How a Chinese slowdown could help — or hurt — robotics

By Eugene Demaitre | February 11, 2019

The Chinese slowdown will hit Asia hard. Map of China (and Taiwan) from the CIA World Factbook

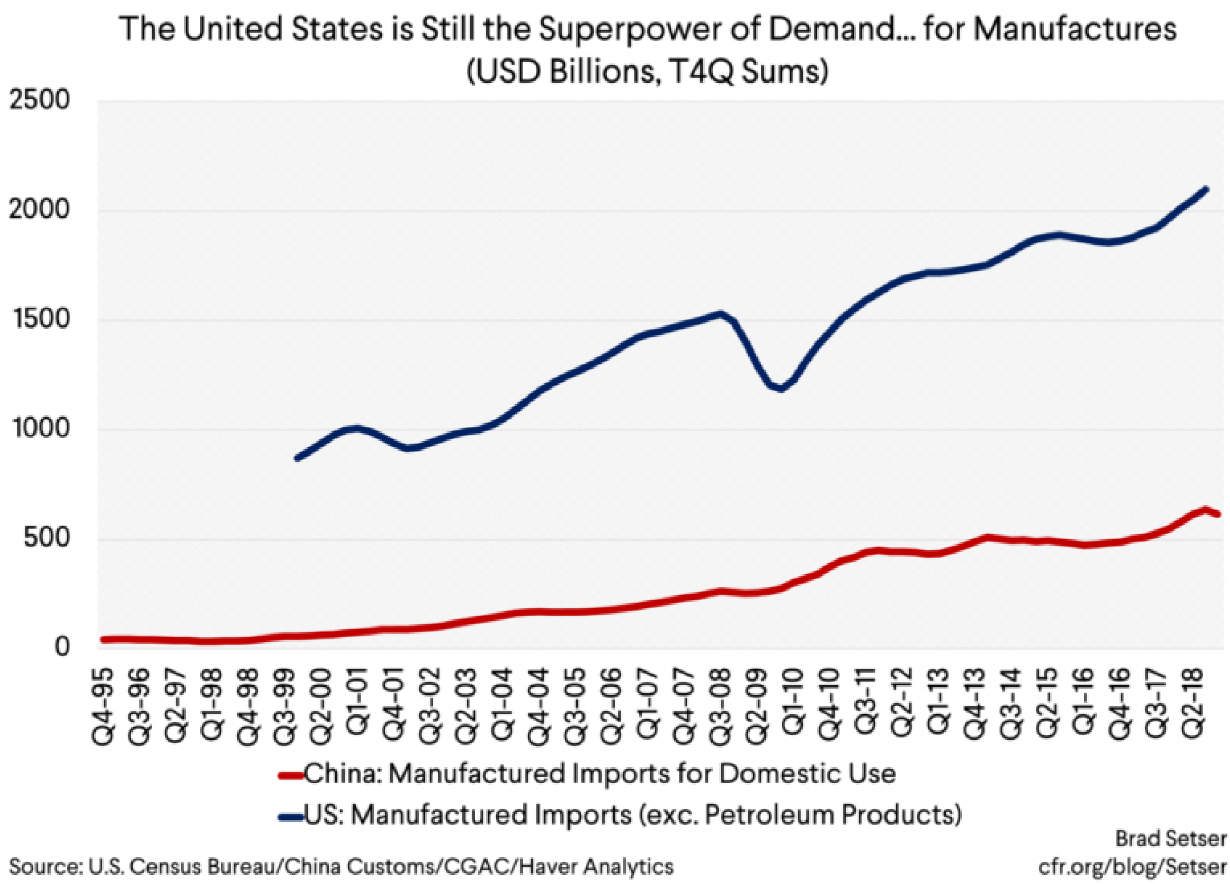
China is the most attractive market in the world for robotics suppliers, with a relatively low robot density, lots of manufacturing, and fewer regulations than in other countries. At the same time, there are plenty of things to discourage business, from worries about trade disputes and intellectual property to the recent Chinese slowdown. How should robotics developers and vendors overcome these hurdles?

Before you lay the blame solely on the chilly relations between Beijing and Washington or on corporate espionage (such as Huawei's alleged theft of T-Mobile's robot arm), it's worth reviewing the causes of the latest economic slowdown.

