Tariff Day: Impact of Recent U.S. Tariff Increases on Latin America and the Caribbean*

Vanessa Alviarez† Angel Espinoza‡

Last updated: June 7, 2025

First Draft: April 5, 2025

This report evaluates the global economic impact of the 2025 U.S. tariff increases under the Trump administration, focusing on Latin America and the Caribbean. Using a quantitative general equilibrium trade model, we simulate six policy scenarios. The first three capture escalating trade tensions—starting with unilateral U.S. tariff hikes and expanding to retaliatory measures by China and Canada. The final three scenarios reflect a partial de-escalation, exploring potential resolution paths such as reciprocal tariff reductions, expanded exemptions, and harmonized trade policies across North America.

1 Overview of U.S. Tariff Measures

On April 2, 2025, the United States announced one of the most sweeping tariff increases in recent history—an across-the-board hike in ad valorem tariffs on all imports, with only Mexico and Canada exempted[1]. The announced tariff schedule, which vary significantly

*This note is for discussion purposes only and does not reflect the views of the Inter-American Development Bank or its member countries. Any errors are the responsibility of the authors.

†Inter-American Development Bank, valviarezr@iadb.org.

‡University of British Columbia, aesp@student.ubc.ca. We are especially grateful to Fernando Morales and Ingri Quevedo for outstanding research assistance. This report builds on our contributions to the IADB Macro Report 2025.

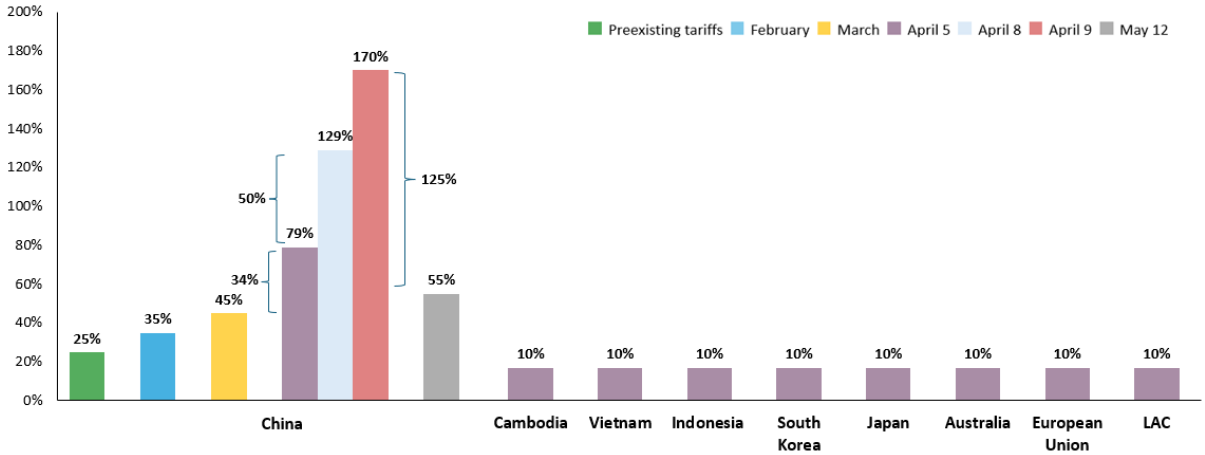
[1]Mexico and Canada were exempted from the April 2 tariff. However, as it will be explained in more detail in section 1.1, both countries were affected by Section 232 tariffs on cars, steel, and aluminum.

across countries, were layered on top of existing trade barriers, with increases starting at 10% (Figure 1). Latin America and the Caribbean was the region least affected overall, with most countries facing the minimum 10% hike, and Mexico exempted.[2] These developments reflect a marked escalation in U.S. trade policy under the Trump Administration

The April announcement followed a series of major trade actions taken earlier in the year. In February and March, the U.S. government imposed a 25% tariff on steel and aluminum imports from all countries, a 25% tariff on automobiles and auto parts—including from Canada and Mexico,[3] and an additional 20% tariff on all imports from China.

Since then, the global trade landscape has been shifting rapidly. Reciprocal tariffs were paused and temporarily standardized at a 10% rate for all countries except China, which remained subject to higher duties. China responded with steep retaliatory tariffs on U.S. goods, and the U.S. escalated further, leading to peak tariffs of up to 145% on Chinese imports and 125% on U.S. exports to China. Tensions eased in May 2025, when both countries reached an agreement to roll back some tariffs and freeze further hikes, reopening negotiations on broader trade terms. For a summary of the current landscape and the latest events, see Section 1.4.

Figure 1: 2025 tariff increases on U.S. imports by Country



Note: Authors' calculations using data from the White House's presidential actions. Bars represent additional tariffs imposed during Trump's 2025 administration on each country. For China, preexisting tariffs refer to those enforced during Trump's first administration. Tariff increases for China began in February, building on the existing 25% tariffs applied to most products during the previous administration. LAC region excludes Guyana, Mexico, Nicaragua, and Venezuela.

[2]Notable exceptions include Guyana (38%), Nicaragua (18%), and Venezuela (15%).
[3]See section 1.1 for details

1.1 U.S. Tariff Measures Leading Up to April 2, 2025

Tariff Measures on Aluminum, Steel, and Automobiles: Section 232

The April 2 tariff schedule builds on measures introduced in March under the revised Section 232 of the Trade Expansion Act. Originally invoked in 2018, Section 232 had imposed a 25% tariff on steel and a 10% tariff on aluminum. As of March 12, all country exemptions were removed, and the aluminum tariff was raised to 25%, matching the steel rate. These tariffs now apply universally to both core and derivative products.[4]

Annex A of the revised rules extends the 25% tariff to automobiles and auto parts—even when imported from Canada or Mexico and compliant with USMCA rules of origin. Only the share of a vehicle made with U.S.-produced content is exempt. For example, a car assembled in Mexico using only Mexican and Canadian parts would be taxed at the full 25% rate.

This provision has not yet been implemented for Mexican or Canadian auto parts. The Department of Commerce and U.S. Customs and Border Protection must first develop a system to assess the U.S. content in each part. Once in place, all remaining value—everything not produced in the United States—will be subject to the 25% tariff.

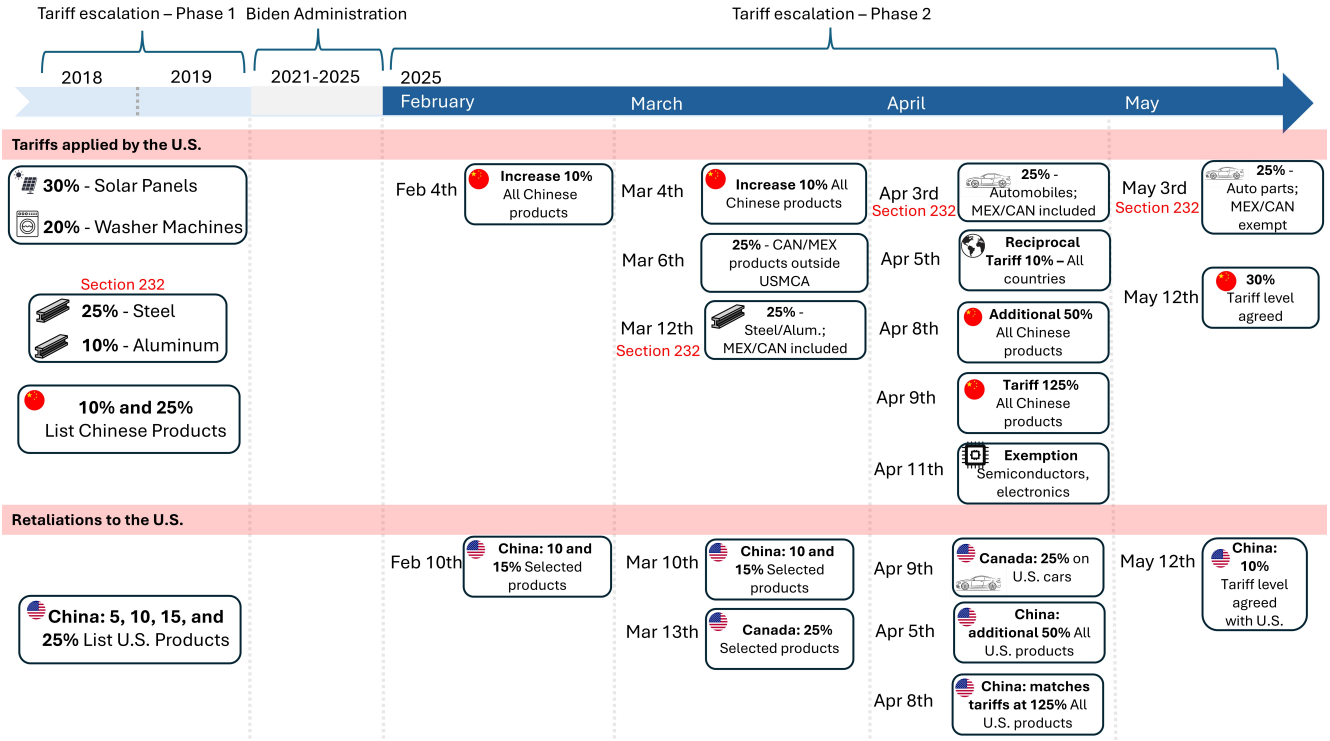
U.S. trade measures tied to migration enforcement remain in effect for Canada and Mexico and are unaffected by the latest tariff announcement. While these orders are in place, goods that comply with USMCA rules—outside the scope of Section 232—continue to enter duty-free. Non-compliant goods face a 25% tariff, with limited exceptions. If the measures were lifted, USMCA-compliant products would retain preferential access, while non-compliant goods would instead face a 12% reciprocal tariff.

Tariffs on Chinese Imports

Besides the generalized tariffs on aluminum, steel, and automobiles, as of April 2, China was one of the most heavily targeted countries under the recent trade measures. Many Chinese goods were already subject to 10% and 25% tariffs imposed during the previous Trump administration, and those duties remain in effect. On March 4, 2025, the administration introduced an additional 20% across-the-board tariff on all imports from China.[5] As discussed in the next sections, this was followed by a 34% tariff hike announced on April 2. Afterwards, China's retaliatory measures triggered additional rounds of increases, further escalating the trade conflict.

[4] Derivative steel and aluminum products were added to the list of targeted goods in 2018.
[5] See Figure 2 for a detailed timeline of tariff increases.

Figure 2: Timeline tariff escalation, U.S.



Notes: Authors' calculations using data from the White House's presidential actions. China's tariff increase began on February 4 with an additional 10% on all Chinese products, followed by another 10% on March 4 in response to China's retaliatory tariffs. China was later included in the April 2 Reciprocal Tariff List. Products from Canada and Mexico covered under the USMCA were exempted from the tariff increase of April 2, 2025.

De Minimis Imports

In parallel, recent tariff policy changes have effectively eliminated the de minimis exemption, which had allowed U.S. consumers to import up to 800 dollars worth of goods per day without paying tariffs or administrative fees. In 2023, de minimis imports totaled 54.5 dollars billion—7.3% of total U.S. imports—and accounted for over 1 billion individual shipments (Fajgelbaum and Khandelwal, 2025). Because these shipments were not required to be declared at customs, they are excluded from official trade statistics and, by extension, from the analysis presented here. The removal of this exemption introduces significant trade effects that are not yet captured in the present analysis.

