



AgEcon SEARCH
RESEARCH IN AGRICULTURAL & APPLIED ECONOMICS

The World's Largest Open Access Agricultural & Applied Economics Digital Library

This document is discoverable and free to researchers across the globe due to the work of AgEcon Search.

Help ensure our sustainability.

Give to AgEcon Search

AgEcon Search

<http://ageconsearch.umn.edu>

aesearch@umn.edu

*Papers downloaded from **AgEcon Search** may be used for non-commercial purposes and personal study only. No other use, including posting to another Internet site, is permitted without permission from the copyright owner (not AgEcon Search), or as allowed under the provisions of Fair Use, U.S. Copyright Act, Title 17 U.S.C.*

No endorsement of AgEcon Search or its fundraising activities by the author(s) of the following work or their employer(s) is intended or implied.



Consequences of Trump's Bilateral Trade Policies for Agriculture

Jeff Luckstead and Stephen Devadoss

JEL Classifications: F13, F14, F51

Keywords: Agreements, Agrifood, Tariffs

DOI: 10.22004/ag.econ.370424

Trump 2.0 trade policies started with targeted tariffs on key trading partners to protect domestic industries, address national security concerns, and trade imbalances. On April 2, 2025, the Trump administration announced import tariffs, known as the "Liberation Day" tariffs, with baseline rates of 10% on imports from most countries in the world and higher tariffs (ranging from 11% to 50%) on 57 countries (The White House, 2025a,b). With an average tariff rate of just 2.2% before April 2, this policy represents the largest increase in US tariffs in nearly a century, undermining decades of negotiation and tariff reductions under the General Agreement on Tariffs and Trade (GATT) and World Trade Organization (WTO) (WTO, 2025; Manak et al., 2025) and many other regional trade agreements. These unpredictable tariff policies have upended the global trading system, making the United States a more unreliable ally for many of our long-standing trading partners, and will likely have significant implications for US consumers and US agricultural production and trade.

Trump has since used the Liberation Day policies to negotiate bilateral agreements to lower foreign tariff levels and increase market access for US goods. As of mid-October 2025, the Trump administration has trade-agreement frameworks with eight regions (the European Union, Japan, the United Kingdom, Vietnam, Indonesia, South Korea, the Philippines, and Pakistan), though details of many of the agreements are unclear and yet to be revealed. However, as of mid-October 2025, the United States has not reached a trade agreement with many major economies, including its neighbors, Canada and Mexico, and other key countries, such as China, Brazil, India, and Australia.

In this article, we discuss (i) President Trump's unconventional and unpredictable tariff policies, (ii) impacts of recent tariffs on aggregate agricultural trade, (iii) inefficiencies arising from the escalating tariffs and bilateral trade agreements, (iv) uncertainty and volatility caused by Trump's on-again, off-again tariff policies, and

(v) the effects of Trump's tariff policies on the trade deficit.

Unconventional Approach to Tariff Policies

Since 1947, most of the trade agreements have been negotiated through multilateral accords under GATT/WTO or regional/preferential trade agreements. Such agreements are usually negotiated over several years. By contrast, Trump 1.0's trade war with China and Trump 2.0's unilateral imposition of sweeping tariffs deviates from such global and regional trade negotiations. Furthermore, the Trump administration's approach of reaching bilateral frameworks within weeks or months without specific details departs from well-negotiated agreements with comprehensive and extensive details.

Historically, sanctions, not tariffs, have been used to punish countries for geopolitical reasons. Examples of these policies include the US sanctions on wheat exports to Russia for Russia's invasion of Afghanistan in the early 1980s, recent sanctions by the United States and the European Union on Russia for the latter's invasion of Ukraine in early 2022, and many sanctions against Cuba, North Korea, and Iran over several decades. However, tariffs have primarily been used as economic tools to protect domestic industries. Trump changed the norms on tariffs by using them as a tool to punish countries for political reasons not related to economics. Examples of this include the tariffs on Mexico and Canada for fentanyl coming into the United States (The White House, 2025c), tariffs on Brazil for the treatment of its former President Jair Bolsonaro (Boak, 2025), tariffs on Mexico and Central American countries over immigration (The White House, 2025c), tariffs on India for its purchase of oil from Russia (Reuters, 2025), tariff threats on goods from countries that import oil from Venezuela (The White House, 2025d), and the threat of scuttling the trade agreement with Canada for its recognition of a Palestinian state (Cole, 2025).

