

## Chapter 1.4

# Scenarios for Agricultural Trade in a Changing World

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### Introduction

Over the past 45 years, world merchandise trade has undergone significant structural transformations, and agrifood products have been part of that evolution. After a period of stagnation in the early 1980s, global trade expanded steadily from the mid-1980s through the early 2000s, driven by trade liberalization, technological progress, and deeper economic integration. This expansion accelerated between 2005 and 2010 with the consolidation of global value chains. Between 2010 and 2020, trade growth slowed amid weaker demand and rising tensions. Following the COVID-19 shock, trade rebounded sharply, reaching a historical peak in 2022, largely driven by price increases in the context of the war in Ukraine and general inflationary trends due to the economic recovery following the pandemic. These price surges proved relatively short-lived, however, and commodity prices have generally declined since mid-2022 as supply conditions improved and markets adjusted.

Agrifood trade has followed a related but distinct trajectory. While its share in total merchandise trade declined from the mid-1980s due to the faster expansion of manufactured goods, it began to recover around 2005, supported by rising demand, changing consumption patterns, and higher commodity prices. This recovery stabilized at roughly 10% of global merchandise trade, well below the levels observed in the early 1980s. In parallel, the geographic structure of agrifood trade has shown continuity with gradual rebalancing. Traditional trade corridors remain largely intact, but participation has shifted. Over the past 30 years, an increasing share of US agricultural exports has gone to Mexico and Canada, while the relative share of US exports going to markets such as the European Union and Japan has declined. China remains an important desti-

nation for US exports, but the US market share there has declined as LAC has increased its role as a major supplier to Asian markets. Intra-Asian and Asia–Africa trade linkages have intensified as well.

This long-term evolution provides the background against which today’s world must be understood. The recent escalation of tariffs, selective application of trade measures, retaliatory responses, and weakening of multilateral disciplines marks a structural break. The change is not simply cyclical. It reflects a shift from a predominantly rules-based and predictable environment toward a more fragmented and strategically driven trade regime. For agriculture, a sector highly sensitive to tariffs, export restrictions, and regulatory measures, this shift increases uncertainty and alters incentives for investment, production, and trade.

To illustrate this transformation, the chapter compares two clearly defined trade environments: *a reference scenario* representing the global trade system prior to 2025 and a scenario representing the world at the end of 2025. This counterfactual comparison isolates the measurable effects of recent policy changes and provides a structured representation of the current agricultural trade situation. The objective is to quantify the economic implications of this shift and to inform ongoing discussions within the WTO where the restoration of predictability and coherence in agricultural trade governance remains a central challenge.

## Literature review and analytical context

International trade in agricultural products has expanded the availability and diversification of food worldwide, allowing countries to complement domestic production through imports while channeling surpluses to external markets. In doing so, trade has strengthened the resilience of agrifood systems (Jafari et al. 2023), contributing to supply stabilization and influencing food and nutritional security, and consumer price dynamics (OECD and FAO 2025, IICA 2021). These gains, however, are not automatic. They depend on the global trade policy environment, particularly on the configuration of tariff and non-tariff measures that shape market access and determine incentives to export and import (Santeramo and Lamonaca 2020). Changes in these policies can therefore alter trade flows, relative prices, and the distribution of welfare between producers and consumers (Akter 2022, Amiti et al. 2019).

In recent years, agricultural and food trade patterns have been reshaped by tariff shifts implemented by major economies, especially the United States (US), during the 2018–2019 trade war and in the renewed tensions of 2025 (Carter and Steinbach 2020, Ai et al. 2025a, Piñeiro et al. 2025). Average tariffs on agricultural and food products increased markedly in both episodes, disrupting trade flows and affecting market performance. Empirical evidence shows that tariff increases have substantial effects on bilateral trade. A 10% rise in tariffs is associated with an approximately 32% decline in trade in affected goods (Amiti et al. 2019). In the US, the 2018–2019 measures reduced imports of targeted goods by about 2.5% and exports by nearly 10% (Fajgelbaum et al. 2020). In the agriculture sector, higher tariffs depressed US exports of targeted and related products, constraining US producers' competitiveness in international markets (Waugh 2019).

Across these studies, a consistent result is that outcomes depend not only on the magnitude of tariff increases but also on trading partners' responses. During the 2018–2019 episode, a unilateral 45% tariff increase reduced real wages in the US by 0.66%, while the impact on China was smaller; once China retaliated, losses spread and affected both economies simultaneously (Guo et al. 2018). A similar dynamic appears in simulations for 2025. A generalized 10% tariff applied globally, combined with a 60% tariff on China, was estimated to reduce US gross domestic product (GDP) by about 0.7% in the absence of retaliation, but the contraction rises to 1.3% when partners adopt reciprocal measures (Bouët et al. 2024). In North America, the imposition of 25% tariffs on Canada and Mexico also generates losses in terms of trade and output, which deepen when these countries respond with countermeasures (Ai et al. 2025a, Meltzer 2025).

