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Global Supply Chain Disruptions, Shortages, & Price Increases 2021



**Analysis of Supply Chain Impacts on Facility Supplies and Foodservice Disposable Categories
July 2021**

Global Supply Chain Impacts of COVID-19

The COVID-19 pandemic has dominated the news and collective psyche of the world throughout 2020, and its spread and the resulting cascade of ramifications have led to a [global crisis of unprecedented reach and proportion](#).¹ As was written in one of [our articles on this topic last year](#),² it would be the height of understatement to say that the COVID-19 pandemic has had a dramatic and oversized impact on many of the facets of our everyday lives which we may have previously taken for granted.

From state and community lockdowns, to the closures of “non-essential businesses” and public gathering places like schools, churches, and sports venues, to the implementation of [social distancing measures](#)³ and ongoing efforts to [vaccinate large segments of the population](#),⁴ to the [sheer numbers of cases and deaths attributed to the virus](#),⁵ it has been anything but “business as usual” for the world for well over a year now.

And one of the “business as usual” areas of our everyday lives which we may have previously taken for granted prior to the pandemic, and which has been hit particularly hard over the course of the last year and a half as a result of COVID-19, is the [global supply chain](#)⁶ and our collective ability to be able to source and purchase the products which we have come to view as basic staples of our everyday lives.

Throughout 2020, [shortages of Personal Protective Equipment \(PPE\)](#)⁷ like gloves and face masks, as well as [hand sanitizers, disinfectants/disinfectant wipes, and toilet paper](#)⁸ were all fairly well documented, and could most easily be explained in a very straightforward way: **there was a rapid and unanticipated massive global surge in demand for these specific products which could not be met with the available global supply.**

After months and months of shortages on these products throughout most of 2020 and into the beginning of 2021, it is worth noting that as this article is being written in the summer of 2021, if you would like to purchase some [PPE](#),⁹ or [hand sanitizers](#),¹⁰ or [disinfectant wipes](#),¹¹ chances are pretty good you will be able to find everything you may need now.

So... now that the supply chain has been able to accommodate for this dramatic spike in pandemic-related demand for these specific products, and the lockdowns are lifting, and people are being vaccinated, and COVID-19 cases are decreasing, and the world is re-opening, everything is ready to go back to “normal”, and we can get back to purchasing all of the rest of our “regular” supplies, right?

Unfortunately for all of us, the short answer to that question is “not so fast”!



Supply Shortages of 2021 – “A Perfect Storm of Ugliness”

Now that we seem to be able to source plenty of PPE and hand sanitizer, it seems like we are unable to source much of anything else which doesn't also now come attached with a much longer lead time than usual, as well as an increase in price. Everything from computer chips to chlorine to chicken – seems to be caught up in these [shortages which are popping up all across the supply chain](#).¹²

This year, the supply shortages we are seeing across all of these multiple product categories and multiple industries can't necessarily be attributed to any one particular reason like they could in 2020. And although the COVID-19 pandemic can be seen as a culminating factor leading to these ongoing shortages in the global supply chain, the reality is that just like an iceberg was the culminating factor in the sinking of the Titanic, it wasn't the only contributing factor in the [“event cascade” chain of circumstances which eventually led to the luxury ocean liner's doom](#).¹³

The COVID-19 pandemic can therefore be seen as the proverbial “straw” which has broken the proverbial “camel's back” of the global supply chain, but there are several other contributing factors in this particular event cascade which is now culminating in [the supply shortages we are all currently experiencing](#).¹⁴

And there have been no shortage of potential candidates for supply chain disrupters which can be nominated for blame in this supply chain shortage event cascade, such as the logistical nightmare of the [Suez Canal blockage](#),¹⁵ the freight backlog and plastic resin production stoppage of the [Winter Storms in the Gulf Coast](#),¹⁶ and the computer hacking that shut down the flow of fuel through the [Colonial Pipeline](#).¹⁷

As a matter of fact, the supply shortages of 2021 have been described as [“a perfect storm of ugliness”](#)¹⁸ by Nick Vyas, Executive Director and Co-Founder of the University of Southern California Marshall's Center for Global Supply Chain Management.

“Anything that can go wrong is going wrong,” Vyas says.¹⁸



A Brief Overview Of The Supply Chain

So what is a “supply chain”, and what does it have to do with pandemics, facility supplies, and foodservice products?

According to Investopedia, a [supply chain](#)¹⁹ is “a network between a company and its suppliers to produce and distribute a specific product to a final buyer...The supply chain also represents the steps it takes to get the product or service from its original state to the customer.”

