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Questioni di Economia e Finanza

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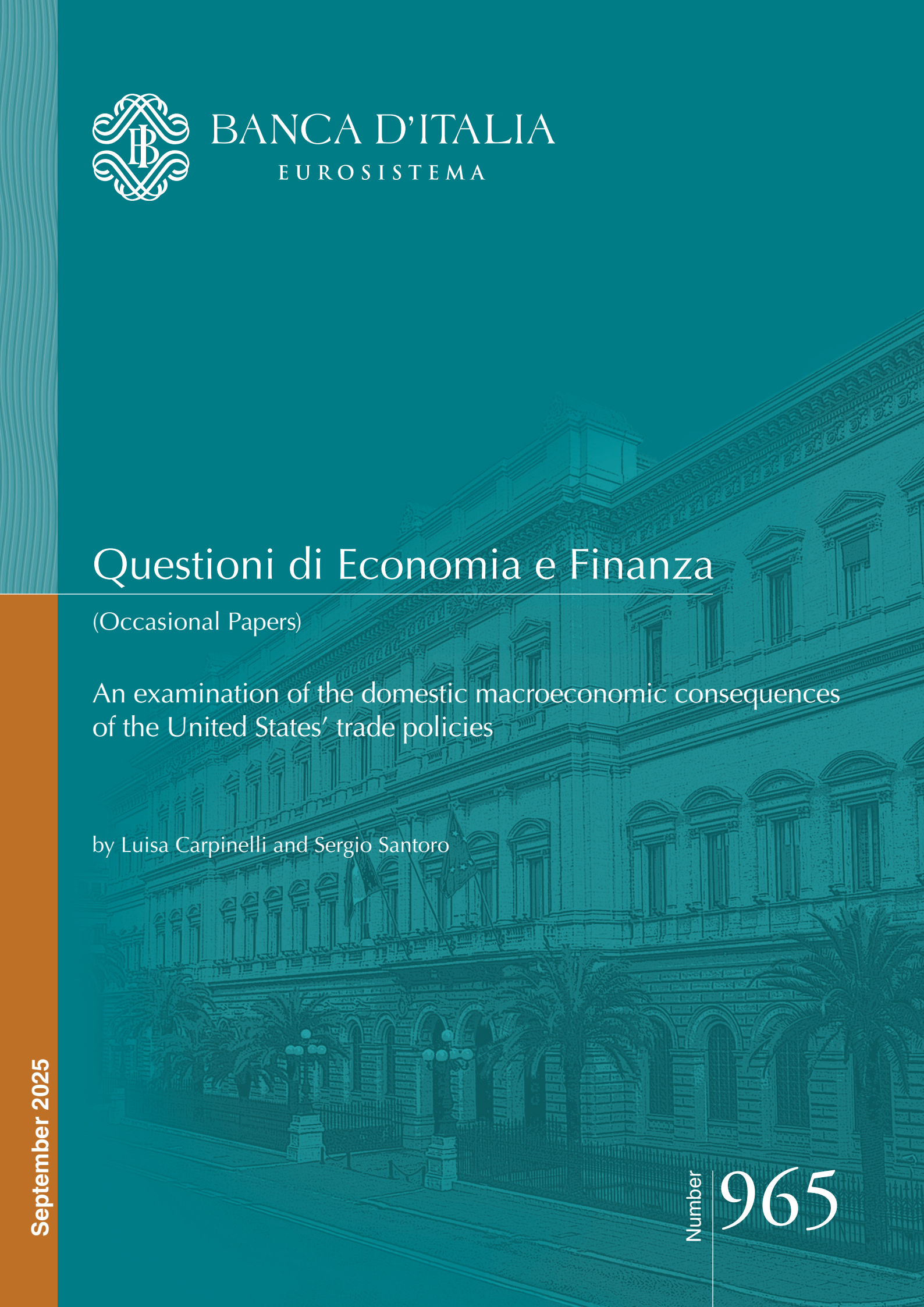

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AN EXAMINATION OF THE DOMESTIC MACROECONOMIC CONSEQUENCES OF THE UNITED STATES' TRADE POLICIES

by Luisa Carpinelli* and Sergio Santoro*

Abstract

This paper analyses the domestic effects of U.S. trade policies, focusing on the 2018-19 trade war and the escalation of trade tensions in 2025. In 2018-19, the U.S. imposed tariffs on just short of 18 per cent of imports, mainly from China, raising the effective tariff rate vis-à-vis the latter from 3 to 11 per cent. These tariffs mostly raised costs for U.S. consumers and firms, with near-complete pass-through to import prices, higher consumer prices, supply-chain disruptions, and job losses. Trade diversion reduced reliance on China but left the overall U.S. trade deficit broadly unchanged, while subsidies to farmers offset part of the fiscal revenues. General equilibrium estimates point to modest but non-negligible output and welfare losses. The 2025 trade war represents a qualitatively different shock: tariffs now cover most products and countries, with effective rates at 19 per cent overall and above 40 per cent for China (the latter potentially exceeding 100 per cent if truces are not renewed), and could cause input costs to rise sharply across industries. Preliminary evidence suggests partial tariff absorption by exporters, and also a substantial pass-through to U.S. consumer prices. The dollar's unexpected depreciation is in contrast with historical patterns and could set in motion more pronounced trade balance effects; fiscal revenues will be much larger. Looking ahead, uncertainty remains high. A failure to extend truces and to deliver on the trade deals could lead to shortages of critical inputs and reinforce inflationary pressures; also, it would reignite the risk of retaliation – which has been limited, so far – potentially triggering a global demand shock.

JEL Classification: F10, F13, F40.

Keywords: tariffs, trade policy.

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1. Introduction[1]

The tariffs' increases imposed by the new U.S. administration in 2025 mark not just a revival of measures carried out in first Trump administration, but one of the largest shifts in trade policy in decades. To glean the possible effects of this escalation, we provide an overview of the empirical studies on the 2018-19 trade war.

