

Volume 2

The Great Reset eBook

UNDERSTANDING THE RESHORE SEESAW

As the virus, which first emerged in **Wuhan in December** 2019, was working its devastating way across America, the Chinese city was once again under lockdown in June 2020.

This second lockdown was a result of the region being struck by some of the worst flooding in history. In a bizarre symmetry, the burst banks of the Yangtze River disrupted the supply of locally produced personal protective equipment heading for the US and crucial to fighting the pandemic.





The coronavirus has exposed the fragility of global supply chains and the potential difficulties with offshored manufacturing. Since the onset of the crisis, a familiar term had resurfaced with a vengeance: reshoring. But this is nothing new. In fact, supply chain restructuring was underway before the pandemic, including companies reconsidering their relationship with China because of the trade war between the US and China initiated in July 2018.

Natural disasters disrupt supply chains and it is one of the risks to be mitigated when considering the location for manufacturing and logistics centers. Events such as the SARS epidemic of 2002-2003, the Icelandic volcano eruption in 2010, Japan's earthquake and tsunami and the floods in Thailand in 2011 all had an impact on global supply chains and the shocks were felt around the world. Many companies diversified production centers across Asia, many into China to boost the resilience of their manufacturing and logistics operations.

Whatever the unknowns about the coronavirus, we can be certain of one thing: it will not be the last virus we see. The impact of trade disputes, climate change and environmental disasters are also an inevitable feature of our increasingly globally connected lives.

Accelerant to Change

COVID-19 is a catalyst for redesigning global supply chains and an accelerant to change, rather than a disruptor in its own right. The pandemic has shone a very bright light on the issue of offshoring and reshoring, with ramifications across every continent. "The COVID-19 pandemic has made us all rethink our dependence on other countries for pharmaceuticals, food products, industrial equipment, rare earth elements, and high technology. With the trend for countries becoming more ethnocentric, many governments are talking about reshoring," according to Rosemary Coates, executive director of the Reshoring Institute.

For the economic development community and locations seeking to attract and retain jobs, the reshoring debate is likely to be a significant part of the post-pandemic reset. The reshoring debate is complex and when you add politics and elections into the mix, the picture becomes confusing and headlines are often contradictory.

Part of the problem lies in the loose definitions that are used in relation to reshoring. Just because a company opens a new plant in the U.S. jobs are not necessarily 'reshored'. Every company's decision to invest somewhere is a competitive one which takes many factors into consideration. Many of the companies listed by organizations like ReShore Now are actually straightforward foreign direct investment projects, so the total reshoring numbers are often a little inflated when reported in the media.





The mobility of corporate facilities, whether manufacturing, services, R&D or headquarters functions is a cornerstone of globalization and the competition for jobs and investment is a natural by-product of free trade that shapes modern economies.

Companies have moved jobs to lower-cost locations overseas since the 1960s and 'offshoring' has become a standard practice ever since.

Between 2000 and 2007, the US lost 3.4 million manufacturing jobs, about 20% of its total. It lost another 1.5 million manufacturing jobs between 2007 and 2016. The sharp decline in US manufacturing employment coincided with China's accession to the WTO in 2001. This meant that US firms could offshore production to China without fear of future tariffs on reimports and it gave Chinese firms reliable access to the US markets.

The reversal or adaptation of offshoring has spurred several names - 'reshoring', 'onshoring', 'inshoring' or 'backshoring' (bringing a function back to home base), 'nearshoring' (locating close to home base), 'rightshoring' (finding an optimum balance between cost and quality), 'next-shoring' (balance between demand and innovation). There are several forces at play driving reshoring:



Politics



Technology



Economics



Environment

The spread and impact of COVID-19 serves as an accelerant to these forces.



The US lost manufacturing jobs, between 2000-2007



US lost another manufacturing jobs, between 2007-2016



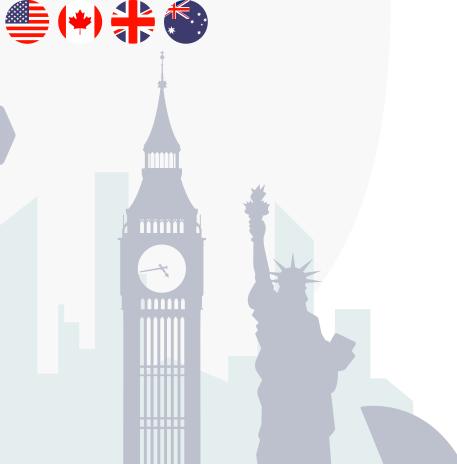
The Chinese government's imposition of a new security law has further soured China's relationship with the US, UK, Canada, Australia and other major trading partners.