The agricultural and food sector is particularly exposed under broad-based escalation scenarios. In a global trade war scenario characterized by a 10% across-the-board US tariff and retaliatory responses from major partners, US agricultural trade contracts sharply across commodities. Export losses are estimated to exceed 27% in oilseeds and reach around 13% in high-value products such as vegetables, fruits, and nuts, while imports of staple crops such as rice and wheat are estimated to fall by more than 40% in some cases (Ai et al. 2025b). A similarly pronounced contraction emerges in the Liberation Day scenario, which introduces a 10% supplemental tariff on imports alongside higher country-specific tariffs. Under this configuration, US agrifood exports are estimated to decline by 19.2% without retaliation and by 39.1% when partners respond, while agrifood imports are estimated to fall by 10.2% and 24.5%, respectively

(Piñeiro et al. 2025). Taken together, these findings highlight the scale of adjustment that agricultural markets may face under generalized tariff escalation.

## Methodology and scenario design

This analysis relies on economy-wide modeling using the Miragrodep computable general equilibrium model, a global multicountry and multisector framework designed to assess the broad effects of agricultural and trade policy changes. Miragrodep builds on the MIRAGE model and incorporates extensions specifically tailored to agricultural trade analysis (Bouët et al. 2021). The model integrates detailed bilateral trade flows, sectoral production structures, and macroeconomic linkages across countries, allowing for a coherent evaluation of both direct trade effects and broader economywide adjustments.

A central feature of the model is the Armington assumption, under which goods are differentiated by country of origin. This specification makes it possible to capture changes in sourcing decisions when tariffs or other trade distortions are introduced. In practical terms, it allows the model to reflect how importers substitute among suppliers in response to policy changes. Combined with country-specific social accounting matrices and detailed tariff data, Miragrodep traces how these shocks transmit through domestic production systems and global value chains. The model is implemented in a comparative-static framework. It compares equilibria before and after the policy shock without modeling transitional dynamics. The results therefore, capture medium- to long-run reallocations of resources across sectors and regions and quantify impacts on GDP, terms of trade, welfare, and agrifood trade patterns.

## Scenario definition

To assess the economic implications of recent shifts in global trade policy, the analysis is conducted under two alternative scenarios: a *reference scenario* and an *end of 2025 scenario*. The objective is not to forecast future developments but to illustrate how recent policy shifts have modified the structure and performance of agricultural trade. By comparing a more predictable, rules-based environment with the trade configuration observed at the end of 2025, the analysis provides a structured representation of the present agricultural trade situation. The *reference scenario* represents the global trade system prior to 2025, before the escalation of recent trade tensions. Trade policies largely correspond to existing commitments, with greater reliance on multilateral disciplines and

the most favored nation (MFN) principle.<sup>13</sup> This scenario therefore, reflects a more stable and rules-based multilateral trading system. The *end of 2025 scenario* represents the world as it stood at the end of 2025. It incorporates the tariff increases, retaliatory measures, counterretaliation responses, and policy adjustments that had been implemented by that date. The policy framework begins with a baseline 10% tariff applied broadly across countries and products, with explicit exceptions at the country level where differentiated tariff rates are imposed. These measures are further refined through country- and product-specific exceptions, demonstrating the targeted and highly differentiated nature of US trade policy.

This scenario captures not only existing tariff levels, retaliatory measures, and observed trade restrictions, but also heightened policy uncertainty and weakened multilateral trade disciplines. Notably, it incorporates counterretaliation measures, including the 15% tariffs imposed by China and the 25% tariffs on US auto and auto part imports applied by Canada.

Overall, tariffs currently applied to specific countries are generally lower than those announced on April 2, 2025 (so-called Liberation Day), reflecting the outcomes of bilateral negotiations that led to partial rollbacks of the initially proposed increases. Nevertheless, important exceptions persist, with certain country- and product-specific tariffs exceeding Liberation Day levels, most notably for iron and steel imports from the United Kingdom and Russia. Also, imports from Canada and Mexico that comply with the United States-Mexico-Canada Agreement (USMCA) are exempt from the supplemental tariffs. A similar pattern emerges in product-specific tariffs, with iron and steel, metals and metal products, and wood and wood products facing comparatively higher rates.

## **Data sources, regional aggregation, and time horizon for comparison**

The primary data source for Miragrodep is the GTAP 11 database, fully documented in Aguiar and colleagues (2019). This database provides global macroeconomic accounts and detailed trade flows for five benchmark years (2004, 2007, 2011, 2014, and 2017). It describes the values of production, intermediate inputs, and final consumption of goods and services across 141 countries or regions and 65 sectors. In addition, GTAP 11 contains information on bilateral trade flows, international transport margins, and

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13 The WTO estimates that in 2022, about 83% of trade was conducted on an MFN basis. In 2025, after implementation of the new US tariff regime, this number was 74% (WTO 2025).

protection matrices, allowing for a consistent and detailed representation of economic linkages across countries and regions. The second data source consists of the most recent economic projections from the International Monetary Fund's World Economic Outlook and population projections from the United Nations.