1.2 The April 2 Tariff Announcement and Sectoral Exemptions

On April 2, 2025, the United States announced a broad-based reciprocal tariff increase on all trading partners, with rates varying by country. Mexico and Canada were exempted for goods compliant with USMCA rules of origin. China faced one of the steepest hikes at 34%, while the European Union was subject to a 20% tariff. Most Latin American

and Caribbean countries were hit with the minimum rate of 10%. Alongside the announcement, the administration released an exclusion list covering strategic sectors such as pharmaceuticals, energy, petroleum, minerals, and semiconductors. These carve-outs significantly influenced the composition of the tariff package. Table 11 in the Appendix summarizes the main exempted sectors and their relative importance in total U.S. imports.

The exclusions primarily apply to strategic sectors such as pharmaceuticals, energy, petroleum, minerals, and semiconductors. These categories account for approximately 20% of total U.S. imports and affect 1,025 tariff lines at the 8-digit level of the Harmonized System (HS), out of a total of 10,913 lines. In other words, approximately 9.4% of all tariff lines were excluded from the April 2 package. These carve-outs significantly shape the economic reach and sectoral composition of the new tariffs, reflecting a blend of domestic priorities and geopolitical considerations.

1.3 Retaliatory Responses to U.S. Tariffs

China's Response

In response to successive U.S. tariff actions, China's retaliation unfolded in three escalating waves. The first, effective February 10, 2025, followed the U.S. imposition of a 10% tariff under the International Emergency Economic Powers Act (IEEPA). China responded with tariffs on U.S. energy and agricultural machinery and imposed export restrictions on critical minerals. The second wave came after the U.S. raised tariffs to 20% on March 3. On March 10, China expanded its tariffs to cover a broad range of agricultural goods. The third and most comprehensive round followed the U.S. announcement on April 2 of a 34% tariff on all Chinese imports. China imposed a matching 34% tariff on all U.S. goods, introduced export controls on rare earth elements, and sanctioned numerous U.S. companies. These measures were further intensified throughout the first fortnight of April, culminating in symmetrical tariff hikes that brought cumulative rates on both sides to 125%.

Canada's Response

Canada adopted a two-stage countermeasure strategy following the imposition of U.S. tariffs on Canadian steel, aluminum, and automobiles. On March 4, 2025, it imposed 25% tariffs on $30 billion worth of U.S. goods, including agricultural products and consumer goods such as clothing, household appliances, and recreational items. A second round followed on March 13, targeting an additional $29.8 billion in imports. This package

included steel and aluminum products, along with tools, computers and servers, display monitors, and sporting equipment.

After the United States extended the 25% tariff to Canadian automobiles, Canada implemented further measures effective April 9, 2025. These included a 25% tariff on vehicles imported from the U.S. that do not comply with USMCA rules of origin, as well as a 25% tariff specifically on the non-Canadian and non-Mexican content of USMCA-compliant vehicles.

European Union's Response

The European Union also took steps to counter U.S. tariffs. On April 9, 2025, EU member states approved a proposal for retaliatory tariffs in response to U.S. duties on European steel and aluminum. The package included 25% tariffs on approximately €21 billion worth of U.S. goods, such as almonds, orange juice, poultry, soybeans, tobacco, and yachts. However, the European Commission never formally adopted the measures. On April 10, the Commission announced a 90-day pause to allow space for negotiations. While the EU warned that countermeasures could still be enacted if talks failed.

1.4 Current Landscape: De-escalation

The initial U.S. tariff package announced in early April included differential rates of up to 49%, depending on the trading partner. However, this measure was paused for 90 days, and instead, effective on April 5, a uniform 10% tariff was implemented, with exceptions: China faced a higher 34% rate, while Mexico and Canada were exempt for USMCA-compliant goods. In parallel, on April 11, the U.S. clarified its initial tariff exemptions. A Presidential Memorandum reaffirmed the exclusion of semiconductors and related products, including smartphones and other key components.

In response to China's retaliatory actions, tariff levels between the two countries quickly escalated, reaching an additional 125% by mid-April. This escalation, however, was short-lived. On May 12, 2025, the United States and China reached an agreement to de-escalate the conflict. Under the agreement, both sides committed to suspend 24 percentage points of the additional ad valorem tariffs for 90 days, maintaining only the 10% rate, while leaving previous measures in place. As a result, the trade landscape shifted from confrontation to cautious stabilization.

The latest events

Although not considered in our simulations, the latest events include a series of significant trade actions in May and June 2025. On May 1, the Secretary of Commerce launched a new Section 232 investigation into the national security implications of imports of commercial aircraft and jet engines. This signals a potential expansion of national security-based tariffs into the aerospace sector. In parallel, on June 4, 2025, the United States doubled its existing tariffs on imports of steel and aluminum—from 25% to 50%. These measures were accompanied by heightened enforcement protocols and exclusions for UK imports under the newly signed U.S.-UK Economic Prosperity Deal.

2 The Impact of Recent U.S. Tariff Increases

This report focuses on the economic impact of the U.S. tariff measures announced on April 2, 2025, and the subsequent developments in trade policy. It evaluates their effects on trade flows, import prices, and real wages in Latin America and the Caribbean.

This work builds on earlier exercises featured in the IADB Macro Report 2025, which explored several stylized trade scenarios—including a uniform 10% increase in U.S. tariffs on all imports, including from Mexico and Canada. These scenarios were developed ahead of the recent announcements, reflecting growing policy discussions at the time and anticipating the type of trade policy shift that has since unfolded.[6]

The first three scenarios represent escalating trade tensions, beginning with unilateral U.S. tariff increases and extending to retaliation from key partners. The latter three reflect partial de-escalation and explore potential resolution paths, including exemptions and alignment of tariffs across North America. Tables 1 and 5 summarize the key features of each scenario. All these new measures are layered on top of preexisting tariffs stemming from earlier trade policy shifts between 2018 and 2022, particularly those related to U.S.-China tensions.

Escalation Phase

Scenario 1: Unilateral U.S. Tariff Increases (up to April 2, 2025) — This baseline scenario reflects all U.S. trade measures in place as of April 2, 2025. It includes the initial 20% tariff imposed on imports from China in February and March, as well as the enforcement of Section 232 tariffs on autos, steel and aluminium. For Canada and Mexico, auto parts remain exempt, and autos are taxed only on their

[6] See Tables 2.1 and 2.2 in the IADB Macro Report 2025 for results on real income, prices, and trade flows under that scenario.

non-U.S. content. Reciprocal tariffs are included as announced, but no retaliatory responses from trading partners are assumed.

Scenario 2: U.S. Tariffs Including Canada and Mexico — This scenario builds on Scenario 1 by applying Section 232 tariffs uniformly across all trading partners, including Canada and Mexico, with both automobiles and auto parts now subject to tariffs. The 20% tariff on Chinese imports remains unchanged. Reciprocal tariffs are maintained as announced, and no retaliatory measures are assumed.

Scenario 3: Retaliation by China and Canada — This scenario builds on Scenario 1 by maintaining the same U.S. trade measures—20% tariffs on Chinese imports and Section 232 tariffs with exemptions for Canada and Mexico. Reciprocal tariffs are applied as announced but introduces retaliatory responses. China and Canada each impose two initial rounds of tariffs in the 10–15% range. This includes as well China's initial retaliation after "liberation day," adding an additional 34% tariff on U.S. exports. Although subsequent escalations raised tariffs to as high as 125% in response to U.S. countermeasures, these later increases are not modeled in this scenario.

Adjustment Phase

Scenario 4: U.S.–China Tariff De-escalation (May 12, 2025) — This scenario reflects a partial de-escalation in trade tensions. Reciprocal tariffs are set at 10% for all affected countries, including China, while Canada and Mexico remain exempt. The initial 20% U.S. tariff on Chinese imports remains in effect, along with China's initial round of retaliation. Section 232 tariffs continue to apply globally, but Canada and Mexico retain their exemptions: auto parts are exempt, and automobiles are taxed only on their non-U.S. content. Canada maintains its earlier retaliatory tariffs. After "liberation day," China reduces its additional retaliatory tariff from 34% to 10%.

Scenario 5: Canada and Mexico Exempt from Section 232 — This scenario builds on Scenario 4 by fully exempting Canada and Mexico from all Section 232 measures. As a result, tariffs on automobiles and auto parts from both countries are entirely removed. In response, Canada withdraws its retaliatory tariffs. All other elements remain unchanged: the U.S. maintains its 20% tariff on Chinese imports, reciprocal tariffs are set at 10% for affected partners (excluding Canada and Mexico), and China continues to impose a 10% retaliatory tariff following "liberation day".

Scenario 6: North American Tariff Harmonization to China — This scenario

builds on Scenario 5. Canada and Mexico remain fully exempt from U.S. Section 232 measures and reciprocal tariffs, and Canada does not impose any retaliatory duties. The new element introduced is tariff harmonization toward China across North America: both Canada and Mexico adjust their tariffs on Chinese imports to match the minimum between their existing rates and the U.S. tariff schedule in effect as of May 2025. All other trade policies remain unchanged from Scenario 5.

This approach helps disentangle the effects of successive trade measures and highlights their cumulative impact on the region.

2.1 Quantitative Framework and Model Structure

To evaluate the effects of the 2025 U.S. tariff increases, we use a quantitative general equilibrium model that captures how international production networks amplify the effects of trade policy. The model emphasizes sectoral linkages across countries and is particularly well-suited to analyzing global value chains (GVCs), where intermediate goods cross borders multiple times before reaching final consumers. By following these interconnections, the model allows us to assess not only the direct impact of tariffs on targeted sectors but also their indirect effects across upstream and downstream industries—both within and across countries.[7]

The underlying structure of the model builds on the Ricardian framework of Eaton and Kortum (2002), extended to a multi-country, multi-sector setting as in Caliendo and Parro (2015). The model features constant returns to scale, perfect competition, and a single factor of production (labor), which is mobile across sectors within each country but not across borders. These assumptions provide analytical clarity and tractability, while also limiting the model's ability to capture certain dynamics—such as firm-level heterogeneity, increasing returns, or cross-border capital flows—that may also play a role in shaping responses to trade policy. The model can be implemented either by incorporating observed trade imbalances (keeping them constant) or by imposing balanced trade. In our baseline implementation, we adopt the latter and assume trade balance across countries.

One important extension currently underway involves incorporating multinational corporations (MNCs) into the framework. This will allow us to capture the effects of trade policy on foreign direct investment (FDI) and the structure of cross-border production. Even in the absence of changes in the cost of investing abroad, shifts in trade costs can alter firms' incentives to locate production internationally. These dynamics can be analyzed within a multi-sector model of trade and multinational production.[8]

[7] Results leaving trade deficit constant are availanle upon request.
[8] Data preparation for this extension is in progress. The approach builds on Alviarez (2019).

Overall, the model offers a robust foundation for evaluating the cross-country and cross-sector impacts of tariff changes, while ongoing work continues to expand its scope and realism.

A Multi-Sector model of Trade with Input–Output Linkages

Model Description

Following closely Caliendo and Parro (2015), we consider a Ricardian multi-country, multi-sector model of international trade with intermediate inputs and input–output linkages. The world consists of N countries, indexed by n and i, and J sectors, indexed by j and k.

Each country n produces a continuum of varieties in each sector j using labor and a composite bundle of intermediate inputs sourced from all sectors. Production technologies exhibit constant returns to scale and are subject to stochastic productivity, with efficiency draws $z_n^j(\omega)$ following a Fréchet distribution with shape parameter θ^j and location parameter λ_n^j. Markets are perfectly competitive.

