econPOL
POLICY BRIEF

71
2025

April
Vol. 9

US "Reciprocal" Tariffs and the Erosion of Global Trade Rules: Implications for Germany

Lisandra Flach and Lisa Scheckenhofer

Key Messages

- The average tariff gap for traded products between the US and the EU is around 0.5 percentage points, which is relatively low compared to other US trade partners.
- US tariff changes aimed at closing the tariff gap between the US and the EU could affect 53% of German exports to the US and 6% of German global exports. While a wide range of products would be affected, the tariff increase would remain relatively small for three quarters of traded products, as their tariff gaps are below 2.3 percentage points.
- Our simulations show that higher US "reciprocal" tariffs reduce German exports to the US between 2.4% and 3.0% and decrease value added by 0.02%. These small effects for Germany, compared to scenarios with a flat 20% increase in US tariffs, are mostly due to the relatively low tariff gap between the US and the EU.
- However, the opposite scenario arises if the EU negotiates "full reciprocal tariffs" with the US – implying that the US also lowers tariffs when its own are higher. In this case, German value added and welfare increase.

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EconPol POLICY BRIEF
A publication of the CESifo Research Network

Publisher and distributor: CESifo GmbH
Poschingerstr. 5, 81679 Munich, Germany
Telephone +49 89 9224-0, Email office@cesifo.de
Shipping not included
Editor of this issue: Clemens Fuest, Cornelia Geißler
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US "Reciprocal" Tariffs and the Erosion of Global Trade Rules: Implications for Germany

Lisandra Flach and Lisa Scheckenhofer[*]

ifo Institute, Munich, April 2025

If implemented on April 2, the "Liberation Day" announced by US President Donald Trump would have profound implications for the global trading system. The proposed "reciprocal" tariffs would mirror, product by product, the tariffs imposed on US exporters worldwide. By asserting the right to impose import tariffs on its partners without any constraint, the US, an important past advocate of multilateralism, launches a frontal offensive against fundamental pillars of the nearly eighty-year-old rules-based multilateral system: non-discrimination and reciprocity.

In this policy brief, we first analyze the sector- and product-level tariff gap between the EU and the US. We show that roughly half of the product lines exported from the US to Germany were subject to a lower import tariff than the respective US import tariff. We then show that the average tariff gap between the US and the EU is around 0.5 percentage points, which, compared to other US trade partners, is relatively low. Finally, we show that US tariff changes aimed at closing the tariff gap could potentially affect 53% of Germany's 2023 exports to the US, and overall, 6% of Germany's global exports in 2023.

In the second part of the policy brief, we conduct a counterfactual analysis using the ifo trade model to evaluate the effects of Trump's plans to introduce "reciprocal tariffs". We simulate two main scenarios: (1) the US increases tariffs to close the tariff gap with its trade partners, and (2) trade partners retaliate by raising their tariffs to match US tariff levels where US tariffs are higher. In addition, we simulate alternative scenarios in which the US intention of "tariff reciprocity" is taken literally meaning the US *increases* tariffs against trade partners with higher tariffs but *decreases* tariffs when trade partners have lower import tariffs. Finally, we discuss alternative scenarios that allow for negotiations between the EU and the US.

*Lisandra Flach (flach@ifo.de), Lisa Scheckenhofer (scheckenhofer@ifo.de), ifo Institute, LMU Munich.

Our results reveal negative effects on German exports and value added if Trump introduces “reciprocal” tariffs and/or if countries retaliate. However, in our additional scenarios that allow for negotiations between the US and the EU, the outcomes for the German economy are reversed, leading to positive value-added and welfare effects for Germany. Our results emphasize the detrimental effect of tariff escalations and the important role of trade negotiations.

