Non-Tariff Trade Barriers in the U.S.-China Trade War

When the US and China engaged in a trade war in 2018 and 2019 there was much focus on the multiple rounds of tariff hikes between the two countries. However, there was also abundant anecdotal evidence about non-tariff regulatory mechanisms imposed by China to stifle purchase of US exports, like inspection delays on certain products, onerous permit requirements, and other targeted efforts to restrain exports from the United States to China.

Non-tariff barriers can have large effects on trade and welfare, but their opaqueness makes them difficult to measure. In this paper, the authors employ Chinese customs level data available through the Tsinghua China Data Center, along with a demand theory model, to infer the use of non-tariff barriers in the U.S.-China trade dispute between 2018 and 2020. This includes China’s use of regulatory measures in 2018 and 2019 at the height of the trade war to punish American exporters, as well as in 2020 to benefit American exporters in China’s effort to end the trade war.

First, the authors estimate the use of non-tariff trade barriers by China in its trade battle with the United States in 2018 and 2019, and in the first year of the purchase agreement in 2020. They first estimate the elasticities of demand for US products in China relative to products made by other countries, and the elasticity of supply of exports to China, to find that:

- Foreign export supply curves are essentially horizontal, which suggests that the incidence of higher Chinese trade barriers—whether tariffs or non-tariff regulations—is entirely borne by Chinese consumers.

The authors then use the estimates of the demand elasticities to back out the changes in non-tariff barriers as the residual of changes in imports of US products relative to imports from other countries of the same product, after controlling for the effect of tariffs. These estimates suggest that:

- Non-tariff barriers on US imports to China increased significantly in 2018 and 2019, by an average of 56 percentage points (in tariff equivalent units) for agricultural products and by 17 percentage points for manufactured products. And in the first year of the Phase 1 agreement in 2020, some of the increase in non-tariff barriers on US agricultural exports was reversed.

- The use of non-tariff barriers was also much more targeted towards specific products compared to the tariffs, and applied largely to non-state importers. For example, the tariff equivalent of non-tariff barriers increased by almost 300 percentage points in 2018 and 2019 for such categories as “oil-seeds,” “cereals,” and “ores, slag and ash.”

Non-tariff trade barriers reduced Chinese imports from the US by 50% during the height of the US-China trade war in 2018 and 2019, while imposing $40 billion in costs to Chinese consumers.
The authors also employ a demand theory model to estimate the effect of trade barriers, including tariffs and non-tariff barriers, on Chinese welfare to find that:

- About 50% of the overall decline in US exports to China between 2017 and 2019 was due to higher non-tariff trade barriers, and the other half due to higher tariffs. However, most of the welfare loss incurred by China from the trade war was due to non-tariff trade barriers.

- Specifically, trade barriers imposed in 2018 and 2019 lowered Chinese welfare in 2019 by $40 billion, with 93% of the welfare loss coming from the use of non-tariff trade barriers. This welfare loss is about six times larger than an equivalent import decline due to higher tariffs. Non-tariff barriers are more costly compared to tariffs because they apply to some importers and not others, which results in misallocation and because non-tariff barriers do not generate revenues.

While the authors focus on the 2018-2019 US-China trade war, they offer similar examples of other recent disputes to illustrate the broader impact of non-tariff regulations in trade disputes. For example, when Canadian authorities arrested Meng Wangzhou, the CFO of Huawei, Chinese authorities retaliated on Canadian exports with similar opaque regulatory procedures, like claiming Canadian canola oil was infected with pests, and subjecting other food products to long paperwork delays. Relatedly, after Australia passed a national security law and blocked Chinese companies from its 5G mobile networks, Australian exports of barley were hit with anti-dumping duties, import licenses on Australian beef, lobster, and copper were revoked, and directives were issued to stop buying Australian cotton and coal.

Bottom line: To the extent that the goal of the Chinese government was to retaliate against US tariffs on Chinese products by cutting imports from the US, this work reveals that non-tariff barriers to trade were more costly than tariffs alone, and the burden fell to Chinese consumers. Further, while this work offers important insights into the non-tariff costs associated with the recent US-China trade war, its analysis also provides a useful framework to examine similar effects of other trade disputes.