Export taxes, tariffs, and ad valorem equivalents of non-tariff barriers are incorporated into the model by computing the corresponding tax rates from the GTAP database and assuming that these rates remain constant in the *reference scenario*. In the *end of 2025 scenario*, retaliatory tariffs are calibrated using the latest applied tariffs available as of December 2025. For US tariffs and counterretaliation measures, we rely on data compiled by Lowell and colleagues (2026) in the Trump 2.0 Tariff Tracker. To facilitate interpretation of the results, countries and products are aggregated into composite regional and sectoral groups.<sup>14</sup>

## Global results: estimated impacts on agricultural trade

### Scenario-based changes in global trade flows

Relative to the *reference scenario*, the *end of 2025 scenario* generates a decline in global trade flows, driven by the combined effects of a global economic slowdown and higher tariff barriers. Negative percentage changes are observed across all major sectors, including manufacturing, agrifood products, and services. However, the magnitude of the impact differs across product groups. Manufacturing exhibits the largest adjustments, driven primarily by changes in tariffs targeting specific products such as metals and metal products, wood and wood products, iron and steel, and the automotive and auto parts sectors.

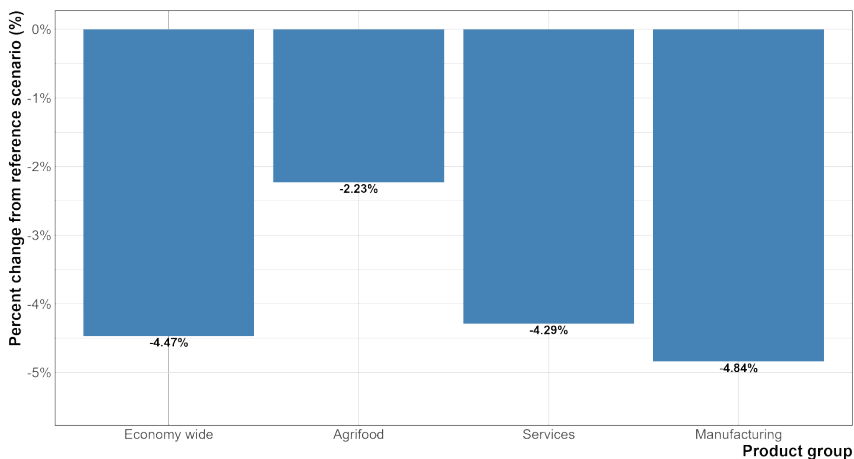
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14 To facilitate comparison across scenarios, countries are aggregated into nine composite regions. These include: (1) North America, comprising the United States, Canada, Bermuda, Greenland, and Saint Pierre and Miquelon; (2) the European Union, including all EU member states; (3) the rest of Europe, covering non-EU European countries; (4) LAC, including Mexico, the Caribbean, Central America, the Andean region, and the Southern Cone; (5) North Africa, comprising Egypt, Morocco, Tunisia, Sudan, Algeria, Libya, and Western Sahara; (6) Sub-Saharan Africa, including all African countries not classified as North Africa; (7) China; (8) the rest of Asia, consisting of Asian countries excluding China; and (9) the rest of the world, which includes Oceania and all remaining countries not covered by the previous regional groupings. A similar aggregation is applied to the product dimension, with particular attention to agrifood sectors. The following product groups are considered: beverages and tobacco; cocoa, coffee, and tea; dairy products and eggs; fruits and vegetables; grains; meat and fish; plant-based fibers; processed food; sugar and sugar products; and vegetable oils.

These industries are typically more integrated into international supply chains and more sensitive to trade policy shifts, which amplifies their responsiveness to the scenario shock.

Although the agrifood trade is also adversely affected, it exhibits smaller aggregate percentage declines than manufacturing. This difference reflects both the targeted tariff increases on manufactured products (steel, aluminum, automobiles, and auto parts, etc.) and the larger share of manufactured goods in total global merchandise trade. Nevertheless, in agrifood products, the main concern is not the overall magnitude of the contraction, but the trade diversion generated under the *end of 2025 scenario*. The results point to a reallocation of trade flows across partner countries, indicating shifts in sourcing patterns rather than a uniform reduction in trade volumes (See Figure 1). Within this new trade environment, changes in relative prices and trade costs give rise to new patterns of comparative advantage across countries, reshaping bilateral trade relationships. When disaggregated to a more detailed product level, this reconfiguration may entail significant distributional and structural implications, despite the relatively moderate aggregate effects.

**Figure 1. Impact on global trade by product group at the end of the 2025 scenario, with percentage changes from the reference scenario**



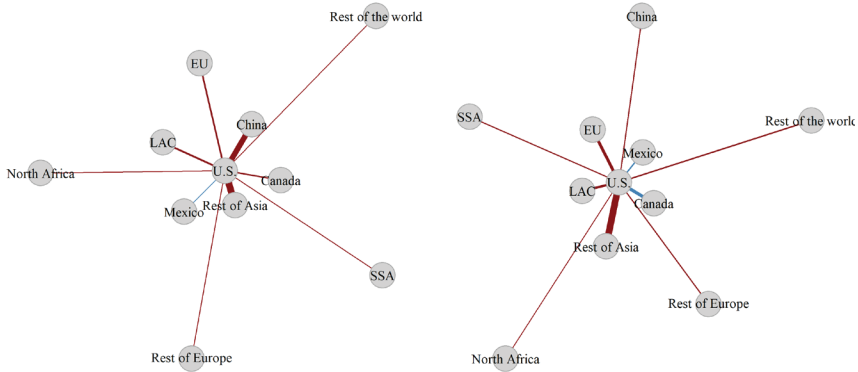
Source: Authors' calculations based on MIRAGRODEP model simulations.

