TRADE PARTNERSHIP WORLDWIDE, LLC

Estimated Impacts of Proposed Tariffs on Imports from China: Furniture and Travel Goods

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The Trump administration has proposed tariffs of at least 10 percent on \$200 billion in goods imported from China, and has said the tariffs might be as high as 25 percent. A number of the products targeted fall into two categories important to U.S. consumers: furniture and travel goods such as luggage. We assess the impacts of the proposed tariffs on these products, in particular on consumer prices.

The proposed tariffs, especially at 25 percent, would be too large for U.S. retailers to absorb and, if passed on, would result in prices higher than many consumers would be willing to pay, therefore forcing U.S. retailers to shift sourcing from China to other suppliers. We therefore employed a model, described in Appendix A, that identifies the shifts that would occur from China to other sources of supply were the United States to impose tariffs on imports from China. The results are presented below. They show that, even after changes in sourcing, the proposed tariffs would have a substantial negative impact on American consumers of furniture and travel goods. Consumers would pay between \$2.1 billion and \$4.6 billion additional for furniture and between \$578 million and \$1.2 billion additional for travel goods.

Furniture

The products targeted for tariffs include both finished furniture and parts assembled into finished furniture in the United States by manufacturers or retailers. Imposition of the tariffs causes the costs of imported furniture and parts from China to rise by nearly 8 percent (from 10 percent tariffs) to over 23 percent (from 25 percent tariffs). This in turn shifts some sourcing of goods from China to other countries and U.S. producers, whose goods are often more expensive than current Chinese suppliers. U.S. production increases marginally (up 0.8 percent to 1.2 percent, respectively); the prices of U.S.-made furniture also increase as U.S. producers respond to the increase in demand (up 1 percent to 2.1 percent).

	10% Tariffs	25% Tariffs
Change in Cost of Chinese Imports	+7.8%	+23.4%
Change in Chinese Production	-4.9%	-9.0%
Change in U.S. Production	+0.8%	+1.2%
Change in Cost of U.SProduced Furniture	+1.0%	+2.1%
Change in Prices to U.S. Consumers	+2.0%	+4.3%
Impact on Consumption	-4.0%	-8.2%

The HTS items subject to this analysis are: 7616.99; 8302.41, .50; 8418.91; 9401.30, .40, .52, .53, .59, .61, .69, .71, .79, .80, .90; 9403.10, .20, .30, .40, .50, .60, .70, .82, .83, .89, .90; 9404.10, .21, .29 (Note: we exclude HTS8 products within those codes that are classified in other industries, such as parts for auto seats, which are classified as automotive parts).

Higher Prices Paid by Consumers	\$2.1 bill.	\$4.6 bill.
Net Loss to U.S. Economy	\$23.5 mill.	\$1.0 bill.

On average, prices for furniture overall – including both Chinese-made and U.S.-made products – increase 2 percent to 4.3 percent, and consumers cut back on purchases, by 4 percent to 8.2 percent. Higher prices for what they do purchase takes \$2.1 billion to \$4.6 billion out of their pockets— money they would have had available to spend on other goods and services. Even considering benefits for U.S. producers and the revenue tariffs would provide to the U.S. Treasury, the losses incurred by consumers and the impact on the economy generally from inefficiencies mean that the result of the tariffs is a net negative: a loss of \$23.5 million to \$1 billion for every year the tariffs are in effect.

Travel Goods

"Travel goods" generally refer to products like backpacks, handbags, luggage, wallets, phone cases, and totes. This product category encompasses items in Harmonized Tariff Schedule 4202, nearly all of which are on the list of proposed 10 percent or 25 percent tariffs. Imposition of the tariffs causes the costs of imported travel goods from China to rise by 9.1 percent (from 10 percent tariffs) to 23 percent (from 25 percent tariffs). This in turn shifts some sourcing of goods from China to other countries and U.S. producers, whose goods are often more expensive than current Chinese suppliers. U.S. production increases (1.5 percent to 3.2 percent, respectively); the prices of U.S.-made travel goods also increase as U.S. producers respond to the increase in demand (up 2 percent to 4.3 percent).