Country	Percentage Tariff
Canada	25%
Mexico	25%
European Union	15%
China	30%
Brazil	50%
India	50%
Vietnam	20%
Thailand	19%
New Zealand	15%
Baseline Tariff All Other Countries	10%

Impact of Tariffs on Aggregate Agricultural Trade

The unilateral tariff policies discussed above can impede US imports and exports. Since US tariff rates on many countries frequently change and these countries continue to negotiate or have not imposed retaliatory tariffs, we examine Trump 2.0's tariffs on major trading partners, as summarized in Table 1. We examine the impacts on the US aggregate agrifood trade in two steps. First, we estimate a structural gravity model for aggregate agricultural trade at the country level for 239

countries. Second, we utilize the model and estimated coefficients to conduct a counterfactual analysis of high tariffs to quantify the impacts on trade flows.

For the gravity model estimation, tariffs are our primary variable of interest, but we also include distance, common language, contiguous border, common colonizer, joint WTO membership, and Free Trade Agreements (FTAs) as control variables and importer-time and exporter-time fixed effects.¹ For the regression, we utilize bilateral trade flows from the US International Trade Commission (USITC) International Trade and

Variables	Estimates
Log tariff	-1.35*** (0.42)
Log distance	-1.85*** (0.04)
Common language	0.92*** (0.11)
Contiguous border	-0.69*** (0.13)
Common colonizer	1.39*** (0.12)
Joint WTO membership	2.34*** (0.14)
FTA	-0.12 (0.09)

Note: Standard errors, clustered at the country-pair level, are in parentheses. Triple asterisks (***) indicate p-value of 0.001. Fixed effects are export-time and import-time.

¹ We exclude country-pair fixed effects to allow for the full cross-country variation required to identify the tariff elasticity of trade.

Table 3. Impacts of US Tariffs on US Agricultural Imports (\$ million)

Country Name	Baseline Trade Flow	Difference	Percentage Change
Brazil	3,037.34	-1,089.70	-35.88
Mexico	3,029.24	-541.86	-17.89
Canada	8,484.22	-352.65	-4.16
Chile	1,910.16	-87.75	-4.59
Peru	2,182.16	-80.82	-3.70
Colombia	2,482.51	-75.76	-3.05
India	191.66	-70.17	-36.61
China	199.83	-43.02	-21.53
Costa Rica	1,409.95	-41.88	-2.97
Guatemala	1,620.38	-39.68	-2.45

Production Database for Estimation (ITPD-E), friction variables from the USITC Dynamic Gravity Dataset, and trade-weighted average preferential and Most Favored Nation tariffs from World Integrated Trade Solution-Trade Analysis Information System for the years 1997–2019. From the ITPD-E database, we aggregate agricultural commodities 1–26 into a single commodity. The number of observations used for the estimation is 1,101,474.

Table 2 reports the estimated coefficients from the gravity model. The results indicate an estimated tariff elasticity of -1.35, indicating that a 1% increase in the tariff rate will reduce trade by 1.35%. This trade elasticity translates into an Armington elasticity of substitution of 2.35 ($=1+1.35$). The estimated coefficients on distance,

common language, contiguous borders,² and common colonizers are reasonable and consistent with estimates found in the literature. With country-pair fixed effects excluded from the model, the coefficient estimates on joint WTO membership and FTA suffer from known omitted variable bias, and we therefore only include these variables as controls and do not interpret the coefficient estimates.

We undertake the counterfactual analysis in two stages. First, we use the estimated coefficients and the structural gravity model to predict baseline bilateral trade flows for 2019. Second, we replace the US tariff rates from 2019 with the US tariff rates reported in Table 1, update the exporter-time and importer-time fixed effects to account for any changes in the multilateral resistance terms due to the changes in the US tariff schedule, and predict counterfactual trade flows. We compare the counterfactual trade flows to those of the baseline to quantify the effects of the new US tariffs, *ceteris paribus*.

Table 3 reports the impacts for exporting countries with the largest decline, in terms of differences, in exports to the United States. Given the 50% tariff on Brazil, it is not surprising that the model predicts that US imports from Brazil decline by about \$1.1 billion (36%). Major US imports from Brazil include coffee beans, processed fruit, nuts, vegetables, and meat. These products are major consumer items, and lower imports would increase the prices for US consumers.