Building on these aggregate and sectoral patterns, it is essential to assess how the reallocation of trade flows materializes at the bilateral level within the agrifood sector. The interaction between higher tariffs, shifting relative prices, and newly emerging patterns of comparative advantage affects not only overall agrifood trade volumes but also the geographic structure of agrifood trade relationships. A network-based representation is particularly well suited to capture the direction, magnitude, and concentration of these bilateral adjustments. Figures 2 and 3 provide such evidence for agrifood trade, illustrating how the *end of 2025 scenario* reconfigures export linkages for the US and China, respectively, across their main destination markets.

As shown in Figure 2, under the *end of 2025 scenario*, US agrifood exports contract across most partner regions. The largest negative changes, represented by the thickest red lines, are seen for China, the rest of Asia, and LAC (excluding Mexico), all of which account for non-negligible shares of total US exports, as reflected by their proximity to the center of the network. Although exports to Mexico display a positive change (blue line), the magnitude of this increase is insufficient to offset the substantial losses observed in other major destinations. Overall, the export panel points to a net decline in US agrifood external sales, driven primarily by contractions in key Asian and LAC markets.

On the import side (right panel of Figure 2), the US records increased agrifood imports from Mexico and Canada, largely because USMCA-compliant goods are exempt from the tariff increases. These exemptions promote trade diversion toward Canada and Mexico. In contrast, imports from LAC, the European Union, and the rest of Asia (excluding China) decline, as reflected by red lines of notable width. Despite gains within the USMCA bloc, the cumulative reductions across other regions imply that the overall impact on US agrifood imports remains negative, highlighting a process of regional reallocation rather than aggregate expansion.

**Figure 2. Trade diversion of US agrifood exports (left) and imports (right) under the end of 2025 scenario, with changes relative to the reference scenario**



Source: Authors' calculations based on MIRAGRODEP model simulations.

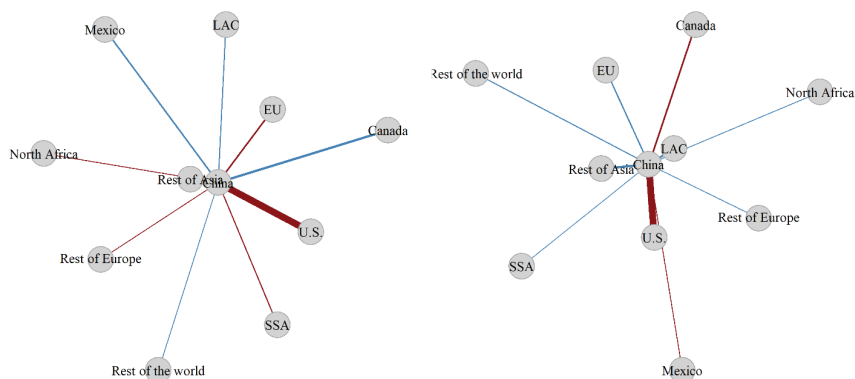
Notes: The country of interest, the United States, is shown at the center. The left panel displays US exports to partner countries/regions, while the right panel shows US imports from partner countries/regions. The proximity of partner countries/regions reflects their share in total US exports (left panel) and total US imports (right panel). The width of each connection represents the magnitude of the change in trade flows. Blue indicates a positive change, while red indicates a negative change. EU = European Union, LAC = Latin America and the Caribbean, SSA = Sub-Saharan Africa.

As shown in Figure 3, from the export perspective, China displays a mixed pattern compared with the US. While China loses major markets in the US and the European Union (both account for more than 20% of China's exports), it gains exports in several other regions, including Canada, Mexico, LAC, and the rest of the world (Oceania), as indicated by the blue lines. Compared with the US, China's export profile exhibits broader regional gains, suggesting a more diversified adjustment across the network. However, these gains are not sufficient to fully compensate for the losses in key partners, and the overall pattern still reflects a net contraction in China's global agrifood exports.

Chinese imports display a pattern opposite to that of the US (right panel of Figure 3), with significant decreases in agrifood imports from the United States due to the imposition of counter-retaliatory tariffs. Imports from Mexico and Canada also decrease, as more exports from those countries are diverted to the US. In contrast, imports from all other regions show gains, reflecting broader regional diversification. However, despite these increases, the cumulative gains are not sufficient to offset the reductions from

North American partners. As a result, China's total agrifood imports still contract.

**Figure 3. Trade diversion of Chinese agrifood exports (left) and imports (right) under the end-of-2025 scenario, with changes relative to the reference scenario**



Source: Author's calculations based on MIRAGRODEP model simulations.

Note: The country of interest, China, is shown at the center. The left panel displays Chinese exports to partner countries/regions, while the right panel shows Chinese imports from partner countries/regions. The proximity of partner countries/regions reflects their share in total Chinese exports (left panel) and total Chinese imports (right panel). The width of each connection represents the magnitude of the change in trade flows. Blue indicates a positive change, while red indicates a negative change. EU = European Union, LAC = Latin America and the Caribbean, SSA = Sub-Saharan Africa.

