

# Trade war spurs sharp reversal in 2019 Reshoring Index, foreshadowing COVID-19 test of supply chain resilience

## Executive summary

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 (LCCs) tracked in our study, with manufacturing imports from China registering a particularly sharp decline.

This year's report also shares the second installment of the Kearney China diversification index (CDI), which tracks the rebalancing of US manufacturing imports from Asia away from China to other Asian LCCs, most notably Vietnam.

New to this year's report is the Kearney near-to-far trade ratio (NTFR), tracking the potentially significant nearshoring trend of sourcing manufactured goods from Mexico.

2019 saw companies actively adapting to what then felt like a major disruption—the US–China trade war—by reducing imports of manufactured goods from China while increasing manufacturing imports from the other countries in our Asia LCC sample, as well as from Mexico.

2020 dawned with a disruption of a new order of magnitude—COVID-19. At this writing, the full extent of the societal and economic trauma the coronavirus pandemic may cause is unknown. But it will be historic. As a result, we forecast that companies will be compelled to go much further in rethinking their sourcing strategies—indeed, their entire supply chains.

Specifically, we expect companies will be increasingly inclined to spread their risks, as opposed to putting all their eggs in the lowest cost basket. More fundamentally, we anticipate that the threat of future crises will compel companies to restructure their global supply chains with an eye toward increased resilience, as well as lower risks and costs, as resilience is the key to operating profitably in the face of ongoing disruptions.

## Dramatic reversal: 2019 Reshoring Index shifts decisively

## away from Asian LCCs, breaking five-year trend

Kearney's seventh annual Reshoring Index shows a dramatic shift away from Asian low-cost countries (LCCs).

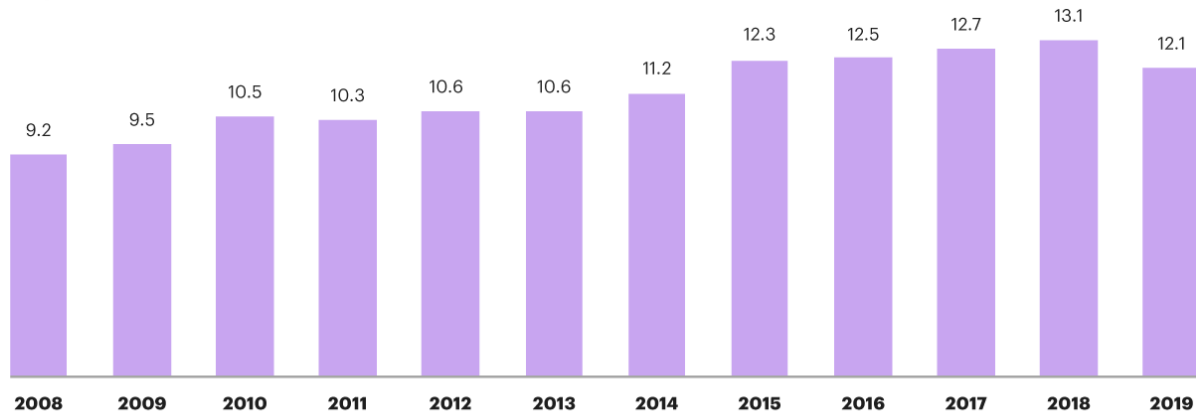
In 2019, imports of manufactured goods from 14 Asian low-cost-country offshore trading partners shrunk to \$757 billion, from \$816 billion in 2018—a 7.2 percent decrease—while US domestic gross output of manufactured goods reached \$6,271 billion in 2019, virtually unchanged vs. 2018.

US manufacturing's ability to hold its ground as imports sharply declined resulted in a manufacturing import ratio (MIR) of 12.1 percent, meaning the US market imported 12.1 cents worth of offshore production from Asian LCCs for every \$1 of domestic manufacturing gross output (see figure 1).

Figure 1

### The MIR fell in 2019, its first decline since 2011

US manufacturing import ratio (MIR) = total manufactured goods imports as % of domestic manufacturing gross output (%), 2008–2019



#### Import countries

— China — Vietnam — Philippines — Malaysia — Indonesia — Pakistan — Sri Lanka  
 — Taiwan — Thailand — Bangladesh — India — Singapore — Hong Kong — Cambodia