Status Quo: WTO Rules-Based System

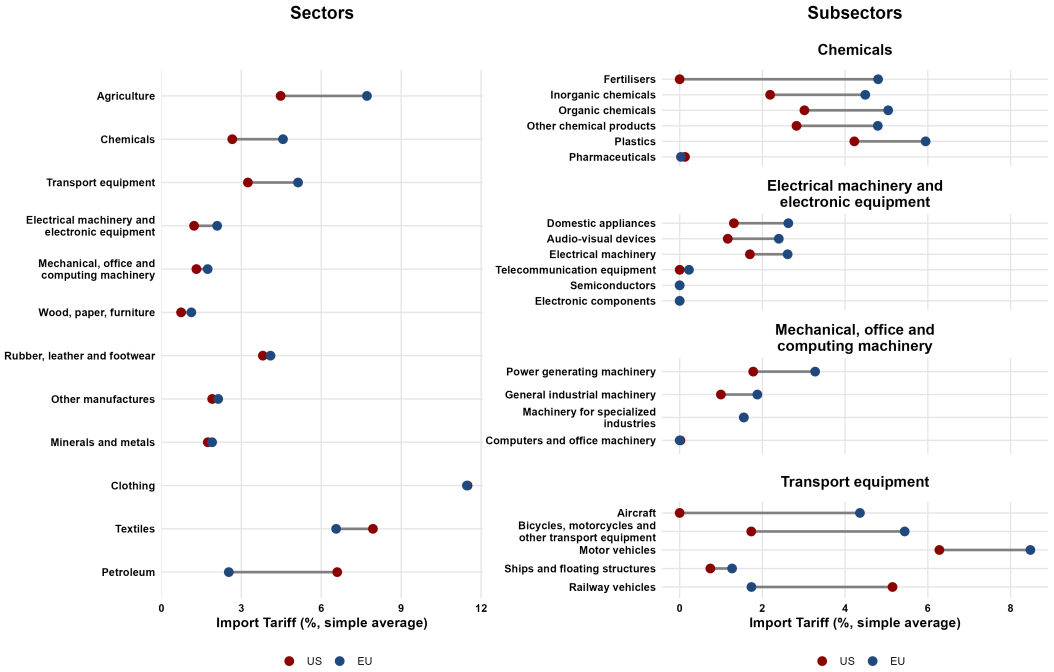
The World Trade Organization (WTO) is based on the idea of *non-discrimination*. To maintain stability and predictability in global trade, tariffs are agreed upon to stay within fixed limits, ensuring that WTO members treat all trading partners equally. A few exceptions apply, such as in the case of a free trade agreement between countries. This means that while different import tariffs can apply to different products, in the absence of free trade agreements, the same tariff rate must be applied to all imports of the same product, no matter where they are imported from (“Most-Favoured-Nation principle”). Furthermore, tariffs are embedded in WTO law and were the outcome of the Uruguay Round of multilateral negotiations, with *reciprocity* at its core. This principle means that if one country reduced tariffs on its imports, other countries would aim at making similar concessions. It is referred to as the ideal of mutual adjustments in trade policy that leads to changes in the volume of each country’s imports that are of equal value to changes in the volume of its exports (Bagwell and Staiger, 2002). Thus, negotiated concessions – extending beyond tariffs – can be seen as reciprocated when they result in equivalent changes in bilateral trade flows. For example, in return for lower US import tariffs on agriculture and textiles, countries made key concessions in areas where the US had strong interests, particularly intellectual property, where stronger global protection with stricter patent and copyright enforcement got negotiated benefiting US industries such as pharmaceuticals. In contrast, the US administration’s understanding of reciprocity takes a different approach. Besides defining reciprocity beyond tariffs (such as including value-added taxes and other extraterritorial taxes applied by trade partners),[1] the current US administration's approach to reciprocity considers any product-level tariff gap between the US and its trade partners a reflection of non-reciprocity. The resulting threat of unilaterally raising US import tariffs – applied differentially across products and trading partners – to match those faced by US exporters would consequentially conflict with both the WTO’s principle of *non-discrimination* and the broader concept of *reciprocity* in multilateral trade negotiations.