Goods are used both for final consumption and as intermediate inputs in production. The final demand in each country follows a Cobb–Douglas aggregator across sectors with expenditure shares α_n^j, and producers in each sector use intermediate goods from all other sectors according to fixed coefficients $\gamma_n^{k,j}$. Labor is the only primary factor, mobile across sectors but immobile across countries.

Trade is subject to two types of costs: iceberg trade costs $d_{ni}^j > 1$ and ad-valorem tariffs $\tau_{ni}^j \geq 0$, applied on imports from country i to n in sector j. These costs are summarized by the combined trade cost factor $\kappa_{ni}^j = d_{ni}^j(1 + \tau_{ni}^j)$.

Equilibrium in relative changes

Instead of solving for the full set of equilibrium variables under each tariff regime, we solve the model in terms of relative changes between an initial policy τ and a counterfactual policy τ'. This approach defines an equilibrium in relative changes as the set of wage changes $\{\hat{w}_n\}$ and sectoral price changes $\{\hat{P}_n^j\}$ that satisfy the system of general equilibrium conditions. Working in relative changes offers several advantages: it allows the model to exactly match base-year data and avoids the need to estimate unobservable parameters such as productivity levels λ_n^j and iceberg trade costs d_{ni}^j.

Cost of the input bundles:

$$\hat{c}_n^j = \hat{w}_n^{\gamma_n^j} \prod_{k=1}^{J} \hat{P}_n^{k\gamma_n^{k,j}} \tag{1}$$

Here $\hat{c}_n^j$ is the change in unit cost in sector j and country n.[9]

Price index:

$$\hat{P}_n^j = \left[\sum_{i=1}^{N} \pi_{ni}^j \left(\hat{\kappa}_{ni}^j \hat{c}_i^j\right)^{-\theta^j}\right]^{-1/\theta^j} \tag{2}$$

where π_{ni}^j the initial share of country n's expenditure on sector j goods from country i, and $\hat{\kappa}_{ni}^j$ is the change in trade costs defined below.

Bilateral trade shares:

$$\hat{\pi}_{ni}^j = \left[\frac{\hat{c}_i^j \hat{\kappa}_{ni}^j}{\hat{P}_n^j}\right]^{-\theta^j} \tag{3}$$

Total expenditure in each country n and sector j:

$$X_n^{j'} = \sum_{k=1}^{J} \gamma_n^{j,k} \sum_{i=1}^{N} \frac{\pi_{in}^{k'}}{1+\tau_{in}^{k'}} X_i^{k'} + \alpha_n^j I_n' \tag{4}$$

we denote X_n^j as the total nominal expenditure in sector j, and I_n' as the counterfactual income level defined as below.

Trade balance:

$$\sum_{j=1}^{J}\sum_{i=1}^{N} \frac{\pi_{ni}^{j'}}{1+\tau_{ni}^{j'}} X_n^{j'} - D_n = \sum_{j=1}^{J}\sum_{i=1}^{N} \frac{\pi_{in}^{j'}}{1+\tau_{in}^{j'}} X_i^{j'} \tag{5}$$

here, D_n is the trade deficit of country n, assumed constant between equilibria.

where:

$$\hat{\kappa}_{ni}^j = \frac{1+\tau_{ni}^{j'}}{1+\tau_{ni}^{j}}$$

and

$$I_n' = \hat{w}_n w_n L_n + \sum_{j=1}^{J}\sum_{i=1}^{N} \tau_{ni}^{j'} \frac{\pi_{ni}^{j'}}{1+\tau_{ni}^{j'}} X_n^{j'} + D_n$$

Quantifying the Impact of Recent U.S. Tariff Increases

Data

In this paper, we construct a comprehensive dataset that combines bilateral trade flows, production, and input–output linkages across countries and sectors. Trade data are drawn from UN Comtrade, while sectoral input–output relationships are sourced from the OECD Inter-Country Input–Output (ICIO) tables. The ICIO provides a globally consistent framework that traces production, consumption, and trade flows across countries and sectors over time (2016-2020). It covers 76 countries and 45 industries, of which 22

[9] We define a variable "$\hat{x}$" as $\hat{x} = \frac{x'}{x}$

are classified as tradable sectors. Finally, we incorporate bilateral, product-level tariff data from the World Integrated Trade Solution (WITS), which we complement with information on all tariff measures imposed during the wave of trade actions in Trump's first administration, ensuring full coverage of the pre-existing trade policy environment.

Taking the Model to the Data

The model is applied to 34 countries, covering all major world regions and accounting for 79% of global GDP (see Table 9). For each country, we incorporate trade and production data across 35 sectors—18 tradable and 17 non-tradable—providing a detailed view of global value chain interactions (see Table 10).[10] The model compares two scenarios: a baseline reflecting the 2024 trade environment (i.e., the period before the recent trade events), and a counterfactual that incorporates the 2025 U.S. tariff increases. To construct the baseline scenario, we use 2023 trade flows from UN Comtrade and 2023 tariff data from WITS, which are the latest available. For input–output relationships, we rely on the 2019 OECD ICIO table, opting not to use the 2020 release due to likely distortions from the COVID-19 pandemic. Our approach implicitly assumes that the structure of trade flows and tariffs in 2024 remained unchanged from 2023.

We construct the full set of model inputs following the structure of Caliendo and Parro (2015), implementing a series of harmonization, cleaning, and imputation procedures to ensure global consistency:

- **Gross Output and Value-Added** (Y_{nj}, VA_{nj})**:** We extract sector-level output and value-added from the 2019 OECD ICIO tables. For country-sector pairs where $Y_{nj} = 0$, we impute a small value of one to avoid division-by-zero errors when constructing value-added shares, defined as $\gamma_{nj} = VA_{nj}/Y_{nj}$. To accurately reflect trade flows, we adjust Y_{nj} and VA_{nj} to ensure consistency with observed exports and imports from UN Comtrade. Specifically, for tradable sectors, we scale gross output so that the ratio of exports to output observed in the ICIO data is preserved, while ensuring that the implied export levels match those reported in Comtrade. For non-tradable sectors, we impute output by preserving their share of total production as observed in the ICIO data, scaling them proportionally to the aggregate imputed output in tradable sectors to maintain consistency with each country's overall production structure. We then scale VA_{nj} proportionally to the adjusted gross output Y_{nj}, preserving the original value-added-to-output ratio. This procedure ensures that production and value-added levels are consistent with trade data while maintaining the internal production structure of each economy.

[10] In this initial exercise, we restrict the number of countries and sectors to match those studied in Caliendo and Parro (2015).

- **Total Expenditure by Country and Sector (X_{nj}):** We calculate total expenditure by country n in sector j by combining bilateral trade data from UN Comtrade (2023) with product-level tariff data from WITS. Trade flows and tariffs are mapped from the HS classification to the industry level using a concordance matrix. After aggregating to the country–sector level, we multiply by $1 + \tau_{nij}$, where τ_{nij} denotes the applied tariff rate. Domestic consumption is imputed as the difference between gross output and exports. This ensures that the total expenditure X_{nj} reflects both tariff-inclusive imports and internally consumed production:

$$X_{ni}^{j} = M_{ni}^{j}(1 + \tau_{ni}^{j}), \qquad X_{nj} = \sum_{i=1}^{N} X_{ni}^{j}$$

- **Bilateral Trade Shares (π_{ni}^{j}):** We calculate the share of country n's expenditure on imports from country i in sector j, using Comtrade data mapped to industries via a product-sector concordance. Bilateral expenditure shares are computed by dividing the expenditure of country n on goods from i in sector j by the total expenditure of n in that sector:

$$\pi_{ni}^{j} = \frac{X_{ni}^{j}}{\sum_{i=1}^{N} X_{ni}^{j}}$$

  For sectors identified as non-tradable, trade flows are set to zero, and expenditure shares π_{ni}^{j} are calculated accordingly.

- **Intermediate Input Coefficients ($\gamma_{n}^{j,k}$):** We compute the share of sector k's spending on sector j's goods in country n. These coefficients are constructed from the ICIO's inter-sectoral flows as the share of intermediate consumption of sector j in sector k, scaled by the complement of the value-added share:

$$\gamma_{n}^{j,k} = (\text{share of } j \text{ in } k) \times (1 - \gamma_{n}^{j}), \quad \text{where} \quad \gamma_{n}^{j} = \frac{VA_{n}^{j}}{Y_{n}^{j}}$$

  We impose the adding-up constraint:

$$\sum_{k} \gamma_{n}^{j,k} = 1 - \gamma_{n}^{j}$$

  Missing values are imputed as zeros.

- **Final Demand Shares (α_{nj}):** We calibrate Cobb–Douglas final demand shares residually by subtracting intermediate use from total observed expenditure and

dividing by national income. The expression for final demand shares is:

$$\alpha_{nj} = \frac{X_{nj} - \sum_{k=1}^{J} \gamma_{nkj} Y_{nk}}{w_n L_n}$$

where $w_n L_n$ denotes initial national income in country n, defined as the sum of value added across sectors:

$$w_n L_n = \sum_j VA_{nj}$$

Negative values are set to zero, and shares are normalized to sum to one across sectors.

- **Trade Elasticities θ_j:** We adopt sector-specific trade elasticities by aggregating the product-level estimates from Fontagné et al. (2022) to our 35 target industries. To perform this aggregation, we use pre-period trade flows corresponding to each HS6 category as weights. We report sensitivity analyses using alternative elasticity values from Caliendo and Parro (2015) and Charbonneau and Landry (2018). Where sector classifications differ, some elasticities are split or averaged across corresponding sectors. These elasticity values are summarized in Table 12.
- **Tariffs and Trade Cost Scenarios:** Tariff data from WITS and are incorporated at the level at which they were implemented, typically the eight-digit level of the Harmonized System (HS). These are then aggregated to our 35-sector classification using trade-flow weights to preserve the relative importance of tariff variation across sectors. Tariff schedules are drawn from official sources for each country and reflect the legally binding rates announced during each round of trade policy changes.

2.2 Scenarios 1-3: Escalation Phase

This section focuses on the escalation phase of the current trade conflict. Our baseline scenario includes unilateral U.S. tariff increases, under which all countries—except Mexico and Canada—are subject to the full set of tariffs announced by the United States on April 2, 2025. The other two scenarios introduce variations: one includes tariffs on the auto sector for Canada and Mexico, while the other incorporates retaliation from key trading partners. Table 1 summarizes the key features of each scenario.