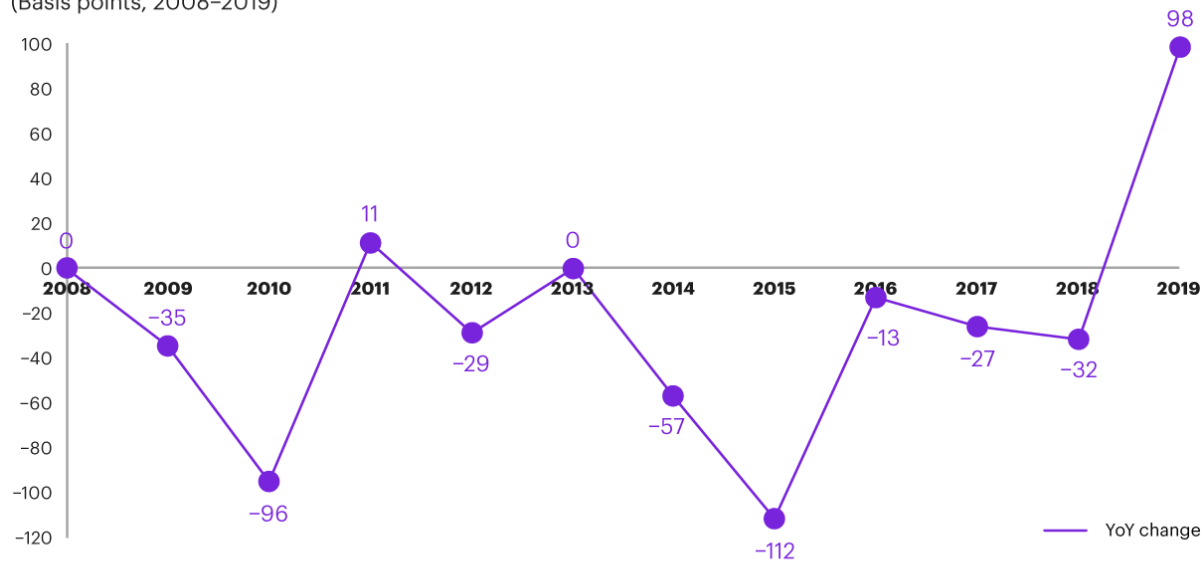
Sources: United States International Trade Commission, United States Department of Commerce Bureau of Economic Analysis; Kearney analysis

2018's MIR stood at 13.1 percent. This reduction in the MIR is the first we've seen since 2011, breaks a five-year trend of consecutive MIR growth, and is the largest relative imports decline since we started tracking the Reshoring Index. In fact, the latest shift represents a 98-basis-point decrease, making the 2019 US Reshoring Index an unprecedented positive 98 (see figure 2 and sidebar: [Reshoring Index explained](#))

Figure 2

**The increase of 98 basis points in the MIR in 2019 is unprecedented in the Reshoring Index**

Year-over-year change in the US manufacturing import ratio (MIR)  
(Basis points, 2008–2019)



Sources: United States International Trade Commission, United States Department of Commerce Bureau of Economic Analysis; Kearney analysis

## Why did the Reshoring Index suddenly shift?

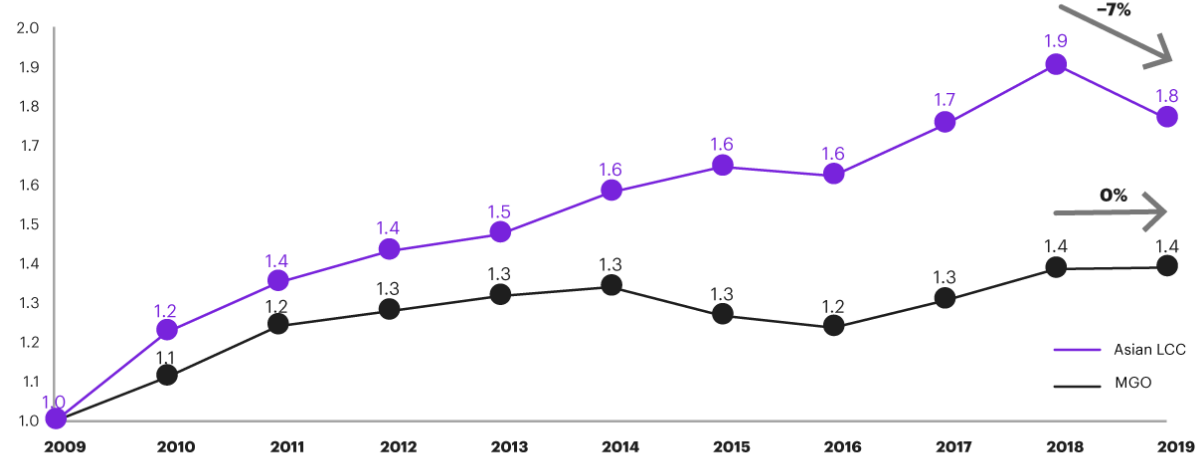
The numerator of the MIR is the sum of the value of all manufactured imports from Asian LCC countries— which decreased from \$816 billion in 2018 to \$757 billion in 2019, a contraction of 7 percent. This contraction is almost exclusively driven by a collapse in imports from China, which declined by 17 percent, likely as a direct consequence of the trade war. At the same time, the denominator of the MIR, US manufacturing gross output (MGO), held steady from

2018 to 2019 (see figure 3).