[1] See: White House (2025). *Reciprocal trade and tariffs*. The White House. https://www.whitehouse.gov/articles/2025/02/reciprocal-trade-and-tariffs/

Tariff Data and Descriptives

Our analysis of US and EU tariffs at the HS-6-digit[2] product level reveals that positive tariff gaps (EU>US tariff) are less widespread than often claimed to be the case. In fact, roughly 50% of product lines that were imported by Germany from the US in 2023 have an import tariff in place that is lower than the respective US import tariff. Overall, across all products that have been traded between the US and EU in 2023, the unweighted average tariff gap is with around 0.5 percentage points slightly positive (EU: 3.9% vs. US: 3.4%). This gap increases to approximately 0.9 percentage points when considering products that are not effectively traded (EU: 4.2% vs. US: 3.3 %).[3] Given that 59 of the US trade partners maintain average import tariff gaps with the US of 5 percentage point or more - including a 9.8 percentage point gap with India and a 9.5 percentage point gap with Kenya - the gap in EU-US tariff protection can be considered as relatively low (Evenett, 2025).

Figure 1: Average US-EU Import Tariff Differences across sectors (in %)



By MTN sectors (WTO, 2023). EU-US import tariffs reflect all changes until 2022. Source: Global Trade Alert (2025)

Figure 1 provides a detailed comparison of EU and US product-level import tariffs vis-à-vis each other, categorized by sectors (LHS) and subsectors (RHS) used in WTO trade negotiations (MTN classification). On average, across nine of twelve sectors shown in

[2] The Harmonized System (HS) codes are a globally standardized classification system for traded goods, developed by the World Customs Organization (WCO), consisting of a six-digit code structure.

[3] If we focus solely on products with a positive tariff gap, where the US tariff is lower than the EU tariff, and disregard the other half of the products, a tariff gap of 3 percentage point would emerge (EU: 5.4% vs. US: 2.4%).

Figure 1, only about 35% of products in each sector have a positive tariff gap (EU>US tariff). Three sectors (textiles, petroleum and clothing) have even a negative average tariff gap (EU<US tariff).

In total, three quarters of all tariff gaps between the US and the EU are smaller than 2.3 percentage points. When considering only products with a positive tariff gap (EU>US tariff), three quarters have a tariff gap of less than 3.9 percentage points. This suggests that while a subset of products faces notable differences, potentially making them more vulnerable to policy changes such as the introduction of "reciprocal" tariffs, most tariff gaps are relatively small. Further, the prevalent positive tariff gap (EU>US tariff) for some of these sectors, like electrical machinery and electronic equipment, masks some important heterogeneity across product groups. While for domestic appliances the tariff gap is at 1.3 percentage points, the EU like the US has no tariffs implemented on semiconductors and electronic components, allowing US firms non-tariff-restricted access to the EU member states' markets. In contrast, three sectors—transport equipment, agriculture, and chemicals—stand out as relatively more restrictive on the EU-side. In each of these sectors more than 65% of all products have higher EU than US tariffs, with average tariff gaps ranging from 1.9 to 3.4 percentage points. These three sectors contribute strongly to the small but positive overall tariff gap (EU>US tariff).

Considering the varying importance of the US market for different products, it becomes evident that the proposed US tariff changes could heavily disrupt the export activities of German firms. Exports of products with a higher EU tariff relative to the US made up 53% of Germany's 2023 exports to the US. Notably, product exports to the US with a positive tariff gap (EU>US tariff) accounted for 6% of Germany's total global exports in 2023, underscoring the substantial challenges this policy could pose for Germany's position as a leading export nation. In contrast, US exports to Germany of products with a negative (EU<US tariff) tariff gap constituted only 0.3% of global US exports in 2023. This suggests that the EU's potential for effective retaliation using the same strategy as the US remains relatively limited.

