Flock Freight

Global Supply Chain Guide

How to Build a Pandemic-Proof Global Supply Chain

This guide explains how businesses can mitigate risk as they navigate logistics decisions on an international scale.

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What is globalization?

Coronavirus has threatened public health, economies, and everyday life around the world. Globalization has exacerbated the pandemic's impact on supply chains.

In business contexts, globalization is defined as the practice of operating internationally and offers the following benefits:

- Lower production and labor costs
- Ease of scaling operations
- Resource optimization

Globalization is about sharing people, ideas, and information. This exchange of resources enables organizations to build their products or services internationally. As an example, a car manufacturer might use Country A to produce a part, then ship the part to Country B to assemble the car, before ultimately moving the car to Country C to sell the finished product. For decades, this global division of labor maximized returns for every player in the supply chain.

Globalization has empowered producers to form adaptable supply chains in which they can swap suppliers and components as needed.

Confronted with coronavirus, however, supply chains have weakened, and globalization is on the hook. The pandemic has revealed that there's little slack to help international supply chains bounce back if one link in the chain breaks down. As a result, businesses are examining how much they rely on other nations.

Sourcing supplies from other countries makes supply chains vulnerable

Coronavirus has prompted questions about our current system of globalization:

- Do we want to be so dependent on foreign nations?
- How do we mitigate the risks of globalization?
- How has globalization made the effects of coronavirus worse?

Questions like these will be easier to answer if we analyze how coronavirus has made global supply chains more fragile.

Both international companies and the domestic ones they serve have suffered from working with production plants or offices that are oceans away. This difficulty, along with sanctioned travel bans and mandated business closures, has crippled industries that count on imports during the pandemic. At this point, their futures depend on the government regulations and economic resilience of multiple countries.

The state of globalization in 2019: Fragmentation

According to Ian Goldin, Globalization and Development professor at Oxford University, "2019 was the year of peak supply chain fragmentation.

Fragmentation allows companies to complete production tasks across the globe. One report described fragmentation as the “spatial unbundling of production.”

Fragmentation became more and more popular in the last few decades. In 2019, this system’s adoption rate was at its highest. International supply chains had become extremely intricate; many businesses empowered offices in different locations to specialize in certain manufacturing or service-related activities. It seemed to be a win-win; organizations could save money and emerging countries could boost their economies.

However, fragmentation encouraged regionally separated departments to work in silos and exposed the challenges of fostering collaboration between links in the supply chain. Only when coronavirus hit did companies realize how vulnerable this method had made their supply lines.

To produce here or produce there: That is the question

Organizations have a lot of options when it comes to business models, including insourcing, outsourcing, multi-sourcing, offshoring, and nearshoring. There are a number of aspects to consider when deciding which ones to adopt, including:

- Payroll
- Transportation expenses
- Shipping times
- Employee development
- Production expectations
- Recruitment
- Quality assurance
- Technology
- Environmental impacts
- Government policies
- Regional norms

Even after implementing a business model, it's wise for companies to periodically assess how it aligns with their current goals and risk strategies.

Let's characterize the above terms:

Insourcing: Allocating internal resources to complete a task
Outsourcing: Contracting another individual or company to complete a task
Multi-sourcing: Using two or more suppliers to produce goods and services
Offshoring: Moving operations to another country, typically where costs are lower
Nearshoring: Relocating operations from far away to closer to home

Organizations incorporate these practices into their business plans once they've determined which types of work they do and don't want to handle internally. In the face of coronavirus, companies seem to be trending toward multi-sourcing and nearshoring. To see why, let's dive into China's position in the international landscape, then the cons of globalization.

China's role in supply chains can't be overemphasized

An article by *Forbes* portrays globalization as a dated approach that, "by and large, created the China behemoth" and "made most of the advanced economies dependent on [China] for everything from pharmacological inputs to surgical masks." Chief strategist at Pictet Asset Manager Luca Paolini reinforces this view: "The U.S. is incredibly dependent on China. This pandemic will move forward the trend of deglobalization which was already in place." More on deglobalization later.

For now, some quick facts:

- Seven of the 10 largest ports on the planet are in China
- Sixteen percent of the world's output comes from China
- America's third largest and fastest growing export market is China

Clearly, China has become an ideal environment for manufacturing. Its skilled workforce and developed infrastructure are two reasons it has remained at the heart of several industries. Supply chain expert Suresh Dalai says, "In speed, China still has the edge." It's no wonder so many leading manufacturers and e-commerce retailers have gone to China for production.

Over time, China has maintained its competitive advantage in a few particular industries: Clothing, automotive, and technology. As far as clothing goes, Chinese factories have the right mix of high-quality tools and workers to design valuable textiles. Additionally, numerous automobile companies have built hubs in China. Dyson, for instance, made the calculated decision to create and assemble its electric vehicles close to China to leverage the mainland's market and electronic manufacturing capabilities.