Figure 3

**The value of manufactured imports from Asian LCCs fell 7%, while US MGO held steady**

Asian LCC and MGO YoY index since 2009



Notes: LCC is low-cost country. MGO is manufacturing gross output.

Sources: United States International Trade Commission, United States Department of Commerce Bureau of Economic Analysis; Kearney analysis

The resulting 98-basis-point jump in the Kearney Reshoring Index is by far the biggest YOY change in the past five years.

Without doubt, this change was largely driven by trade policy. Since Kearney's previous report on US reshoring, the country's economy felt the continued effects of a multiyear trade war, stemming from an America first economic policy (see sidebar: [The winding path of the trade war](#)). While these policies clearly contributed to the dramatic spike in the 2019 Reshoring Index, not all of these events have been positive for US manufacturing, which still faces a number of major challenges (explored later in this paper). The US MGO stayed flat from 2018 to 2019, in part due to export decline resulting from the trade war.<sup>1</sup>

In sum, the dramatic reversal of the Reshoring Index is primarily due to a major drop in imports from the traditional 14 LCCs, not from a significant rise in US manufacturing output.<sup>2</sup> Nevertheless, the balance between imports and domestic production clearly shifted in 2019,

as domestic manufacturing commanded a substantially bigger slice of the pie. By a substantially increased margin, US companies chose to source more goods domestically than offshore.

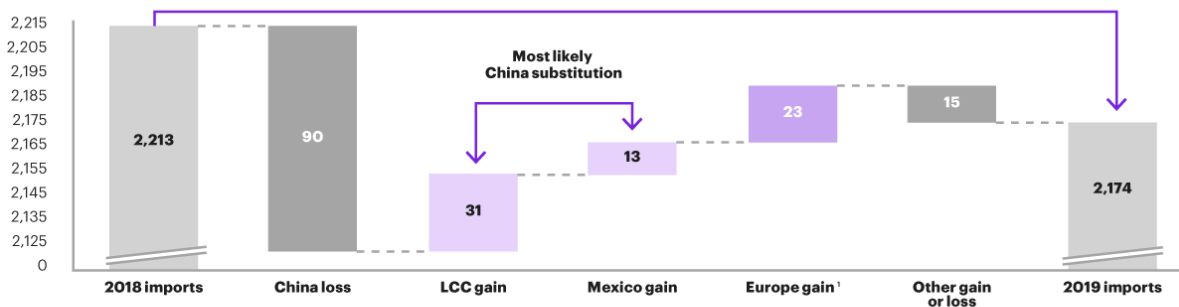
## 2019 insurgents

Trade policies also appear to be changing trade dynamics among and between the various countries exporting manufactured goods to the US. As previously noted, from 2018 to 2019 US manufacturing imports from China declined by 17 percent, a total drop of roughly \$90 billion. However, US manufacturing imports from other Asian LCC countries increased by \$31 billion in 2019. Similarly, manufacturing imports from Mexico rose \$13 billion (see figure 4).

Figure 4

**While manufacturing imports to the US from China have declined, those from other Asian LCCs and Mexico have grown**

US manufacturing import mix change (Real \$ billion, 2018–2019)



Note: LCC is low-cost country.

<sup>1</sup> Most likely due to increase in demand for European-specific imports (for example, luxury cars)

Sources: United States International Trade Commission, United States Department of Commerce Bureau of Economic Analysis; Kearney analysis

The rise of these insurgents mainly occurred in product categories impacted by tariffs. The door was clearly opened by ongoing US–China trade disputes. In contrast, most of the \$23 billion growth in European imports came from advanced chemicals and other specialty manufactured goods, and so appears not to have stemmed from the trade war between the US and China.