Politics

From Washington DC, Ottawa and London to Hong Kong and Beijing, the winds of political change have turned frosty. The US-China trade war has been simmering since 2018 and has been reshaping global manufacturing and supply chains ever since. US manufacturing imports from China have declined dramatically (by 17% in 2019). The impact of COVID-19 is exacerbating this trend throughout 2020. Ongoing protests in Hong Kong following the Chinese government's imposition of a new security law have further soured China's relationship with the US, UK, Canada, Australia and other major trading partners. Security concerns over Huawei's overseas investments are likely to have an impact on other FDI programs and initiatives, as will an increasing number of US senators from both parties calling for more stringent action against China.

Economics

China's compelling cocktail of low labor costs, favorable tax law, excellent infrastructure and abundant manufacturing skills has made it an attractive option for global companies. The growth and success of the Chinese economy has eroded its cost competitiveness against other emerging locations such as India, Vietnam, Thailand and Indonesia. COVID-19 has led many countries to impose tariffs and restrictions on trade, especially in medical-related products. Greater economic nationalism across the world puts a strain on free trade and encourages more localized manufacturing.





Technology

In terms of pure labor costs, a U.S. factory worker is around 6 times more expensive than their counterparts in China. In spite of rising wages in China, that gap in cost-competitiveness can be only marginally narrowed by productivity gains, reshoring incentives and other measures. The biggest potential game-changer is technological change. Increased levels of automation through the adoption of Industry 4.0 applications from advanced robotics to data analytics is changing the equation of what makes a smart factory and where they can and should be located.

Environment

Making a product in Guangzhou before flying it 8,150 miles to Memphis has become the norm but is increasingly questioned. According to McKinsey, 90% of the negative environmental impact of consumer companies comes from their global supply chains. Concerns about climate change have been sidelined to an extent by the pandemic, but they remain an increasingly important consideration in corporate location planning. The sustainability of global supply chains amid consumer and employee pressure will likely increase the pressure to locate production closer to end-user markets. For example, for US. manufacturers, refocusing production facilities closer to the consumer can make Mexico an attractive nearshoring alternative.



2.

TO RESHORE OR NOT TO RESHORE



There is no shortage of rhetoric and anecdotes about reshoring, but what are the facts? Which companies, in which industries, from which markets are reshoring how and to where?

There is conflicting evidence over the likelihood that COVID-19 will trigger more reshoring.

According to a May 2020 survey by Thomas, the leading industrial sourcing platform, 64% of 879 North American manufacturing and industrial professionals said they were "likely to bring manufacturing production and sourcing back to North America". However, in June 2020, a Deloitte poll asked companies to what extent they are considering reshoring and localization due to the impact of COVID-19. Of more than 1,300 respondents, only 6% had made or planned to make significant sourcing or manufacturing changes.

In their latest Reshoring Index report, Kearney concludes that the current pandemic will trigger further reshoring: "COVID-19 should cause companies to fundamentally rethink the criteria they use to shape their supply chains." Kearney's seventh annual Reshoring Index revealed "a dramatic reversal of a five-year trend, as domestic US manufacturing in 2019 commanded a significantly greater share versus the 14 Asian low-cost countries." It should be noted that this trend was more of a shift from China to places like Vietnam and Thailand, rather than jobs being reshored back to the US.

Patrick Van den Bossche, a Kearney partner has said that companies often announce plans to reshore, grabbing headlines but these are not always followed through. "There are these bold statements about bringing everything back from China," said Van den Bossche. But all too often, 5,000 promised jobs are quietly scaled back to 500 even as deadlines stretch into years, he said. "Soup is never eaten as hot as it's cooked. There's a lot of blowhard stuff going on right now."

According to research conducted by the American Chamber of Commerce in China, 40% of U.S. companies surveyed are either considering relocating or have already relocated their manufacturing facilities outside of China. It is important to note though that only 6% identified the United States as their new hub for manufacturing.



In July 2020, the Institute for Supply Management surveyed 676 US manufacturers about how COVID-19 had impacted supply chains. The responses showed that:

56%were not considering reshoring or nearshoring



are planning to reshore or nearshore most operations

20% are planning to reshore or nearshore some operations

Most recently, according to a report released by the American Chamber of Commerce in Shanghai in September 2020, of **over 200 respondents that own or outsource manufacturing operations in China**, 70.6% did not intend to shift production out of China, 14% are moving some production to non-US locations and only 3.7% are moving some production out of China to the US.

+200 respondents

70.6% did not intend to shift production out of China

14% are moving some production to non-US locations

3.7% are moving some production out of China to the US



The Final Word - Business Attraction **Opportunities are Real**

These surveys show a mixed picture, which varies depending on the sector and industry, scale and complexity of current offshored operations. Even allowing for any exaggerations or knee-jerk reactions, there is sufficient evidence that a meaningful portion of manufacturers are considering their options, presenting opportunities for economic development teams to make the case for their communities to receive reshored functions.