"2017 was a year of extraordinary growth for the Chinese robotics industry," observed Georg Stieler, managing director, Asia, at international consulting firm STM Stieler. "It was not uncommon that business owners would order more robots than actually required — either because they were encouraged by the government or just to make their production look more advanced before an IPO."

"Hence, it was no surprise that the growth in 2018 was considerably slower" he told *The Robot Report*. "What weighed further on the demand for automation was certainly the cooling down of the automotive and electronics industries. Last year was the first time since 1990 that car sales actually fell in China. Also, sales of smartphones in declined by 15.6 percent year over year. Both were more driven by worsening consumer confidence than impacts of the tariffs introduced by the U.S."

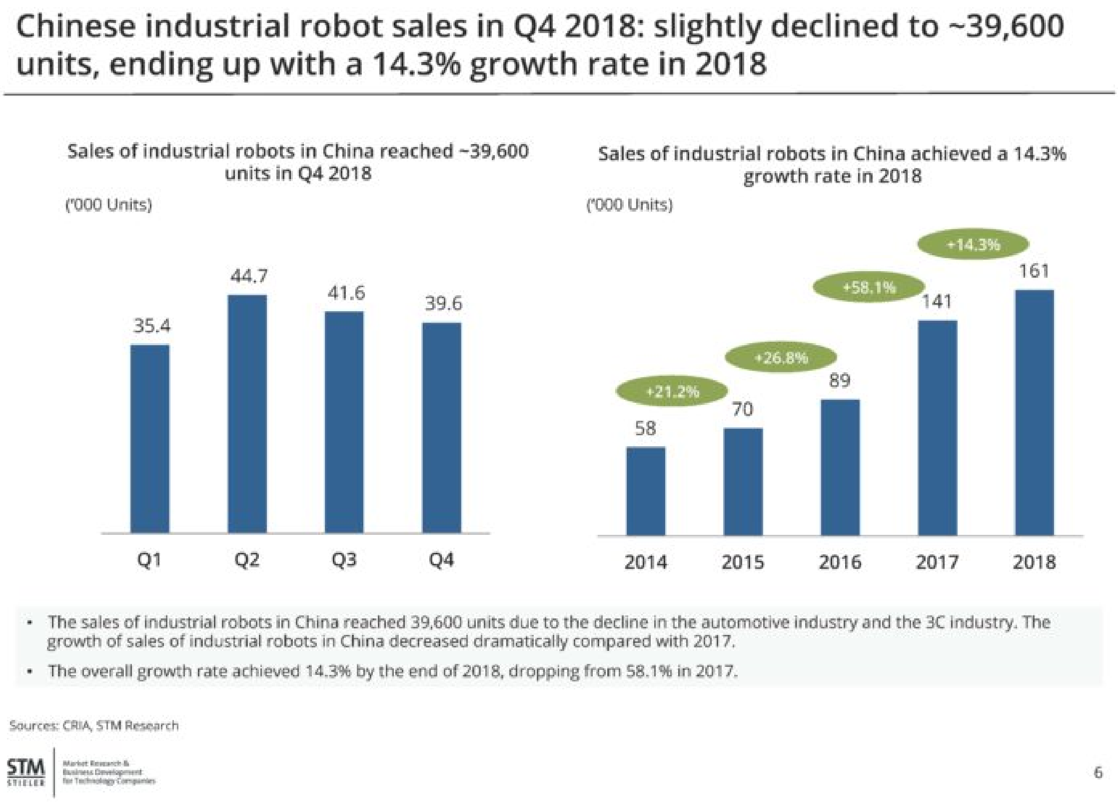
By tightening rules on lending, China is slowing itself down, according to the Council on Foreign Relations (CFR). As a result, imports are down, but the CFR notes that China is a net exporter and less of an engine for global demand of manufactured goods than the U.S.



Chinese slowdown hits Western producers

Of course, that doesn't mean that the Chinese slowdown won't affect robotics and automation worldwide. It's already happening, and it will hit the rest of Asia hardest, with the possible exception of India. Japan's Kawasaki Heavy Industries, Fuji Electric, and FANUC have already reported drops in profits.

Robot maker KUKA AG has blamed uncertainty around the Chinese slowdown for weaker sales than expected for last year. Germany-based KUKA's fortunes are tied tightly to that of China-based Midea Group, which bought it in 2016.



Sales of industrial robots have slowed in China. Source: STM Stieler

"China's approach of acquiring some technologies through the takeover of foreign companies has certainly been slowed," said Stieler. "The takeover of KUKA changed the public opinion in Germany towards Chinese investments."

