How Did the 2018 U.S.-China Trade War Affect China’s Exporters?


In 2018, the U.S. government initiated a trade war with China and hiked tariff rates by 25 percentage points on $50 billion worth of commodities and by 10 percentage points on $200 billion worth of commodities imported from China. Much has been written about the impact of the U.S.-China trade war on the U.S., including the complete pass-through of the tariffs to U.S. consumers (see, e.g., Fajgelbaum et al. (2020)). Much less, however, is known about the impact of the trade war on China. This new research examines the impact of U.S. tariff surges on China’s exporters, especially with respect to their export prices, sales, and profits.

The data. Researchers accessed proprietary data from all firms (approximately 20,000 firms) located in a prefecture-level city in eastern China that exported to foreign destinations from January 2013 to April 2019. The research team first ascertained that the value and volume of exports from this sample city to U.S. and non-U.S. destinations closely mirrored the trends in the rest of the country, indicating that exports from this city are largely representative of the whole country.

Researchers obtained two datasets from the local government: a) daily transaction-level export data for each commodity exported by each firm to a foreign country; and b) domestic sales data for each exporting firm. The research team merged the two datasets to track the value, volume, and price of goods sold by each exporting firm from January 2017 to April 2019. Data on tariffs were obtained from the World Integrated Trade System. From quarterly income tax returns, the research team also accessed information regarding the profit margin of each exporting firm in this city. Lastly, the researchers conducted an online survey of managers from a representative sample of 600 exporting firms in the city.

**INSIGHTS**

- New research on the 2018 U.S.-China trade war shows U.S. tariff hikes hurt the profitability of China’s exporting firms. On average, a 1% increase in tariff-inclusive export price at the firm level resulted in a 0.35 percentage point drop in profit margins for China’s export firms.

- As the firm-level tariff-inclusive price rose by 1%, exports to the U.S. decreased by 4.16% on average, exports to non-U.S. countries as a whole increased mildly by 0.97%, and China’s total exports decreased by 0.83%. Domestic sales inside China did not change significantly in response to the U.S. tariff surges.

**Impact of U.S. tariff rates on export prices**

Impact of tariff hikes on export prices. Research findings indicate that export price per unit of goods exclusive of tariffs from the sample city remained nearly unchanged despite the U.S. tariff surges, supporting prior research that showed that the higher total export prices due to tariff increases were completely passed onto U.S. domestic consumers.
INSIGHTS

- U.S. tariff hikes did not impact the price of goods produced by China's exporting firms, supporting an earlier research finding that higher export prices due to U.S. tariff increases were completely passed onto U.S. domestic consumers.

- Limited profit margins and weak market substitution of China's merchandise to other foreign markets or to domestic sales inside China constrained China's exporters from cutting prices further or diverting sales to other markets to offset U.S. tariff hikes.

**Impact on exports and sales.** The research team also used firm-level data to deduce the impact of U.S. tariff increases on the volume of China's exports to different markets: i.e., the U.S., other non-U.S. countries, and within China. The findings indicate that the tariff shocks significantly reduced the exports of firms to the U.S. More specifically, as the price of exports, including U.S. tariffs, at the firm-level increased by 1%, exports to the U.S. dropped by 4.16% on average. Exports to the European Union increased moderately to partially, but not entirely, offset the negative impact on China's exports to the U.S., but domestic sales and exports to other foreign markets barely changed. In the end, export sales (exports to the U.S. plus exports to non-U.S. markets) and total sales (export sales plus domestic sales) dropped significantly during the sample period. As the firm-level tariff-inclusive price increased by 1%, the total exports of firms, on average, decreased by 0.83%, and total sales decreased by 0.63%.

**Impact on profitability.** Researchers additionally confirm that U.S. tariff hikes negatively impacted exporting firm profitability. According to this analysis, as the firm-level export price, including U.S. tariffs, increased by 1%, firms' profit margin dropped on average by 0.35 percentage points. Sampled firms, furthermore, sustained a negative profit margin of −0.06 (or −6 percentage points) during the sample period from January 2017 to April 2019.

Survey explores factors limiting adjustments to export prices and sales. Researchers next surveyed 600 firm managers to better understand what prevented companies from adjusting the price of their goods in response to the U.S. tariff hikes. According to the survey, 72.7% of managers pointed to their already low profit margins, which limited their ability to enact further price cuts, while 21.1% of firms were bound by their contractual obligations to maintain existing prices.

The research team also explored obstacles that firms faced in expanding to alternative foreign markets in response to U.S. tariff surges. The majority of survey respondents (59.3%) cited the lack of established sales channels and sales networks, which limited their ability to divert sales to non-U.S. markets. However, firm managers also cited different product standards and specifications (22.9%), lack of brand awareness (25.3%), lack of adequate assurance of payment collection for pre-sold merchandise (25%), and insufficient market scale (25.3%) as other important barriers. As for why firms were unable to shift their sales to China's domestic market, nearly half (46.6%) of the survey respondents cited the lack of established sales channels and networks as the primary factor.

Exporters in China struggle to effectively respond to U.S. tariff hikes. China's exporters faced significant challenges in responding adequately to U.S. tariff hikes in 2018. According to the analysis, China's exporters were largely unable to adjust their export prices and quickly divert sales to alternative markets, which led to declines in sales and profitability. This research suggests that the U.S. tariffs had a negative impact on the business environment for China's exporting firms, although the long-term effects are still unknown.