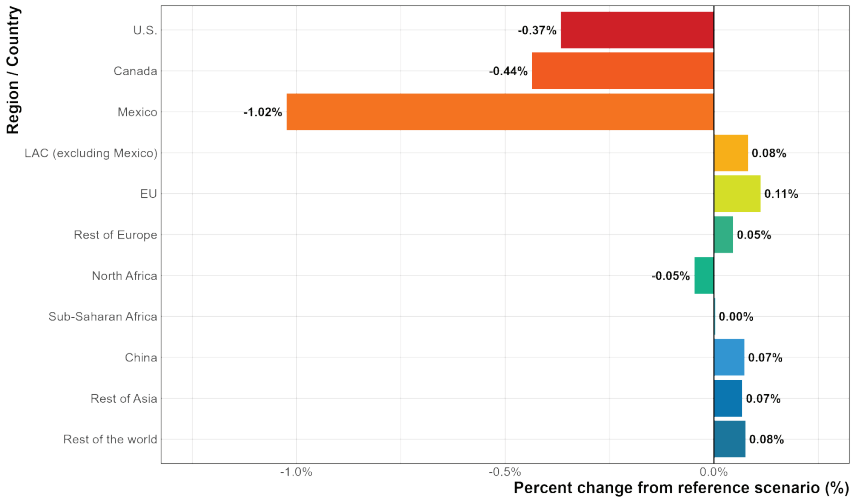
## Production effects

The contraction of the US, coupled with its strong trade ties to Mexico and Canada, creates negative spillover effects for the rest of North America. Agrifood production declines across these three countries, but the magnitude of the impact differs due to the central role of the US in the export structure of both Canada and Mexico. The more dependent a country is on US markets, the larger the contraction it experiences, highlighting the asymmetric effects of trade shocks within closely integrated regional networks.

In contrast, other countries outside this core North American bloc use the situation to expand their agrifood production (except Africa, which maintains limited trade links with the United States). While the increases are moderate compared with the contraction in North America, these adjustments reflect a

reallocation of global trade flows and a relative opportunity for countries less dependent on US markets to capture additional demand (See Figure 4).

**Figure 4. Impact on agrifood production by country/region, with changes relative to the reference scenario**



Source: Authors' calculations based on MIRAGRODEP model simulations.  
 Note: EU = European Union, LAC = Latin America and the Caribbean.

At a more disaggregated level, the production effects reveal substantial heterogeneity across product groups and countries within North America. In the US, the contraction is concentrated in primary agricultural activities. Production declines are particularly pronounced in grains (-1.4%), plant-based fibers (-2%), and meat and fish (-1.2%). By contrast, some downstream agri-food groups display resilience or even expansion, most notably vegetable oils (+2.4%).

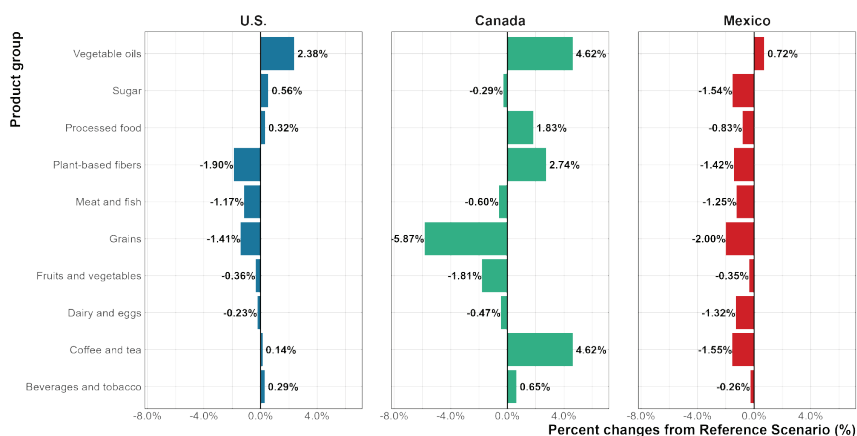
In Canada, the adjustment is more uneven and, in some cases, considerably larger in magnitude. The most significant contraction occurs in grains (-5.8%), followed by fruits and vegetables (-1.8%). However, Canada exhibits strong expansions in processed food (+1.8%), coffee, and tea<sup>15</sup> (+4.6%), vegetable oils

15 The coffee and tea product group includes live plants; cut flowers and flower buds, flower seeds and fruit seeds, and vegetable seeds; beverage and spice crops; unmanufactured tobacco; cereal straw and husks, unprepared, chopped or not, ground, pressed or in the form of pellets; swedes, mangolds, fodder roots, hay, lucerne (alfalfa), clover, sainfoin, forage kale, lupines, vetches, and similar forage

(+4.6%), and plant-based fibers (+2.8%). The sharp contraction in grains combined with strong growth in processing-related sectors points to a structural reorientation of production rather than a uniform downturn.