In addition, steel output has long been a basic measure of national and global economic health and is tied to construction and the automotive industry — the biggest user of robotics. Steel demand is down. The European Commission has lowered its predictions for economic growth, citing the Chinese slowdown and the so-called Brexit (whose effects on robotics and artificial intelligence will be worth discussing in another article).

The Reserve Bank of Australia last week cut its economic forecast for Australia's gross domestic product. U.S.-based Nvidia blamed the Chinese slowdown for reducing sales of its chips. Other multinationals such as Apple, which are dependent on Chinese manufacturing and demand, have cited the slowdown for their own financial results.

Note that these recessionary jitters are not the result of massive job displacement from automation, but from normal macroeconomic cycles and government choices. Unemployment remains low in the U.S.

Every economist with whom I've spoken in the past year has said that a cyclical downturn is coming, giving policy makers and corporations plenty of time to prepare (if not necessarily a sense of urgency).

Before you tighten your belt...

Before you start cutting your budget for developing or implementing robotics, think about a plan to ride out or even benefit from the Chinese slowdown. Research firm IDC predicts that spending on robotics will rise 18 percent over 2018 levels this year, despite the slowdown.

Western companies that don't want to rely exclusively on Chinese suppliers or supply chains disrupted by political conflicts might want to invest in reshoring production. iRobot blamed tariffs for adding $8 million to its costs for importing robotic vacuum cleaners into the U.S. last year, and it plans to move production from China.

Labor and skills shortages in the more developed world, partly from changes in immigration policies, could also increase demand for industrial automation.

Beijing's "Made in China 2025" strategy has been dealt a setback by the Chinese slowdown, noted the *South China Morning Post*: "Production of industrial robots fell by 12.1 percent in December from a year earlier after a drop of 7.0 percent in November, according to data published by the National Bureau of Statistics."

"Regardless of the trade war, there are signs that the country might have exhausted its debt-driven growth model," Stieler said. "The weak economy has forced the country's large Internet companies to cut costs and halt new investments. Venture capital has dropped visibly since the beginning of the second half of 2018."

This is an opportunity. Even as China tries to develop its domestic robotics and AI talent and output, the Chinese slowdown could hurt startups disproportionately. Enterprising innovators elsewhere can get ahead or stay ahead, but they'll have to look for new sources of funding.

Demand for efficiencies should drive creative experiments in applying robotics and AI to new applications and locations.

Windows of opportunity

Policy makers and business leaders in both the West and China can mitigate the effects of the Chinese slowdown.

Speaking of policy, the current U.S. administration has extended the deadline for trade negotiations with China to March. That's another window of opportunity to find or optimize talent, partnerships, or customers. The U.S. will face its own uncertainty as the next round of elections approaches, causing some enterprises to hedge their bets and avoid big investments.

As the world's largest economies and producers, the U.S. and China are both competitors and major trade partners, and the Chinese slowdown and current kerfuffles are unlikely to change that. Both countries will have to balance vigilance and cooperation.

"If further tariffs will take place, we will see a further reorganization of supply chains, more unemployment, and further declining consumer confidence — all impacting investments in the modernization of Chinese factories," said Stieler.

In the longer term, China faces the same demographic challenges from low birthrates and an aging population that Europe and Japan face. This should also boost demand for robots, particularly in assistive roles.

China's growing middle and upper classes are still interested in high-end foreign goods, and the Chinese slowdown may not last long, noted Bloomberg. The Year of the Pig could still bring prosperity.

"We are seeing strong stimulus measures, which might overshadow the weak consumer confidence," noted Stieler. "In case of an agreement and the stabilization of the trade tariff situation, we might actually see a snap back in investment by manufacturers as delayed decisions are finally implemented. Investments this year might be stronger than initially anticipated."

Even if the Chinese slowdown exacerbates a global economic recession, a careful combination of new applications, wise investments in staffing, and assessing other markets should help robotics and AI developers and users weather the storm.

ABOUT THE AUTHOR

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Eugene Demaitre is senior editor at The Robot Report. Prior to working at WTWH Media, he was an editor at BNA (now part of Bloomberg), Computerworld, TechTarget, and Robotics Business Review. Demaitre has participated in robotics webcasts and conferences worldwide. He has a master's from the George Washington University and lives in the Boston area.

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