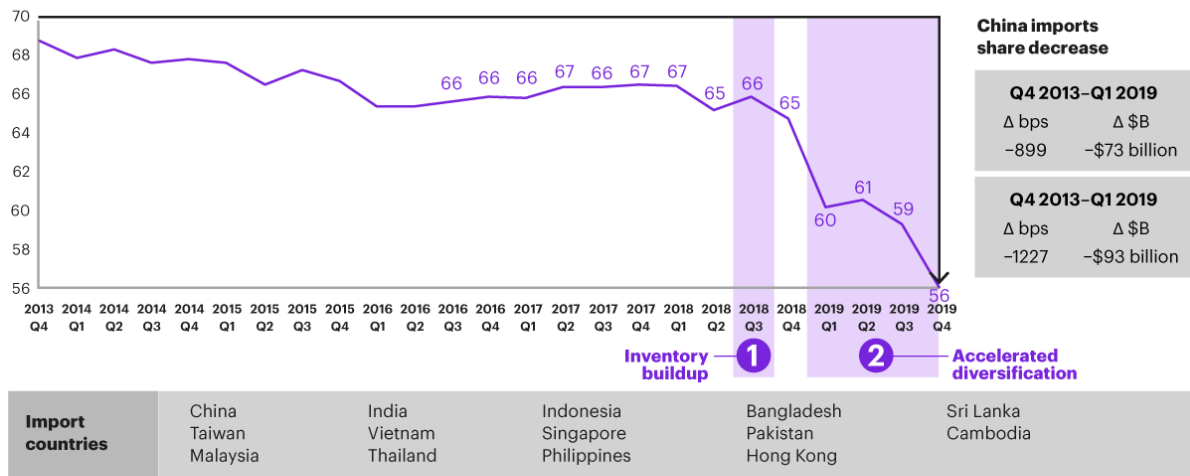
## New day in Asia: the shift away from China

The Kearney China diversification index (CDI) tracks the shift in US manufacturing imports away from China to other Asian LCCs. While China maintains its position as the primary producer of manufactured goods, it has now lost share within the CDI for the sixth year in a row.

In 2013, the year in which we anchor our Index, China held 67 percent of share. As of Q4 2019 its share was down to 56 percent, a decrease of more than 1,000 bps over the six-year time frame (see figure 5).

Figure 5  
**China has lost share in the Kearney CDI for six consecutive years**

Kearney CDI: seasonally adjusted share of US LCC import value from China<sup>1</sup>  
 (% , 2013 Q4–2019 Q4, 100 bps = \$8 billion)



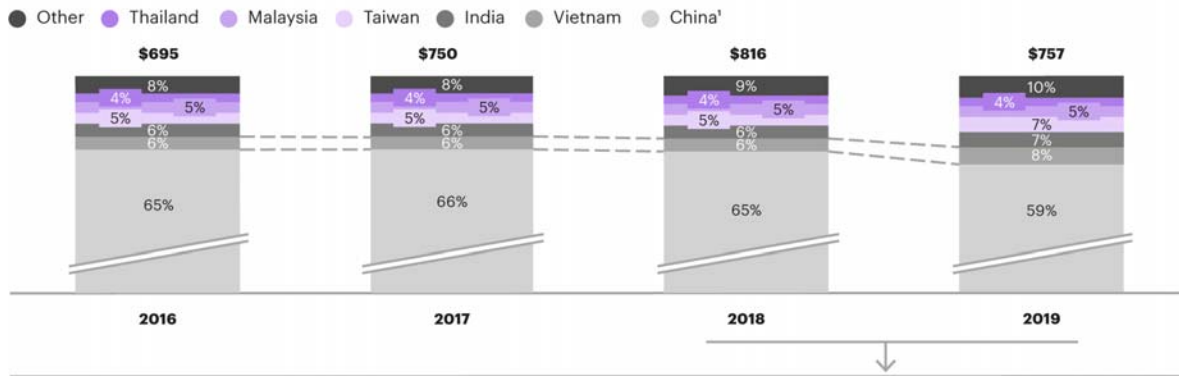
Note: CDI is China diversification index. LCC is low-cost country.  
<sup>1</sup> Includes US imports from Hong Kong  
 Sources: United States International Trade Commission; Kearney analysis

Of the \$31 billion in US imports that shifted from China to other Asian LCC countries, almost half (46 percent) was absorbed by Vietnam, which exported an additional \$14 billion worth of manufactured goods to the US in 2019 vs. 2018 (see figure 6).

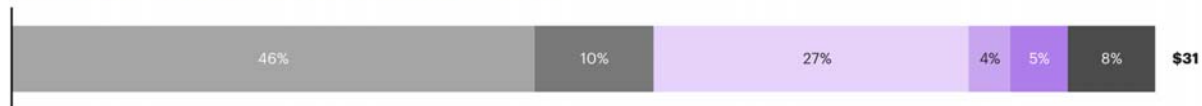
Figure 6

**Vietnam accounted for almost half of US imports that shifted from China to other Asian LCCs**

US manufacturing import mix from Asian LCC countries (100%, real \$ billion, 2016–2019)



Share of growth in imports from Asian LCC countries (100%, real \$ billion, 2018–2019)



Notes: LCC is low-cost country. Percentages may not resolve due to rounding.