In Mexico, the effects are amplified because the US is its main export destination. Given Mexico's strong integration into US-centered value chains, the contraction in US demand translates into a broad-based decline across most agrifood product groups. This reflects both the high degree of trade dependence and the limited scope for short-run market diversification (See Figure 5).

**Figure 5. Impact on agrifood production by product group in the United States, Canada, and Mexico, with changes relative to the reference scenario**



Source: Authors' calculations based on MIRAGRODEP model simulations.

## Global welfare effects

At an aggregated level, the welfare<sup>16</sup> impact of the *end of 2025 scenario* varies considerably across regions, reflecting both the structure of trade linkages and the relative size of economies. The US experiences a small positive effect (0.02%), while Canada and Mexico benefit more substantially, with gains of 1.3% and 2.326%, respectively. In contrast, major economies such as China

products, whether in pellets or not; plants and parts of plants used primarily in perfumery, in pharmacy, or for insecticidal, fungicidal, or similar purposes; sugar beet seed and seeds of forage plants; and other raw vegetable materials.

<sup>16</sup> Welfare is computed as the sum of household consumption across product groups, expressed in constant values relative to the *reference scenario*.

(−0.1%) and the European Union (−0.3%) face moderate welfare losses, highlighting the asymmetric effects of the scenario across large trading nations. Other regions, including LAC, the rest of Asia, Sub-Saharan Africa, North Africa, and the rest of Europe, also experience negative impacts, though these are generally smaller. Overall, the global welfare effect is negative (−0.1%), indicating that losses outweigh gains at the world level.

Figure 6 illustrates the effects of the *end of 2025 scenario* on welfare across countries at a more disaggregated level, differentiating by both trade status<sup>17</sup> (net exporters versus net importers) and size<sup>18</sup> (major versus minor trading nations). This highlights that the scenario does not impact all countries uniformly but instead produces heterogeneous effects depending on each country's role and scale in global trade. Three distinct patterns emerge from this analysis, revealing the nuanced ways in which trade shocks spread across different country types.

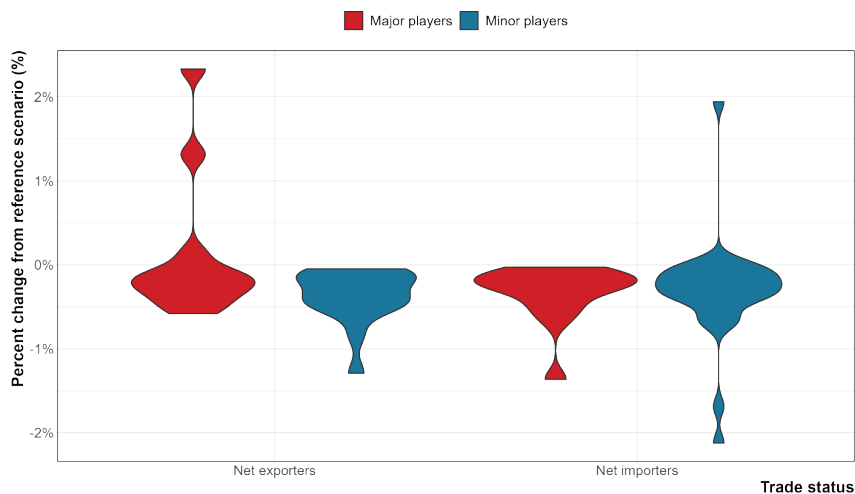
Major net exporters experience a welfare distribution concentrated mostly in negative values; the major exceptions are Mexico and Canada, which are exempt from the tariff increases. Minor net exporters and major net importers show a similar pattern, with welfare losses generally concentrated between 0 and −1%, indicating moderate but widespread vulnerability. In contrast, minor net importers exhibit a distribution that resembles that of major net exporters but with a broader range of negative values, reflecting greater exposure and sensitivity to the scenario.

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17 Trade status is defined based on 2024 food trade values (excluding fish) from FAOSTAT. Countries are classified as net exporters if food exports exceed imports and as net importers otherwise.

18 Major (minor) trading countries are defined as those with a share of global merchandise trade above (or below) 0.2%, based on World Bank 2024 data.

**Figure 6. Distribution of impacts on welfare by country trade status and size of trade category, with changes relative to the *reference scenario***



Source: Authors' calculations based on MIRAGRODEP model simulations.

Notes: Trade status is defined based on 2024 food trade values (excluding fish) from FAOSTAT; countries are classified as net exporters if food exports exceed imports and as net importers otherwise. Major (minor) trading countries are defined as those with a share of global merchandise trade above (or below) 0.2%, based on World Bank 2024 data.

## Commodity-level impacts for key agricultural products

To complement the analysis by product groups, this section examines commodity-level effects, with a focus on trade diversion in key agrifood products. The contraction in the US, together with differential import tariffs, alters relative competitiveness across suppliers, prompting exporters to redirect shipments to alternative markets and enabling competing producers to capture new trade opportunities.