Between 2018 and 2019, the U.S. imposed tariffs on approximately $420 billion of imported goods — equivalent to 17.6% of 2017 import volumes. Early measures targeted specific sectors, like solar panels and washing machines, but the most consequential actions came after and were explicitly directed at China, affecting $300–350 billion in Chinese goods. This prompted swift retaliation from Beijing, on about $100 billion of U.S. exports, primarily agricultural. Based on Banca d'Italia's calculations, the US average effective tariff rate towards China increased from around 3% to 11.5% in 2018-2019, while that towards all other trading partners rose from 1% to 1.6%.

Our review of the literature shows that these tariffs yielded modest, short-lived production expansion in some targeted sectors in the U.S., while generating broader economic costs — higher prices, supply-chain disruptions, and employment losses — without resolving aggregate trade imbalances. U.S. consumers and firms bore most of the burden, as foreign exporters — especially in China — did not meaningfully lower their prices. Pass-through to U.S. import prices was nearly complete, particularly for capital and intermediate goods. While some consumer prices rose, U.S. importing firms shared the cost as well, lowering their profit margins. Despite a modest decline in the bilateral trade deficit with China, the overall U.S. trade deficit remained largely unchanged: imports shifted to other countries, especially in Asia and Latin America. Moreover, "decoupling" proved elusive: Chinese firms deepened commercial ties with intermediary countries like Vietnam and Mexico to access the U.S. market. The impact on U.S. manufacturing and employment were limited. Short-term gains from import substitution were offset by retaliatory damage and rising input costs. Estimates suggest that heightened policy uncertainty slowed investment and hiring and affected firms' performance. The tariffs did raise customs revenues, yet short of early projections and subsidies to mitigate the damage to U.S. farmers from China's retaliatory tariffs absorbed a non-negligible portion of the fiscal windfall.

In 2025, the new U.S. administration introduced a surge of protectionist measures, including tariffs on imports from Canada and Mexico, broad levies on steel and aluminum, and additional duties on automobiles and major automotive parts. This escalated into blanket tariffs on nearly all imports and the introduction of additional country-specific 'reciprocal' tariffs tied to trade deficits. Tariffs towards China soared to around 120% (in effective terms) in April, with a sharp intensification of trade tensions between the two countries. A partial de-escalation took place in the weeks that followed with a 90-day suspension of the country specific reciprocal tariffs to all trading partners except China and, for Chinese imports, a 90-day reduction of tariffs to slightly below 40%. Before the end of the 90 days, the U.S. administration struck deals with several countries,

[1] The authors thank Alessandro Borin, Francesco Paolo Conteduca, Riccardo Cristadoro, Michele Mancini and Giovanni Veronese for comments and for providing data on effective tariff rates.

including some of its main trading partners such as the European Union (EU hereafter), Japan and the UK. On August 12th, the truce with China was extended for another 90-day period. However, even after these deals were made, the configuration of tariffs still represented a stark increase of trade barriers compared to the pre-2025 world.

This time around, the markedly higher average tariff increase, joint with the much wider product and geographical scope, position this trade war as a fundamentally different policy experiment from the past, and the consequences are likely to be materially different from those in 2018-19 under some relevant aspects:

- Full pass-through of the tariffs into import prices is rather unlikely. The mere size of the measure and the reduced possibility for diversion to alternative markets imply that the most likely outcome is that the terms of trade shock will affect both exporters and importers.
- At the same time, transmission to input costs and domestic prices would be stronger and faster. Cost-push pressures could be severe, especially in sectors reliant on imported intermediates.
- In theory, broad tariffs should appreciate the dollar, but recent unexpected depreciation underscores market uncertainty. Historical lessons suggest broad tariffs may fail to alter the aggregate trade balance, as underlying imbalances reflect saving-investment dynamics. New models suggest tariffs could reduce deficits if they permanently raise real interest rates, but retaliation can reverse those gains.

Uncertainties cast a long shadow. Despite the recent trade agreements, risks of re-escalation cannot be dismissed. A general lesson from the 2018-2019 trade war would in any case hold: the traditional use of tariffs as a protective tool for US domestic industries is complicated by global production networks, retaliatory trade measures and the scope for import substitution and trade diversion.

The rest of this paper is organized as follows. Section 2 summarizes the main events of the 2018-19 trade war. Section 3 presents a survey of the literature that studied its effects on the U.S. economy. Section 4 outlines a timeline of the trade measures adopted by mid-August 2025 by the new U.S. administration, and elaborates on what their effects might be, using the result on the 2018-19 as a guiding reference. Section 5 concludes highlighting some risks for the future.

2. A brief description of the trade war under the first Trump Administration

Trade policy took center stage during the 2016 presidential campaign, with widespread criticism of alleged unfair trade practices and persistent trade deficits. Chief among the culprits was China, accused of undermining American manufacturing and jobs through a range of practices including currency manipulation, heavy state subsidies, and forced technology transfers.[2]

At the end of 2017, the U.S. recorded a goods trade deficit of over $800 billion — approximately 4.2% of GDP. The bilateral goods trade deficit with China was $375 billion, or 1.9% of GDP. The U.S. imported $505 billion worth of goods from China but exported only $130 billion to the country - China accounted for 21% of U.S. goods' imports while the US accounted for about 8% of China's.

The first Trump administration began translating its campaign agenda into action in January 2018, when it imposed steep tariffs on washing machines and solar panels (up to 50% and 30%, respectively). These measures were introduced under Section 201 of the Trade Act, a safeguard provision intended to shield domestic industries from import surges.[3] While nominally non-discriminatory, the tariffs disproportionately affected Chinese and South Korean exporters, as China and South Korea were prominent in washing machine imports, and China was dominant in solar panels.[4]

In March 2018, the administration imposed additional tariffs of 25% on steel and 10% on aluminum, citing national security concerns under Section 232 of the Trade Expansion Act.[5] These measures primarily targeted major U.S. trading partners—Canada, the European Union, and Mexico—which collectively supplied nearly half of U.S. steel and aluminum imports in 2017. China

[2] The U.S. President described these actions as "the greatest theft in the history of the world" [2] and pledged to secure a better deal for American businesses and workers.