Table 1: Scenario Components: Escalation Phase (Scenarios 1–3)

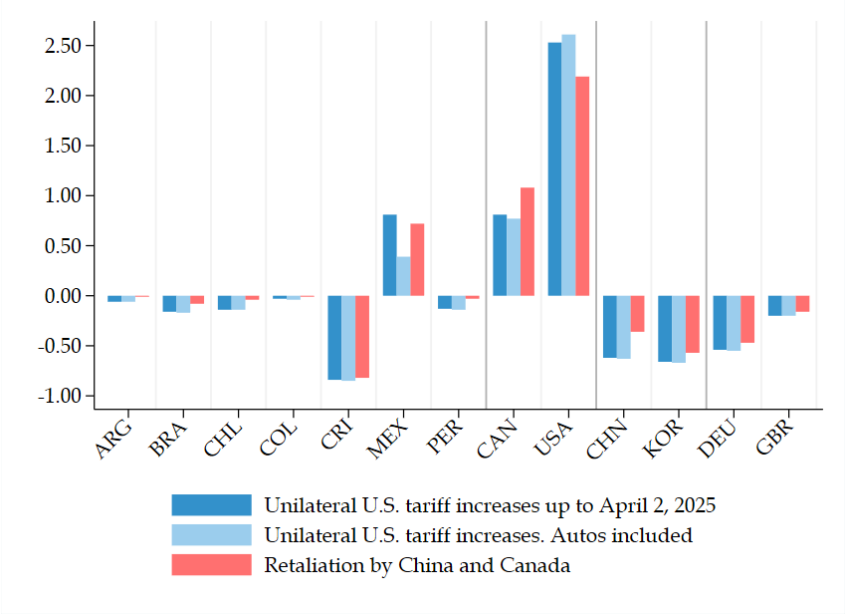
Component	**Unilateral U.S. tariff increases up to April 2**	**Unilateral U.S. tariff increases Autos Included**	**Retaliation by China and Canada**
USA → China Feb. and Mar.	20%	20%	20%
Section 232 (USA → MEX, CAN)	Auto parts exempt; autos taxed only on non-U.S. content	Automobile and auto parts included	Auto parts exempt; autos taxed only on non-U.S. content
Liberation Day	Reciprocal tariffs as announced (e.g. China set to 34%). 0% to Canada and Mexico if USMCA-compliant. Global exemptions to specific products.		
Retaliation (CHN & CAN → USA)	–	–	CHN: 10–15% + 10–15% CAN: 10–15% + 10–15%
Retaliation after liberation day (CHN → USA)	–	–	34% (further increases not modeled, e.g., 125% final tariff)

Prices, Real Wages, and Aggregate Trade Flows

This set of tariff measures operates as a negative demand shock. By increasing the cost of imported goods, the United States reduces its demand for products from affected countries. This lower demand tends to weigh on global activity, reducing exports and putting downward pressure on prices and wages in exporting countries.

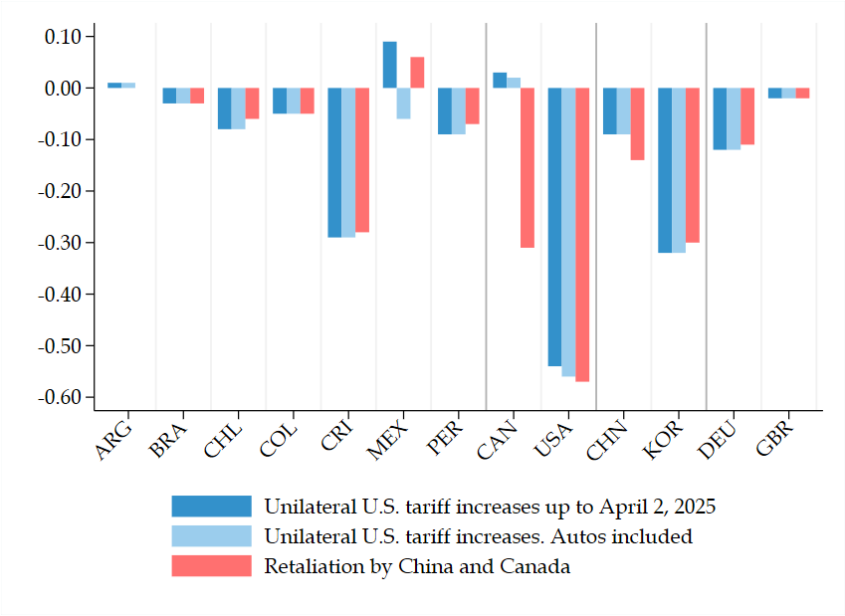
When the U.S. reduces its purchases from the rest of the world, the effects propagate through global value chains. Countries that export to the U.S. may experience a decline in revenues, which can dampen domestic output and consumption—and, in turn, reduce their own demand for imports. This includes, in many cases, intermediate inputs sourced from third countries. As a result, the impact is not confined to countries with direct exposure to the U.S. market but extends more broadly through global trade linkages.

Figure 3: Price Index (percent change)



Source: Staff calculations based on model explained in section 2.1.
Note: This figure illustrates the percent change in the price index for a selection of countries under the first three scenarios described in Table 1. In the second scenario, note that neither automobiles nor auto parts are exempt from the tariff imposed by Section 232.

Figure 4: Real Wages (percent change)



Source: Staff calculations based on model explained in section 2.1.
Note: This figure illustrates the percent change in the price index for a selection of countries under the first three scenarios described in Table 1. In the second scenario, note that neither automobiles nor auto parts are exempt from the tariff imposed by Section 232.

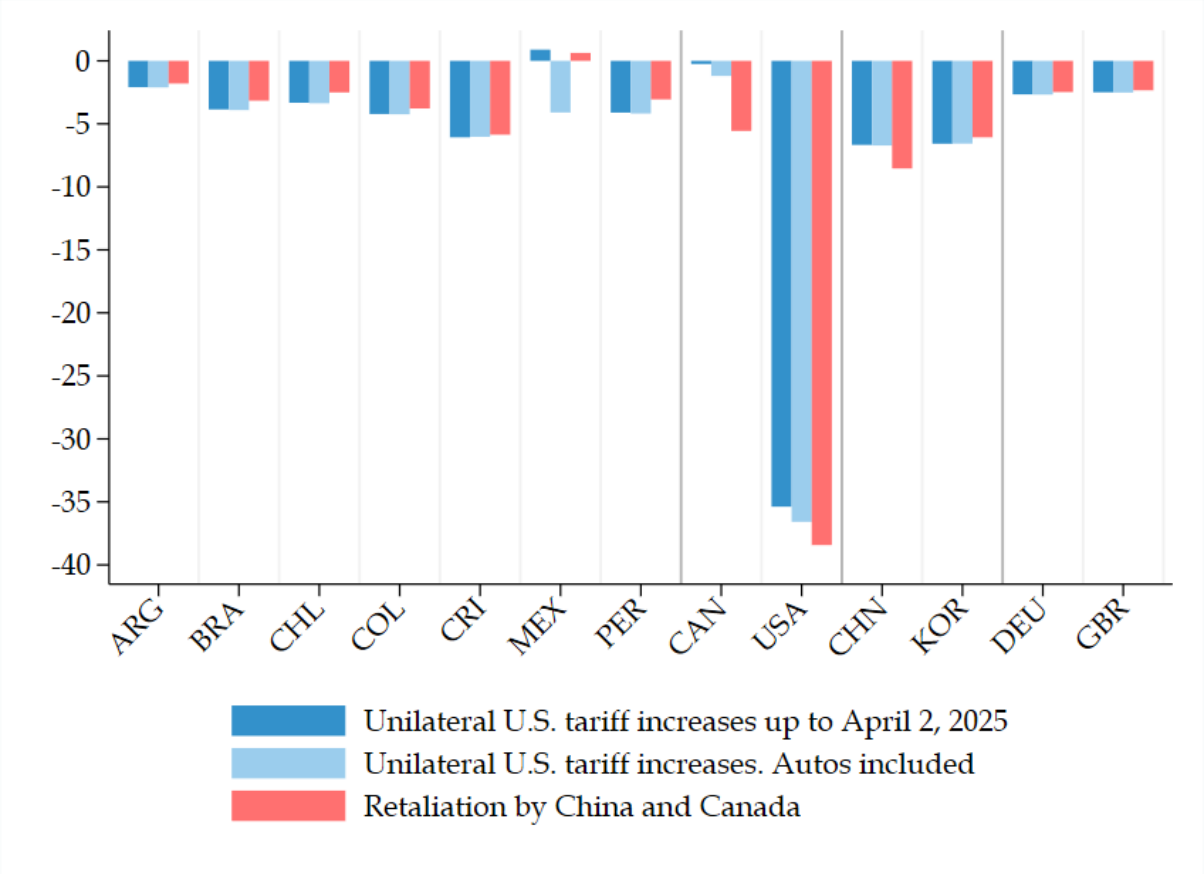
Figure 3 shows the percent change in the price index across countries in response to U.S. tariff measures and associated retaliation. The initial round of unilateral U.S. tariffs (dark

blue), which covers Chinese imports, autos, steel, and aluminum, along with reciprocal tariffs, raises the U.S. price index by about 2.5% due to higher import costs. In contrast, most trading partners, except Mexico and Canada, see declines in their price indices. The largest decreases occur in China, Costa Rica, and Korea, reflecting their strong export exposure to the U.S. market. Latin American countries, such as Argentina, Brazil, Chile, and Colombia, show only minor price reductions. For Mexico and Canada, price indices rise by roughly 0.8%, primarily due to their exclusion from reciprocal tariffs and partial exemptions on auto-related goods. In these cases, the moderate increase reflects trade diversion effects: shifts in relative prices make their goods more competitive in the U.S. market, likely boosting exports in sectors not subject to tariffs.

That said, higher prices in the region are not explained by trade diversion alone. Many countries import goods from the United States, which is now facing increased production costs due to more expensive intermediate inputs. This pass-through effect contributes to the observed rise in prices.

Changes in real income reflect broader shifts in economic activity. As shown in Figure 4, under our first scenario, most countries experience a decline in real income despite a contraction in their price indices, suggesting a weaker external demand and a large contraction on nominal wages. Notable exceptions are Mexico and Canada, which are exempt from the new U.S. tariffs and, in our simulations, benefit from trade diversion by gaining market share in sectors previously served by more heavily affected countries. For Mexico, however, in the scenario where the auto sector is fully subject to tariffs (light blue), the effect on real income turns negative, highlighting the significant role of this sector in the Mexican economy. In contrast, under the retaliation scenario (red), real income drops sharply in Canada, the United States, and China, all of which face significant contractions as trade tensions escalate.

Figure 5: Trade Value (percent change)



Source: Staff calculations based on model explained in section 2.1.
Note: This figure illustrates the percent change in the price index for a selection of countries under the first three scenarios described in Table 1. In the second scenario, note that neither automobiles nor auto parts are exempt from the tariff imposed by Section 232.

In our model, the assumption of trade balance implies that changes in exports and imports are equal in the aggregate at the national level, but bilateral or sectoral trade flows need not be balanced. Hence, in Figure 5, we observe that under the first scenario, total U.S. imports fall by nearly 35 percentage points, while total exports from Latin American countries (Argentina, Brazil, Chile, Colombia, Costa Rica, and Peru) decline by approximately 2 to 6 percentage points. In contrast, Mexico experiences a slight increase in exports. However, when Mexico is fully subject to tariffs in the auto sector, the change in Mexico's exports turns negative, with a decline of nearly 4 percentage points. For Canada, total exports fall due to U.S. tariffs on automobiles, aluminum, and steel. Trade diversion in unaffected sectors has not been sufficient to compensate for these losses. Canada supplies nearly 60% of U.S. aluminum imports and continues to face a 25% duty on both products.

Bilateral Trade Flows

Table 2 presents the results for changes in bilateral trade flows under our first scenario. Total U.S. imports decline by nearly 35%, with reduced imports from China alone contributing approximately 8.4 percentage points. Under this scenario, all countries—except Canada and Mexico—reduce their exports to the U.S. Among the Latin American countries, Costa Rica is the most affected, showing a contraction in its exports to the U.S. of about 9.5 percentage points. Most LAC countries experience a decline in overall exports. However, some increase their shipments to Brazil and Mexico, reflecting regional trade adjustments. While a few countries may benefit indirectly by supplying intermediate inputs to Mexico or Canada—as these countries expand their exports to the U.S.—these second-round gains are generally modest and insufficient to offset the broader negative effects of reduced global trade volumes and investment.