Industries most likely to bring more production back to North America:

- » Agriculture
- » Energy/utilities
- » Food & Beverage
- » Oil/gas
- » Transportation
- » Manufacturing
- » Construction
- » Automotive
- » Aerospace & Defense
- » Medical and Healthcare

Top Products and services needed in North America due to growing appetite for reshoring:

- » Medical devices and supplies
- » Pharmaceuticals
- » Communications infrastructure
- » Packaged nonperishable food and snacks
- » Plastic products
- » Defense-contract-driven civilian applications
- » Metals
- » Machining tools and parts
- » Fabricated metals
- » Personal protective equipment
- » Packaging
- » Raw materials
- » Electrical or electronic components
- » Crude oil derivatives
- » Batteries
- » Computer & peripheral equipment / wireless equipment
- » IT (software, data processing, cyber security, internet publishing)
- » Distribution, including cold storage
- » Computer & peripheral equipment and wireless equipment







Around the world, the encouragement of reshoring has become an established part of each government's recovery plans. Although there has been more words than practical actions, there are moves under way to incentivize and encourage reshoring.



United States

While government interference in the economy is anathema to many in America, there are clear moves towards an industrial policy in response to both the trade war with China and the economic damage being wrought by the pandemic.

Successive US presidents have tried to encourage American companies to create jobs at home rather than offshore. President Obama introduced tax incentives for companies bringing manufacturing jobs back to the US, but the Trump presidency has seen a dramatic increase in both rhetoric and action.

In August 2019, President Trump said he was ordering US companies to "immediately start looking for an alternative to China, including bringing your companies HOME and making your products in the USA." He cited the International Emergency Economic Powers Act (1977) to deal with an "unusual and extraordinary threat to the national security, foreign policy, or economy of the United States." The President singled out General Motors for having a significant presence in China and guestioned whether the automaker should move its operations back to the US.

The spread of COVID-19 has further soured relations with China and seen an increase in political pressure. According to the Los Angeles Times, more than 60 Bills were presented in Congress in the first few months of 2020 which were specifically designed to restrict trade with China.

During the pandemic, Larry Kudlow, the US National Economic Council Director has encouraged American companies to reshore, saying "We will do what we can for full expensing and pay the cost of moving if they return their supply chains and their production to the United States."

While the US government does not currently have an official policy to compensate supply chains for reshoring, there is likely to be much talk around such a policy as the November election approaches. Whoever wins the election, it is fair to say that reshoring will be a major element in the plans for economic recovery. President Trump's thoughts on the subject are well documented, while Joe Biden announced in July that he would "implement fundamental reforms that shift production of a range of critical products back to US soil, creating new jobs and protecting US supply chains against national security threats". Biden added: "America needs a stronger, more resilient domestic supply chain in a number of areas, including energy and grid resilience technologies, semiconductors, key electronics and related technologies, telecommunications infrastructure, and key raw materials."



Mexico

The USMCA trade agreement which came into force on July 1, 2020, offers manufacturers the option of near-shoring production to Mexico as a low-cost alternative to reshoring.

"What USMCA gives us today is the opportunity for the shortening of value chains in North America, where Mexico could become a very important place," according to Luz Maria de La Mora, the Mexican undersecretary for foreign trade. "We are basically participating in all the branches of manufacturing production, and Mexico could become a very important actor to shorten those value chains but also to keep North America competitive."

The additional benefits of being in the same time-zone with relatively short flight times, make the Mexican nearshoring alternative very attractive. Moreover, there are far less linguistic and cultural barriers that come with a Mexican operation.



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- Luz Maria de La Mora Mexican undersecretary for foreign trade

Photo: www.lacensura.com/nacional-gobierno-de-amlo-busca-nuevos-destinos-comerciales-en-el-mundo-luz maria-de-la-mora-42681 html



(*) Canada

John Boyd, of location consultancy Boyd Company, believes that Canada is likely to be among the countries to benefit from the shift in operations. "For companies that are motivated to do aggressive cost-cutting, but that had made China their first choice prior to the pandemic, I think now there is an opportunity for Canada and Mexico to attract these projects," explains Boyd. "Canada is set to attract several projects as it enjoys a low-profile versus the US, because of the exchange rate, and because of the nationalized healthcare system, which lowers the corporate burden to provide healthcare for employees.

Kathryn Friedman, a law professor and Canada-U.S. border expert on the Buffalo campus of the State University of New York suggests that US and Canadian cities can collaborate on reshoring. "Given that now there's a real push for companies to bring suppliers back home, to really get out of China and reshore back in the United States or Canada, there's a real opportunity for places like Detroit-Windsor, Buffalo, Niagara, maybe even Seattle and Vancouver, to position themselves as a new platform in each region for reshoring of supply chains," Friedman said.