Simulation of Trump's "Reciprocal" Tariffs and Global Tariff Retaliation

In the following analysis, we employ the ifo Trade Model, which is a quantitative trade model based on Caliendo and Parro (2015).[4] International linkages are captured

[4] Caliendo and Parro (2015) develop a multi-sector version of the Ricardian trade model by Eaton and Kortum (2002) with input-output linkages.

through input-output relationships, with the model incorporating both tariff and non-tariff trade barriers. The model covers 141 countries and 65 economic sectors, accounting for over 90% of global value added. It is parameterized through econometric estimations resulting from theoretical equilibrium conditions, allowing us to simulate general equilibrium effects of various trade policy scenarios. It allows us to identify the long-term level effects of the "reciprocal" tariff increases threatened by the US. We therefore gain insights into the potential response of trade flows, trade volumes, sectoral value added as well as on real gross domestic product and gross household income.[5] The analysis with a general equilibrium model includes not only direct exports but also trade along the value chain as well as possible trade diversion effects to other target markets in response to these higher US tariffs. In this way, it offers a comprehensive picture of a new long-term global economic equilibrium.

In all policy scenarios, we use Feodora Teti's Global Tariff Database (v_beta1-2024-12) from Teti (2024) to retrieve tariff information at the HS-6-digit product level and to compute tariff differences of the US with all its trade partners. We supplement the dataset with tariff data from Global Trade Alert (2025) to account for changes until 2022. We then aggregate the product-level tariff differences to the GTAP 65 sectors, weighing them by the product's respective country-specific import share within each GTAP sector. This allows us to simulate the following two main scenarios:

- **Scenario 1: "Trump reciprocal tariffs"**
  The US *increases* tariffs on imports to match the exact amount imposed by its trade partners. In this scenario, the US increases tariffs on products where its trade partner has higher tariffs but does not decrease its own tariffs in case of a negative tariff gap (non-US<US tariff).[6]

- **Scenario 2: "Escalation: Trump reciprocal tariffs with retaliation"**
  In this scenario, if the US *increases* tariffs on imports to match those imposed by its trade partners ("reciprocal tariffs"), we assume that the trade partners retaliate by also *increasing* tariffs on US products that have higher tariffs ("escalation scenario").

[5] All data required for the simulation (e.g., international value-added linkages) comes from the global input-output database, GTAP 10. As the model accurately represents global value chains and country-specific parameters at the sectoral level (e.g., sectoral productivity), the adjustments caused by a tariff increase can be appropriately approximated. The technical details are described in several studies by the ifo Institute (see e.g., Aichele et al. 2016; Baur et al. 2025).

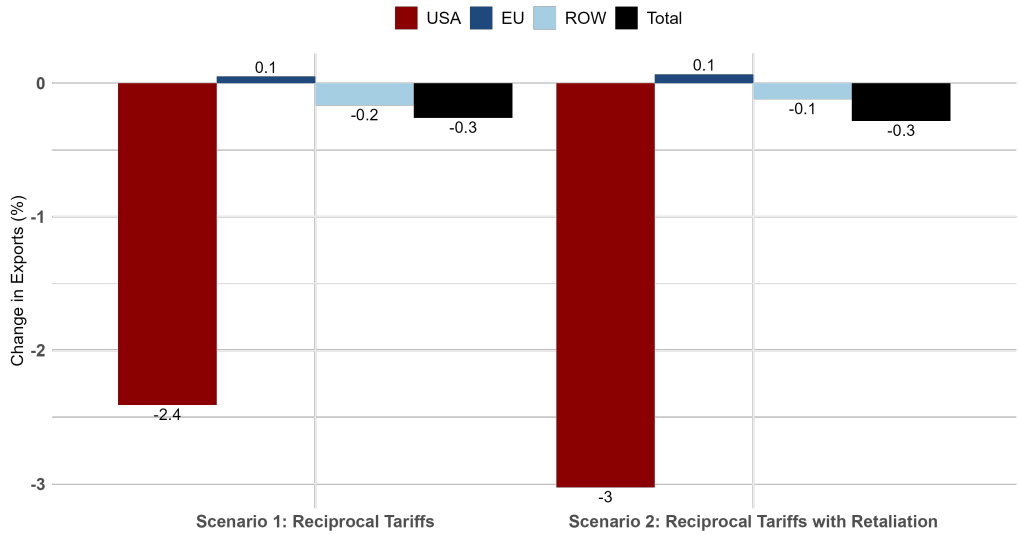
[6] A scenario that accounts for full symmetry and full reciprocity is discussed later (see scenario 3).