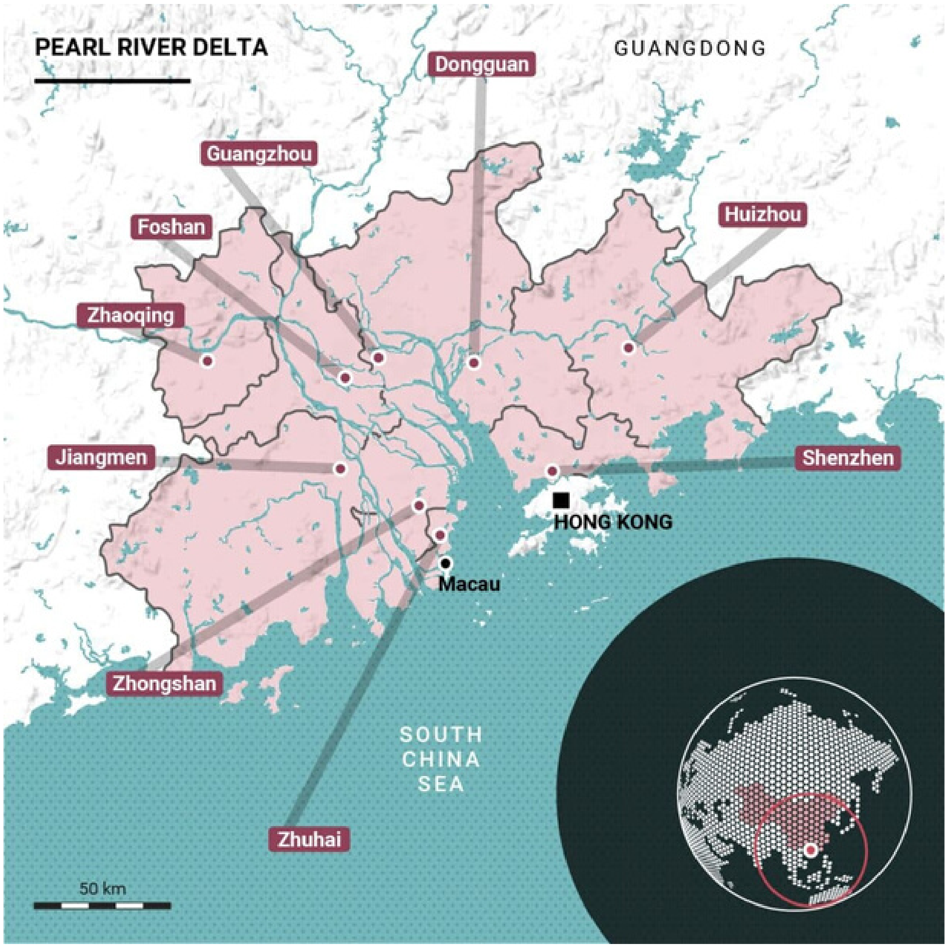


Image Source

As for technology, The Economist put it best: “Half the world’s electronics-manufacturing capacity is based [in China]. Its strengths go beyond sheer scale to diversity and sophistication of products. The pace of hardware innovation in China’s Pearl River Delta is unmatched even in Silicon Valley. So, too, is its unique blend of scale and agility. This is why most of the world’s technology giants make their kit in China.” With this amount of pull, China has substantial influence on global economies and supply chains.

Hidden costs of globalization

Doing business around the globe has its downsides. Concealed behind the benefits of globalization are a number of disadvantages, from increased dependence on foreign nations to decreased domestic innovation. Let's explore some of these hidden costs:

Dependence on other countries

Worker displacement

Pollution

Less innovation in home nation

Dependence on other countries: Relying on anyone but ourselves for necessary goods and services could spell trouble when unfavorable circumstances arise. Regional strife, foreign policy disagreements, a worldwide pandemic — factors like these often put the ability to act in the hands of someone else, leaving entities in the U.S. with little control over outcomes.

Take the recent need for personal protective equipment as an example. China produces 50% of the world's medical face masks, but won't sell any of them abroad right now. On the contrary, China is importing as many masks as possible. This forces the States to contend with shortages.

This disadvantage feels more threatening when we consider the fact that America imports thousands of essential goods from China.

Worker displacement: Globalization practices like outsourcing and offshoring generally move jobs from one place to another, without securing new work for employees in the original location. This has proven to be the case for Americans who've been affected by globalization.

A Boston Globe piece states 2-2.4 million of U.S. workers who were impacted by offshoring settled for lower-paying roles or fell short of finding any at all. What's more, the workers that remained employed didn't earn pay raises as a result of enhanced productivity.