In short, the supply chain is the process which is ultimately responsible for putting products on the shelves of grocery markets, big box stores, and wholesale distributors like WAXIE and others. In “normal” times, and prior to COVID-19, the global supply chain which has been developed over the course of the last several decades has shown itself to be extremely efficient at putting products where they need to be, when they need to be there, and at the lowest cost for all stakeholders.



Just-In-Time Delivery

Supply chain efficiencies have been improved by adopting just-in-time delivery. The practice of “[just-in-time](#)”²⁰ delivery means that the individual components which will ultimately be combined to make a finished product arrive at the manufacturing plant shortly before they are needed in the assembly process. And as a result of this blend of meticulous forecasting, planning, and execution, products can be made and then purchased for lower prices, while simultaneously minimizing the expense and waste of holding excess inventory for manufacturers, wholesalers, and consumers alike.

Although there are always seasonal fluctuations and local market conditions to consider which may temporarily lead to some product scarcity, for the most part consumers in the U.S.A. have not been given a compelling reason in the recent past to have to think that hard about product availability. As a matter of fact, the average U.S. consumer has been conditioned by a plethora of recent purchasing experiences to expect to receive a product the next day, or at least very soon after placing an order for it.

However, COVID-19 has now given us a reason to think about the availability of products for consumers to purchase, the availability of products for wholesalers to sell, and the availability of raw material components for manufacturers to use to make the products which will ultimately go into the supply chain which serves us all.

Rising Demand Meets A Battered and Fragile Supply Chain

According to a recent survey from the [Institute for Supply Management \(ISM\)](#),²¹ companies and their suppliers “continue to struggle to meet increasing levels of demand,” noting that **“record-long lead times, wide-scale shortages of critical base materials, rising commodities prices, and difficulties in transporting products are continuing to affect all segments” of manufacturing.**¹⁹

The ISM survey also found that although factory activity increased to a reading of 61.2 in May 2021 (which is an increase from 60.7 in April 2021, and above a reading of 50 which indicates an expansion in manufacturing), inventories at factories are barely growing, and business warehouses are almost empty.¹⁹ Further, an “overwhelming majority” of companies are hiring or attempting to hire, “with more than 50% of them expressing difficulty in doing so”, as a measure of factory employment fell to a six-month low.²¹

Suppliers are also taking much longer to deliver raw materials to manufacturers, with the supplier deliveries index jumping up to 78.8 in May 2021, according to the ISM survey. This index is the highest reading since April 1974, and it follows a reading of 75 in April 2021. For context, a reading on this index which is above 50 suggests slower deliveries to factories.²¹

Shortages like these are disruptive and annoying, and they are not something that consumers in developed economies are used to dealing with. And unfortunately, according to Neil Shearing, Group Chief Economist at Capital Economics, [“Supply shortages are not going to disappear overnight – on the contrary, they are likely to persist in some form until well into 2022.”](#)²²



Key Factors Responsible for Supply Shortages in 2021

So what does all of this information mean – and why can't we all just get the stuff we are ordering right away for the price we are used to paying?

The following factors are key contributors to the overall “**perfect storm of ugliness**” which is the state of the global supply chain in disruption at the moment:

Raw Materials Disruptions and Shortages

In the early days of the pandemic, consumers were purchasing up all existing inventory for certain products – but purchasing very little, if any, of other products. As a result, factories and their supporting supply chains adapted to meet the demands of the moment – and as a matter of fact, it can be argued that the [supply chain responded heroically](#)²³ to move from a global economy manufacturing products which supported all activities, to more limited economy making products which supported pandemic lock-down activities at home.

Now that the global economy is restarting again in bits and pieces, and at different rates of speed depending on what part of the world you live in, [shortages of products across various sectors can be expected](#),¹⁸ according to Vidya Mani, Professor of Business Administration at University of Virginia Darden School of Business.

As a result of these unpredictable reopening policies and subsequent challenges in accurately forecasting future demand, [manufacturers are struggling to keep up with these new jolts of demand as they continue to experience supply crunches in components and raw materials](#).²⁴

One example which is particularly impactful is packaging – there is a major shortage in packaging materials such as plastics, paper, and metals, and this shortage has driven packaging costs up more than 50% since the start of the pandemic according to data from Mintec Global Packaging Index.²⁴



In addition, an explosion of demand for personal electronic products like smartphones and computers has hit what was an already red-hot semiconductor industry which has resulted in a shortage of computer chips. And since computer chips have become such an ubiquitous component in so many products, companies selling everything from electronics to automobiles to medical devices, to chemicals to apparel and even tobacco are experiencing shortages which is negatively impacting production capabilities.²⁴