	10% Tariffs	25% Tariffs
Change in Cost of Chinese Imports	+9.1%	+23.0%
Change in Chinese Production	-2.2%	-4.0%
Change in U.S. Production	+1.5%	+3.2%
Change in Cost of U.SMade Goods	+2.0%	+4.3%
Change in Prices to U.S. Consumers	+4.8%	+9.9%
Impact on Consumption	-9.2%	-17.7%
Higher prices paid by consumers	\$578.2 mill.	\$1.2 bill.
Net Loss to U.S. Economy	\$130.4 mill.	\$650.7 mill.

Overall, U.S. consumers reduce purchases and pay more for what they do buy. On average, travel goods prices – including both Chinese-made and U.S.-made products – increase 4.8 percent to 9.9 percent, and consumers cut back significantly on these price-sensitive purchases, by 9.2 percent to 17.7 percent. Higher prices for what they do purchase takes \$578 million to \$1.2 billion out of their pockets— money they would have otherwise had available to spend on other goods and services. Even considering benefits for U.S. producers and the revenues tariffs would provide to the U.S. Treasury,

the losses incurred by consumers and impact on the economy generally from inefficiencies mean the result of the tariffs is a net negative: a loss of \$130.4 million to \$650.7 million for every year the tariffs are in effect.

Appendix A Methodology

We employed a modeling strategy for industry-focused globally-linked partial equilibrium analysis of tariff policy.

Based on the Harmonized Tariff Schedule (HTS) items identified in the *Federal Register* notice as proposed for tariffs of 10 percent, or 25 percent, when imported from China, we have built a set of product-specific models based on the "global simulation model" framework (GSIM). Francois and Hall (2007) developed GSIM to allow detailed analysis of tariff scenarios across individual products and potentially all major trading countries and blocks. The World Bank and the United Nations adopted the GSIM framework, integrating it into the joint World Bank-UNCTAD trade data portal known as the "World Integrated Trade Solution," or WITS (see http://wits.worldbank.org/wits/). The basic framework employed here can be implemented with a spreadsheet-based interface. We should stress that, in implementation, this set of models is structurally consistent with the recent class of Eaton-Kortum based structural trade models (see Bekkers *et al*, 2015; Costinot and Rodriguez-Clare, 2014 for example).

The basic approach involves specifying global supply and demand for each set of goods produced by a particular country as the sum of individual (national) sources of supply and demand. This is done for goods produced in all regions in the model. We are then able to reduce the solution set of the model to those global prices that clear global markets. Once we have a global set of equilibrium prices, we can obtain national results (changes in prices and quantities). Based on price and quantity changes, we in turn obtain estimates of changes in production, trade, consumer and producer surplus, and real national income that result from the imposition of tariffs on imports from China. Within this context, we work with a non-linear representation of import demand, combined with generic export-supply equations (see Francois and Hall 2007).

Data Sources

Trade data and tariffs are from "World Integrated Trade Solution," or WITS (see http://wits.worldbank.org/wits/) and the U.S. Census Bureau.

Production data (domestic sales) are from country input/output tables and from the Census Bureau's Annual Survey of Manufacturers. The latest data from that resource is 2016, so all import data are also for 2016.

Trade elasticities are from the Global Trade Analysis Project (GTAP).

Another application, the MRPE model, is a specialized, scalable extension of the GSIM framework for strategic trade policy assessments at the detailed sector level, developed for the European Commission.

Country Disaggregation

Canada (CAN)

China (CHN)

European Union (EUN)

Israel (ISR)

Japan (JPN)

Korea (KOR)

Malaysia (MYS)

Philippines (PHL)

Singapore (SGP)

Taiwan (TWN)

Rest of World (ROW)

Vietnam (VNM)

Mexico (MEX)

United States (USA)