[3] Section 201 of the Trade Act of 1974 allows the President to impose temporary import relief measures on specific goods after their imports are found by the U.S. International Trade Commission (ITC) to cause or threaten to cause serious injury to domestic industries.

[4] However, by the time the tariffs took effect in 2018, global supply chains for both product categories had already become more diversified. Previous waves of protectionism had prompted firms to shift manufacturing to other low-cost countries, including Mexico, Malaysia, Vietnam, and Thailand, which had grown into significant suppliers of these goods to the U.S. market.

[5] Section 232 of the Trade Expansion Act of 1962 allows the President to adjust the imports of goods or materials from other countries "if the quantity or circumstances surrounding those imports are deemed to threaten national security", after investigations are conducted by the Department of Commerce (DOC). This can be done through tariffs or other means. The investigation of the DOC concluded in early 2018 had recommended that "imports be reduced "to a level that should enable U.S. steel mills to operate 80 percent or more of their rated production capacity.""

was only the tenth-largest supplier of steel to the U.S. market at that time.[6] In response, a group of countries including Canada, Mexico, China, the EU, India, Russia, and Turkey filed complaints with the World Trade Organization and introduced retaliatory tariffs on U.S. exports. Over time, the U.S. negotiated exemptions or quota arrangements with several partners (Australia, South Korea, Brazil, Argentina and, following the signing of the United States-Mexico-Canada Agreement (USMCA), also Canada and Mexico). The subsequent administration later extended exemptions to the EU until 2025. The Section 232 tariffs on steel and aluminum arguably represented the Trump administration's most sweeping and undifferentiated use of trade restrictions, the closest to a blanket tariff.

The following phases of the trade war focused exclusively on China. After the breakdown of the U.S.-China trade talks (the *U.S.-China Comprehensive Economic Dialogue*), the U.S. escalated tensions by rolling out five rounds of tariffs between July 2018 and September 2019. These were implemented under Section 301 of the 1974 Trade Act, which permits retaliatory action in response to unfair trade practices.[7] Tariffs on selected Chinese products were raised to 10% or 25%, although carve-outs were made for politically sensitive goods—such as Apple Watches and Fitbit devices.

China responded at each stage with retaliatory tariffs. However, its ability to match the U.S. in terms of trade volumes waned over time, due to the smaller level of imports from the United States. This asymmetry led to a reduction in the intensity of China's countermeasures as the trade conflict wore on (Bown, 2021).

Overall, the tariff escalation took more than 8 rounds and almost 18 months to settle. Quantifying the full extent of tariff escalation—both in terms of the value of imports targeted and the increase in average tariff levels—is complicated by the fragmented and iterative nature of implementation. Nevertheless, several estimates of the size and scope are available.

Broadly speaking, between 2018 and 2019, the U.S. imposed tariffs on $420 billion of imports from all its trade partners, or about 18% of the total value of 2017 imports and 2.6% of GDP (Fajgelbaum and Khandelwal 2022). Early measures targeting washing machines and solar panels af-

[6] Other relevant exporters were Brazil, South Korea, Australia, Argentina, Russia, and Turkey.

[7] Section 301 of the Trade Act of 1974 allows the allows the Office of the U.S. Trade Representative ("USTR") to pursue unilateral trade retaliation against countries that impose unfair trade barriers against the United States.

fected around $8 billion of imports. Tariffs on steel and aluminum, another $40 billion. The majority of tariffs was aimed at China. About $300 to $350 billion of goods were subject to China-specific tariffs, equivalent to 12–17% of total U.S. imports and 60–70% of all imports from China (Amiti et al. 2020a, Fajgelbaum and Khandelwal 2022, Bown 2021).[8]

Intermediate goods were hit harder than consumer products. According to Amiti et al. (2020a), roughly $126 billion worth of consumer goods were ultimately subject to tariffs—mostly in the final waves of the trade conflict. This suggests that about two-thirds of targeted imports were capital and intermediate goods. This contrasts with the broader finding by Antràs et al. (2024), who show that tariffs globally tend to escalate more on final goods than on inputs.

Estimates of the average effective tariff rate on Chinese goods during the peak of the 2018-19 trade war vary significantly, reflecting differences in methodology.[9] Prior to the trade war, U.S. tariffs on Chinese imports averaged between 2.6% and 3.7%. Estimates of the average tariff rate at the peak of the Trump 1.0 trade war range from 17.5% to 26% (Bekkers and Schroeter, 2020; Bown, 2021; Fajgelbaum and Khandelwal, 2022). More recent estimates from Conteduca et al. (2025) at Banca d'Italia — based on a weighted average of tariff rates by product and trade partner — suggest a lower effective rate of around 11.5%, aligning closely with U.S. Customs data on duties collected, which indicate an average of 11.3% on Chinese goods.

Conteduca et al. (2025) document that the average effective tariff rate towards all trading partners rose from 1.3% to 3% between 2017 and 2020. Clearly, given the marked tariff escalation on Chinese products, once one accounts for the full range of U.S. import sources, the intensity of the overall protectionist stance is much diluted.

China's retaliation was more limited in scale. Though announcements suggested broader measures, in practice China imposed tariffs on roughly $100 billion of U.S. exports, representing about 8.7% of 2017 U.S. exports and 1% of U.S. GDP (Fajgelbaum and Khandelwal, 2022). The retaliatory tariffs covered nearly two-thirds of Chinese imports from the U.S., with a heavy focus on agricultural and seafood products—such as soybeans, sorghum, pork, and lobster. According to Stephen

[8] Bown (2022) calculates that at the end of the tariff escalation more than 80% of US imports of intermediate inputs from China faced new tariffs of 25%.