The Impact of Trump's "Reciprocal" Tariffs on German Exports and Value Added

Figure 2 depicts the trade effects for Germany if the US increases tariffs on products where its tariffs are lower than those of its trade partners. Scenario 1 presents the results for Trump's "reciprocal" tariffs, while Scenario 2 incorporates retaliation by trade partners ("Trump Reciprocal Tariffs with Retaliation"). In both scenarios, total German exports decline, primarily due to a decrease in exports to the US but also accompanied by a drop in exports to the rest of the world (excluding the EU and the US). Exports to the US decreased by 2.4% in Scenario 1, and 3% in Scenario 2. These effects are notably smaller when compared to a scenario in which the US would impose flat 20% tariffs on imports from all trade partners and 60% on Chinese products, as shown in Baur et al. (2024). In such a scenario, German exports to the US would fall by roughly 15%.

Two additional points are worth highlighting. First, German exports to the EU increase due to trade diversion, but they decrease to other key markets such as Mexico and China. As a result, total German exports decline by 0.3% in both Scenario 1 and Scenario 2, suggesting that the gains in market share within the EU cannot offset losses elsewhere. These effects are notably smaller than the -1.8% total export decline shown in Baur et al (2024). *Second*, further analysis reveals that while German exports to China decrease under Scenarios 1 and 2, Chinese exports to Germany increase. Whereas the first result (decrease in German exports to China) is driven by a loss of competitiveness in Chinese exports, as China faces welfare losses, the second result (increase in Chinese exports to Germany) is mostly driven by Chinese trade diversion away from the US - in Scenario 1, Chinese exports to the US fall by 3.4% and increase to the rest of the world.

Figure 2: Change in German Exports by destination across scenarios (in %)

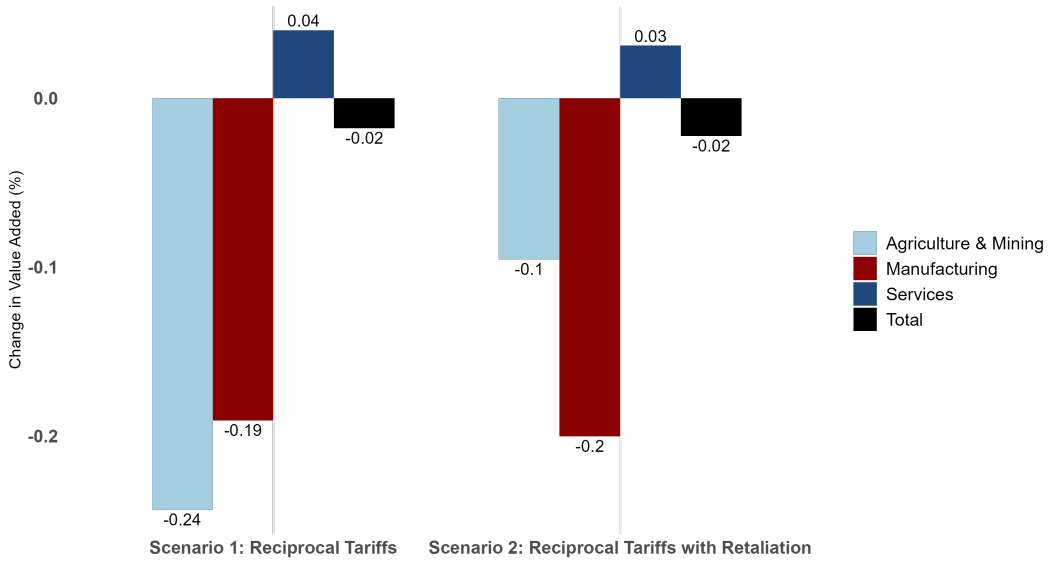


The country-specific changes in exports (%) are aggregated to the RoW, EU and total based on the German export share in the base year.