With the US tariffs on Mexico and Canada at 25%, despite their contiguous location, US imports from these countries decline by \$541.86 million and \$352.65 million,

Table 4. Impacts of US Tariffs on US Agricultural Exports (\$millions)

Country Name	Baseline Trade Flow	Difference	Percentage Change
China	13,297.10	-590.83	-4.44
Canada	4,660.47	-226.60	-4.86
Mexico	2,842.60	-201.29	-7.08
Indonesia	4,913.25	-194.33	-3.96
Russia	2,729.66	-123.83	-4.54
Japan	2,298.25	-103.98	-4.52
United Kingdom	2,175.41	-97.81	-4.50
France	1,761.19	-83.02	-4.71
Spain	1,728.93	-81.79	-4.73
Egypt	1,858.72	-73.59	-3.96

² While a negative coefficient estimate for the contiguous border may appear counterintuitive, this finding is consistent

with previous studies that conclude that border conflicts can lead to reduced bilateral trade.

respectively. These two countries are the leading trade partners of the United States: with large imports of fruits and vegetables (avocados, tomatoes, barriers, peppers, and cucumbers), meat and animal products, sugar and sweeteners, and processed foods from Mexico; and significant imports of meat and other animal products, grains and feeds, oilseeds and oilseed products from Canada. These products are also important US consumer items, and US tariffs will likely cause higher prices.

Central and South American countries (Chile, Peru, Colombia, Costa Rica, and Guatemala) are large agricultural exporters to the United States because they produce agricultural commodities during the US offseason and export fresh fruits and vegetables to meet the US demand during the winter period. Because of US tariffs, the model predicts that exports from these countries decline by about \$286 million.

India and China have limited exports of agricultural goods to the United States due to their substantial consumer base. Consequently, despite the US imposing large tariffs of 50% and 30% on India and China, US imports fall by only about \$70 million from India and by \$43 million from China.

Because of trade diversion effects, US tariff policies also have ramifications for its exports. Table 4 reports US agrifood export declines to the top 10 importing countries. An important insight from these results is that US exports decline despite these countries not imposing retaliatory tariffs. These trade declines occur because, as the United States imposes high import tariffs, other exporting countries divert their agricultural products from the United States to these importing countries. Consequently, US exporters now have stronger competition for their products in the global markets, leading to a decline in their exports.

Inefficiencies Arising from Tariffs

President Trump's bilateral trade agreements generally call for higher tariffs on US imports and lower tariffs by the trade partner on US exports. We discuss the inefficiencies arising from these differential tariff policies from the perspective of industries that are net importers or net exporters (Houck, 1992). First, we consider imported commodities, such as fruits and vegetables. Trade models show that US tariffs on imported final goods will increase prices, and US producers of import-competing goods will respond to higher prices by producing more. However, this increase in production does not offset the decline in imports, because higher prices lead to a decline in consumption. Consequently, the fall in imports will be larger than the increase in production. Furthermore, production shifts from low-cost foreign suppliers to higher-cost, less efficient domestic producers. In addition, resources must be drawn from other relatively more productive uses to this inefficient

domestic production in the United States, resulting in what is known as production inefficiency. The high cost of production and higher import prices due to tariffs will be passed on to US consumers, who will consume less, leading to what is known as consumption inefficiency. Furthermore, any gains to producers plus tariff revenues will be less than the loss to consumers, leading to a net welfare loss.

If US tariffs are imposed on imported intermediate goods (coffee beans, oranges for processing, car parts, steel, and aluminum), the higher prices of these imports will increase the cost of production of final goods. This can squeeze profit margins, and these final producers may pass on these costs to consumers in the form of higher prices. Thus, higher tariffs, whether on intermediate or final goods, will hurt US consumers. The net impact of this tariff (i.e., losses to consumers) is likely to be higher than any gains to producers plus tariff revenues. Furthermore, because of the US high tariffs, many exporting countries that were exporting to the United States may seek to sell to other destinations, which will make it harder for US importers to source these goods and disrupt the flow of inputs and goods to the United States, hampering production along the supply chain.

