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## Companies That Got Out of China Before Coronavirus Are Still Tangled in Its Supply Chains

The epidemic has laid bare a central problem for manufacturers: China's tight grip on supply networks

By Jon Emont and Chuin-Wei Yap March 8, 2020 1:04 pm ET

The novel coronavirus is laying bare a central problem for the global manufacturing industry: China's shadow has grown so long that even industries that have shifted production beyond the country can't wriggle free of its grip on supply networks.

A year and a half ago, a lingerie manufacturer set up a factory in eastern Bangladesh as part of a push to move production away from China due to rising labor costs and higher tariffs from the trade fight with the U.S. At the plant, 16 experienced Chinese supervisors usually oversee 500 Bangladeshi workers attaching bra straps to cups for brands such as Hanesbrands Inc.'s HBI-3.06% V Wonderbra.

Half the Chinese staff has been quarantined back home for weeks, slowing production. Shipments of bra cups and straps are delayed, and the factory is stocking up on knitting needles, anticipating shortages. They all depend on suppliers in China.

"We're already facing delays," said Ramiz Khalid-Islam, the executive director of the Onus Group, which co-owns the factory with China-focused P.H. Garment Manufacturing Co. "It's just going to keep getting worse if China cannot deliver us materials on time."



Michelle Huang, assistant general manager, and Cai Gui Yang, a supervisor, at the plant in Comilla.

PHOTO: ALLISON JOYCE FOR THE WALL STREET JOURNAL

Tech and consumer electronics, industries nurtured in China on huge state incentives, have been hardest hit by the stalled production lines, supply-chain consultants say. Autos and pharmaceuticals are more moderately exposed, while older industries like apparel, where capacity already has begun to leave China, have lower risk—yet producers dependent on Chinese materials and expertise such as the Bangladesh lingerie factory haven't been spared.

A persistent epidemic would compound price pressures and weigh on corporate profit as manufacturers refocus their resources on searching for substitutes in the supply chain.

China became the world's largest exporter in 2009. It accounted for one-third of global trade in 2018, up from 1.2% in 2000, according to World Bank data, overtaking giants including Germany, Japan and Taiwan. China makes nearly a quarter of American imports, including nearly all of its Christmas decorations. In recent years, Beijing has relentlessly focused its industrial policies on leapfrogging up the value chain.

Manufacturers world-wide rely on China's factories for many intermediate goods, from electrical wiring for cars made in Europe to electronic components for mobile phones made in Brazil.

"The world's ability to avoid a production and supply disruption fell dramatically as it became more dependent on China for intermediate goods," Chi Lo, BNP Paribas senior economist for greater China, wrote in a recent note.

The garment industry, which is less capital-intensive and easier to move, was among the first to break out of China. Companies looking for low-cost labor moved production to places such as Bangladesh, one of the world's largest clothing exporters after China.



A textile worker on a fabric production line in Qingdao, China, last month. PHOTO: CHINA DAILY/REUTERS

China's share of global clothing exports ebbed from 37% in 2010 to 31% in 2018, according to the World Trade Organization. Yet over the same period, China's share of global exports of textiles—which is made into apparel—rose to 38% from 30%. Producing textiles is highly automated, which means China has remained a favored destination despite rising labor costs.

Chinese fabrics are shipped to Vietnam, Pakistan and Bangladesh for labor-intensive cutting and sewing, accounting for roughly half to three-quarters of their textile imports. These newer manufacturing nations also depend on China for more complex products, such as zippers and fasteners, that rely on higher-skilled workers.

Supply chains could become even more snarled as the disease spreads in South Korea and Japan, which are both major suppliers of textiles in Asia, said Sheng Lu, a fashion and apparel studies professor at the University of Delaware.

As the coronavirus spread from Wuhan in January, China's manufacturing collapsed. An official gauge of manufacturing activity showed its February performance was worse than at the depth of the global financial crisis in 2008.

Hubei province, the center of the epidemic, is an auto manufacturing hub, making the auto industry among the most seriously affected.

Fiat Chrysler Automobiles FCAU -0.67% ▼ NV last month said it is temporarily halting production at a car factory in Serbia because it can't get parts from China. Union officials at two major General Motors Co. factories in the U.S. have warned of production outages as China-made parts at its Michigan and Texas plants run low. Korean car maker Hyundai Motor Co., had to suspend one of its main assembly lines in Ulsan, South Korea, because it couldn't get parts from China.



A Hyundai Motors factory in Ulsan, South Korea, last month. PHOTO: YONHAP/REUTERS

Trying to evade the U.S.-China trade war, Japanese videogame producer Nintendo Co. partially shifted production of its flagship Switch gaming console to Vietnam last year. Yet the company said the coronavirus epidemic has already delayed shipments of its console because of a slowdown in getting parts made by its contract factories in China.

Union officials in Brazil say South Korea's LG Electronics Inc. halted work at a plant for mobile phones and monitors because it couldn't get parts from China. In a written statement, LG confirmed the shortage and that it stopped production for 10 days at its cellphone unit in Taubaté, Brazil. The company said it is "monitoring the situation closely" to minimize impact on customers and employees.

