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Changing global trade policies and manufacturing: How can manufacturers navigate the dynamic trade climate?

The global trade climate appears to have entered a period of new dynamism, one that is different from what manufacturers have experienced in the past three decades. Conducive trade agreements (bilateral and multilateral) and globalization of the manufacturing ecosystem have transformed supply chains into vast global networks. However, the global environment is changing. Many countries or economic regions that enabled globalization with low-cost labor are rethinking their role, and their governments are redefining trade agreements.

As a result, global trade seems to be experiencing a shift (figure 1). Specifically, global trade in industrial products dropped nearly 12 percent in 2019, compared with 2018.¹ This is unusual. Such falls often occur only during recessions. But the recent decline, which took place even as major economies continued to grow, likely reflects the impact of a sharp change in trade policy in the United States and the reaction of other countries. Trade between the United States and China has fallen sharply due to rising tariffs, shifting regulation, and an uncertain future. Countries that feed into China-led supply chains have also seen a decline in trade.

Global trade continued to decline in 2019. In December 2019, global trade volume (by number of shipments) increased by just 0.3 percent from the previous month, which represented a 0.4 percent decline from a year earlier.² Moreover, data from World Trade Monitor indicates that the global volume of exports fell 0.4 percent in December 2019 versus the previous year, and this drop likely reflects the negative impact of trade measures on the demand for goods.³

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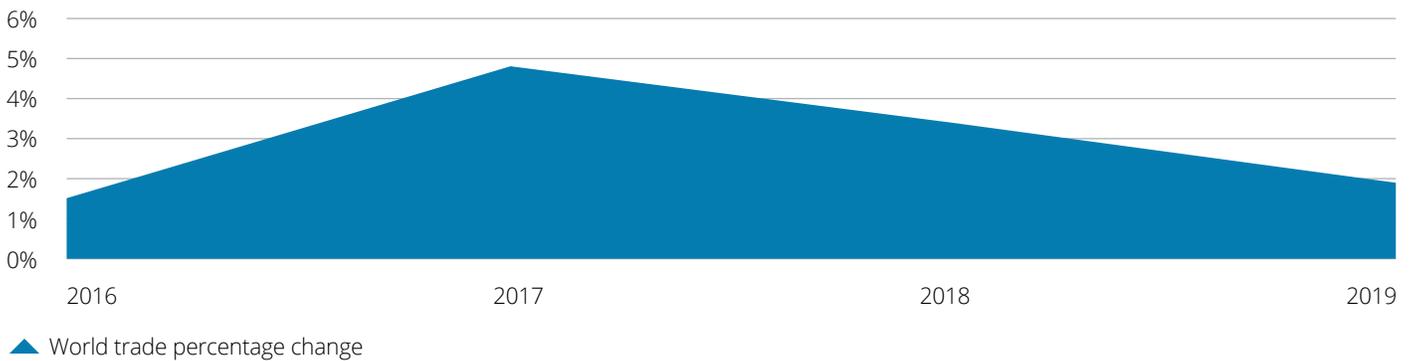
The effective management of trade decisions is of strategic significance to many manufacturers supplying cross-border customers, not the least of which are those categorized as managing an industrial manufacturer’s global supply chain. A recent survey of Deloitte’s industrial manufacturing leaders, however, revealed a 92 percent consensus that manufacturers are “minimally prepared” to handle long-term trade volatility.⁴ How should manufacturers navigate the trade dynamism—the ongoing and potential uncertainty in trade in the future? In this article, manufacturing leaders can learn about the following:

- The impact of recent trade dynamism on the industrial manufacturing sector;
- Potential outcomes of trade-based scenarios using Deloitte’s proprietary “trade-tariff” model; and
- Suggested approaches that industrial manufacturers could consider to build resilience and navigate current and future trade volatility.

Industrial manufacturers continue to face pressure from the ongoing trade shifts

The evolving trade dynamism poses a significant challenge to industrial manufacturing companies. In the United States, overall business fixed investment declined in 2019, with investment in equipment declining for the third time in the last four quarters ending December 2019.⁵ The US manufacturing purchasing managers’ index (PMI) and industrial production numbers have been moving downwards since the beginning of 2019 (figure 2).