[9] The most sensible indication for evaluating the intensity of a tariff barrier is to build effective tariff rates, that takes into account the size of the imports on which these are applied. This can be done most straightforwardly dividing all the levies collected by the actual value of the imports subject to tariffs, or more precisely by weighing the levies for the different categories of products are weighted by the actual value of the imports in the single categories – and weights can be either the exports of the imposing country or the imports of the trading partner.

et al. (2022), approximately 98% of 2017 U.S. agricultural exports to China were affected. At the same time, Beijing's strategy deliberately avoided tariffs on strategically important inputs such as semiconductors.

According to most quantifications, average retaliatory tariffs of China towards the U.S. led to an increase in the average tariff rate from about 7-8% to a final rate ranging between 18-21% (Amiti et al. 2020a, Bown 2021). These numbers are in line with those provided by Conteduca et al. (2025). Bown (2021) also documents that by the end of 2020 China had reduced the average duty on imports from the rest of the world from 8% to 6%.

By late 2019, the U.S. and China agreed to a partial truce, which halted some planned tariff hikes and modestly rolled back earlier rounds. This led to the signing of the so-called Phase One Agreement in January 2020. The most prominent feature of the agreement was China's commitment to purchase an additional $200 billion in U.S. goods and services between 2020 and 2021, relative to 2017 levels, focused on manufactured goods; this was formalized under Chapter 6 of the agreement. Nonetheless, in practical terms, the impact of the agreement was limited. According to Bown (2021), Section 301 tariffs still applied to an estimated $335 billion worth of Chinese imports—around 66% of the total—while Beijing maintained retaliatory tariffs on $90 billion of U.S. exports, covering about 58% of its imports from the United States. Furthermore, China fell considerably short of the purchase obligations. While initial gains in agricultural exports momentarily narrowed the gap (particularly with significant surges in soybean and pork imports), the momentum was later lost; transactions were further hampered by the global pandemic, which weakened demand and disrupted supply chains. As a result, by the end of 2021, analysts estimated that the shortfall persisted, with actual increments roughly pegged at only half or a bit more of the pledged sum. This divergence underscores the challenges of enforcing large bilateral trade benchmarks amid unpredictable global economic shifts and the difficulty of enforcing purchase commitments even in jurisdictions where top-down tools and state-owned enterprises abound.

3. The implications of the US-China 2018-19 trade war for the US economy

Tariffs set in motion a large range of domestic economic adjustments – most immediately on import prices and, potentially, on broader price dynamics across the economy and on exchange rates. The scale and nature of these effects depend heavily on multiple factors such as the degree

of international integration of production, the available extent of import substitution and trade diversion, and the size of retaliation by trading partners.

As tariffs influence multiple variables simultaneously, capturing their full impact requires a general equilibrium framework and the *all else equal* assumption when looking at a single facet turns out quite heroic. However, to aid interpretation, in what follows we try to unpack the *individual* transmission channels, based on the empirical literature that explores the short-term effects of the 2018–19 US-China trade war.

3.1. Prices

The first leg of the transmission of a tariff to the domestic economy is the change in import prices and how these reverberate further into the domestic price structure.

3.1.1. Terms of trade: import prices

One of the U.S. administration's stated goals – most forcefully in 2025 – is to shift the terms of trade in favor of the U.S., effectively "making others pay" for the alleged loss of welfare inflicted on the U.S. economy, by "modifying the global order in terms of trade".

The distribution of welfare costs associated with the tariff – which is fundamentally a tax – depends on the prices "at the port", i.e. the prices paid by the importing country as a whole. Sufficiently large importing countries are generally believed to be able to use tariffs to alter the terms of trade to their advantage by shifting at least part of the burden to their trading partners. Exporting firms might decide to reduce the pre-tariff price of their goods to preserve market share. In that case the pass-through of the tariff is said to be incomplete, as the price including the tariff, i.e. the import price or the price "at the port", does not increase one-to-one with the tariff.

The literature mostly finds that the U.S. bore most of the cost of the tariffs in 2018-19. Chinese exporters lowered their dollar prices only negligibly. In contrast to earlier research indicating limited pass-through, the trade war exhibited nearly full tariff transmission to import prices over a one-to-two-year horizon (Amiti et al., 2019; Fajgelbaum et al., 2020a; Flaaen et al., 2020). One notable exception was the steel industry. Amiti et al. (2020a) document that an initial pass-through of nearly 100% to U.S. steel buyers fell to around 50% within a year, as foreign exporters substantially lowered their prices for the U.S. market. As mentioned earlier, China's supply of steel to the U.S. was limited; the burden of these tariffs fell primarily on other exporters, particularly the EU.

Fajgelbaum and Khandelwal (2022) suggest several possible explanations for the unusually high pass-through during the 2018-19 trade war: inelastic demand, exogenous shocks to supply and demand, and sticky prices. The authors ultimately attribute most of the effect to highly elastic Chinese supply—exporters could redirect goods elsewhere with relative ease.

This interpretation finds support in Chinese trade data, which point to a sizeable trade diversion of Chinese exports. The findings of Jiang et al (2023) and Sheng et al. (2025) on product-level trade data document a rather seamless reallocation of Chinese exports away from the U.S. towards other countries. Jiang et al, in particular, document that the trade war caused a 16.5% reduction in Chinese total exports to the U.S., mostly explained by a decrease in quantity, with prices remaining relatively unchanged.[10] An exploration by Jiao et al. (2024) on proprietary firm level information of a prefecture in Eastern China confirms that export prices per unit of goods before tariffs from the sample city remained nearly unchanged, lending further support to the U.S. based research on full pass-through. A survey of 600 firm managers reveals that the main factor limiting price adjustments were already low profit margins, which limited their ability to enact further price cuts (73% of respondents) followed by contractual obligations to maintain existing prices (21% of respondents).