One problem that Canada faces in looking to reshore is the lack of manufacturing skills. According to Dan Breznitz, the Munk Chair of Innovation Studies at the University of Toronto, "the problem is not just shop-floor production skills, but also system, production and tooling engineering and production management. Add to the mix investment skills needed to grow, develop and sustain organizations that produce, instead of organizations that outsource and manage offshore supplier networks. These skills are not gone – not yet. They exist, in isolated pockets across Canada, and among many industrial retirees."



"There's a lot of talk of shortening supply chains, bringing supply chains domestically, and I see that as playing out in favor of Canada's relationship with the U.S."

> - Pedro Artunes Chief Economist of the Conference Board of Canada.



Japan

In March 2020, responding to the supply chain disruption caused by COVID-19, the Japanese government offered emergency loans to companies planning to bring production back from overseas. Chipmakers and electronic suppliers like Rohm and JDI are returning manufacturing to Japan following improvements in automation reducing the impact of higher wage costs.

To assist companies in pivoting high-added-value products to the nation, the Japanese government has made available ¥220 billion (USD \$2 billion) for business.

There are clear geopolitical motives behind Japan's efforts to reshore production and is in line with a tougher line on national security with China and closer cooperation with the US, Canada, U.K. and Australia.

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immini.

United Kingdom

Boris Johnson's government is devising a strategy to reduce the UK's reliance on China for key imported goods in the light of the twin challenges of coronavirus and Brexit that has the potential to reset the country's supply chains and trading relationships.

Rather than focus on reshoring, it is likely that the UK will feature a widening of free trade relationships with allies such as the US, Canada, Japan and Australia. This means that there will be opportunities to attract British companies that may be rethinking their strategies, and which are interested in the North American market.

The UK's position in relation to China is further complicated by rising tensions over Hong Kong and the decision to ban Huawei from Britain's 5G developments.

Reshoring UK is a campaign led by 22 engineering trade associations and has been developed to assist manufacturers to connect with trusted, accredited suppliers capable of delivering UK based products and services.

Another business-led initiative designed to increase reshoring has got off to a flying start after £625,000 of orders were placed in its first few weeks. UK Manufacturing Unite has been launched in response to the national effort to produce more critical components and essential equipment at home and is the first step in the sector's fightback against the damaging effects of Covid-19. Created and run by manufacturers for manufacturers, the movement is urging more firms to come together to collaborate, share practice and find practical solutions for developing domestic supply chains.





European Union

Across the European Union, politicians expound the logic of reshoring in parallel with unprecedented subsidies and bailouts.

European businesses are far less convinced of being told what to do. Anna Stellinger of the Confederation of Swedish Enterprise said: "The best way that governments can encourage efficient diversification and resilience is to restore business normality, removing export bans, facilitating airfreight and making sure that companies can send staff with key competencies to other countries."

As France emerged from COVID-19 lockdown, President Macron visited healthcare company Sanofi and made a plea for French business to bring critical manufacturing projects back home.

"Everyone saw during this crisis that certain drugs were no longer manufactured in France or even in Europe. We must draw lessons from that... and the state is ready to invest in such reshoring projects."

French healthcare companies have been less than enthusiastic. "We are a private company so we can't go ahead if there is no business case," said Pierre Luzeau, chief executive of Suguens. He told the Financial Times that "without the support of states, such reshoring will not happen."

In Germany, the strength of the country's advanced manufacturing sectors and leadership in promoting and adopting Industry 4.0 processes make the reshoring of higher-value functions easier than their competitors. Research by University of Karlsruhe in 2018 suggested that "for every third offshoring company, there is one backshoring" and this amounted to around 500 German firms reshoring each year.

For European companies in particular, bringing manufacturing back from China might be a boom to nearshoring locations in central and eastern **Europe. The European single** market makes an attractive and compelling case for manufacturers to look at Slovakia, Poland, Romania and Bulgaria.



ALTERNATIVE STRATEGIES © ROI

Now more than ever, companies are re-evaluating their sourcing value chain and re-thinking the scale and nature of their global footprint and where or whether to locate facilities internationally. It's not a binary choice anymore whether to manufacture in China or at home. Companies are following complex models of manufacturing and sourcing beyond offshoring and reshoring. These include:

'China Plus One'

Due to increased tariffs, rising labor costs and a need for greater resilience in supply chains, many companies are being forced to adopt new strategies to reduce their dependence on China. Rather than simply bring functions back to North America, these firms are adopting what is known as a 'China Plus One' approach.

For many companies, the growth and lure of the Chinese consumer market means that they do not want to sever ties completely and see the value of retaining Asian operations. Added to this, much of the world's raw materials originate from China and so in many industries, it is simply unfeasible to relocate everything back home.