French pharmaceutical giant Sanofi SA said it would create a stand-alone company in France dedicated to making active pharmaceutical ingredients, an essential component of drugs whose production is heavily concentrated in China. The new business, with more than 3,000 staff, "would help to balance the industry's heavy reliance on [pharma ingredients] sourced from the Asian region," said Jean-Baptiste Froville, a spokesman for Sanofi.

To keep costs low before the epidemic hit, companies across industries have cut back on inventory, even after earlier supply-chain shocks, including the 2011 tsunami in Japan that cut auto exports.

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How vulnerable is the manufacturing industry? Join the conversation below. \$4	d about 40 llion orth of

auto parts, six or seven weeks' worth, sitting as backup" in the industry, said David Collins, chief executive officer of Shenzhen-based China Manufacturing Consultants and a former senior manager for Chrysler Corp. That figure now is less than \$50 million, he said. "That means you don't have a whole lot to fall back on."

The tech industry carries about three to 12 weeks of inventory, while the auto industry has about two to 10 weeks' worth, said Razat Gaurav, chief executive of supply-chain software developer LLamasoft Inc. More than 70% of global smartphone output capacity is in China, he said.

"If the current situation continues as we go into the second half of March, I think we're going to start seeing some massive impact on inventory availability," Mr. Gaurav said.

Among fashion retailers, Ralph Lauren Corp. said supply disruptions in China could impact its orders. Primark, a European retailer, said it is assessing strategies including stepping up production in other regions.

In Bangladesh, factories can't easily stockpile fabrics and other materials because they don't know what styles of clothing buyers will request. Both Vietnam and Bangladesh are increasing textile production, but industry experts say they will rely on imports for years to come.

At Mr. Khalid-Islam's factory, supplies of bra straps are dwindling. He said he could run out of key materials by April. Another of his factories has had to delay production on a line of sweaters.



'We're already facing delays,' said Ramiz Khalid-Islam, at his factory in Comilla. PHOTO: ALLISON JOYCE FOR THE WALL STREET JOURNAL

Matt Hall, a spokesman for Hanes, said the company has moved to develop alternatives to components from China over the past several weeks. He doesn't expect any production delays from the Comilla factory to affect Wonderbra distribution.

Matthew Lam, group chief operating officer for Pioneer Elastic Ltd., the manufacturer that supplies Mr. Khalid-Islam's factory, said his company faced delays in supplying customers after its Chinese plant shut down for an extra week following the Lunar New Year holidays. Even after reopening, the factory remained short-staffed for another week. It has now nearly returned to full production, he said.

Some Chinese factories remain only one-third staffed, and those that have resumed are still scrambling to complete orders from last year, according to a late February report from Chrotton, a research house backed by China's government.

The Comilla factory's woes bedevil much of Bangladesh's garment industry, which represents around 85% of the country's exports. The Ananta Group, a Bangladeshi garment manufacturer, says its supply of Chinese-made fabrics for its suits has been disrupted and it will be forced to pay workers for no production. Denim Expert Ltd., a jeans producer, has had to delay work on an order of 100,000 trousers to a European buyer for the same reason.

Factories are discussing with buyers who is responsible for paying the extra costs of airfreight for delayed shipments of Chinese raw material.

Rubana Huq, the president of the Bangladesh Garment Manufacturers and Exporters Association, a trade group, wrote to the central bank of Bangladesh last month to establish a disaster assistance fund for garment factories and encourage commercial lending to the industry.

"If the crisis persists further, it will lead us to an irrevocable disaster," Ms. Huq said.



Supplies of bra straps are dwindling at the Comilla factory. PHOTO: ALLISON JOYCE FOR THE WALL STREET JOURNAL

P.H. Garments, the Hong Kong company that co-owns the Comilla factory with Mr. Khalid-Islam, is trying persuade its textile suppliers to resume shipments quickly as they restart production—and has offered one surgical masks as goodwill, said Felix Kwok, sales director for P.H.

When his company and the Onus Group established the factory in 2018, they hoped to take advantage of Bangladesh's low-cost labor to make lingerie, which requires elaborate sewing work that is difficult to automate. Mr. Kwok said that a monthly wage for a Chinese garment worker is \$700, while a Bangladeshi worker earns around \$200.

employees are necessary, said Mr. Khalid-Islam, because Bangladesh's garment industry has traditionally focused on low-value shirts and trousers, and there is limited local expertise in lingerie.

While on the phone with a reporter recently, Mr. Khalid-Islam got word that their Chinese employees had finally been released from blanket quarantines in rural China.

"Quite good news!" he said.

His relief was tempered by the knowledge that it was just one step back toward normal production. The workers would have to be quarantined again, for two weeks, after their return to Bangladesh.



The factory in Comilla.

PHOTO: ALLISON JOYCE FOR THE WALL STREET JOURNAL

—Tom Fairless and Refayet Ullah Mirdha contributed to this article.

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