Pollution: Rising production levels translate to more pollution. Organizations burn fossil fuels to power the factories and transportation methods that enable globalization, which releases toxic gases into the air. Oceans are vulnerable to globalization-related pollution too. Frequently, plastics, waste, and chemicals from production plants end up in the sea.

Greenhouse gas emissions are another pain point. According to the Environment and Energy Study Institute, 4-5% of greenhouse gas emissions are caused by air and sea freight. By importing goods from China, countries like the U.S., Europe, and Japan exacerbate greenhouse gas emissions.

Less innovation in the home nation: When organizations relocate production to a different country, the new country benefits from the work that goes into the design and assembly or implementation of the goods and services. The labor force masters the tasks and gains the ability to apply any newfound expertise or technology elsewhere.

We look to China, the root of supply chains, for one such case. As organizations have strengthened their Chinese partnerships over the years, China's capacity to innovate has grown. It's become a melting pot of different industries and talented professionals with impressive networks. Naturally, these people connect, and progressive ideas are born.

This can happen across the globe (not just in China), but most places tend to be immersed in monocultures.

Conclusion: These disadvantages don't diminish the advantages of globalization. Ultimately, a business must weigh the pros and cons of globalization to decide the best course of action.

The risks of fragmentation

Cousin to globalization's hidden costs are the risks that come with it. Here, we'll focus specifically on supply chains.

Goldin, the Oxford professor, calls the festering systematic risks of globalization "the underbelly of globalization." These risks come in the following categories:

Financial	Less-expensive suppliers might be less reliable
Supply chain disruption	Think about natural disasters and other regional issues
Health	Case in point, COVID-19
Foreign trade policy	Ever-changing approaches from domestic and foreign governments
Intellectual property theft	Outsourcing the knowledge of making certain goods
Public relations	Word travels fast in today's digital landscape

Organizations can minimize these risks by planning for worst-case scenarios. Write out the supply chain's segments, processes, and partners to help plan response protocols. Then, think through different scenarios. Attach monetary values wherever possible to understand the true impact each situation could have. Lastly, outline a risk management policy for each circumstance.

Mitigating risks for long-term success

U.S. businesses can use several tactics to safeguard their offshore assets and supply lines:

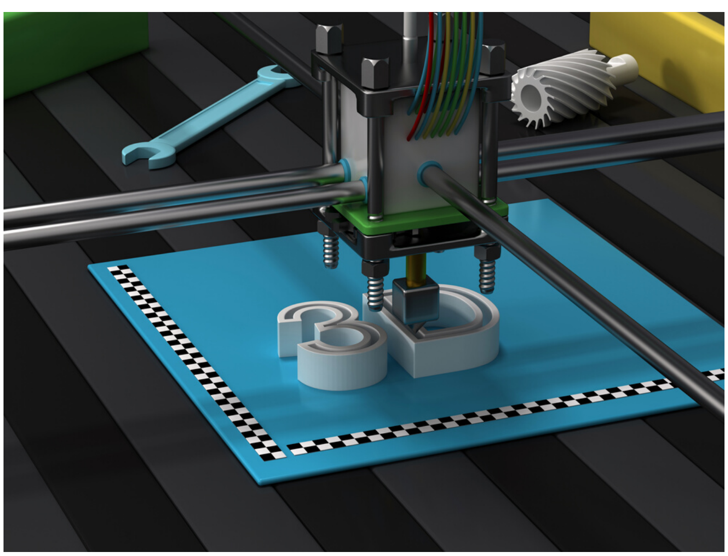
Shorten supply chains

Build in redundancy

Maintain relationships with more suppliers

Shorten supply chains: Nearshoring helps companies customize units, automate processes, and deliver items quickly. It's also one of the most effective ways to make supply chains more resilient.

Producing goods close to home helps businesses react fast should the need arise. This option becomes more doable with technology like 3D printing, robots, and artificial intelligence.



Build in redundancy: Due to the efficiencies of just-in-time production, manufacturers opt not to stock excess inventory unless they must account for predictable business closures, such as holidays. During the early stages of coronavirus, we experienced the downside of this approach: Demand surges exacerbated fragile just-in-time supply chains.

For supply chains, redundancy means maintaining excess inventory. If one supplier goes under, organizations can tap the reserve to replenish supply and keep operations running.

The second variable in this equation is location. Regionally separating nodes in the physical network is key to achieving supply chain stability. This tactic offers flexibility and multiple pathways for delivery. If nodes are concentrated in geographically similar places, suppliers have fewer transport options and may experience disruptions in the event of a regional emergency.