A typical China Plus One strategy would see a hub and spoke network of facilities in places like India, Vietnam, Thailand, Indonesia and Malaysia, whilst retaining a base in China too. This spreading of the chips across a number of locations provides greater resilience and flexibility, but presents significant operational and cost challenges which are beyond smaller and medium-sized manufacturers.

Manufacturing-As-A-Service

Some companies are stepping back altogether from manufacturing and outsourcing the process to specialist third parties. Enabled by the growth in digitization and Industry 4.0 developments, Manufacturing-as-a-Service (MaaS) companies contract for several businesses to share the cost burden of equipment, machinery, software, maintenance and repairs. Using MaaS contractors enables companies to scale up or down in a more flexible way.

Redundancy not Reshoring

Writing in the journal Foreign Affairs (How to Pandemic-Proof Globalization), Shannon O'Neil of the Council on Foreign Relations makes the case against reshoring and in favor of increased globalization to create greater resilience. "Reshoring will cause more problems than it will fix in the short and medium term, and in the long term it will make US businesses less competitive. Instead of abandoning global supply chains, governments and boardrooms should focus on making them more redundant. More suppliers and more inventory might make global manufacturing processes slightly less efficient, but these redundancies will increase reliability and resilience, benefiting countries, companies, and consumers alike."



Near Shoring

Nearshoring is the outsourcing of business processes, especially information technology processes, to companies in a nearby country, often sharing a border with the target country.

For example, for a company based in Germany, typical Nearshoring locations include the following:

- » Poland
- » Czech Republic



Nearshoring offers optimal solutions for companies that want to outsource processes in order to maximize business efficiency but reduce the barriers of traditional offshoring. Compared to offshoring, the benefits are, for example, no or little time shift as well as cultural differences, easy communication due to good language skills and fast but also cost-effective travel.

Onshoring

Onshoring is the exact opposite of Offshoring. It refers to the relocation of business processes to a lower-cost location inside the national borders. Functions and processes are often located to a nearby location, this is often the case with big clients, as close proximity may be a condition of the working agreement. A typical example could be suppliers of the automotive industry. Working in close proximity (often directly next to the factory premises of their customers) allows a business to provide the quickest possible service, one that is tailored to suit their market needs and therefore supply customers based on the just-in-time principle. Onshoring improves the cost structure considerably and allows great flexibility within organizations. Furthermore, the coordination and communication of production is more effective and efficient.



5.

NOT SO FAST, NOT SO EASY!



Pulling up roots and relocating a corporate facility is a complex, time-consuming and expensive exercise. **Cost savings are rarely** realized in the short-term, with resulting benefits only in evidence after a number of years. There are several complicated issues and strategic considerations to untangle.

Problem #1: Labor Contracts

In China, most workers are hired under two-year contracts. If a company closes its factory in China, typically employees must be paid until the end of their contract. This is often a costly surprise to departing companies.

Problem #2: Protecting Your IP

When a company leaves China, it also leaves its manufacturing intellectual property and production methods. Companies have protected their brands and patents, but not their manufacturing processes. This leaves the potential for the Chinese factory and workers to reappear as a competitor in the global market. "You have taught your Chinese suppliers how to make your products, and they are not likely to stop just because you are no longer doing business there," Rosemary Coates Executive Director of the Reshoring Institute said. This is why she encourages companies not to produce their latest products in China.

Problem #3: Reshoring Equipment

The manufacturing equipment, tools and molds are not easily repatriated. Companies have had difficulties in establishing ownership of machinery and separating it from the factory itself. It is likely that local, provincial and national governments in China would make it difficult for key equipment to be exported back home.

Problem #4: Departure Taxes

The Chinese Government has imposed a raft of measures that govern the withdrawal of foreign investors from the country. In addition to a swathe of bureaucracy, companies may be liable to pay additional closure taxes.



Problem #5: Reshoring Costs

Any relocation is expensive, irrespective of any future longterm savings that might be realized. Even with government subsidies, it is likely that a reshored project will incur higher costs which are likely to be passed on to consumers in the form of higher prices. Politicians and those calling for reshoring must remember why companies offshored in the first place.

Problem #6: Timescales

Planning and delivering a new manufacturing site can take several years to complete. Even with the support of local economic development teams and with the encouragement of state and federal incentives, the transition from China to US production doesn't happen overnight.

For every company planning to reshore, many more are continuing to embrace the opportunities and advantages of manufacturing in China. San Francisco-based Fictiv works across manufacturing plants in China and the Bay Area, covering a range of processes, including injection molding, CNC machining, 3D printing and casting. Customers use the company's cloud-based software to design and order parts, which are routed by Fictiv to the plants best suited to make them.