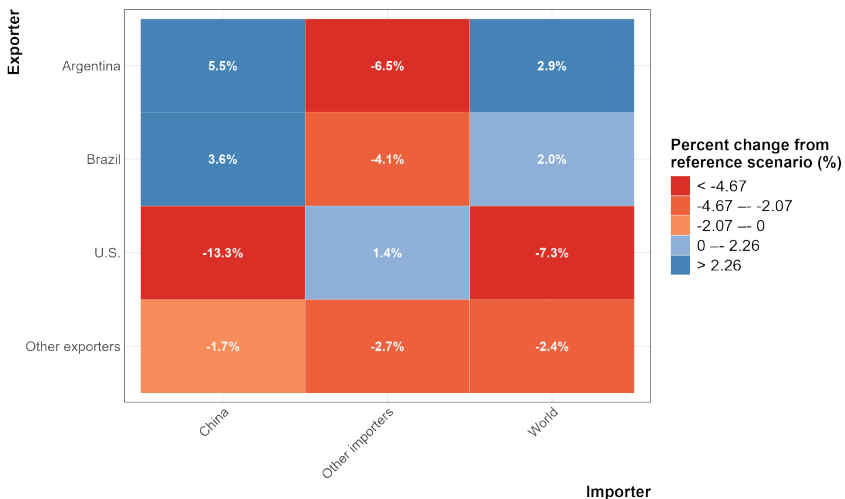
### Oilseeds

China plays a pivotal role in global oilseed markets, particularly as the dominant importer of soybeans. In the 2024/2025 marketing year, China imported 108 million metric tons of soybeans, or 60% of global soybean trade, which was driven by its need for soybean meal for animal feed and soybean oil for food use.

Since 2000, China’s demand for soybean imports has expanded at an extraordinary average annual rate of 9.2%. Brazil and the US are the dominant suppliers for the Chinese market, accounting for a combined 92% of China’s imports.

However, shifts in trade policy, such as the current 10% retaliatory tariff on US soybeans under the *end of 2025 scenario*, together with the ongoing US–China agreement to purchase 25 million tons of soybeans annually, could radically disrupt existing flows and prices in the global oilseed market. Under this scenario, US soybean exports to China would be reduced by 13% so that the agreement is slightly exceeded (Figure 7). Brazil, already China’s largest supplier, would further consolidate its position, with Argentina also increasing shipments. Despite this adjustment, China’s total oilseed imports are projected to decline by 2.5% due to supply constraints and higher prices. The US, meanwhile, would face an estimated 7% drop in oilseed exports overall, as new buyers in secondary markets (Europe and Mexico) only partially compensate for lost Chinese demand. Global oilseed trade would contract by 2%, revealing the scale of the distortion caused by tariff-induced trade redirection.

**Figure 7. Trade diversion of oilseeds, with changes relative to the *reference scenario***



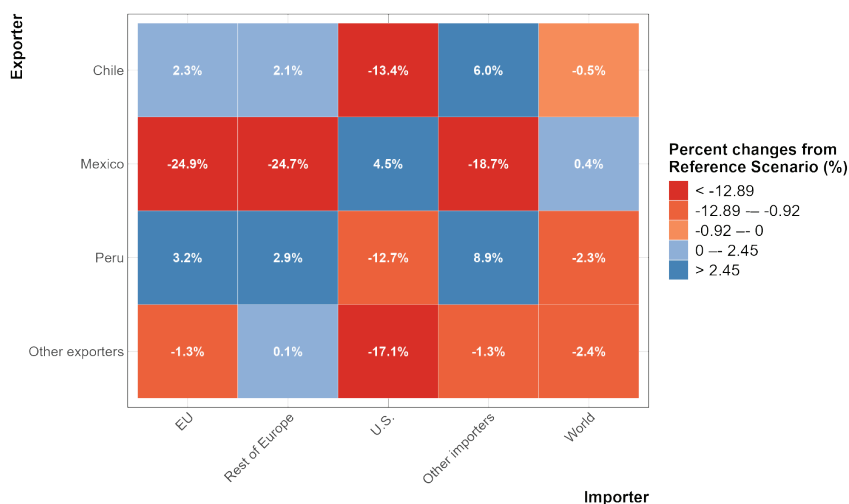
Source: Authors’ calculations based on MIRAGRODEP model simulations.

## Fruit and vegetables

Under the *end of 2025 scenario*, Mexico is exempt from reciprocal US tariffs under the USMCA agreement, which enhances its competitiveness in the US market and strengthens its integration within this product group. However, this focus on the US may reduce Mexico's participation in other markets, such as the European Union, East Asia, and Central America. Given the relative importance of the US market, the resulting increase in exports to the US would also enhance Mexico's overall global export performance.

Facing higher costs and reduced demand from US buyers, other exporters, such as producers in Chile and Peru, are projected to redirect their exports to alternative markets. However, these markets are imperfect substitutes: longer shipping distances, differing sanitary standards, and underdeveloped distribution networks constrain the extent of trade diversion. As a result, global trade in fruits and vegetables is projected to contract by 2% (See Figure 8).