<sup>1</sup> Includes imports from Hong Kong

Sources: United States International Trade Commission, United States Department of Commerce Bureau of Economic Analysis; Kearney analysis

It is important to note, however, that not all of Vietnam’s gains represent a true relocation of production from China to Vietnam. There is ample evidence of the practice of transshipment, where Chinese producers, seeking to dodge tariffs, ship goods to Vietnam with the intention of then reshipping these same or slightly modified goods to the US as “Vietnamese” products. Shipments of electronics from China to Vietnam, for example, grew 78 percent between May 2018 and 2019 (from \$2.7 billion to \$5.0 billion), while Chinese shipments to the rest of the world only grew by 19 percent in the same period. In tandem with the explosive growth in Chinese electronics shipments to Vietnam, Vietnamese electronics exports to the US grew 72 percent (from \$1.0 billion to \$1.8 billion), while Vietnamese electronics exports to the rest of the world grew by just 13 percent in that same period.<sup>3</sup> The disproportionate trade flows from China to Vietnam, and from Vietnam to the US, suggests that part of the shift may only represent temporary tactics to avoid tariffs, rather than a strategic and permanent shift of production to Vietnam. However, Vietnamese and US policing of transshipment is improving, and over time this practice will likely diminish.

In any case, the shift of trade flows from China to other Asian LCCs has been going on for more than five years, and was accelerated in 2019 by the US-China trade war. It appears that a new Asian trade balance is taking hold, and may not be reversed even if the US and China eventually resolve their significant trade disputes. Our hypothesis is that Asia will settle on a new steady-state equilibrium in which the production mix across the Asian LCC countries is more akin to the 2019 distribution than the pre-trade war 2016 distribution.

## Nearshoring: the rise of Mexico

New to our 2019 Reshoring Index report is the Kearney near-to-far trade ratio (NTFR) which tracks the movement of US imports toward nearshore production from Mexico. The NTFR is calculated as a ratio of annual total USD value of Mexican manufactured imports to the US, divided by the USD value of manufactured imports from the Asian LCC countries.

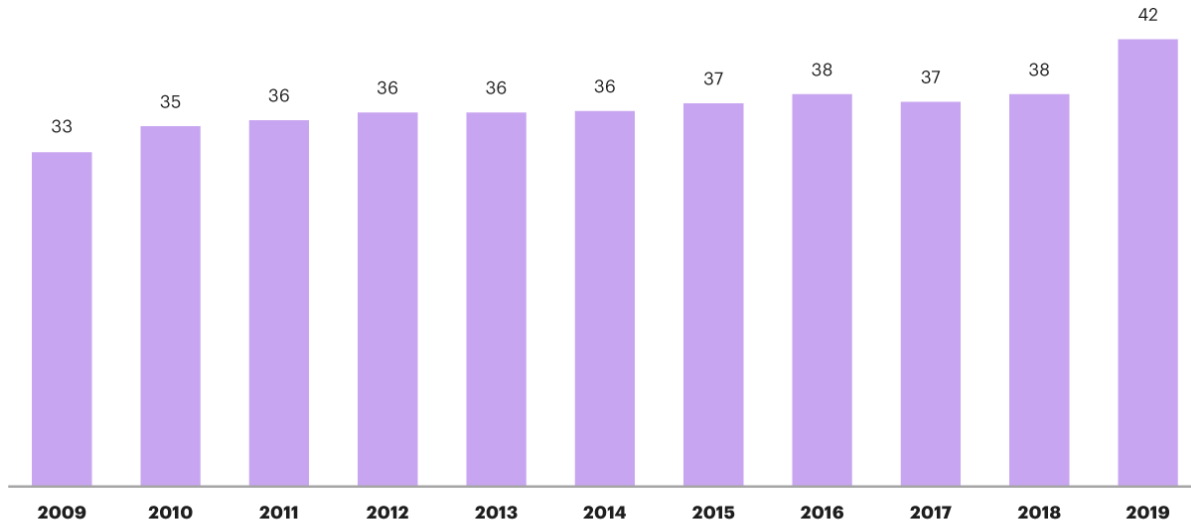
Looking back seven years, the NTFR has hovered steadily between 36 percent and 38 percent—that is, for every dollar of US manufacturing imports from the Asian LCCs there were approximately 37 cents worth of manufacturing imports from Mexico. In 2019, however, we saw a material shift toward Mexico, from 38 percent the previous year to 42 percent. The NTFR climbed by 400 bps (see figure 7). On a dollar-value basis, total manufacturing imports from Mexico to the US increased 10 percent between 2017 and 2018, from \$278 billion to \$307 billion, and by another 4 percent between 2018 and 2019, to a total import value of \$320 billion.



Figure 7

**After holding relatively steady for seven years, the NTFR climbed 400 basis points in 2019**

NTFR = total manufactured goods imports from Mexico as % of total manufactured goods imports from Asian LCC countries (% , 2009–2019)



Note: NTFR is near-to-far trade ratio. LCC is low-cost country.