Overall, Scenarios 1 and 2 lead to similar results for German exports. As highlighted earlier in this policy brief, the tariff gap between the EU and the US is relatively small, meaning that retaliatory tariffs do not substantially raise EU tariffs against the US. However, this picture differs for other US trade partners. For countries with a larger tariff gap, both Trump's "reciprocal" tariffs (Scenario 1) and the respective retaliatory tariffs (Scenario 2) result in significantly greater losses than those observed for Germany. For instance, India faces a total value-added loss of around 0.12% and a manufacturing loss of 1.0%, which is approximately five times greater than the loss incurred by Germany.

Figure 3 shows the change in value added across sectors in Germany under Scenarios 1 and 2. It is unsurprising that agriculture & mining experiences the largest percentage loss in German value added in response to Trump's "reciprocal" tariffs. Due to the relatively high import tariffs imposed by the EU in this sector, Trump's "reciprocal" tariffs – which would match EU tariff levels – diminish the sector's competitiveness, leading to value added losses. In addition, the manufacturing sector is also negatively impacted in both scenarios. The losses in this sector stem not only from reduced exports to the US but also from a decline in German exports to other key trade partners: Countries with a larger tariff gap with the US experience greater losses, which further weakens their competitiveness and reduces their demand for German products. Finally, the small increase in value added in services (0.03%) shown in Figure 3 is primarily driven by business and financial services, as well as communication and education services. These gains offset losses in other service sectors, such as trade services and warehousing, which are closely linked to trade in goods and therefore experience the largest losses.

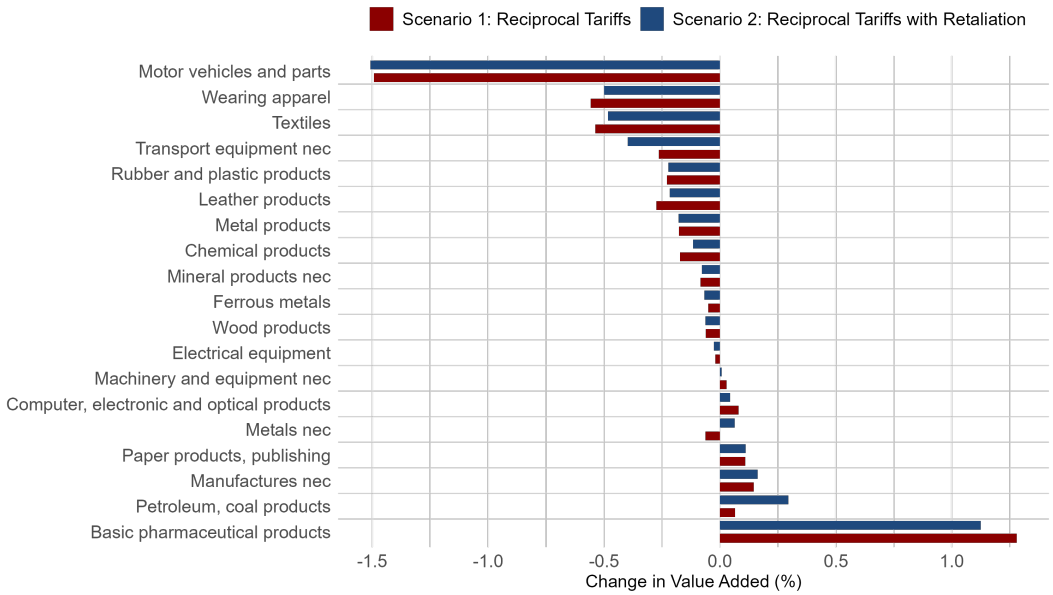
Figure 3: Change in German Sectoral Value Added across scenarios (in %)



The changes in sectoral value added (%) are aggregated by using Germany's sectoral VA shares in the base year.