"While many businesses will examine reshoring as part of their future supply chain, China continues to offer important advantages in infrastructure and manufacturing talent making it a stable part of any supply chain ecosystem," said Fictiv COO Jean Olivieri. "The opportunity for supply chain

executives will be to introduce digital and AI capabilities through partners and investment that can build an agile, resilient supply chain able to flex across geographies and demand in real-time and with complete transparency."

Problem #7: Manufacturing Know-how in the US

US workers are often criticized by US corporations for lacking the necessary production skills. The Department of Defense, the Manufacturing Extension partnership programs and the Advanced Manufacturing Partnership has saved pockets of manufacturing skills in the US. Nevertheless, they exist in isolation and it is difficult to diffuse their knowledge and skills. The US needs to find a way to diffuse those skills quickly if it is to successfully reshore significant amounts of manufacturing operations.

Problem #8: Environmental issues

Environmental issues are a considerable obstacle to repatriating manufacturing to the US across several industries. For example, while reshoring pharmaceuticals to the US seems highly desirable, the environmental fallout is considerable. Drug manufacturing has been moved to India and China not just because of cost, but because it requires highly toxic chemicals. Reshoring those activities would require the development of clean chemical manufacturing technologies, which requires significant investment of time and money, In some cases as much as five to 10 years of development time would be required.



Problem #9: Market Size

China has become a more important source of profits for companies in its own right. With nearly 350 million people in China's middle class and growing, China is likely to be a company's biggest target market over the next 20 years. As recently as 2000, China contributed just 7% of the annual growth in consumer spending worldwide. By last year, China accounted for more than a quarter of consumption growth. And by 2040, projections show that China will contribute 44% of the global figure – three-and-a-half times the expected contribution of the US, and 2.7 times more than the combined contribution of the whole of the rest of Asia. China's consumer market is set to expand by about 12% every year (in US dollar terms) to reach a value of \$8.4 trillion by 2022.

The increase in the scale of consumer demand over just these five years is twice the current total size of UK consumer spending. And while a decade ago China's consumer market was only one-sixth the size of that in the US, by now it is already one-third the size. China will likely overtake the US as the world's largest consumer market by 2034. As the Chinese middle class grows, so does its disposable income and the desire for all kinds of products, particularly those with Western brand names. To serve this market, many manufacturers are deciding to leave at least some of their production in Asia.

Problem #10: Risk Mitigation

Reshoring does not guarantee resilience. In fact such consolidation brings risk. An example, cited by MIT professor David Simchi-Levi, is the relatively small number of slaughter plants in the US that process much of the country's beef and pork supply. Plant shutdowns because of the coronavirus led to concerns about a backup in meat production, falling prices for farmers, and meat shortages, though that outcome was largely avoided this spring.

Problem #11: Capabilities and Sophistication

Big industries invested decades in building up a whole ecosystem in China. It will take decades and untold money to move out of China. While some companies have been leaving China over the last decade as costs go up, most can't and won't move their supply chains out of China completely. China is a sophisticated supplier of many parts. Even if costs are high, China offers capability, speed and sophistication - an entire ecosystem that can't easily be replaced or replicated. It's going to take at least another 10 years to start building other hubs in Mexico, Costa Rica, Vietnam or Malaysia with basic capabilities as compared to China.



6. SECTOR TRENDS



When the global economy resumes in some kind of 'new normal' and companies start to review their sourcing and supply chains, the likely impacts are unlikely to be uniform. Automotive and aerospace companies with expensive and complex supply chains are less likely to change than garment manufacturers, with far simpler processes and can switch more simply.

Aside from the obvious stresses to domestic supply chains made obvious by COVID, any reshoring of manufacturing across all industries will be driven by:

- » The narrowing delta between US and China labor rates
- » The increase in the total cost of offshoring
- » The ample and less expensive supply of energy in the US
- » Increase in overseas regulation
- » The post-sale complexities of customer support
- » Increase in automation on the factory floor
- » Lower cost of capital
- » Increasing consumer demand
- » Environmental, social and corporate governance





Pharmaceuticals and Chemicals

It is estimated that around 80% of all personal protective equipment (PPE) is manufactured in Asia. Moreover, approximately 95% of surgical masks and 70% of respirators used in the US are manufactured abroad. Producer countries like China, Taiwan, Thailand, India and South Korea imposed temporary export restrictions on PPE during the pandemic, which has raised the issue of resilient supply chains in times of emergency.

According to the US Department of Commerce, 97% of the country's supply of antibiotics comes from China. The number of facilities in China supplying active pharmaceutical ingredients (APIs) more than doubled between 2010-2019. A similar trend has taken place in Europe with around 80% of the chemical ingredients required by the pharmaceutical industry originating in China and India.