3.1.2. Producer prices, consumer prices and inflation

If the exporting country does not fully absorb the tariff, the price including the tariff increases in the importing country, i.e. domestic import prices rise. Part of this effect is generally intended: an increase in import prices is the "short term pain" that has been acknowledged by the U.S. President himself as the toll to pay to reduce the trade deficit and expand demand and production at home. The desired economic outcome of this price increase would be for domestic products – both final and intermediate goods – to become relatively less expensive, thus leading the domestic private sector to substitute consumption from foreign to domestic goods.

While tariffs may be designed to raise the cost of imports, their impact on broader domestic price levels—especially final consumer prices—is less direct and more context-dependent. The extent of this pass-through depends on several factors: the degree of market power and pricing flexibility of importers and distributors, the share of imported intermediate inputs in production, the currency in which goods are invoiced, and the availability of substitute products.

[10] The two pieces of research nevertheless differ on the destination of the trade diverted flows. While Jiang et al (2023) and Jiao et al. (2024) find that products were redirected more to Northern countries similar to the U.S. market in terms of income level, market access, or consumer preference, Sheng et al. (2025) conclude that China was mostly redirecting high-quality products to Southern countries, in an effort to escape competition for high-quality products in the North.

While the evidence on the terms of trade is conclusive, the evidence on this second stage of the price transmission mechanism – i.e. on consumer prices - is more mixed.

A first set of papers finds a full pass-through to consumer prices. Amiti et al. (2019), using granular data on U.S. import quantities and prices at the 10-digit Harmonized Tariff Schedule (HTS10) level, find near-complete pass-through to retail prices. A Goldman Sachs analysis (2024) reaches the same conclusion, looking at a subset of consumer goods that was subject to custom duties. This is also the finding of Flaaen et al. (2020), but it is critical to stress that their analysis looks at one specific product of the trade war (washing machines), which was subject to non-discriminatory tariffs – that is, tariffs applied to all imports of that product, regardless of their country of origin. This suggests that their full pass-through might reflect the lack of product substitution and of relocating production across borders; the authors also document substantial retail price increases for complementary goods to the targeted products (dryers).

However, newer evidence points to more muted effects on final prices, as importers and distributors absorbed a portion of the tariff burden. Cavallo et al (2021), comparing microdata collected at the border and proprietary databases from two online retailers, find that final consumer prices were only mildly affected, while the importers/distributors buffered much of the pass-through by absorbing the price increase in their retail margins.

The impact on input costs is also documented. Some evidence is indirect, as in Handley et al. (2020) who find that U.S. import tariffs on inputs lead to reduced exports for firms in affected industries, which is suggestive of cost pressures making U.S. exports less competitive. Similar results are found by Bown et al. (2021) who focus on U.S. temporary trade barriers (TTB, i.e. antidumping duties, countervailing duties, and safeguards) rather than tariffs and study the effects along supply chains with U.S. input-output data: trade protection raises production costs in downstream industries. A more targeted assessment is offered by Flaaen and Pierce (2025), who study the effect of tariffs on U.S. manufacturing at the industry level. They construct a measure of import cost exposure based on the share of input costs sourced from abroad and the change in applicable tariff rates. Based on this definition, they find that new tariffs are associated with an increase in producer prices due to the exposure to rising input costs. The effect is significant in economic terms: an interquartile shift in exposure to rising input costs is associated with a 3.9 percent relative increase in factory-gate prices. The implication is clear: for industries deeply embedded in global value chains, the cost pressures triggered by tariff increases were substantial.

As for broader inflation dynamics, the available evidence suggests modest but non-negligible effects. Goldman Sachs (2024) estimates that a one percentage point increase in average import duties translated into a 0.1 p.p. increase in inflation, with the effect fading after a year. Kalemli-Özcan et al. (2025) develop an open economy model that incorporates international production networks, sectoral heterogeneity in price rigidities, and trade distortions; they quantify the effect on U.S. inflation of a 25% tariff on imports from China at almost 0.1 p.p. on impact. In a broader analysis encompassing not just tariffs but all trade disruptions – including shortages - Cuba-Borda et al. (2025) lay out the possibility of persistent effects. After estimating the impact on inflation of changes in bilateral trade costs (including tariffs) for final and intermediate goods on a panel of 41 countries using annual data from 1995 through 2020, they embed these coefficients in a general equilibrium multiregional model and analyze the consequences of trade disruptions to be in the ballpark of those occurring between the U.S. and China in 2018-19. They find that the effect was an increase in inflation of about 0.5 percentage point. This is a very high pass-through, possibly originating from the elasticities relative to a broad concept of trade barriers. Interestingly, the effect is not just very strong, but also rather persistent on account of higher trade costs in intermediates whose effect on prices is more long-lasting. The story is one of productivity being scarred by the imperfect substitutability between the Chinese goods that are replaced with inputs sourced from other regions, including the U.S. itself, leading to lower production efficiency for U.S. firms. Minton and Somale (2025) also document a substantial inflationary effect. Using U.S. domestic input-output tables, they construct a theoretical measure of tariff effects on individual PCE categories based on the assumption of full pass-through and estimate that, in 2018-2019, actual PCE prices adjusted by the amount predicted by this theoretical measure within two months of tariff implementation.

3.2 Exchange rate

The imposition of a tariff can set in motion various forces affecting the exchange rate. Standard economic models generally predict that tariffs imposed by a large country will lead to an appreciation of its currency. Starting from the original Mundell model with flexible prices (1961), the classic force inducing an appreciation is lower demand for imports, which raises domestic aggregate demand and domestic interest rates, causing the currency to appreciate until output returns to the initial level and pressures on interest rates abate. All else equal, exchange rate appreciation undermines the intended improvement in the trade balance. While imports fall, the resulting decline in export competitiveness similarly suppresses exports, muting any net gains.