Figure 1. Global trade remains subdued



Source: Netherlands Bureau for Economic Policy Analysis (CPB), *CPB Memo*, February 25, 2020.

Figure 2. Manufacturing PMI and industrial production in the United States



Source: Deloitte analysis based on data from Bloomberg Economics, accessed February 11, 2020.

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Trade uncertainty over a prolonged period coupled with a slowing global economy has affected manufacturing activity, trade, and jobs. For instance, in the United States, trade in fluid power pumps and motor manufacturing experienced a negative growth of 11 percent in 2019. The decline can be attributed primarily to higher duties on steel and aluminum imports.⁶

The US trade deficit in industrials fell in 2019—the first decline in six years (figure 3). Ordinarily, a trade deficit declines when an economy slows down, which is what happened in 2019. A slower-growing economy generates less demand for imports. In addition to economic slowdown, increases in or uncertainty around tariffs typically impact cross-border trade. Both happened in 2019. The US trade deficit in industrials with China fell sharply due to trade restrictions imposed as part of the two countries' trade measures. As US trade with China declined, trade with other countries increased.

While policy makers recognize that lower trade barriers are vital to growth in manufacturing, sustained tension persists between opening and protecting markets. The United States and China agreed to sign the first phase of the Economic and Trade Agreement in January 2020.⁷ Furthermore, other key agreements on trade, such as the US-Mexico-Canada Agreement (USMCA) and other agreements on tariffs, have the potential to redraw traditional trade routes—by imposing new measures or reducing benefits that would result in new sources of supply—and impact profit margins of industrial manufacturers. Only time will tell whether this first phase and the new trade deals will allow a rebound in business investment.

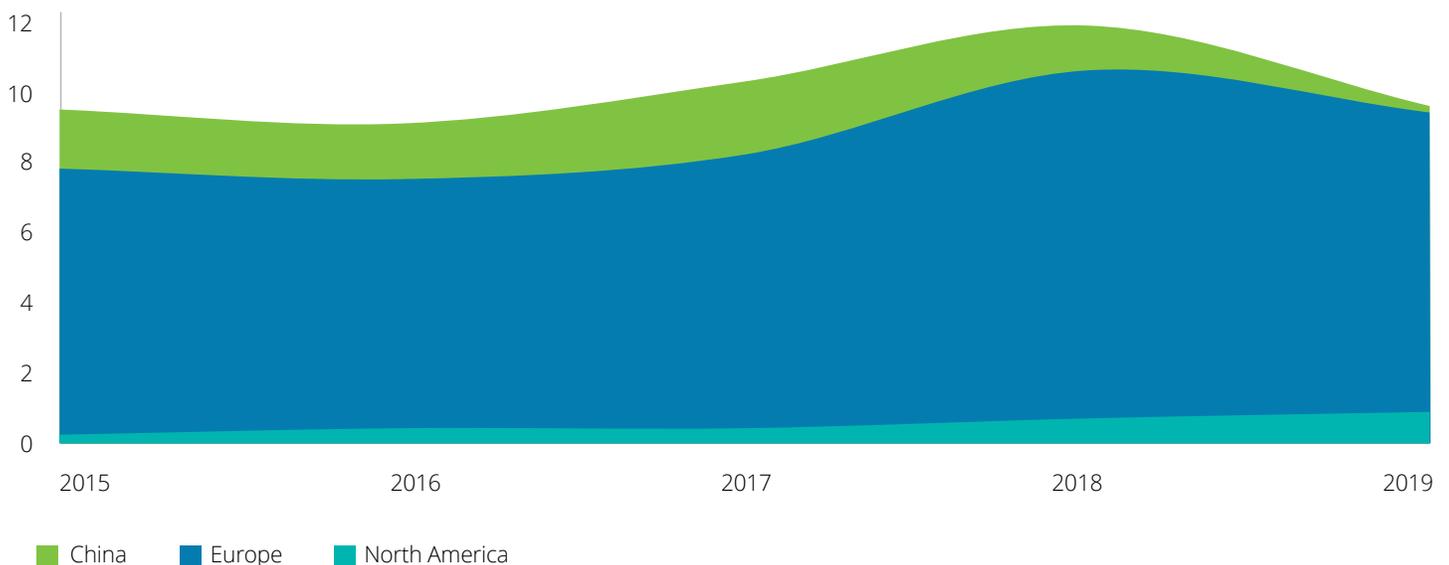
The evolving trade policies may have permanently shifted global trade patterns, which will continue to be a critical driver for the future health of industrial manufacturers. In this context, companies should plan and better prepare for the ongoing and future changes in trade dynamics. One of the approaches is to