However, PhRMA, the industry's biggest lobbying group, has pushed back against congressional support for a supply chain shake-up. The group said: "While we support efforts to foster more manufacturing in the US, moving all manufacturing here is impractical and likely not feasible. Policymakers must take a long-term, more holistic look at global pharmaceutical manufacturing supply chains before jumping to rash proposals that may cause significant disruptions to the US supply of medicines."



Automotive

The Chinese city of Wuhan, the epicenter of the coronavirus outbreak, is a manufacturing center for Nissan, Honda, and GM, so global supply chains in the automotive sector were among the first to be disrupted.

Global automakers currently source between a third and two-thirds of their parts from China, including modules and sub-assemblies. Given the high number of parts required, with different lead times, reshoring supply chains is an incredibly complex challenge.

The approach of the UK is interesting, with a coordinated effort between government and business to identify supply chain gaps, weaknesses and opportunities to reshore automotive supplies from Asia to the final vehicle assembly in the UK. This approach has been under way for several years and has resulted in a higher percentage of vehicle components being sourced in the UK, although the British-made content is still less than 50% on average.

Minimum local content is part of the USMCA agreement, so this will come under increasing focus. Evidence of this can be seen with one supplier of parts to Mazda's vehicle assembly plant in Guanajuato, Mexico, increasing production capacity in Mexico by 50% to transfer an assembly line from the Chinese province of Jiangsu.





Consumer Goods

In the last few years consumables manufacturers companies like Stanley Black & Decker, Whirlpool and Caterpillar have announced plans to return production from overseas to more automated factories in the US. The strategy of making products closer to where people buy them is creating new opportunities like the Stanley Black & Decker 500-job project in Fort Worth, Texas, announced in 2019. The company's CEO James Loree said in April 2020 that the reshoring process would be accelerated as its importance had been "amplified by the nature of the crisis" and that it would take two to three years to complete.



Healthcare

The lack of personal protective equipment (PPE) required to fight COVID-19 has been a key feature of the current debate around reshoring. The role of government procurement of PPE makes it a prime candidate for reshoring. The availability of masks, gloves, screens and other items of critical supplies has been the focus of many governments around the world and given that the scale of the current pandemic and likelihood of future ones, there is a clear need to ensure more resilient supply chains.



E-Commerce and Logistics

The COVID-fueled boost for online retail is also a contributory factor to changing supply chains. E-commerce is forcing companies to keep larger and more diverse inventories in closer proximity to end-users. Joe Dunlap, Head of Supply Chain Advisory at CBRE said: "Stay-at-home mandates have changed U.S. consumer behavior to buy more online, whether direct-to-consumer, pickup-in-store or curbside pickup. This will continue post-COVID-19 and therefore lead to a more rapid adoption of warehouse automation."



WHO ARE THE LIKELY WINNERS?



Restructuring plans vary by industry making different countries around the world more appealing for their respective manufacturing needs. For example, some apparel manufacturing companies are moving out of China to Southeast Asia. High-tech industries are maintaining some manufacturing in China, but also bringing capacity closer to market demand by moving to Brazil, Mexico, and Eastern Europe.

Global real estate advisors Savills publishes a Nearshoring Index, which combines labor costs, energy costs, infrastructure and openness to compare nearshoring potential of countries, which are close to major consumer markets. In July 2020, the Index shows that far from being a simple choice between China or the U.S. there are many potential winners.

Vietnam tops this index, benefitting from low labour and electricity costs and a manufacturing base that was already growing quickly. Other low-cost regional hubs developing as alternatives to China in Asia Pacific include Indonesia (3rd) and Thailand (7th), where labour costs are under half those of China's.

Europe

In terms of Europe, the greatest potential for nearshoring is concentrated in Eastern Europe, thanks to lower input costs and direct road and rail links to the major Western European consumer markets. Ukraine is the highest ranked European country, and second overall, thanks to very low wage costs by European standards. Serbia (4th), another low-cost market, benefits from a strategic location that offers the easiest overland travel between Europe and Asia Minor and beyond. Czech Republic follows (5th), supported by excellent infrastructure, favourable input costs and an established manufacturing economy for export.

"Poland is expected to be among beneficiaries of nearshoring. Central location in Europe, sufficient and improving infrastructure, relatively low labour costs and the largest warehouse market in CEE are attracting investors to Poland. In addition, Poland's economy is large and stable and showed resilient to disruptions in the global economy in the past," - says Dawid Samoń, Analyst, Research, Savills Poland.

US and Canada 🌉 🙌

"The US and Canada, like higher cost Northern and Western European countries, score lower overall for nearshoring potential," says Paul Tostevin. "High labour costs are a barrier to onshoring at scale in the major Western consumer markets, however there is scope for more critical or less pricesensitive goods. Automation in manufacturing can help to offset the costs and, longer term, this is likely to play more of a role, particularly when the technology becomes cheaper."