In practice, however, isolating the effect of trade policy on exchange rates is challenging. Exchange rates endogenously respond to a set of concomitant factors, beyond trade policy—most notably, monetary policy, interest rate expectations, global risk sentiment, and capital flows. Importantly, domestic monetary policy responses to higher price dynamics may trigger an additional appreciation.

The presence of retaliatory tariffs, the role of reserve/safe haven status of the currency, as well as the institutional setup of exchange rate regimes, further complicate the picture.

During the 2018- 2019 U.S.-China trade war, these dynamics were on full display. The U.S. dollar appreciated in both bilateral and multilateral terms: in 2018, it rose by about 5.7% against the Chinese renminbi and by a further 1.2% in 2019. On a trade-weighted basis, the dollar appreciated by approximately 4% over the two years, while the renminbi depreciated by around 3%.

The most thorough formalization of the U.S.-China trade war implications for the exchange rate has been conducted by Jeanne and Son (2024) with a calibrated model in which tariffs caused a depreciation of the renminbi as well as an appreciation of the dollar. Their model suggests that tariffs explained at most one fifth of the observed dollar effective appreciation and around two thirds of the renminbi effective depreciation.[11]

The evolution of the USD-renminbi exchange rate cannot be read only through the lenses of market forces, given that it is typically influenced also by active policy measures by Chinese authorities. The mandate of People's Bank of China's monetary policy is to maintain currency stability – with the two pillars of internal price stability and a stable exchange rate. Although the renminbi had transitioned from a strict dollar peg to a managed float against a basket of currencies by 2019, the People's Bank of China (PBOC) maintained substantial influence over the exchange rate. The IMF (2019) noted that even in the absence of direct interventions, Chinese authorities deployed various indirect measures to smooth volatility during the trade war period.

Regimes aside, the exchange rate's impact on trade prices depends on the currency in which goods are invoiced. Evidence from Cavallo et al. (2021) suggests that the depreciation of the renminbi had little impact on U.S. import prices. This is likely because most Chinese goods entering the U.S. were invoiced in dollars, insulating transaction prices from exchange rate fluctuations, a phenomenon furthermore consistent with the finding that tariffs were passed on one-on-one to

[11] This is consistent with the empirical regularity shown by Furceri et al. (2019) on a panel of 151 countries over five decades 1963-2014 is that tariff increases result in real exchange rate appreciation, in line with the Mundell's model.

U.S. consumer prices. J.P. Morgan (2024) similarly found that the depreciation of the renminbi spurred Chinese exports to third markets, particularly in Asia, rather than blunting the tariff impact in the U.S.

We now move to the stated objectives of the policy: improving the trade balance, strengthening domestic manufacturing and ensuring an improved flow of revenues to the Federal Government.

3.3 Trade flows and trade balance

A central goal of the U.S. administration's tariff policy has been to narrow the U.S. trade deficit—particularly with China.

A prerequisite for commercial policies to affect bilateral trade patterns is that they affect relative prices. As shown by the evidence on the pass-through of the U.S.-China trade war this is not warranted. In principle, adjustment in the exchange rate can neutralize this effect. Therefore, the adjustment of a bilateral trade balance to the imposition of a tariff is ultimately a quantitative question. It depends not only on relative price changes but also on broader macroeconomic conditions, the degree of retaliation, and the flexibility of global supply chains.

A broader goal of the Trump trade policy is to reduce the U.S. external dependence from the rest of the world. Higher import prices are deemed to promote expenditure switching and boost production, thereby "bring demand back home." As to the potential of tariffs to effectively influence the aggregate trade balance altogether, standard models cannot easily accommodate that, as permanent changes to the overall balance hinge on the capacity of the trade policy to shift domestic saving and investment patterns. This issue has received a revived academic interest recently (see Section 3).

As a result of the trade war, at the end of 2019 the U.S.-China deficit in goods fell to $345 billion, 1.6% of GDP (from $375 billion, 1.9% of GDP, in 2017; Figure 1). The reduction was driven primarily by a sharp drop in U.S. imports from China—about $50 billion—while U.S. exports to China fell by roughly $24 billion. While in 2018 the goods trade deficit with China continued to grow because of frontloading, exports from China to the U.S. fell substantially in 2019, by 10%. U.S. exports to China fell by about 1% in 2018, accelerating to a reduction of 18% in 2019 (Bekkers and Schroeter, 2020).

As a share of total U.S. imports, China's role diminished meaningfully: from 22% in 2017 to 18% by end-2019, and further down to 16% by 2022. Delving on inflows by product, Bown (2022) finds

that unsurprisingly the trade war had on average the largest impact on imports from China of products hit with the highest U.S. tariffs (those subject to 25%). These were mostly intermediate inputs and capital equipment—barely visible to households. Reduced imports were most often offset by imports from other foreign sources, but a few cases of sluggish response suggest that decoupling was not always viable. On the other hand, imports of goods that had not been subject to tariffs – largely consumer goods such as laptops and computer monitors, phones, video game consoles, and toys[12] – grew rapidly.