consider several trade-tariff scenarios and understand their impact on the manufacturing supply chain. Armed with this knowledge, leaders can begin to make decisions about how to adapt to the new trade environment.

Mapping the possible trade scenarios and their likely impact on industrial manufacturers

Deloitte conducted a detailed analysis of possible scenarios for changes in tariffs and the potential outcomes for industrial manufacturing companies (figure 4). Deloitte's proprietary "trade-tariff" model for industrial manufacturers illustrates the various potential consequences of changing tariffs and duties on a large US industrial manufacturing company that has manufacturing operations beyond the US, in particular in China.⁸ Our model analyzed the changes in manufacturing-related trade between multiple countries and regions and extrapolated the likely future trends with an intent to demonstrate what different scenarios mean for an industrial manufacturing company in terms of estimated financial impact.

Figure 3. US industrial trade deficit (\$ billion): 2015 to 2019



Source: Deloitte analysis of data sourced from UN Comtrade International Trade Statistics Database, accessed January 12, 2020.

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Deloitte’s model presents three possible scenarios of future trade, including two scenarios of escalating trade tensions in the future. We analyzed the select trading regions for industrial products across the globe and illustrated the impact tariffs could have on the imports of industrial manufactured goods from these regions to the United States. Select trading regions analyzed include China, the ASEAN countries, North America (excluding the United States), and European countries.

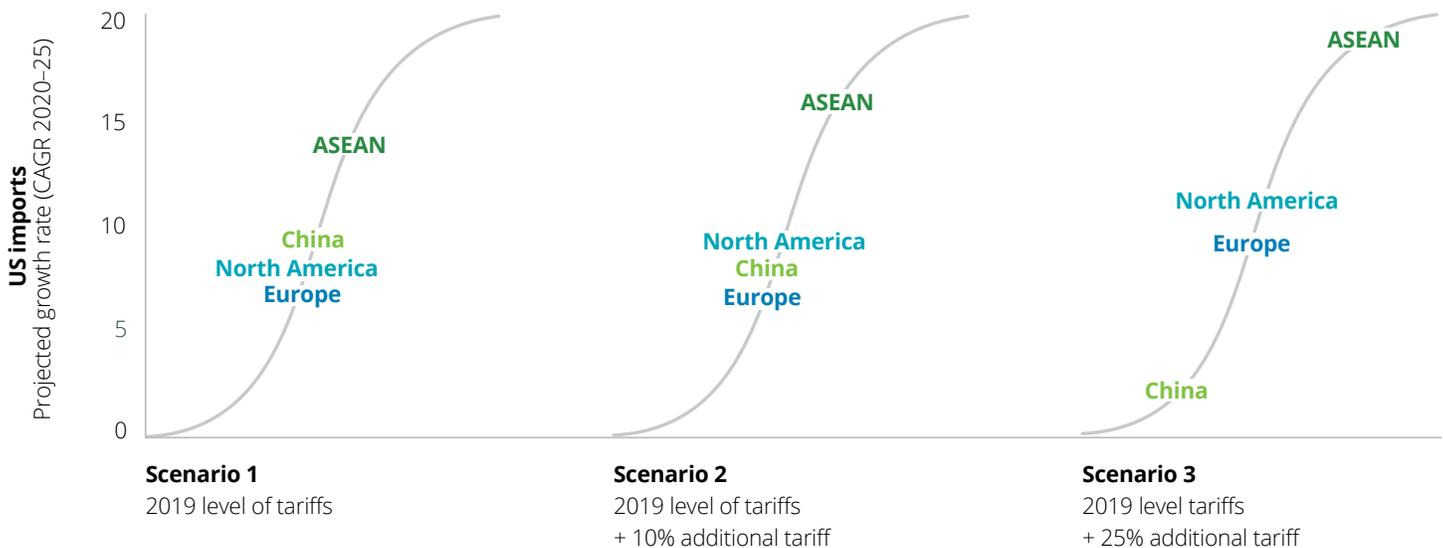
The three scenarios are:

- **Scenario 1:** 2019 level of general tariffs prevail
- **Scenario 2:** An additional tariff of 10 percent is levied on 2019 level of tariffs
- **Scenario 3:** An additional tariff of 25 percent is levied on 2019 level of tariffs

The profitability of industrial manufacturers will likely be affected in the absence of proactive and coordinated action

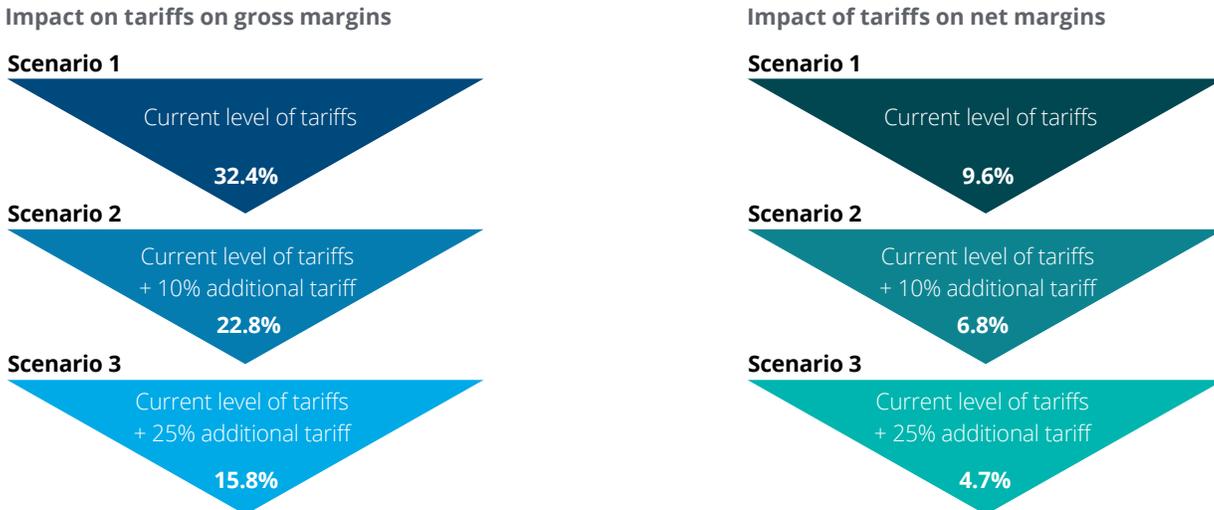
As the previous scenarios laid out, there are likely to be a myriad of impacts from continued increases in tariffs on industrial goods and the import of materials that are used in their production. This situation is likely to impact the profitability of US industrial manufacturing companies that source components and raw materials from the highlighted regions (figure 5). Deloitte’s surveyed industrial manufacturing leaders attributed 72 percent consensus that trade restrictions and tensions will result in increased cost and margin pressure.⁹

Figure 4: Impact of tariffs on change in US imports from select trading regions



ASEAN: Philippines, Singapore, Vietnam, Malaysia, Indonesia; Europe: United Kingdom, Germany, France, Italy; North America: Canada and Mexico
 Source: Deloitte analysis of data sourced from UN Comtrade International Trade Statistics Database.

Figure 5. Impact of tariffs on the gross income and net income margins of a typical US industrial manufacturing company



Source: Deloitte analysis based on financial data sourced from 10K data and annual reports of 27 industrial products manufacturers, with an average revenue of \$25 billion, in 2019.

The way forward: What should industrial manufacturers do to navigate shifting trade policies?