Sources: United States International Trade Commission, United States Department of Commerce Bureau of Economic Analysis; Kearney analysis

Again, the most likely cause was the trade war, which over the past two years jolted US producers to evaluate and reshape their supply networks, opening the way for Mexico to win a more prominent place among countries exporting manufactured goods to the US.

Kearney research shows that as early as 2016 more than half of US companies with manufacturing operations in Mexico had moved production there from other parts of the world (including China) specifically to serve the US market. The US–China trade war and the recently ratified United States-Mexico-Canada Agreement (USMCA) have accelerated production flow to Mexico. As Section 301 tariffs were imposed on China, importation of NAICS 33 goods from Mexico—which make up a majority (87 percent) of its exports to the US—increased by 11 percent from 2017 to 2018, the largest single-year gain since 2011.<sup>4,5</sup> And as Section 301 tariffs further escalated in 2019, corresponding imports from Mexico rose 4 percent (\$11 billion). When viewed in combination with the sharp tariff-related decline in imports from China, these figures strongly suggest that some US manufacturers have used Mexico as a substitute source for manufactured imports.

Similar to the discussion of Vietnam above, some of last year's growth in Mexico-to-US manufacturing imports may have resulted from the transshipment of goods to circumvent tariffs. While Mexico's total domestic manufacturing output increased by 1 percent or \$9.8 billion, its exports to the US increased three-fold, \$29 billion, over the same time frame, creating a gap of \$20 billion which can potentially be explained by transshipments.<sup>6</sup> As a further qualification, certain portions of the Asian manufacturing portfolio are difficult to replicate in Mexico—at least for now. While electronics manufacturers (for example, Foxconn, Flextronics, LG) have factories in Mexico, production is limited to goods with simplified supply chains and a lower technical content. Foxconn factories in Mexico are used for computer and cellphone assembly (the latter is done at a site acquired from Motorola), with modular circuit boards imported from China. The near-term likelihood of Mexico producing printers, cameras, and other products with complex supply chains is low.

Nevertheless, Mexico's strengths should not be ignored. Compared to the Asian LCC countries, Mexico's labor cost competitiveness continues to improve—the real wage CAGR over the past four years for manufacturing jobs was 7 percent in China, but only 5 percent in Mexico.<sup>7</sup> Labor costs in Mexico are just 14 percent of a similarly skilled worker in the US. Further, Mexico has a production base comparable to China, at least in certain regards, allowing companies to nearshore capacity without massive investments in retraining labor forces or building out new infrastructure. Components can be sourced from the US, assembled in Mexico, and shipped back to the US in a short amount of time. Even when adding the cost of import/export logistics, labor arbitrage in Mexico can still save producers anywhere from 20 percent to 30 percent vs. their production cost in the US.

Mexico further benefits from US retailers' push to shorten supply chain lead times, pressuring suppliers to deliver high on-time and in-full (OTIF) targets, and imposing financial penalties for deviations from their OTIF commitments. "Made in Mexico" could help manufacturers meet OTIF demands with less working capital; it takes 75 percent less time to transport goods to the customer from Mexico versus Asia.

Competitive labor costs, a renewed free-trade agreement, and the lingering effects of the trade war all positioned Mexico to gain import share in 2019. Of course, Mexico's continued growth will also depend on investments to improve security, roads, ports, and other necessary infrastructure to accommodate long-term relocation of production capacity.

## **Kearney forecast: COVID-19 reveals that resilience is key**

In sum, 2019 saw US companies actively adapting to what then felt like a major disruption—

the US–China trade war. Specifically, US companies sharply reduced imports of manufactured goods from China while increasing imports from other countries in our Asia LCC sample, as well as from Mexico. The shift was sizable, but there was still a sense that manufacturing imports might revert to old patterns once the trade war ends.

Then everything changed. 2020 dawned with a disruption of a new order of magnitude—COVID-19. At this writing, the full extent of the societal and economic trauma the coronavirus pandemic may cause is still unknown. But it will be historic. In multiple countries, social and economic activity are essentially frozen. Governments as dissimilar as the US, Russia, and Italy are currently scrambling (and clearly struggling) to construct a coherent and effective response. The outlook is daunting.

For business leaders, Kearney has created a site dedicated to [navigating the COVID-19 crisis](https://www.kearney.com/covid-19) (<https://www.kearney.com/covid-19>). There you will find a continually refreshed range of practical insights and advice you can apply right now, as you guide your company through this period of epic disruption. The Reshoring Index puts a somewhat longer lens on the same challenge—drawing from historic context to help you interpret the confounding circumstances you face in 2020, more fully grasp the strategic implications, and start to think ahead.