**Figure 8. Trade diversion of fruits and vegetables, with changes relative to the reference scenario**



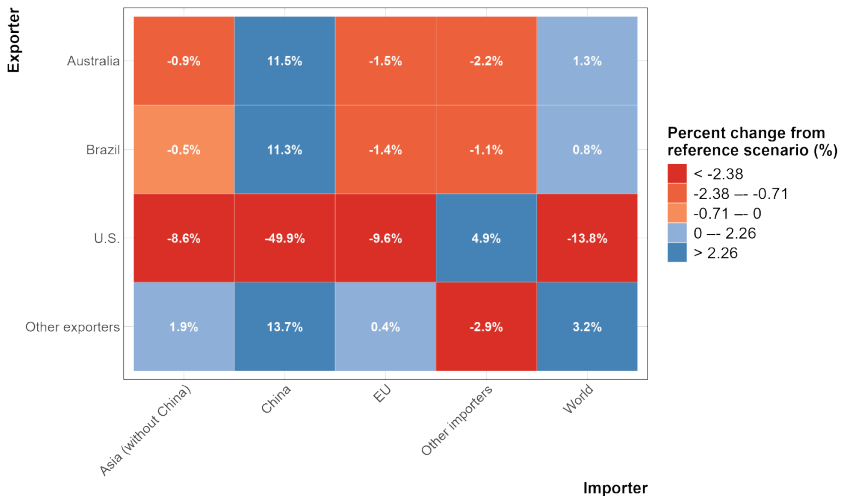
Source: Authors' calculations based on MIRAGRODEP model simulations.

## Plant-based fibers

Within the plant-based fibers product group, cotton is the dominant commodity, with Brazil (31%), the US (28%), and Australia (12%) accounting for more than 70% of global exports. On the import side, Asia represents the primary destination, capturing more than 80% of global imports. These are concentrated in Vietnam (19%), Bangladesh (19%), Pakistan (14%), China (12%), and India (7%). Global trade in cotton grew from 26 million tons in 2000 to around 40 million tons over the past five years.

Under the *end of 2025 scenario*, China’s 10% retaliatory tariff on US cotton reduces US exports to China by 62%, effectively shutting out US shipments in a highly competitive market. US exports decline to nearly all major importers, leading to an overall drop of 15% in US global cotton exports. This withdrawal creates opportunities for other major exporters, with Australia and Brazil each capturing roughly 15% of the diverted trade, boosting their global exports significantly. However, despite this trade diversion, total global trade in cotton is expected to decline by 3% under the *end of 2025 scenario* (see Figure 9).

**Figure 9. Trade diversion of plant-based fibers, with changes relative to the reference scenario**



Source: Authors’ calculations based on MIRAGRODEP model simulations.

## Policy insights and concluding remarks

The analysis demonstrates the substantial economic and structural costs associated with the shift toward a more fragmented global trade regime. Comparing the pre-2025 trade environment with the current landscape of elevated tariffs and bilateral tensions indicates that trade fragmentation has resulted in a net decline in global welfare, alongside significant disruptions in agrifood production and trade flows. Structural adjustments are particularly pronounced in North America, where exemptions from tariff measures, combined with the indirect competitive gains stemming from the reduced competitiveness of tariff-affected countries, have reinforced regional trade advantages.

Under the *end of 2025 scenario*, shifts in trade policy, including the proposed 10% retaliatory tariff on US soybeans and the US–China agreement to purchase 25 million tons annually, are expected to significantly disrupt global oilseed markets, reducing US soybean exports to China by 13%, while Brazil and Argentina will be expected to expand shipments, leading to a 2% decline in total global oilseed trade. In fruits and vegetables, Mexico’s preferential access to the US under USMCA enhances its competitiveness in the US market but limits participation in other markets, while producers in Chile and Vietnam face constraints in redirecting exports, resulting in a 2% contraction in global trade for the sector. In plant-based fibers, China’s 10% retaliatory tariff on US cotton reduces US exports to China by 62% and lowers total global cotton trade by 3%, even as Australia and Brazil capture portions of the diverted flows. These sectoral disruptions illustrate that regional reallocations are insufficient to offset aggregate losses in global trade, highlighting the urgent need to restore predictability to stabilize investment, safeguard food security, and enhance agri-food resilience.

The scenario results presented in this chapter remain highly relevant, with more recent policy developments reinforcing their central message. Escalating tariffs, export restrictions, and persistent transparency gaps have weakened multilateral disciplines and increased uncertainty in global agricultural trade. The simulations underscore the importance of renewed multilateral engagement, particularly within the WTO framework, to contain fragmentation and reduce the costs of policy-driven trade reallocation.

The US administration’s announcement on February 22, 2026, of a shift toward a more MFN-oriented tariff approach, which reduces certain country-specific differentiation, does not fundamentally alter the broader assess-

ment. Although the formal structure of tariff application may now appear more consistent with MFN principles, tariff levels remain elevated relative to the pre-2025 benchmark, and the recent sequence of announcements, reversals, exemptions, and temporary measures has reinforced perceptions of policy instability. Moreover, the Section 122 tariffs are set to remain in place for only 150 days, after which Congress must vote on their extension, introducing an additional layer of temporal uncertainty. At the same time, the administration has signaled the possibility of launching new Section 301 and Section 232 investigations, which could lead to higher non-MFN tariffs. For traders and investors, predictability depends not only on the legal form of measures but on the credibility, durability, and coherence of the overall policy environment. In this context, agricultural trade continues to operate under conditions of reduced predictability and heightened uncertainty.

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