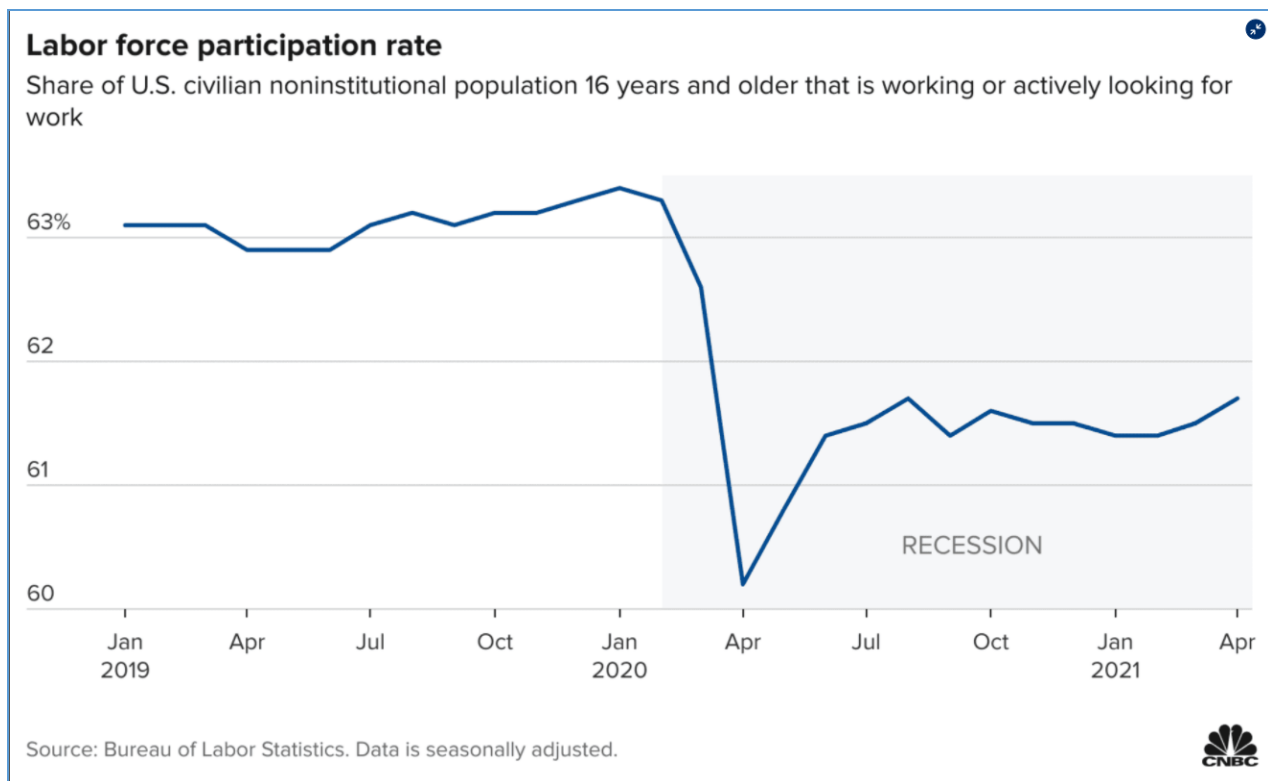
“This is going to be a longer process coming out than when it went in. Like the global economy is recovering at an uneven pace, it’s likely that the U.S. economy is going to do the same. There are some kinks to still work out in the system,” according to Michael Gape, Head of U.S. Economics Research for Barclay.²⁴

Labor Shortages

In many cases, the “kink” or missing component is humans, such as the labor required to make a product in a factory, or to receive a shipment of containers at a dock, or to transport a shipment of finished goods in a truck.

Companies are struggling to hire workers at a time when COVID infection risk persists, and federal jobless benefits, as well as child care obligations with many schools still closed, could also be preventing many workers from re-entering the labor force right away.²⁴

The labor force participation rate plunged to its lowest level since 1973 in April 2020 as the pandemic began the process of shedding workers from the job market. While this rate has continued to edge higher in recent months, it is still staying stubbornly below pre-pandemic levels.²⁴



There were [twice as many jobs openings in the manufacturing sector](#)²³ in April 2021 as there were in 2019 on average (as a matter of fact, there are more open positions in American manufacturing companies than at any point since the 1990's), and there are also a record number of open positions in the “transportation, warehousing, and utilities” category, up about 30% from the pre-pandemic average. Taken together, these two job sectors (“manufacturing” and “transportation, warehousing, and utilities”) represent about 25% of the total increase in open positions.²⁵

Transportation and Logistics Challenges

And sometimes, the “kink” or missing component is physical, such as a shipping container or a freight truck required to ship raw materials and/or finished goods from one place to another.