Industrial manufacturers should have a comprehensive long-term strategy in place, which helps build resilience in the face of shifting trade landscapes (figure 6). Business leaders are expecting to redirect their energies into business improvements and focus on making strategic decisions that drive long-term growth. Below are five fundamental approaches to consider that can increase resilience and prepare for the evolving landscape in global trade.

- 1. Analyze and improve trade processes**, as manufacturers engaged in global trade are expected to continue to face a maze of complex import and export regulations. These must be carefully navigated to maintain compliance and benefit from cost-savings opportunities. Manufacturers can address global trade risks while managing operational and resource efficiencies by streamlining trade processes and automating trade compliance. Process standardization and automation can, among other things, provide a stronger foundation to achieve potential benefits from special trade programs available around the globe. The efficient integration of import and export processes into overall business goals, tax planning, and supply chain management can be crucial to a manufacturer's success.
- 2. Manage supply chain risks** by opening new channels of suppliers and focusing on strategic sourcing activities, including the geographic concentration of suppliers. To weather the impact of trade measures (escalation of tariffs), manufacturers should develop

alternative supply-based sourcing. The potential impact on profit margins of trade restrictions is driving most manufacturers to look for options to reduce their input costs by sourcing from other geographies and adapting to new trade routes.

Deloitte's survey of industrial leaders revealed there was a 56 percent consensus among industrial leaders that manufacturers will likely "source from a different region" to mitigate trade volatility.¹⁰

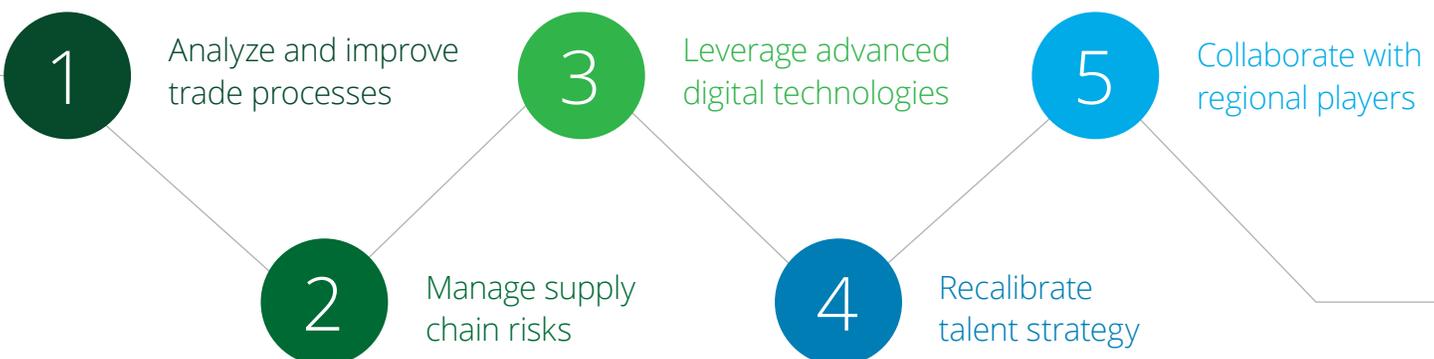
Furthermore, manufacturers should measure the level of risk for critical suppliers and components, and build agility to alter inventory levels during periods of disruption. Specifically, manufacturers should consider mitigating single points of failure by developing relationships with small- and medium-sized vendor firms, including providing support and access to financing.

- 3. Leverage advanced digital technologies** to boost productivity and streamline business operations. Automating internal processes and streamlining workflows, implementing smart management systems, and using data analytics to make data-driven decisions could help manufacturers better prepare and position themselves to deal with the uncertainty in trade. For example, trucking, logistics, and supply-chain operators are using digital tools to automate repetitive tasks. United Parcel Service Inc., for instance, uses a platform to calculate the most efficient delivery route for its drivers, who typically make an average of 120 stops a day.¹¹
- 4. Recalibrate talent strategy** to incorporate workforce demands relative to scaling up production and developing

the digital skills that are needed today and in the future. Talent and training remain the top areas of focus for most manufacturers and are rated as a top challenge for growth in the future. In this context, manufacturing leaders may want to consider recalibrating their talent strategy by investing in training and developing their workforce with the skills needed in times when production must be moved—especially those technical and digital skills that are expected to be necessary to compete effectively in the future. Manufacturers might consider establishing base camps that provide training and upskilling talent in the newer regions where employees don't yet have the technical skills for advanced manufacturing. For instance, Bosch Rexroth and Singapore Polytechnic opened two learning labs in the latter's campus to train participants on the use of Internet of Things (IoT) in manufacturing. Through simulations of advanced manufacturing processes on a scaled-down smart factory system, participants will attempt using IoT devices to capture and analyze sensor data to enhance the manufacturing processes.¹²