Costs Will Likely Rise

If companies move manufacturing closer to their end user, there will be the potential for new logistics hubs. Savills observes that Morocco (ranked 13th), for example, is easily accessible to Western Europe by ferry and could further integrate into the existing logistics corridor that spans the ports of southern Spain and the Iberian peninsula into France.

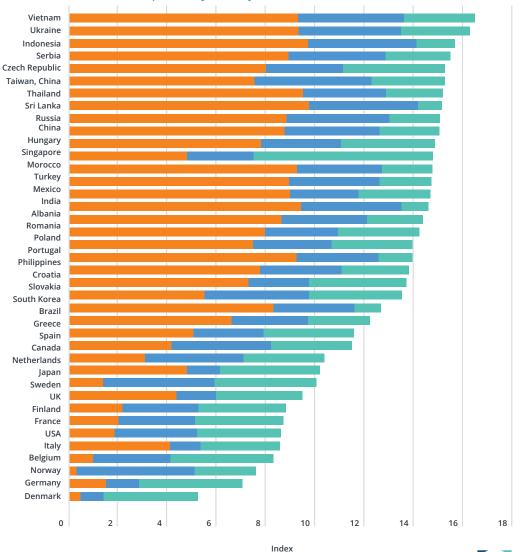
The impact of new distribution routes is already taking effect in Asia, as land prices and rents in Vietnam are rising sharply as the nation becomes a major manufacturer. Savills has recorded that industrial rents in Binh Duong, a district to the north of Ho Chi Minh City, rose 54.4% in the year to lune 2019.

- Manufacturing labour costs
- Electricity costs
- Infrastructure and trade openness

Source: Savills Research: Manufacturing labour costs: Statista, Eurostat, ILO, The Conference Board; Energy costs: GlobalPetrolPrices.com; Infrastructure and trade openness: World Economic Forum, Oxford Economics

Savills Nearshoring Index

Manufacturing nearshoring potential of countries that are, or are in close proximity to, major consumer markets







The current health crisis and inevitable economic recession will be testing times for economic developers. Job losses and business closures will make the attraction of new projects all the more important. Both the global picture and the local landscapes are facing phenomenal changes. Rising unemployment and vacant sites can be turned into a strategic advantage. In the face of economic gloom, there will be opportunities and reshoring is certainly one of them.

It is not a simple zero-sum game of attracting jobs from one location to another. Investment promoters should seek to refresh their strategies in the light of COVID-19 and focus on creating long-term sustainable employment based on the benefits of advanced manufacturing, powered by robotics, data analytics, new materials and the Internet of Things.

Reshoring is not the simple answer, but it offers the potential to be part of the recovery that will drive growth in the coming years.

What Economic Developers Can Do Right Now

- Map and understand the current supply chains of your existing key employers
- 2. Refresh your location's proposition in light of current reshoring debate
- 3. Promote your advanced manufacturing strengths and Industry 4.0 developments
- 4. Consider cost modelling and benchmarking against key competitors
- 5. Monitor latest news and developments relating toreshoring and engage targets



Reshoring Links and Reports

Reshoring Institute

reshoringinstitute.org/

Reshoring Initiative

www.reshorenow.org/

What is Reshoring and Why Do Companies Do It? (Thomas)

www.thomasnet.com/insights/what-is-reshoring/

Sustainability in Supply Chains (McKinsey)

www.mckinsey.com/business-functions/sustainability/ our-insights/starting-at-the-source-sustainability-insupply chains

Reshoring Index (Kearney)

www.kearney.com/ documents/20152/5708085/2020+Reshoring+Index.pdf/ ba38cd1e-c2a8-08ed-5095-2e3e8c93e142?t=158626819 9800&utm_medium=pr&utm_source=prnewswire&utm_ campaign=2020ReshoringIndex

State of Manufacturing Report (Fictiv)

www.fictiv.com/resources/2020-state-of-manufacturingreport

Reshoring Advanced Manufacturing Supply Chains to Generate Good Jobs (Brookings)

www.brookings.edu/research/reshoring-advancedmanufacturing-supply chains-to-generate-good-jobs/

Global Manufacturing Supply Chains: the future (Savills)

www.savills.com/impacts/market-trends/global_ manufacturing_supply_chains_the_future.html

Changing Flow of International Trade (CBRE)

www.cbre.us/research-and-reports/US-Industrial---The-Changing-Flow-of-International-Trade-July-2020



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Steve is President and Founder of ROI Research on Investment and Gazelle.ai. Steve is a thought leader on investment attraction, as well as advanced lead nurturing and engagement techniques.

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