.

Steep inflation and rising interest rates also play a role in supply-chain costs. A sizable portion of core inflation stems from rising fuel and food prices. When fuel costs go up, so does the cost of anything transported. Labor costs also contribute to the rising price of goods. Although fuel prices may stabilize, labor costs are unlikely to return to pre-pandemic levels. Rising interest rates can affect investments such as the cost of carrying inventory.

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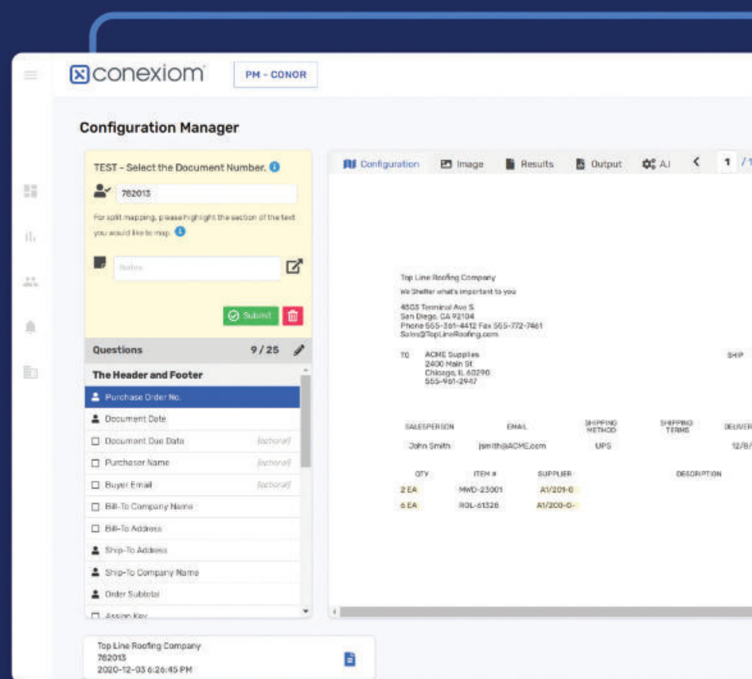

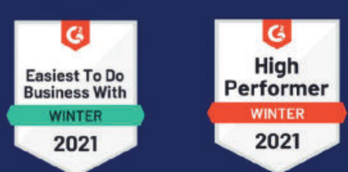

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