Second, we consider US export commodities, which could decline because of trade reallocation and/or tariff retaliation. Due to high US tariffs, exporting countries may sell their displaced commodities (e.g., beef) to other importing countries. With more imports in these foreign countries, US exports face tougher competition, leading to a decline in US exports. In addition, if trade partners retaliate against the United States with higher tariffs, the cost of US goods in these importing countries will rise, and they are likely to start buying from other, lower-cost exporting countries, hurting US producers and exporters of commodities such as soybeans, corn, wheat. In such a scenario, the United States could lose the export market in these importing countries permanently, as happened with China diverting its soybean imports from the United States to Brazil under the Trump 1.0 US-China trade war. It is worth noting that, in these cases, US producers may divert surplus commodities to the domestic market and receive lower prices.

As of mid-September, eight countries have bilateral trade agreements with the United States, and these countries have lowered their tariffs on US goods. US exporters can increase their exports to these countries, which will benefit these export industries. But this increase in exports will raise the domestic price in the United States, and consumers will have to pay these higher prices. However, the reallocations by importing countries from other exporters to the United States can cause global inefficiencies as these policies favor high-cost US producers over low-cost foreign suppliers.

These industry-level analyses paint a complicated picture of winners and losers from the trade policies.

However, from an economy-wide perspective, trade theory is clear that the inefficiencies caused by tariffs lead to lower welfare for the US economy and the world.

Trump's unilateral tariff policies could lead to a new world trading order where tariffs are used as a geopolitical cudgel (Malmström, 2025), rather than a multilateral, pluralistic trade negotiation based on economics. Such trade reallocations based on geopolitical issues defy the comparative advantage and cause inefficiencies in global trade. Any bilateral trade agreements where US tariffs are higher than foreign tariffs may force the trading partner to seek to sell in other importing countries. Such trade diversion is not in the best interest of the United States, particularly for US consumers. Also, public backlash in the trading partner may seek to import goods from other cheaper sources or expand domestic production, leading to lower imports from the United States. This will harm US producers and exporters.

Uncertainty Caused by the Tariff Policies

Frequent changes in tariff policies cause a great deal of uncertainty for businesses in making decisions related to investment, production, inventory, hiring, layoffs, purchases, and sales. These uncertainties hamper economic activities and are recipes for a recession (Handley and Limão, 2017).

Specific to agriculture, farmers need to know what the trade policies and trade agreements are so that they can make appropriate planting decisions. For instance, if the Chinese market is closed for US soybeans, farmers are going to be concerned about where to sell their soybeans. In such a scenario, they may consider planting alternate crops such as corn. Also, if trade restrictions keep the prices lower for many agricultural commodities, farmers will likely lose revenues and profits (see also Thompson, 2025). During the US-China trade war, Trump 1.0 provided payments to farmers through the Market Facilitation Program (MFP). Many farmers are wondering whether such subsidies would be forthcoming under Trump 2.0 to compensate for the potential losses from the current tariff policy.

Furthermore, if the US is not a reliable partner, some of these exporting countries could permanently shift their sales to other countries, which further exacerbates the import problems for US businesses, in addition to facing higher tariffs.

Trade Deficit

One of the justifications for high tariffs on imports from some countries is that the United States has a large trade deficit with these countries. Balance of payments

equals capital account (foreign financial claims on assets in the United States minus US claims on assets in foreign countries) plus current account (goods and services exports minus imports). For every country, the balance of payments is equal to zero, which implies, if a country has a current account deficit (trade deficit), it will have a capital account surplus. For several decades, the United States has been experiencing a trade deficit and a capital account surplus. The Trump administration's high tariffs on imports from various countries will cause imports to decline. For the trade deficit to decrease significantly, in addition to imports going down, exports need to increase. However, if foreign countries retaliate against the United States and do not import US goods, the trade deficit may not shrink.

If the Trump administration succeeds with its tariff policies of lowering imports, increasing exports, and generating a trade surplus, this will make the capital account become a deficit. This means foreigners are not investing in the United States; rather, they are taking money out of the United States. When foreign investment declines, businesses will not be able to finance their economic activities, which can lead to a recession.

In the exporting sector, for the United States to increase exports, particularly in labor-intensive sectors, producers need more labor. Trump's policies of deporting undocumented workers are counterproductive as they hamstring producers in expanding production. Therefore, achieving an expansion in exports to reduce the trade deficit reduction goal could be difficult. In the importing sector, if the United States cannot produce enough because of a lack of labor, the United States will have to import more, which will worsen the trade deficit and is counterproductive to Trump's goal.