The lessons we must learn from COVID-19 are as momentous as they are harsh. While the trade war triggered some notable tinkering, the massive operational disruption wrought by the coronavirus pandemic will compel companies to fundamentally rethink their sourcing strategies.

At minimum, we expect they will be increasingly inclined to spread their risks rather than put all their eggs in the lowest cost basket, as many long did in China.

## **Domestic outlook**

Might such a strategic redistribution spur a dynamic resurgence of US domestic manufacturing? It seems unlikely. The limitations that held US manufacturing to flat growth in 2019, even as the trade war put Chinese manufacturing at a decided disadvantage, will continue to work against a US manufacturing revival. There is still a pronounced shortage of skilled manufacturing labor, and the long-promised productivity boom via automation has yet to be realized. Yes, companies will be more inclined to look at new sourcing options, but they will still want to place most of their eggs in cost-competitive baskets.

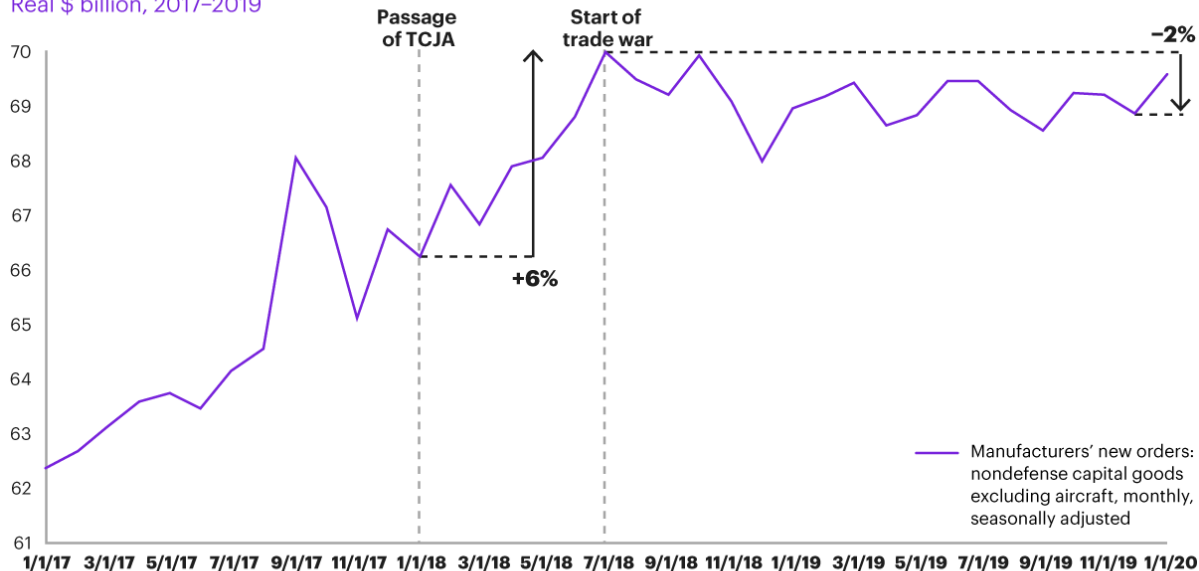
As highlighted in our prior reports, the keys to making US domestic manufacturing more competitive are (1) upgrade and modernize manufacturing equipment, and (2) prepare the labor force to work within this new type of manufacturing environment. In pursuit of those imperatives, the 2017 Tax Cuts and Jobs Act (TCJA) included a provision allowing companies to depreciate the cost of equipment in the first year of ownership, as opposed to over the life of the asset. The White House Council of Economic Advisers predicted that this policy would “result in higher worker wages as a result of changes in worker productivity that result from increased capital investment.” That is, the hope was that companies would purchase more automation equipment, which in turn would drive higher productivity and better wages for up-skilled laborers.

Manufacturers’ new orders for capital goods did increase by 6 percent in the seven months immediately following the passage of the TCJA in December 2017. However, new capital goods purchases have been anemic since the start of the trade war (see figure 8). One explanation could be that the uncertainty generated by the trade war overpowered the TCJA’s incentives to invest in capital goods.

Figure 8

**After increasing 6% following passage of the TCJA, new capital goods purchases have fallen 2%**

Real \$ billion, 2017–2019



Note: TCJA is Tax Cuts and Jobs Act.

Sources: St. Louis FED; Kearney analysis

Even so, one might expect to see YoY productivity gains from the investments that were made immediately following the passage of the TCJA, yet productivity data from the Bureau of Labor Statistics tell a different story. The labor productivity index for the manufacturing sector, calculated as output divided by hours worked, grew steadily from 1997 until 2010, but has been stagnant ever since. In 2019 the Labor Productivity Index was 98.58, just a three-basis-point improvement versus the 2018 index of 98.55.