Mexico and Canada stand out as the main beneficiaries of this reconfiguration. Their exports to the U.S. increase by 6.4 and 8.9 percentage points, respectively. However, these gains are partially offset by declining exports to the rest of the world—likely a consequence of weaker global demand as other countries adjust to lower U.S. imports and slower global trade.

Table 2: Bilateral Flows

Scenario 1: Unilateral U.S. tariff increases up to April 2, 2025

Region	Country	BRA	MEX	USA	CAN	DEU	GBR	CHN	TOTAL
Imports									
N. America	**USA**	-0.24	1.25		1.87	-2.46	-0.69	-8.40	-35.38
Exports									
LAC	**ARG**	-0.07	0.03	-0.26	0.16	-0.03	-0.02	-0.41	-2.09
LAC	**BRA**		0.09	-2.10	0.21	0.06	0.00	-1.84	-3.86
LAC	**CHL**	0.00	0.08	-0.45	0.19	0.08	0.00	-3.16	-3.33
LAC	**COL**	-0.07	0.06	-0.69	0.16	0.20	0.00	-1.46	-4.22
LAC	**CRI**	0.03	0.35	-9.45	0.27	0.08	0.11	0.11	-6.07
LAC	**MEX**	-0.13		6.44	-0.05	-0.26	-0.10	-1.33	0.89
LAC	**PER**	0.03	0.07	-1.44	0.66	0.08	0.12	-3.08	-4.11
N. America	**USA**	-0.76	-1.42		-1.74	-1.53	-1.37	-2.78	-35.38
N. America	**CAN**	-0.10	-0.01	8.85		-0.31	-0.28	-2.50	-0.25
Europe	**DEU**	0.05	0.13	-4.47	0.15		0.13	-0.07	-2.66
Europe	**GBR**	0.01	0.03	-2.25	0.13	0.37		-0.23	-2.50
Asia	**CHN**	0.10	0.38	-9.26	0.22	0.06	0.10		-6.67
Asia	**KOR**	0.05	0.31	-9.14	0.20	0.05	0.04	0.01	-6.58

Source: Staff calculations based on model explained in section 2.1.
Note: The total in this table represents the percentage change in total imports (upper panel) or exports (lower panel) for each country, considering trade with the 34 countries included in the model. The table only includes the contribution in percentage points of 8 selected countries to this total change. The contribution of the remaining 24 countries is the difference between the total and the sum of the contributions of the 8 countries listed. The model assumes trade balance.

Table 3: Bilateral Flows

Scenario 2: Unilateral U.S. tariff increases. Autos included

Region	Country	BRA	MEX	USA	CAN	DEU	GBR	CHN	TOTAL
Imports									
N. America	**USA**	-0.23	-0.16		1.62	-2.44	-0.67	-8.39	-36.58
Exports									
LAC	**ARG**	-0.08	0.02	-0.21	0.16	-0.03	-0.02	-0.42	-2.11
LAC	**BRA**		0.04	-2.06	0.20	0.06	0.00	-1.88	-3.91
LAC	**CHL**	0.00	0.04	-0.37	0.18	0.08	0.00	-3.23	-3.37
LAC	**COL**	-0.08	0.03	-0.59	0.16	0.20	0.00	-1.49	-4.24
LAC	**CRI**	0.03	0.30	-9.35	0.26	0.08	0.11	0.10	-6.03
LAC	**MEX**	-0.08		-0.84	0.09	-0.15	-0.06	-0.90	-4.10
LAC	**PER**	0.03	0.04	-1.40	0.64	0.09	0.12	-3.14	-4.18
N. America	**USA**	-0.78	-1.80		-1.87	-1.57	-1.40	-2.84	-36.58
N. America	**CAN**	-0.10	-0.07	7.69		-0.30	-0.27	-2.46	-1.20
Europe	**DEU**	0.05	0.08	-4.43	0.14		0.13	-0.07	-2.68
Europe	**GBR**	0.01	0.02	-2.19	0.12	0.36		-0.24	-2.52
Asia	**CHN**	0.10	0.26	-9.25	0.21	0.06	0.10		-6.72
Asia	**KOR**	0.05	0.22	-9.07	0.19	0.05	0.04	0.00	-6.57

Source: Staff calculations based on model explained in section 2.1.
Note: The total in this table represents the percentage change in total imports (upper panel) or exports (lower panel) for each country, considering trade with the 34 countries included in the model. The table only includes the contribution in percentage points of 8 selected countries to this total change. The contribution of the remaining 24 countries is the difference between the total and the sum of the contributions of the 8 countries listed. The model assumes trade balance.

Table 4: Bilateral Flows

Scenario 3: Retaliation by China and Canada

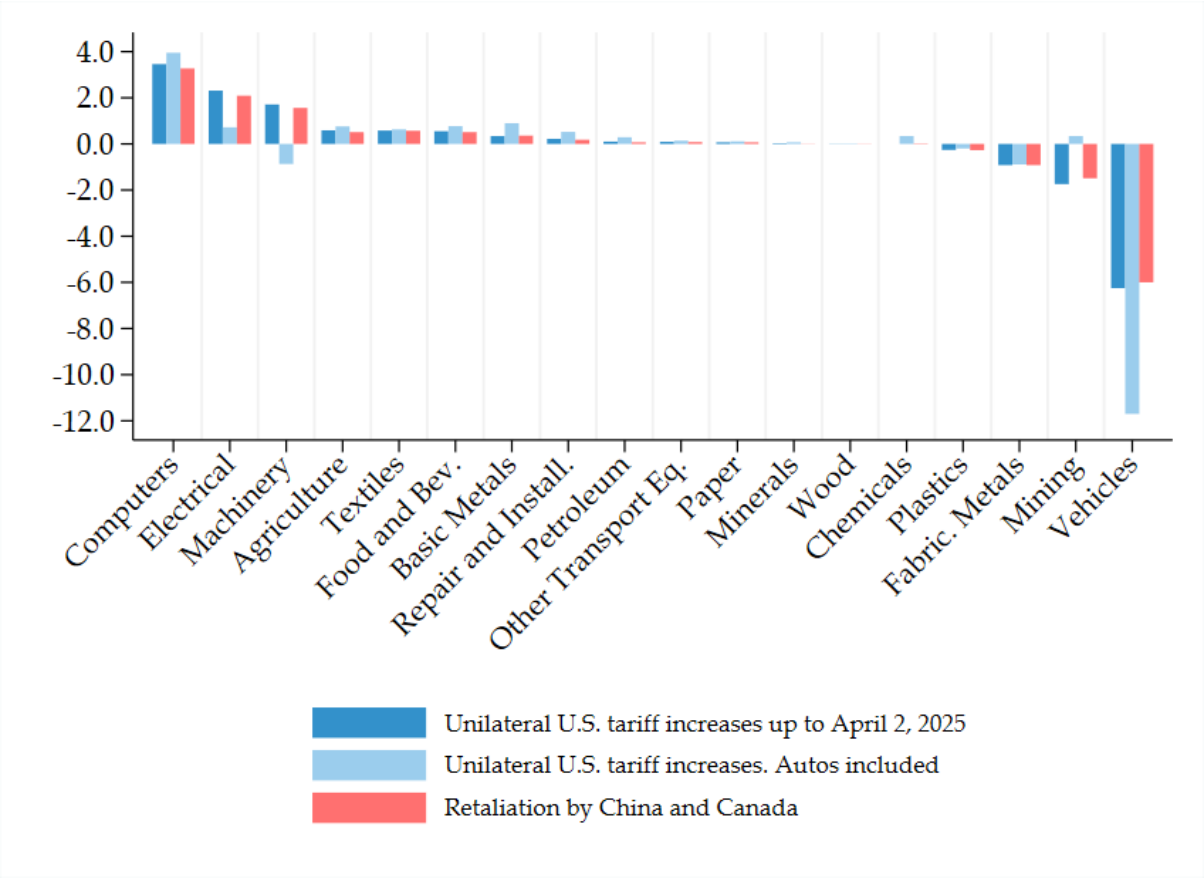
Region	Country	BRA	MEX	USA	CAN	DEU	GBR	CHN	TOTAL
Imports									
N. America	**USA**	-0.26	0.89		0.82	-2.51	-0.76	-8.43	-38.43
Exports									
LAC	**ARG**	-0.02	0.02	-0.61	0.38	-0.03	-0.02	-0.17	-1.80
LAC	**BRA**		0.08	-2.33	0.38	0.04	0.00	-0.73	-3.16
LAC	**CHL**	-0.01	0.06	-0.94	0.40	0.05	0.00	-1.62	-2.51
LAC	**COL**	-0.03	0.05	-1.52	0.19	0.18	0.00	-0.70	-3.78
LAC	**CRI**	0.04	0.35	-10.07	0.39	0.09	0.12	0.46	-5.86
LAC	**MEX**	-0.11		4.59	0.67	-0.23	-0.09	-1.02	0.63
LAC	**PER**	0.01	0.06	-1.77	1.42	0.05	0.07	-1.81	-3.06
N. America	**USA**	-0.66	-1.22		-4.26	-1.34	-1.19	-7.17	-38.43
N. America	**CAN**	-0.11	-0.07	3.87		-0.33	-0.35	-2.35	-5.56
Europe	**DEU**	0.05	0.11	-4.54	0.24		0.12	0.09	-2.48
Europe	**GBR**	0.01	0.03	-2.49	0.20	0.34		-0.08	-2.34
Asia	**CHN**	0.06	0.28	-9.29	0.31	-0.02	0.04		-8.54
Asia	**KOR**	0.05	0.28	-9.25	0.39	0.05	0.04	0.57	-6.07

Source: Staff calculations based on model explained in section 2.1.
Note: The total in this table represents the percentage change in total imports (upper panel) or exports (lower panel) for each country, considering trade with the 34 countries included in the model. The table only includes the contribution in percentage points of 8 selected countries to this total change. The contribution of the remaining 24 countries is the difference between the total and the sum of the contributions of the 8 countries listed. The model assumes trade balance.

Sectoral Disaggregation

Figure 6 presents the sectoral breakdown of Mexico's export response across Scenarios 1–3. Under Scenario 1, which includes unilateral U.S. tariff increases up to April 2, 2025 (dark blue), Mexico increases its exports in sectors not directly targeted by tariffs, such as computers (3.5 pp), electrical equipment (2.3 pp), machinery (1.7 pp), and agriculture (0.6 pp). These gains reflect trade diversion effects, as Mexican producers fill the gap left by more heavily penalized exporters. However, exports decline in sectors affected by Section 232 tariffs. Fabricated metals fall by 0.9 pp, mining by 1.7 pp, and motor vehicles by 6.3 pp. The drop in vehicle exports becomes especially pronounced when the auto sector is fully levied (light blue), reaching nearly 12 percentage points. Retaliatory measures by China and Canada (red) also contribute to small export contractions in certain sectors, although their overall effect is smaller compared to the auto-specific tariffs.

Figure 6: Mexican Exports



Source: Staff calculations based on model explained in section 2.1.
Note: This figure illustrates the percent change in Mexican exports under the first three scenarios described in Table 1. In the second scenario, note that neither automobiles nor auto parts are exempt from the tariff imposed by Section 232.