As to steel and aluminum, imports of covered steel declined by 39% in the two years following the tariffs, while imports of covered aluminum declined by 24% over the same period (Durante, 2024).[13]

Against a decline in the bilateral U.S. China deficit, the overall U.S. trade deficit remained largely unchanged by the end of 2019, just over 4% (slightly above $900 billion; Figure 2). Imports from China were largely replaced by imports from other countries—particularly large developing economies. Haas and Denmark (2020) show that the trade deficit with key U.S. partners— Europe, Mexico, Vietnam, Japan, South Korea, and Taiwan —widened over the same period, a classic case of trade diversion. Bekkers and Schroeter (2020) document that in the first two quarters of 2019 the sectors in which imports from third countries increased the most were motor vehicles transport equipment, machinery and electrical equipment (the latter two had been hit most by the trade tensions, with a decrease in U.S. imports from China of 9.3 billion and 10 billion respectively).[14]

However, this trade diversion should not be mistaken for genuine "decoupling", given that value chains considerably reorganized in response to tariffs, especially in Asia. As Alfaro and Chor (2023) caution, Chinese firms deepened their investments in third countries to bypass tariffs: based on bilateral trade data, China seems to have stepped up its trade and FDI precisely in those countries with which direct bilateral trade with the U.S. increased in recent years, such as Vietnam and Mexico. Using 10-digit import data from 2017-2022, Freund et al. (2024) find that, once properly accounting for supply chain reconfigurations, China remained the top supplier of directly imported goods to the U.S. in 2022. Firm-level analysis by Luo et al. (2025) supports this view, as do Conteduca et al. (2024), who use inter-country input-output data to show that Chinese

[12] As explained by Bown (2022), "the Trump administration deliberately chose not to impose tariffs on these products worried that, for such identifiable goods, consumers would suffer price increases and attribute them to the tariffs."

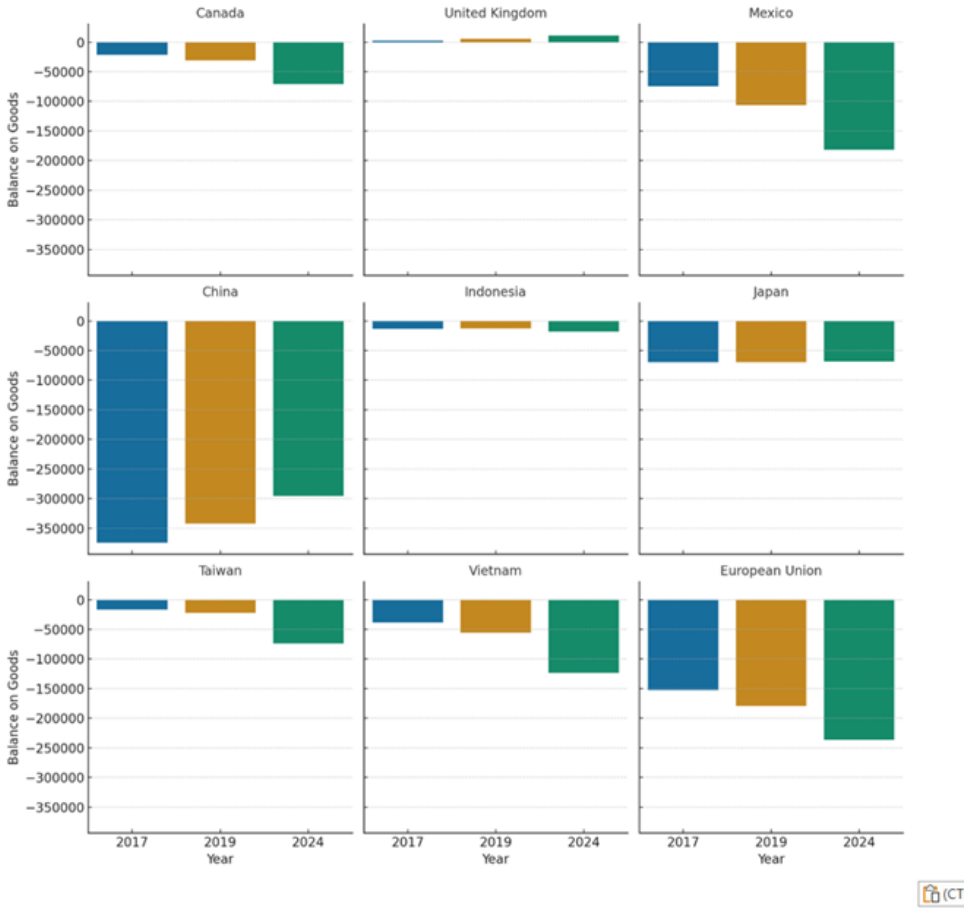
[13] They both rebounded since.

[14] Increased imports in machinery from other countries (mostly Taiwan, Korea, Japan and the European Union), to about 7 billion, did not fully compensate for the trade loss; the same happened in electrical equipment. On the contrary, for motor vehicles, the increase of US$ 6.3 billion went mostly to the advantage of Mexico (that recorded increased exports of US$ 5 billion), more than offsetting the decrease of US$ 1 billion imports from China. These results are confirmed by Alfaro and Chor (2023).

value-added continued to reach the U.S., albeit via more circuitous routes. Countries such as Vietnam, Mexico, and Taiwan increasingly served as intermediaries, helping Chinese products enter the U.S. market indirectly.

As to U.S. exports into China, these declined as a result of China's imposition of retaliatory tariffs, compounded by unfavorable exchange rate movements (Bown and Wang 2023). Looking at U.S. global exports at the product level, Fajgelbaum et al. (2020a) find that "retaliatory tariffs resulted in a 9.9% decline in U.S. exports within products." The effects were particularly severe in agriculture: according to Stephen et al. (2022), from mid-2018 to the end of 2019 retaliatory tariffs caused a reduction of more than $27 billion in U.S. agricultural exports (with annualized losses of $13.2 billion), with the largest decline in losses occurring for exports to China, especially in soybeans.[15]