A closer look at the German manufacturing sectors in Figure 4 reveals significant heterogeneity across industries. Sectors with a higher average tariff gap - indicating larger US tariff increases - tend to experience greater losses in terms of value added. Motor vehicles and parts suffer the most substantial decline, with motor vehicles facing an average tariff gap of 2.2 percentage points, more than four times the average EU-US tariff gap.[7] A similar pattern emerges in the transport equipment sector, where a steep drop in value added aligns with an average tariff gap of 3.7 percentage points for bicycles, motorcycles, and other transport equipment, and 4.4 percentage points for aircraft.

Figure 4: Changes in German Sectoral Value Added – Manufacturing industries in detail



[7] This analysis, however, does not account for the additional 25% tariffs on autos and parts announced by the US administration on March 26, 2025: https://www.whitehouse.gov/fact-sheets/2025/03/fact-sheet-president-donald-j-trump-adjusts-imports-of-automobiles-and-automobile-parts-into-the-united-states/

Simulation of Three "Full Reciprocity" Scenarios

The Scenarios 1 and 2 discussed above assume that the US raises tariffs when trade partners have higher tariffs levels. However, if reciprocity were applied literally, the US would also *lower* its tariffs when they exceed those of its trade partners – resulting in full tariff symmetry. Below, we explore this scenario along with additional negotiation possibilities for the EU.

We simulate the economic and trade impact for Germany of three additional trade policy scenarios:

- **Scenario 3: "Trump reciprocal tariffs with full reciprocity"**
  In this scenario, we take reciprocity literally, meaning that the US *increases* tariffs when those imposed by the partner are higher but *decreases* them when US tariffs are higher.

- **Scenario 3a: "Trump reciprocal tariffs with full reciprocity only for EU"**
  In this scenario, the US enforces reciprocal tariffs with "full reciprocity" only on the EU. The US *increases* tariffs when those imposed by the partner are higher but *decreases* tariffs against the EU when US tariffs are higher.

- **Scenario 3b: "De-escalation: US & EU decrease tariffs for full reciprocity"**
  In this scenario, the US implements "reciprocal" tariffs with "full reciprocity", but the EU and the US agree to reduce tariffs to match the amount imposed by the other. The US decreases tariffs if the EU's tariffs are lower, and the EU reduces tariffs if the US's tariffs are lower.

The Impact of "Full Reciprocity" Scenarios on German Exports and Sectoral Value Added

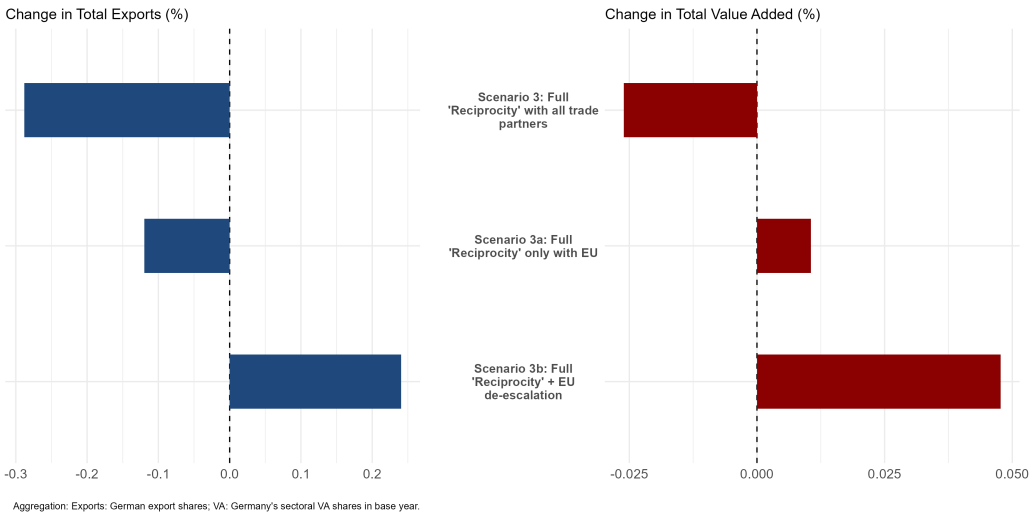
Figure 5 illustrates the effects of the three "full reciprocity" scenarios on German exports and value added. Although the likelihood of the US reducing tariffs seems low, it is important to consider the implications of the announced "reciprocal" tariff policy if the current US administration were to take their interpretation of reciprocity literally.