2.3 Scenarios 4-6: Adjustment Phase

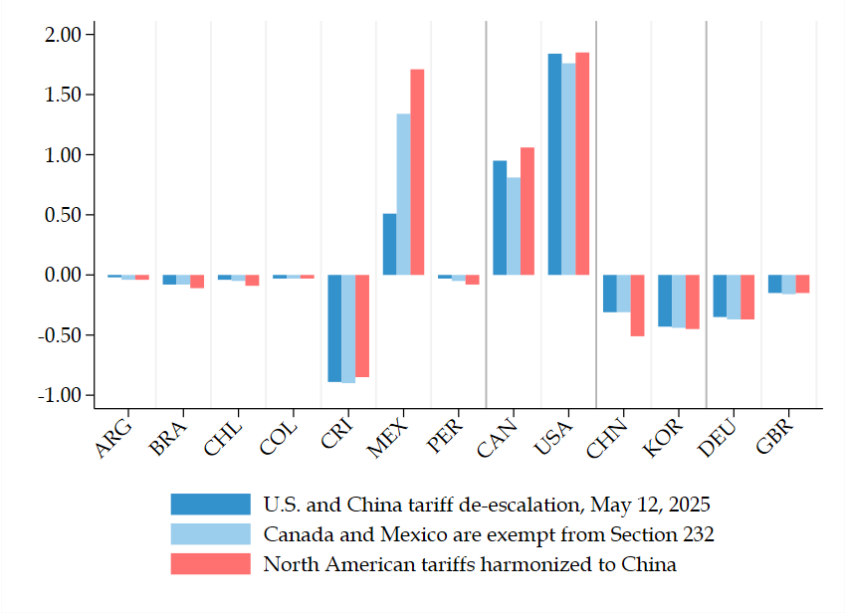
In this section, we analyze a second set of scenarios corresponding to the adjustment or de-escalation phase. Scenario 4 reflects partial de-escalation, with reciprocal tariffs reduced to 10% for all countries, including China, while Mexico and Canada remain exempt. The other two scenarios explore potential resolution paths, such as broader exemptions and full tariff alignment across North America. Table 5 summarizes the key features of each scenario.

Table 5: Scenario Components: Adjustment Phase (Scenarios 4–6)

Component	**U.S. – China Tariff De-escalation**	**MEX/CAN Sec. 232 Exempted**	**North America Tariff Harmonization**
USA → China Feb. and Mar.	20%	20%	20%
Section 232 (USA → MEX, CAN)	Auto parts exempt; autos taxed only on non-U.S. content	None	None
Liberation Day	Reciprocal tariffs at 10% (including China). 0% to Canada and Mexico if USMCA-compliant. Global exemptions to listed products.		
Retaliation (CHN/CAN → USA)	CHN: 10–15% CAN: 10–15%	CHN: 10–15%	CHN: 10–15%
Retaliation after liberation day (CHN → USA)	10%	10%	10%
Harmonization USA/MEX/CAN → CHN	No	No	Yes

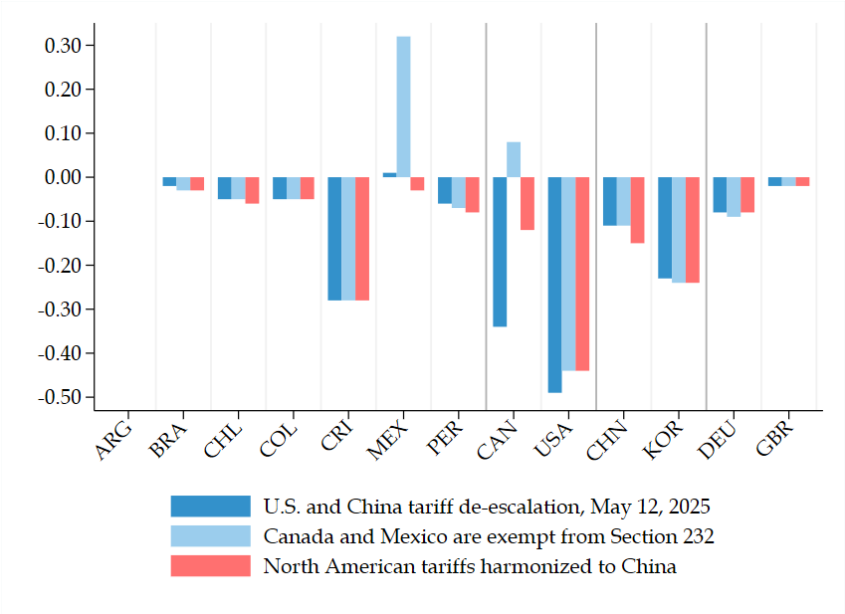
Prices, Real Wages and Total Trade Changes

Figure 7: Price Index Percent Change



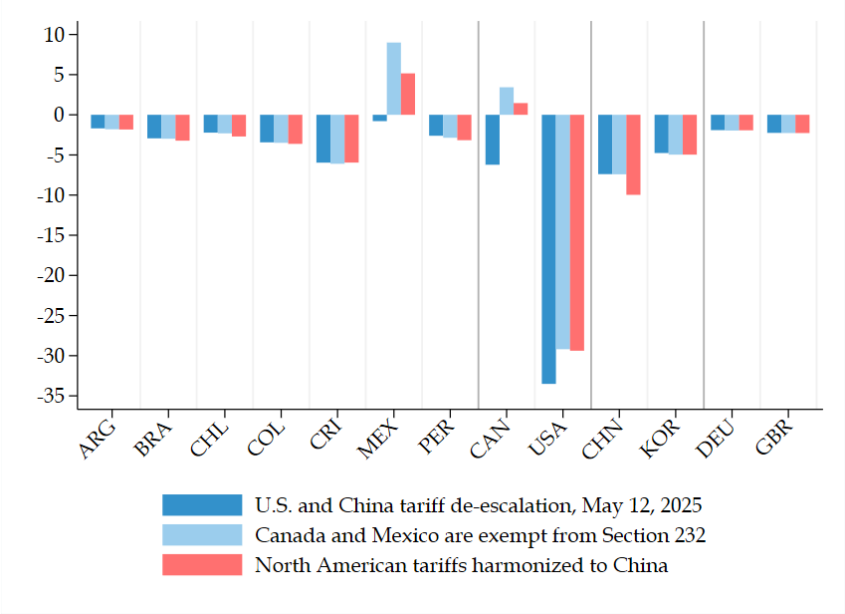
Source: Staff calculations based on model explained in section 2.1.
Note: This figure illustrates the percent change in the price index for a selection of countries under the set of scenarios described in Table 5.

Figure 8: Real Wages Percent Change



Source: Staff calculations based on model explained in section 2.1.
Note: This figure illustrates the percent change in the real wages for a selection of countries under the set of scenarios described in Table 5.

Figure 9: Trade Value Percent Change



Source: Staff calculations based on model explained in section 2.1.
Note: This figure illustrates the percent change in the trade value for a selection of countries under the set of scenarios described in Table 5.

Figure 7 shows that even in a scenario of tariff de-escalation—where reciprocal tariffs are reduced to 10% for all countries (dark blue)—the U.S. price index increases substantially by approximately 1.8%. For Mexico and Canada, the increase is more moderate, around 0.4% and 1%, respectively, while for other countries the changes are either negative or negligible. This is accompanied by reductions in real wages across all countries except Mexico, which experiences marginally positive effects. Under this scenario, all countries see a decline in aggregate exports, with Mexico being the least affected, as shown in Figure 9.

In contrast, Scenario 5 (light blue)—where Mexico and Canada are fully exempted from U.S. tariffs and Canada halts its retaliation—results in a sharper increase in Mexico's price index, nearing 1.4%, likely driven by rising foreign demand. For Canada, the price index falls slightly due to the removal of retaliatory tariffs. Both countries experience substantial real wage gains, despite higher prices, suggesting they benefit from trade diversion. This is supported by significant growth in exports: approximately 9 percentage points for Mexico and 3.4 percentage points for Canada.

Finally, in a hypothetical scenario where Mexico, Canada, and the U.S. harmonize their tariff structure against China (red), price indices for Mexico and Canada rise further, offsetting the previous real wage gains. This likely reflects increased input costs from reduced access to Chinese intermediate goods. Nevertheless, both countries continue to expand their aggregate exports, which increase by approximately 5.1 percentage points

for Mexico and 1.5 percentage points for Canada.

Bilateral Trade Flows

Table 6: Bilateral Flows

Scenario 4: U.S. and China tariff de-escalation, May 12, 2025

Region	Country	BRA	MEX	USA	CAN	DEU	GBR	CHN	TOTAL
Imports									
N. America	**USA**	-0.28	0.36		0.39	-1.79	-0.85	-7.48	-33.51
Exports									
LAC	**ARG**	-0.01	0.02	-0.91	0.37	-0.02	-0.01	-0.14	-1.69
LAC	**BRA**		0.05	-2.52	0.35	0.04	0.00	-0.52	-2.93
LAC	**CHL**	-0.01	0.05	-1.38	0.38	0.05	0.00	-1.14	-2.22
LAC	**COL**	-0.01	0.04	-2.15	0.17	0.18	0.00	-0.45	-3.43
LAC	**CRI**	0.04	0.31	-11.08	0.38	0.13	0.14	0.59	-5.96
LAC	**MEX**	-0.08		1.85	0.73	-0.16	-0.07	-0.75	-0.79
LAC	**PER**	0.01	0.04	-2.06	1.36	0.05	0.06	-1.32	-2.61
N. America	**USA**	-0.57	-1.12		-4.13	-1.14	-1.03	-6.09	-33.51
N. America	**CAN**	-0.10	-0.08	1.86		-0.28	-0.31	-2.03	-6.22
Europe	**DEU**	0.04	0.08	-3.24	0.21		0.08	0.04	-1.91
Europe	**GBR**	0.01	0.02	-2.78	0.18	0.33		-0.06	-2.25
Asia	**CHN**	0.05	0.21	-8.24	0.28	0.00	0.04		-7.39
Asia	**KOR**	0.03	0.20	-6.93	0.35	0.04	0.03	0.30	-4.76

Source: Staff calculations based on model explained in section 2.1.
Note: The total in this table represents the percentage change in total imports (upper panel) or exports (lower panel) for each country, considering trade with the 34 countries included in the model. The table only includes the contribution in percentage points of 8 selected countries to this total change. The contribution of the remaining 24 countries is the difference between the total and the sum of the contributions of the 8 countries listed. The model assumes trade balance.

Table 7: Bilateral Flows

Scenario 5: Canada and Mexico are exempt from Section 232

Region	Country	BRA	MEX	USA	CAN	DEU	GBR	CHN	TOTAL
Imports									
N. America	**USA**	-0.29	3.21		2.44	-1.83	-0.86	-7.50	-29.19
Exports									
LAC	**ARG**	0.01	0.04	-0.91	0.15	-0.02	-0.01	-0.13	-1.80
LAC	**BRA**		0.17	-2.54	0.18	0.04	0.00	-0.47	-2.98
LAC	**CHL**	-0.01	0.12	-1.42	0.16	0.05	0.00	-1.07	-2.31
LAC	**COL**	-0.01	0.09	-2.13	0.14	0.18	0.00	-0.45	-3.49
LAC	**CRI**	0.04	0.43	-11.16	0.28	0.13	0.13	0.59	-6.10
LAC	**MEX**	-0.18		16.55	-0.11	-0.37	-0.14	-1.59	9.00
LAC	**PER**	0.02	0.10	-2.06	0.57	0.05	0.07	-1.06	-2.86
N. America	**USA**	-0.56	-0.36		-0.93	-1.12	-1.01	-6.08	-29.19
N. America	**CAN**	-0.10	0.08	11.54		-0.32	-0.27	-2.00	3.43
Europe	**DEU**	0.04	0.17	-3.32	0.14		0.08	0.05	-1.96
Europe	**GBR**	0.01	0.04	-2.82	0.12	0.35		-0.05	-2.27
Asia	**CHN**	0.05	0.42	-8.27	0.18	-0.01	0.03		-7.41
Asia	**KOR**	0.03	0.37	-7.09	0.21	0.04	0.03	0.31	-4.96

Source: Staff calculations based on model explained in section 2.1.
Note: The total in this table represents the percentage change in total imports (upper panel) or exports (lower panel) for each country, considering trade with the 34 countries included in the model. The table only includes the contribution in percentage points of 8 selected countries to this total change. The contribution of the remaining 24 countries is the difference between the total and the sum of the contributions of the 8 countries listed. The model assumes trade balance.