- 5. Collaborate with regional players** to build the capabilities to shift manufacturing capacity when needed. For instance, Harley-Davidson Inc. is partnering with a local manufacturer in China to make its smallest bike in decades for the fast-growing market, extending a strategy to build more motorcycles outside the United States.¹³ A strategy to partner with leading local players in the key manufacturing regions provides industrial manufacturers with the flexibility to adapt to changing geopolitics and trade shifts.

Figure 6. Navigating the shifting trade winds



Methodology

Deloitte analyzed multiple trade scenarios that may emerge in the future with the potential to alter where manufacturers locate their production and what impact tariffs could have on profit margins. Deloitte developed a proprietary model to map the impact the US-based industrial manufacturers may have in the event of increased tariffs on imported goods from critical regions across the globe. The model considered three levels of tariff scenarios on imported goods:

- **Scenario 1:** 2019 level of general tariffs prevails
- **Scenario 2:** An additional tariff of 10 percent is levied on 2019 level of tariffs
- **Scenario 3:** An additional tariff of 25 percent is levied on 2019 level of tariffs

The following assumptions were made in the construction of this model:

- Year-on-year growth of dollar value has been considered for the analysis
- The base year was 2019, and there was no increase in prices during the forecast period
- Volume and price of imports remain constant even with additional tariffs
- Change in transportation cost would not have a significant impact on the final price of goods

The model was divided into two parts. Part 1 analyzed how the above three scenarios could affect the international trade of US industrial manufacturers and the likely changes they may go through in the future. Part 2 explains how the above three scenarios could affect the gross income and net income margin for the US manufacturers.

Part 1:

- Four major trading regions for US industrial manufacturers were considered: China, European countries (France, Germany, Italy, and the United Kingdom), ASEAN countries (Indonesia, Malaysia, Singapore, and the Philippines), and North American countries (Canada and Mexico)
- NAICS (North American Industry Classification System) codes for industrial goods were identified, and their relevant HS (Harmonized System) codes were mapped to understand the global trade specific to these HS codes
- Trade data for 2014 to 2019 was sourced from UN Comtrade
- Using the historical data and inputs from secondary sources, the year-on-year growth rates for US imports from key regions were projected from 2020 to 2025

Part 2:

- A sample of 30 major US-based manufacturing companies from the industrial products manufacturing space was considered
- Based on the SEC filings, financial reports, and Capital IQ database, revenues, net income margin, and net profit margins of each of the 30 companies in the sample were collated
- Exploring various reliable sources, including press releases, announcements, leadership talks, and analyst reports, the cost incurred by each of the companies in the form of import tariffs was gathered
- Consequently, the proportion of “tariffs paid” to “gross margin” and “net profit margin” was separately calculated for the considered sample of companies

- According to the Harmonized Tariff Schedule (2020 Revision 3) published by the United States International Trade Commission (USITC), Deloitte collated the average (general and additional) import tariff rates for a set of products with NAICS codes which fall under industrial products and manufacturing
- Based on the effective tariff rates and cost incurred by each company on tariffs, the “value of good imported” was calculated for all the companies in the given sample
- To analyze the influence of increasing trade tariffs, three potential scenarios of increasing tariffs were considered
- As the current gross margins and net income margins are affected by the 2019 tariff rates in scenario 1, we calculated how these financial variables would be influenced by scenario 2 and scenario 3
- Adding 10 percent and 25 percent to the 2019 tariff rates, the fluctuation in the gross margins and net income margins of each of the companies in the sample was derived

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