The results for Scenario 3 closely resemble those of a scenario with "reciprocal" tariff and global retaliation (Scenario 2), primarily because the tariff gap between the EU and the US is relatively small compared to the US's tariff gap with other trade partners. Hence, "full reciprocity" does not provide significant additional gains for Germany in

terms of exports and sectoral value added. However, other countries, such as China, could benefit substantially, ultimately leading to a relative deterioration in trade conditions for Germany and the EU. This scenario highlights the importance of the principle of non-discrimination in trade policy. If the US were to lower tariffs for all trade partners in cases where its own tariffs are higher - aligning them with each partner's product-specific tariff levels - Germany would face much tougher competition in the US market.

In Scenarios 3a and 3b, we consider the possibility of negotiations between the US and the EU. As shown in Figure 5, if these negotiations were successful, Germany could see positive effects on value-added and welfare. In Scenario 3a, "full reciprocity" is achieved exclusively between the EU and the US, leading to an increase in German value added and welfare, although total exports decrease.[8] In Scenario 3b, a "de-escalation" agreement with "full reciprocity" is reached, where both the US and the EU reduce their tariffs to fully close the tariff gap. This scenario results in both positive trade and value-added effects for Germany, along with an increase in welfare. These are the only scenarios where Germany would manage to avoid incurring losses in total value added, underscoring the critical importance of successful trade negotiations in limiting the potential negative impacts of the US "reciprocal" policy on the German economy.

Figure 5: Changes in total German Exports and Value Added (in %)



[8] The decrease in exports, along with the increase in value added, can be explained by the rise in domestic sales in Germany, which offsets the decline in exports.

Conclusion and Policy Implications

US President Donald Trump proposed implementing “reciprocal tariffs”, under which the US would raise import tariffs to match those imposed by its trade partners, thereby further undermining the multilateral rules-based system. This policy brief examines the status quo of tariff gaps between the US and the EU and explores implications of this policy for the German economy, should it be implemented.

Our analysis reveals that the average tariff gap between the US and the EU for traded products is approximately 0.5 percentage points, which is relatively modest compared to other US trade partners. However, US tariff adjustments aimed at narrowing this gap could impact 53% of Germany’s exports to the US in 2023, representing 6% of Germany’s total global exports. While a broad range of products would be affected, three quarters would experience only modest tariff increases, as their tariff gaps remain below 2.3 percentage points.

We then employ the ifo trade model along with updated global tariff data to assess the impact of US “reciprocal” tariffs on the German economy. Our findings indicate negative effects on both German exports and value-added if President Trump introduces “reciprocal” tariffs, or/and if trade partners retaliate. German exports to the US decline by 2.4% to 3.0%, while total exports decrease by 0.3%. These relatively small effects for Germany, compared to a scenario involving a flat 20% increase in US tariffs on all its trade partners (as discussed in Baur et al., 2024), are primarily driven by the relatively low tariff gap between the US and the EU compared to wider gaps between the US and other trade partners.

However, the opposite result emerges in scenarios that account for EU-US negotiations. If the EU negotiates “full reciprocity” in tariffs with the US - where the US reduces tariffs when its tariffs are higher, or both parties agree to jointly lower tariffs to the bilateral minimum rate for each product - Germany’s value-added and welfare would increase. These findings underscore the pivotal role of trade negotiations, while once again placing a strong emphasis on the detrimental effects of tariff escalations.

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