Table 8: Bilateral Flows

Scenario 6: North American tariffs harmonized to China

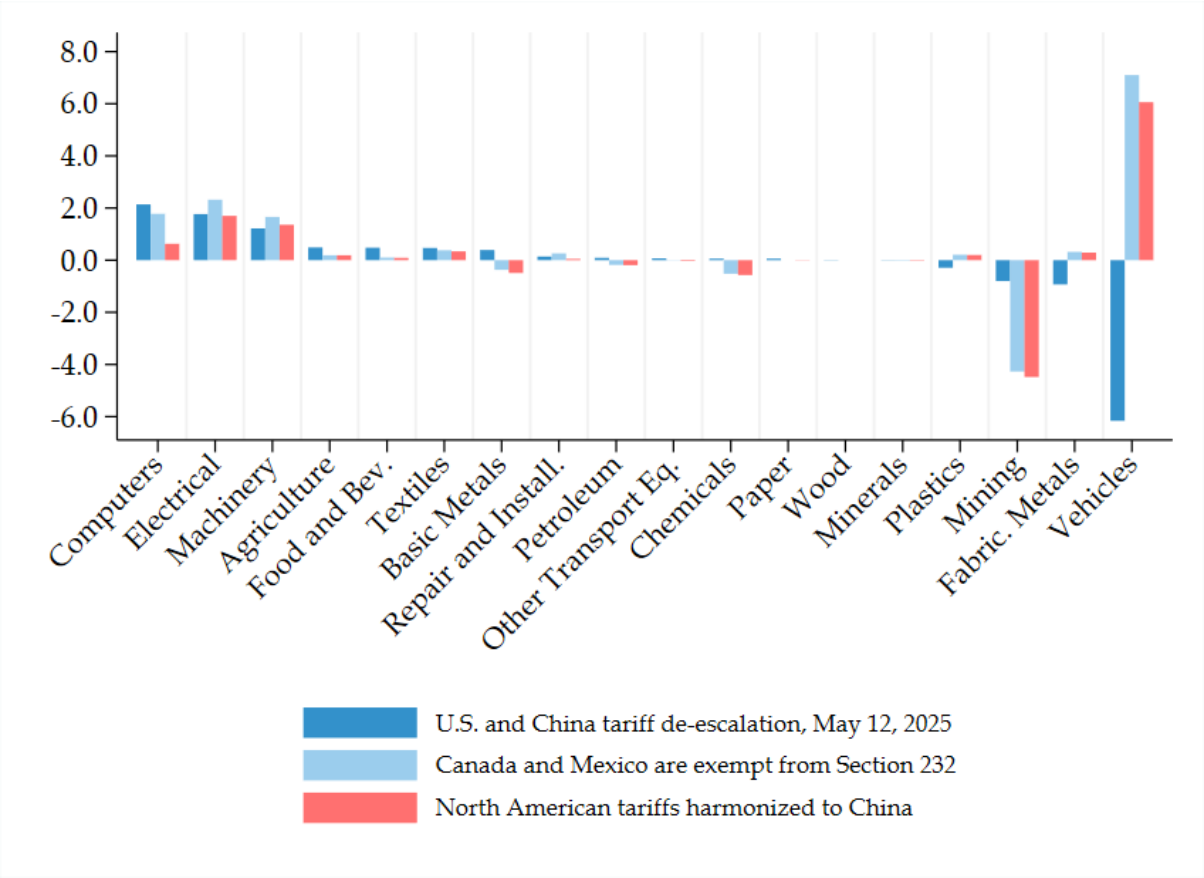
Region	Country	BRA	MEX	USA	CAN	DEU	GBR	CHN	TOTAL
Imports									
N. America	**USA**	-0.28	2.66		2.28	-1.81	-0.85	-7.46	-29.38
Exports									
LAC	**ARG**	-0.01	0.06	-0.82	0.19	-0.01	-0.01	-0.27	-1.83
LAC	**BRA**		0.26	-2.48	0.23	0.05	0.00	-1.21	-3.22
LAC	**CHL**	0.01	0.15	-1.26	0.21	0.07	0.00	-2.13	-2.70
LAC	**COL**	-0.03	0.13	-1.93	0.16	0.19	0.00	-0.93	-3.62
LAC	**CRI**	0.04	0.96	-11.06	0.40	0.12	0.12	0.28	-5.95
LAC	**MEX**	-0.23		13.73	-0.03	-0.45	-0.18	-1.86	5.16
LAC	**PER**	0.03	0.13	-1.97	0.75	0.07	0.09	-2.07	-3.16
N. America	**USA**	-0.59	0.09		-0.65	-1.16	-1.05	-6.12	-29.38
N. America	**CAN**	-0.11	0.15	10.78		-0.37	-0.32	-2.49	1.46
Europe	**DEU**	0.03	0.27	-3.28	0.20		0.08	-0.08	-1.93
Europe	**GBR**	0.01	0.07	-2.77	0.17	0.36		-0.16	-2.27
Asia	**CHN**	0.09	-2.42	-8.23	-1.49	0.08	0.08		-9.97
Asia	**KOR**	0.03	0.70	-7.02	0.29	0.04	0.03	-0.20	-4.96

Source: Staff calculations based on model explained in section 2.1.
Note: The total in this table represents the percentage change in total imports (upper panel) or exports (lower panel) for each country, considering trade with the 34 countries included in the model. The table only includes the contribution in percentage points of 8 selected countries to this total change. The contribution of the remaining 24 countries is the difference between the total and the sum of the contributions of the 8 countries listed. The model assumes trade balance.

Table 6 shows the change in bilateral trade flows under Scenario 4, which models the de-escalation of tariffs between the U.S. and China and reciprocal tariffs of 10% for all countries. For the U.S., total imports fall sharply by 33.5 percentage points (pp), with the largest reductions coming from China (–7.5 pp). Mexico and Canada are the only major trade partners that slightly increases its share of U.S. imports (+0.4 pp). On the export side, Chinese exports to the U.S. drop substantially (–8.2 pp), while Latin American countries such as Costa Rica (–11.1 pp), Colombia (–2.2 pp), and Peru (–2.1 pp) also suffer sharp export losses. In this scenario contrast, Mexico and Canada see a modest increase in exports to the U.S (1.9 pp) despite broader losses elsewhere. In contrast, Scenario 5 (Canada and Mexico exempt from Section 232) shows a much stronger trade diversion effect. Mexico's exports to the U.S. increase by 16.6 pp and Canada's by 11.5 pp (See Appendix Table 7).

Sectoral Disaggregation

Figure 10: Mexican Exports



Source: Staff calculations based on model explained in section 2.1.
Note: This figure illustrates the percent change in Mexican exports under the first three scenarios described in Table 5.

Figure 10 displays the sectoral responses of Mexican exports under Scenarios 4 to 6. In the de-escalation scenario (dark blue), which features reciprocal tariffs reduced to 10% for all countries with Mexico and Canada exempt, Mexico expands its exports in sectors such as computers and electrical equipment, each increasing by around 2 percentage points. However, motor vehicles—still partially affected by tariffs—experience a substantial decline of approximately 6 percentage points. However, under Scenario 5 (light blue), where Mexico and Canada are fully exempt from Section 232 tariffs, vehicle exports increase by nearly 7 percentage points. This increase highlights the central role of the auto industry in Mexico's export structure and its sensibility to tariff exemptions.

Finally, in Scenario 6 (red), where North American tariffs are harmonized against China while Canada and Mexico remain exempt from Section 232 measures, Mexico's vehicle exports still grow by about 6 percentage points. However, gains in other sectors, such as computers, are more modest—about 0.7%—likely due to increased input costs stemming

from higher tariffs on Chinese intermediate goods.

3 Conclusion

This note provides an initial quantitative assessment of the global effects of the 2025 U.S. tariff package, with a particular focus on Latin America and the Caribbean. Using a multi-sector, multi-country general equilibrium trade model, we simulate a series of escalating and de-escalating scenarios to evaluate the impact of recent trade policy changes.

Our results highlight the potentially far-reaching consequences of these measures. Even in the absence of retaliation, the tariff package acts as a negative demand shock, reducing U.S. imports and lowering real income across most trading partners. Latin America is not spared: most countries in the region experience declines in exports and real income, with the exception of Mexico, which benefits modestly under some scenarios due to its initial exemption and gains from trade diversion.

Once retaliation is introduced, the economic costs become more severe and widespread. Real income falls in nearly all countries, with the sharpest contraction occurring in the United States. Global trade volumes decline further, and the benefits from trade diversion shrink as reciprocal tariffs tighten market access.

Although some countries find narrow opportunities to expand exports to exempted partners or to capture market share in non-targeted sectors, these gains are limited in scope and do not offset the broader macroeconomic losses. Across all scenarios—particularly those involving retaliation—the effects are overwhelmingly negative. Trade becomes more fragmented, supply chains are disrupted, and global real income falls.

These simulations represent a first step in evaluating the 2025 U.S. tariff measures. Future work will enrich this framework by incorporating multinational production, investment responses, and additional policy configurations to better capture medium- and long-term adjustment margins.

References

Alviarez, V. (2019). Multinational production and comparative advantage. *Journal of International Economics*, 119:1–54.

Caliendo, L. and Parro, F. (2015). Estimates of the trade and welfare effects of nafta. *The Review of Economic Studies*, 82(1):1–44.

Charbonneau, K. B. and Landry, A. (2018). The Trade War in Numbers. Technical report.

Eaton, J. and Kortum, S. (2002). Technology, geography, and trade. *Econometrica*, 70(5):1741–1779.

Fajgelbaum, P. D. and Khandelwal, A. (2025). The value of de minimis imports. Technical Report w32607, National Bureau of Economic Research. Available at: https://www.nber.org/papers/w32607.

Fontagné, L., Guimbard, H., and Orefice, G. (2022). Tariff-based product-level trade elasticities. *Journal of International Economics*, 137:103593.

Appendix

Table 9: Country's Share in World GDP in 2023

Country Name	ISO	GDP (%)	Country Name	ISO	GDP (%)
Argentina	ARG	0.61	Ireland	IRL	0.52
Australia	AUS	1.63	Italy	ITA	2.17
Austria	AUT	0.48	Japan	JPN	3.96
Brazil	BRA	2.05	Korea. Rep.	KOR	1.61
Canada	CAN	2.02	Mexico	MEX	1.69
Chile	CHL	0.32	Netherlands	NLD	1.09
China	CHN	16.76	New Zealand	NZL	0.24
Colombia	COL	0.34	Norway	NOR	0.46
Costa Rica	CRI	0.08	Peru	PER	0.25
Denmark	DNK	0.38	Portugal	PRT	0.27
Finland	FIN	0.28	South Africa	ZAF	0.36
France	FRA	2.87	Spain	ESP	1.53
Germany	DEU	4.26	Sweden	SWE	0.55
Greece	GRC	0.23	Türkiye	TUR	1.05
Hungary	HUN	0.20	United Kingdom	GBR	3.18
Indonesia	IDN	1.29	United States	USA	26.11
				Total	78.84

Source: IDB staff calculations based on data from the World Development Indicators. GDP is measured in current U.S. dollars.