Conclusion

This study presents an overview of Trump 2.0 trade policies and the consequences for US agricultural and trade. These uncertain policies can cause economic harm to the United States by raising prices to consumers, lowering welfare, and triggering an economic recession. Furthermore, these policies are harmful to US trade partners who may seek to establish stable trade relationships with other countries. Policy makers should consider the long-term consequences of these trade policies.

For More Information

- Boak, J. 2025, July 3. "Trump Signs Order to Justify 50% Tariffs on Brazil." *The Associated Press*. Available online: <https://apnews.com/article/trump-brazil-tariffs-bolsonaro-lula-trade-imbalance-de4cf0669b00a76149e8f39f200af502>
- Cole, B. 2025, July 31. "Donald Trump Issues Threat to Canada over 'Statehood of Palestine' Move." *Newsweek*. Available online: <https://www.newsweek.com/donald-trump-issues-threat-canada-palestine-state-israel-2106769>
- Handley, K., and N. Limão. 2017. "Policy Uncertainty, Trade, and Welfare: Theory and Evidence for China and the United States." *American Economic Review* 107(9):2731–2783. <https://doi.org/10.1257/aer.20141419>
- Houck, J.P. 1992. *Elements of Agricultural Trade Policies*. Waveland Press.
- Malmström, C. 2025, July 31. "Trump's Very Bad Trade Deal with Europe." Peterson Institute for International Economics. Available online: <https://www.piie.com/blogs/realtime-economics/2025/trumps-very-bad-trade-deal-europe>
- Manak, I., R. Patterson, Z.Z. Liu, S.K. O'Neil, B.W. Setser, E. Alden, B. Steil, J.E. Hillman, M.P. Goodman, and W. Freeman. 2025, July 7. "What Trump Trade Policy Has Achieved Since 'Liberation Day.'" Council on Foreign Relations. Available online: <https://www.cfr.org/article/what-trump-trade-policy-has-achieved-liberation-day>
- Reuters. 2025, August 18. "US Adviser Navarro Says India's Russian Crude Buying Must Stop." Available online: <https://www.reuters.com/business/energy/us-adviser-navarro-says-indias-russian-crude-buying-must-stop-2025-08-18/>
- The White House. 2025a. *Regulating Imports with a Reciprocal Tariff to Rectify Trade Practices that Contribute to Large and Persistent Annual United States Goods Trade Deficits*. Executive Order 14257. Available online: <https://www.whitehouse.gov/presidential-actions/2025/04/regulating-imports-with-a-reciprocal-tariff-to-rectify-trade-practices-that-contribute-to-large-and-persistent-annual-united-states-goods-trade-deficits/>
- . 2025b. *Further Modifying the Reciprocal Tariff Rates*. Executive Order 14326. Available online: <https://www.whitehouse.gov/presidential-actions/2025/07/further-modifying-the-reciprocal-tariff-rates/>
- . 2025c. *Fact Sheet: President Donald J. Trump Imposes Tariffs on Imports from Canada, Mexico, and China*. Available online: <https://www.whitehouse.gov/fact-sheets/2025/02/fact-sheet-president-donald-j-trump-imposes-tariffs-on-imports-from-canada-mexico-and-china/>
- . 2025d. *Imposing Tariffs on Countries Importing Venezuelan Oil*. Executive Order 14245. Available online: <https://www.whitehouse.gov/presidential-actions/2025/03/imposing-tariffs-on-countries-importing-venezuelan-oil/>
- Thompson, R.L. 2025. "Navigating Uncertainty: Trump and the Changing US Policy for Agri-Food Trade." *Studies in Agricultural Economics* 127(2):117–127. <https://doi.org/10.7896/j.3230>
- World Trade Organization (WTO). 2025. *Tariff Profile, United States of America*. Available online: https://www.wto.org/english/res_e/statis_e/daily_update_e/tariff_profiles/US_e.pdf

About the Authors: Jeff Luckstead is the Distinguished Professor of Agricultural and Resource Economics with the School of Economic Sciences at Washington State University. Stephen Devadoss is the Emabeth Thompson Endowed Professor with the Department of Agricultural and Applied Economics at Texas Tech University

Acknowledgments: This work was supported by the USDA National Institute of Food and Agriculture, Agricultural and Food Research Initiative Competitive Program, Agriculture Economics and Rural Communities, United States of America, grant # 2023-67023-40643. The authors thank two reviewers for valuable comments on an earlier version of this article.