There are many examples of manufacturers touting investments in automation of US factories. Why are these not yielding broader gains in productivity?

Some of the reasons are already apparent. ROI from capital investments in robotics and other productivity-oriented assets are not always immediately competitive with alternative investments to increase asset throughput or, as has been the prevailing trend, to relocate plants to lower-cost labor markets. Further, even after automation, the cost of domestic production is often still higher than that of Mexican- or Asian-based operations.

Companies also hesitate to deploy automation at scale across their US production networks because the supply of skilled labor required to operate newly automated production lines is so stubbornly scarce. Unemployment levels for manufacturing workers was a record-low 2.9 percent in 2019, continuing a 10-year tightening of the manufacturing labor market.<sup>8</sup> As a result, companies have struggled to operationalize some of their aspirations. Foxconn, for example, recently slowed and then revised its planned \$10 billion flat screen TV and LCD factory in Wisconsin. Citing concerns about labor force availability and cost to manufacture, the company chose to build a lower-tech plant on the site.

To boost labor supply, the current administration has promoted employer job training, seemingly with some effect. In a January 2020 Manufacturing Institute survey, 70 percent of manufacturers reported they were either creating or expanding internal training programs. Yet the Manufacturing Institute also predicted that 2.4 million manufacturing jobs could go unfilled by 2028. This forecast has been virtually unchanged over the past five years, although COVID-19's impact on economic growth may soon change that number.<sup>9</sup>

In sum, the combination of relatively high production costs, lack of significant domestic productivity gains from automation and technology, and ongoing skilled labor shortages make a sudden resurgence of domestic US manufacturing highly improbable.

The more likely outcome will be an accelerated scattering. Companies that began distributing their import supply risk in response to the stresses of the trade war will double down on that strategy in response to the much more severe disruptions caused by COVID-19.

## Blessing in disguise?

In that sense the trade war may have been a blessing in disguise. Unanticipated shifts in US trade policy and the resulting retaliatory exchange with China prompted companies that had long relied on Chinese suppliers to start rethinking old assumptions about where and how to source. The various data and indices shared in this 2019 Reshoring Index report strongly suggest that many US companies did, in fact, seek out alternative options.

More broadly, by confronting US companies with costly disruptions that were largely beyond their control, the trade war triggered at least a partial awakening to the intrinsic vulnerabilities of modern global supply chains.

Events in 2020 cast the trade war as a mere precursor to the far greater economic and operational disruptions being wrought by the coronavirus. What we are experiencing now demands a more profound reckoning. COVID-19 should cause companies to fundamentally rethink the criteria they use to shape their supply chains.

## Costs, risk, and resilience

Three decades ago, many US producers began manufacturing and sourcing in China for one reason: **costs**. The US–China trade war brought a second dimension more fully into the equation—**risk**—as tariffs and the threat of disrupted China imports prompted companies to weigh surety of supply more fully alongside costs. COVID-19 brings a third dimension more fully into the mix, and arguably to the fore—**resilience**.

Previous events, such as the US West Coast port strikes and the SARS outbreak, caused temporary blips that could be absorbed with higher inventories or air freight. The trade war proved substantially more challenging, prompting companies to become notably more fluid in their thinking about where they should source.

The current crisis is exposing vulnerabilities that cannot be addressed with short-term fixes and minor tinkering. Many companies quickly ran out of any inventory they were able to stockpile ahead of the COVID-19 outbreak. Some with heavy dependence on China found

they had few alternatives that could help see them through the drought.

We have subsequently learned that the disruption of supply from core manufacturing regions of China was just the beginning of the havoc to be wrought by the coronavirus. Recent events illustrate, with distressing clarity, that events frequently unfold in ways that were impossible for anyone to foresee, shattering the assumptions that shaped supply chain strategies.

The answer? Companies need to place more value on resilience by building supply chains that can nimbly sense and pivot in response to unexpected demands and disruptions. This is the key to operating profitably in the face of ongoing disruptions.

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<sup>1</sup> The average month-over-month decline in US manufactured goods exports was -2 percent between 2018 and 2019.

<sup>2</sup> United States International Trade Commission, United States Bureau of Economic Analysis

<sup>3</sup> General Department of Vietnam Customs

<sup>4</sup> Section 301 tariffs apply to a broad range of manufactured goods including pumps, office equipment, motors, chemicals, food products, and several other categories.

<sup>5</sup> Includes fabricated metal goods, machinery, computers and electronics, appliances, and furniture.

<sup>6</sup> OECD – Main Economic Indicators 2020

<sup>7</sup> Economist Intelligence Unit

<sup>8</sup> US Bureau of Labor Statistics

<sup>9</sup> Manufacturing Institute Skills Gap Report, 2015

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