For example, once international trade screeched to a near-halt in April 2020 as a result of the pandemic, empty container were no longer being collected and sent to spots where they could be used again. Now, more than a year later, shipping companies already hit with a loss of return shipping container capacity with [China's National Sword Policy](#)²⁶ are still trying to get containers to ports where they are needed most.¹⁸

Increased waiting times for ships to unload in ports such as Los Angeles/Long Beach and Oakland have resulted in [transportation bottlenecks](#),²⁷ and the shortage of shipping containers combined with the shortage of dock workers ,combined with the shortage of trucks combined with the shortage of truck drivers has created a scenario where scarcity in one part of the supply chain leads to scarcity in another part of the supply chain, which then ultimately leads to **more shortages and increased prices**.

In addition, [the price to ship containers from Asia to the U.S. are rising at a historic pace](#).³⁰ Shipping experts say that the increasing rates are the result of disruptions across the myriad supply chains which have triggered delays at ports and other inland distribution networks as retailers and manufacturers continue to strive to restock inventories which were depleted over the course of the pandemic.³⁰

Meanwhile, massive increases in online ordering of supplies while people stayed home during the pandemic has dramatically [increased the demand for delivery truck drivers](#)³¹ – and this increased demand has also extended delivery lead times, exacerbated supply shortages, and added to costs.



Inflationary Pressures

And when supply and demand get out of balance, [pressure starts to build on prices](#).¹⁸

When manufacturers have to pay more for the raw materials, packaging, and labor which are all in short supply, and then they have to pay more to ship the product to a wholesale distributor, they are very likely to pass at least some of the increases along in the form of higher prices.¹⁸

The U.S. Labor Department reported that consumer prices jumped 0.9% between May and June – which represents the largest one-month increase in this metric since 2008. On a year over year basis, prices have surged 5.4%, which is the [highest rate of increase in 13 years](#).³⁰

Inflation Stayed High In June

As measured by the consumer price index

MONTH-OVER-MONTH CHANGE (SEASONALLY ADJUSTED)



YEAR-OVER-YEAR CHANGE (UNADJUSTED)



Source: Bureau of Labor Statistics ([seasonally adjusted](#), [unadjusted](#))

Credit: Alyson Hurt and Rafael Nam/NPR

And unfortunately, it doesn't appear that there are very many industries which are not impacted by these global forces – including the wholesale distribution industry for facility supplies and foodservice disposable products.

There is no telling how long this current surge in demand will continue to outpace supply, but as the supply chain experiences these shortages in everything from microchips and chicken, to chlorine and cheese, [prices are spiking](#)³¹ and are anticipated to continue to increase.

Impacts on Facility Supplies and Foodservice Disposable Products

So what does all of this information mean for products in the facility supply and foodservice disposable categories? In short, most products are expected to continue to experience longer lead times and rising prices as the supply chain works to rebalance itself after the prolonged hibernation and interruption of manufacturing activities which resulting from the pandemic.

Sanitary Paper Products – impacted by rising cost of pulp, packaging, and transportation, as well as a shortage of raw materials and available labor, this product category is expected to experience longer lead times and rising prices

Plastic Can Liners – impacted by rising cost of resin, packaging, and transportation, as well as a shortage of resin and available labor, this product category is also expected to experience longer lead times and rising prices

Cleaning Chemicals – impacted by rising cost of raw materials, packaging, and transportation, as well as a shortage of raw materials and available labor, this product category is expected to experience longer lead times and rising prices, and some products may be subject to allocation in the future

Cleaning Equipment – impacted by rising cost of raw materials, packaging, and transportation, as well as a shortage of microchips, batteries, other raw materials, and available labor, this product category is expected to experience longer lead times and rising prices

Cleaning Accessories – impacted by rising cost of raw materials, packaging, and transportation, as well as a shortage of available labor, this product category is expected to experience longer lead times and rising prices

Foodservice Disposable Products – impacted by rising cost of raw materials, packaging, and transportation, as well as a shortage of available labor, this product category is expected to experience longer lead times and rising prices

Conclusion

The supply chain has never seen anything like the dramatic dips and spikes in demand which have been associated with the COVID-19 pandemic, and it will take some time for everything to even out. And we have come to learn that while the supply chain deliveries maximum efficiencies, it is prone to falling short when it comes to resiliency.

“We’ve never really had anything quite that violent and rapid, both in terms of the change down and the change back up,” said George Calhoun, Director of the Quantitative Finance Program at the Stevens Institute of Technology. “It’s clear that (the economic rebound) created a lot of disruptions, not just in supply chains, but in business models.”²⁹

So what can we do?

By partnering with your wholesale distribution and manufacturing partners to help communicate and forecast your anticipated future demand, and by maintaining a touch of patience and understanding to our mutual business interactions, together we can all help each other to navigate these turbulent times and source the supplies needed to help keep the facilities in our communities cleaner, healthier, greener, and safer.

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