Maintain relationships with more (not fewer) suppliers: Companies with more suppliers have more choices for moving supplies when times are tough. If one supplier can’t fulfill an order fast enough or at all, organizations can pivot rapidly (by working with a different supplier) so production doesn’t suffer.

To create valuable relationships with trading partners, businesses should communicate regularly about current demand and forecasts. Transparency builds trust, which motivates suppliers to increase overall service quality and get the job done when the market threatens the supply chain.

Some words of caution for working with more than one supplier:

- Make sure trading partners are spread out in terms of region. Selecting suppliers in the same area defeats the purpose of diversification.
- Organizations should be sure they have the resources to manage all relationships with trading partners.
- Multi-sourcing raises corporate responsibility risk and decreases the likelihood that suppliers will share new innovations.
- Sourcing new suppliers could take a significant amount of time, especially for the automotive and medical industries.
- More tips here.

Deglobalization

Experts predict reducing risk will be a top priority for companies when coronavirus is over. “We will ... see a lot more focus on supply chain resiliency and risk mitigation and global supply chain management in international settings,” asserts Nick Vyas, Executive Director of the Center for Supply Chain Management at the USC Marshall School of Business.

Alex Capri of the National University of Singapore’s business school estimates, “We are in a completely different era now, and globalization as we’ve known it in the past is over.” He explains, “Companies see an urgency to diversify and achieve a ‘China + 1, 2, (or) 3 supply chain strategy’ when it comes to sourcing.” Though Capri anticipates supply chains to reshuffle, he maintains that “China will remain an important market for sales and for supply chains.”

Paolini (Pictet Asset Management) is of the same mind as Capri and Vyas. Paolini suggests that developed countries will regionalize their economies, contributing to deglobalization. He reasons, “The supply chain will become more fragmented. You’ll see a decline in fixed investment globally as you’re seeing now in the middle of the pandemic, especially in smaller emerging markets.”

The migration of manufacturing

Some businesses in the clothing, automotive, and technology industries have already started to change their global supply chains. The clothing industry has been experimenting with non-Chinese production since the '90s. Carmakers have been test-driving the manufacturing capabilities of previously untapped markets over the last few years. And the same goes for technology companies up to the present. Let's consider these three examples:

Clothing: Clothing companies can operate almost anywhere in the world, which helps them respond to market changes. Chinese wages have skyrocketed and made China a less attractive place for manual jobs like stitching. As a result, players in this industry have started turning to other markets. Nike and Adidas began manufacturing shoes in Vietnam in 1995 and 2010, respectively, while Calvin Klein and H&M set up shop in Ethiopia within the last year.

Automotive: Hau Thai-Tang, Ford's Chief Product Development and Purchasing Officer, identifies Mexico, Eastern Europe, and Southeast Asia as automotive hubs. He agrees that localization will be an upcoming trend and says these places will serve as the "hub-and-spoke networks" for their respective neighboring markets of America, Western Europe, and Asia.

Let's delve into Mexico, which is evolving into an "export base." *The Economist* writes, "The value of its automobile exports has more than doubled since 2010, approaching $50 billion last year." We can attribute this growth to Mexico's countless trade agreements that "allow it to export to almost half the world's market for new cars tariff-free." Car manufacturers haven't been slow to leverage this favorable production environment.

Technology: Higher costs and political liabilities in China were enough to turn off Samsung, which left for Vietnam about five years ago. Other businesses are withdrawing from China as well, including: GoPro (which is relocating most of its production to Mexico); Stanley Black & Decker (which is reshoring production of its Craftsman instruments to America); and Ericsson (which is ramping up manufacturing in America). In the last six months, Southeast Asia and Cambodia have also seen an uptick in technology activity.

Closing remarks

In conclusion, global supply chains are fragile. The coronavirus pandemic has uncovered the drawbacks of globalization and made us acutely aware of fragmentation's shortcomings. As international businesses figure out where to operate, they're evaluating the pros and cons of working on a global scale, contemplating the benefits of China's labor and infrastructure, and finding avenues to reduce risk.

About Flock Freight

Flock Freight is reimagining and reinventing the freight industry by relentlessly eliminating waste and inefficiency through algorithmic pooling. Pooling combines freight based on geographic location by grouping shipments that are moving from regionally similar locations to regionally similar destinations on one truck.

The truck travels directly from Point A to Point B without terminal stops, which slashes transit time. Shipments never leave the truck during travel, so there's virtually no risk of losing them. Plus, shipments are only handled upon pickup and delivery, which puts their risk of damage at about zero.

By filling a truck with freight from multiple shippers, pooling eliminates wasted space for load sizes that fall between full truckload and less-than truckload.

Best of all, Flock Freight doesn't charge shippers for truck space they don't need. We offer full truckload service at a fraction of the price.