Table 10: Industry Classification

ISIC section	Description
A	Agriculture forestry, and fishing
B	Mining and quarrying
C10-C12	Food products, beverages, and tobacco
C13-C15	Textiles, textile products, leather, and footwear
C16	Wood and products of wood and cork
C17-C18	Paper products and printing
C19	Coke and refined petroleum products
C20-C21	Chemicals
C22	Rubber and plastics products
C23	Other non-metallic mineral products
C24	Basic metals
C25	Fabricated metal products
C26	Computer, electronic and optical equipment
C27	Electrical equipment
C28	Machinery and equipment, nec
C29	Motor vehicles, trailers and semi-trailers
C30	Other transport equipment
C31-C33	Manufacturing nec; repair and installation of machinery and equipment
DE	Electricity Gas and Water Supply
F	Construction
G	Wholesale and retail trade, repair of motor vehicles
I	Accommodation and food service activities
H49	Land transport and transport via pipelines
H50	Water transport
H51	Air transport
H52	Warehousing and support activities for transportation
H53, J61	Post and telecommunications
K	Financial and insurance activities
L	Real estate activities
JMN	Professional, administrative, and IT services
O	Public administration and defense
P	Education
Q	Human health and social work activities
RS	Other community social and personal services
T	Household Employment and self-use production

Note: Industry classification follows ISIC Revision 4.

Table 11: Import Flows of Exempt Products — 2023

Sector	HS Code	Description	Share
Energy	**27**	**Mineral Fuels, Oils & Of Their Distilation**	**8.40%**
	2709	Crude petroleum oils and oils from bituminous minerals	5.43%
	2710	Petroleum & oils from bituminous minerals excl. crude; waste oils	2.18%
	2711	Petroleum gases & other gaseous hydrocarbons	0.51%
	2716	Electrical energy	0.11%
	2713	Petroleum coke, bitumen & residues of petroleum or bituminous minerals oils	0.09%
Pharma-ceutical	**30**	**Pharmaceutical**	**5.51%**
	3004	Medicaments in dosage/retail sale form	2.76%
	3002	Vaccines and blood products	2.58%
	3006	Pharmaceutical goods specified in note 4 to chapter 30	0.08%
	3003	Medicaments not in dosage/reital sale form	0.07%
	3001	Organ extracts for therapy	0.01%
Chemicals	**29**	**Organic Chemicals**	**1.55%**
	2933	Heterocyclic compounds with nitrogen hetero-atom(s) only	0.42%
	2937	Hormones, natural/synthetic; derivatives thereof & other steriods used	0.35%
	2934	Nucleic acids & their salts, other heterocyclic compounds	0.25%
	2932	Heterocyclic compounds with oxygen hetero-atom(s) only	0.14%
	2935	Sulfonamides	0.05%
Electronics	**85**	**Electrical Machinery & Equipment**	**1.32%**
	8542	Electronic integrated circuits & microassemblies	1.14%
	8541	Diodes, transistors & similar devices	0.18%
Jewelry	**71**	**Precious Stones and Jewelry**	**0.98%**
	7108	Gold, semimanufactured or powder	0.42%
	7110	Platinum in raw forms	0.27%
	7118	Coin	0.13%
	7106	Silver, semimanufactured or powder	0.13%
	7112	Waste of precious metal and other waste used for recovery	0.03%
Wood	**44**	**Wood, Wood Charcoal and Wood Articles**	**0.54%**
	4407	Wood sawn/chipped lengthwise, sliced/peeled, more than 6 mm (.236 in.) thick	0.25%
	4412	Plywood, veneered panels & similar laminated wood	0.09%
	4410	Particle board & similar board of wood/other ligneous materials	0.07%
	4409	Wood, continuously shaped along any of its edges/faces	0.05%
	4411	Fiberboard of wood/other ligneous materials	0.04%

Continued on next page...

Copper	**74**	**Copper & Articles Thereof**	**0.46%**
	7403	Refined copper & alloys (other than heading 7405),unwrought	0.22%
	7408	Copper wire	0.08%
	7411	Copper tubes & pipes	0.03%
	7412	Copper tube/pipe fittings (for example, couplings, elbows, sleeves)	0.03%
	7409	Copper plates, sheets & strip, over 0.15 mm (0.006 in.) thick	0.03%
Chemicals	**28**	**Organic Chemical Compounds**	**0.32%**
	2844	Radioactive chemical elements & isotopes & their compounds	0.17%
	2818	Artificial corundum, whether/not chemically defined; aluminum oxide	0.03%
	2836	Carbonates; peroxocarbonates (percarbonates); commercial ammonium carb	0.01%
	2825	Salt, sulfur, and minerals	0.01%
	2817	Zinc oxide & zinc peroxide	0.01%
Plastics	**39**	**Plastics & Articles Thereof**	**0.25%**
	3907	Polyacetals, polyethers, polycarbonates and polyesters	0.12%
	3906	Acrylic polymers in primary forms	0.03%
	3910	Silicones in primary forms	0.02%
	3908	Polyamides in primary forms	0.01%
	3914	Ion-exchangers based on polymers of natural/synthetic plastics materials	0.01%
Fertilizers	**31**	**Fertilizers**	**0.14%**
	3104	Mineral/chemical fertilizers, potassic	0.13%
	3105	Mineral/chemical fertilizers. Fertilizers in packs not over 10 kg	0.00%
Chemicals	**38**	**Miscellaneous Chemical Products**	**0.12%**
	3824	Binders made for foundry molds/cores	0.06%
	3818	Chemical elements doped for use in electronics	0.05%
	3808	Pesticides and herbicides	0.01%
Publishing	**49**	**Printed Books and Media**	**0.12%**
	4901	Printed books, brochures, leaflets & similar printed matter	0.07%
	4911	Printed matter , incl. printed pictures & photographs	0.03%
	4903	Children's picture, drawing/coloring books	0.02%
	4902	Newspapers, journals & periodicals	0.01%
	4905	Printed maps and globes	0.00%
Metals	**81**	**Base Metals NESOI, Cermets and Articles Thereof**	**0.10%**
	8108	Titanium & thereof, incl. waste & scrap	0.03%
	8104	Magnesium & thereof, incl. waste & scrap	0.02%
	8105	Cobalt mattes & other intermediate of cobalt metallurgy	0.01%

Continued on next page...

	8112	Beryll-, chrom-, german-, vanad-, gall-, hafn-, ind-, niob-, rhen- & thall- (ium)	0.01%
	8103	Tantalum & thereof, incl. waste & scrap	0.01%
Zinc	**79**	**Zinc and zinc products**	**0.08%**
	7901	Zinc,unwrought	0.07%
	7907	Articles of zinc NESOI	0.00%
	7902	Zinc waste & scrap	0.00%
Steel	**72**	**Iron & Steel**	**0.07%**
	7202	Ferroalloys	0.06%
	7204	Ferrous waste & scrap; remelting scrap ingots of iron/steel	0.01%
Rubber	**40**	**Rubber & Articles Thereof**	**0.05%**
	4001	Natural rubber materials	0.05%
Ores	**26**	**Ores, Slag & Ash**	**0.04%**
	2614	Titanium ores & concentrates	0.01%
	2612	Uranium/thorium ores & concentrates	0.01%
	2620	Ash & residues (except from iron/steel manufacture) containing arsenic	0.01%
	2606	Aluminum ores & concentrates	0.01%
	2602	Manganese ores & concentrates	0.00%
Minerals	**25**	**Salt, Sulfur, and Minerals**	**0.04%**
	2510	Natural calcium & aluminum calcium phosphates & phosphatic chalk	0.01%
	2511	Natural barium sulfate (barytes); natural barium carbonate (witherite)	0.01%
	2519	Natural magnesium carbonate	0.01%
	2529	Feldspar; leucite; nepheline & nepheline syenite; fluorspar	0.00%
	2530	Mineral substances NESOI	0.00%
Colorants	**32**	**Colorants, Pigments and Related**	**0.03%**
	3206	Coloring matter; coloring preps NESOI; inorganic used as luminophores	0.02%
	3203	Coloring matter of vegetable/animal origin & preps based thereon	0.01%
	3204	Synthetic organic coloring matter & preps based thereon	0.00%
Tin	**80**	**Tin & Articles Thereof**	**0.03%**
	8001	Tin,unwrought	0.02%
	8007	Articles of tin NESOI	0.00%
	8002	Tin waste & scrap	0.00%
Nickel	**75**	**Nickel & Articles Thereof**	**0.01%**
	7508	Articles of nickel NESOI	0.01%
Cleaning	**34**	**Soap and Related Products**	**0.01%**
	3402	Organic surface-active agents, washing, & cleaning preps	0.01%

Continued on next page...

Animal	**05**	**Products Of Animal Origin NESOI**	**0.00%**
	0508	Coral & similar materials, unworked	0.00%
Paper	**48**	**Paper & Paperboard**	**0.00%**
	4820	Registers, note books, letter pads & similar	0.00%
Explosives	**36**	**Explosives & Pyrotechnic**	**0.00%**
	3606	Ferrocerium & other pyrophoric alloys in all forms	0.00%
Total			**20.15%**

Source: Staff calculations using U.S. Census imports dataset.

Note: The table presents all HS2 and HS4 codes included in the exception list (Annex II) published by the Trump administration on April 2. It reports the share of total U.S. imports in 2023 that were exempt from additional tariffs, broken down by HS section. The share does not refer to the fraction of exempt products within each section, but rather to the contribution of each section to the total exempt imports.

Table 12: Trade Elasticities

ISIC section	**Description**	$\theta_{FGO2022}$	θ_{CP2015}	θ_{CL2018}
AX	Agriculture forestry and fishing	7.70	8.10	1.10
BX	Mining and quarrying	29.35	25.04	23.14
C10T12	Food products, beverages and tobacco	7.50	2.60	1.53
C13T15	Textile products, leather and footwear	5.83	5.60	1.70
C16	Wood and products of wood and cork	6.60	10.80	15.77
C17_18	Paper products and printing	11.68	9.10	9.10
C19	Coke and refined petroleum products	31.56	51.10	18.21
C2021X	Chemicals	17.12	4.80	15.76
C22	Rubber and plastics products	6.45	1.70	4.97
C23	Other non-metallic mineral products	8.36	2.80	2.97
C24	Basic metals	20.54	8.00	6.16
C25	Fabricated metal products	6.21	4.30	9.58
C26	Computer, electronic and optical equipment	13.35	7.10	9.75
C27	Electrical equipment	15.18	10.60	12.26
C28	Machinery and equipment	9.08	1.50	13.01
C29	Motor vehicles, trailers and semi-trailers	8.85	1.00	4.50
C30	Other transport equipment	15.32	0.40	8.68
C31T33	Other manufacturing & machinery repair	11.74	5.00	2.89
D-T	Non-tradable sectors	8.22	8.22	8.22

Source: Staff calculations using U.S. Census imports dataset.
Note: The elasticity estimates θ_{FGO2022} were constructed based on Fontagné, Guimbard, and Orefice (2022), aggregating product-level elasticities to 35 industries of interest. θ_{CP2015} and θ_{CL2018} are elasticities borrowed from Caliendo and Parro (2015) and Charbonneau and Landry (2018), respectively. Some of these estimates have been split or averaged across sectors due to differences in the sector classification.