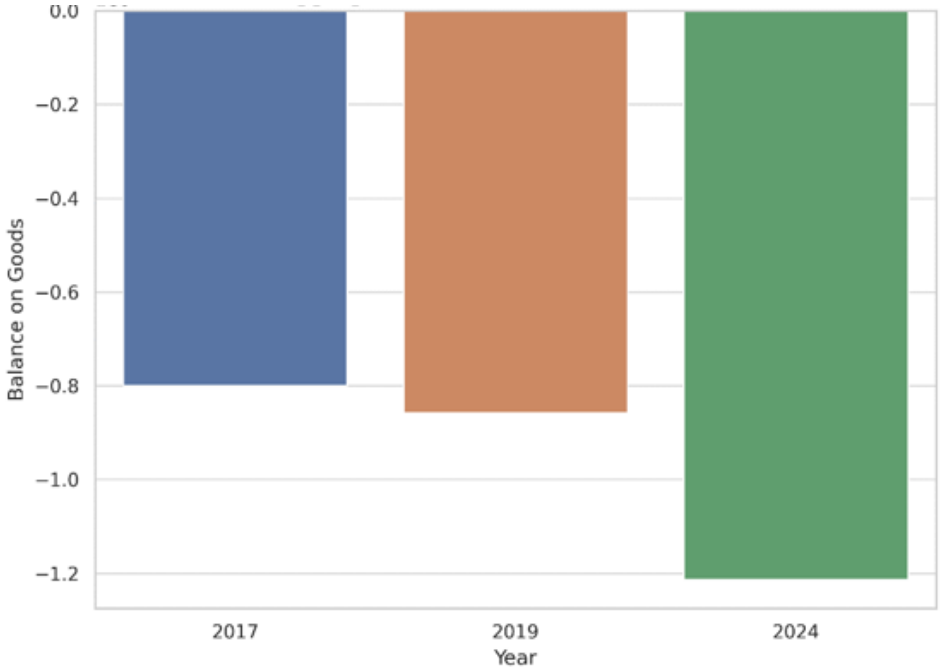
Figure 1: Goods Trade balance with main trading partners (2017, 2019, 2024)



Source: Bureau of Economic Analysis. Note: the trade balance is expressed in million dollars.

[15] Fajgelbaum et al. (2020a) also find that China's retaliation hit mostly Republican-leaning counties, given the larger incidence of Republican voters in rural areas. According to Blanchard et al. (2024) the Republican Party suffered a political cost of the trade war in the 2018 congressional election, as counties more exposed to the retaliatory tariffs reduced support for Republican candidates.

Figure 2: Goods Aggregate Trade balance (2017, 2019, 2024)



Source: Bureau of Economic Analysis *Note: the trade balance is expressed in trillion dollars.*

3.4 Domestic manufacturing, employment, and investment

A second core goal of the U.S. administration's tariff policy is to revive domestic manufacturing by redirecting demand from foreign to domestic producers. For this to happen, a number of conditions must align. First, price shifts must be large enough to induce an expenditure switch, prompting domestic firms and consumers to substitute away from foreign goods; second, domestic producers must be able to scale up production quickly and accommodate increasing demand for cheaper products – if trade diversion and import substitution from abroad are sizeable, the ultimate objective of reviving the domestic industry is missed. Over the medium term, domestic manufacturing can be boosted also via the relocation of foreign firms that find it profitable to establish production in the U.S. to avoid tariffs and preserve market share. If they do not revamp activity, trade wars can negatively reflect on firm performance and investment. They can do so both directly, influencing the decisions of firms that are most exposed to tariffs, and indirectly, by generating an environment less favorable for investment in general.

The most comprehensive study on this topic is Flaeen and Pierce (2024). Using monthly industry level data, they find that the impact from the traditional import protection channel was more than offset in the short-run by rising costs in downstream industries and weaker export demand

due to retaliation. Furthermore, although some industries benefited from reduced foreign competition, the broader labor market exhibited increases in unemployment and decreases in labor force participation in areas more exposed to the tariffs. Exposure to rising input costs alone is associated with a 1.8 percent relative decrease in employment (or around 230,000 jobs); incorporating the other two channels increases the estimated effect to 2.6 percent (or around 320,000 jobs). [16]

Steel and aluminum tariffs—designed to deliver a direct boost to domestic producers—offered some limited short-term relief. Certain firms reopened idled facilities and increased investment, and in 2018 and 2019 capacity utilization expanded (Durante 2024). Steel jobs increased, albeit only slightly; however, the measures might have also prevented some jobs from disappearing. Nonetheless, these gains proved fleeting. By 2021, capacity utilization had fallen again, falling short of the administration's 80% target. Moreover, the broader effects of these tariffs were negative once downstream industries were factored in – that is, industries using steel as intermediate inputs which faced steep cost increases. As Flaaen and Pierce (2025) show, sectors that relied heavily on metals—such as machinery and automotive components—saw input costs rise sharply, leading to declines in both output and employment. Ultimately, the narrow gains in steel and aluminum were overwhelmed by broader losses across the manufacturing landscape.

Overall, trade policy did not boost firm performance and investment. Amiti et al. (2020b) document both direct and indirect impacts. First, trade war announcements affected expected profits via "common" factors that affect stock market returns in general, such as greater policy uncertainty, changes in expected economic conditions, but they also had "differential" effects on firms that were exposed to China more than firms that did not transact substantially with China. They estimate that these two joint channels through the trade war of 2018 and 2019 would lower the investment growth rate of listed US companies by 1.9 percentage points by the end of 2020. Huang et al (2023) explore the firm-level impact of both *direct* and *indirect* exposure to U.S.-China trade – direct measures being firms' share of sales directed to China and firms' share of inputs sourced from China, indirect ones capturing firm-level measures of exposure to trade with China via production networks based on buyer–seller linked data. They find that around tariff announcements, U.S. firms more dependent on China experienced larger declines in market value, with the negative effect spilling over to the affected firms' suppliers and customers through production networks;

[16] Analyses of private professional analysts are consistent with Flaeen and Pierce (2024): Peter Zandi of Moody's Analytics estimated that through August 2019 300,000 American jobs had either been lost or not created due to the trade war, especially affecting manufacturing, warehousing, distribution and retail; they also document that American manufacturers were reducing their capital investments and delaying hiring due to uncertainty caused by the trade war. A study by Oxford Economics and the U.S.-China Business Council concluded that the United States lost 245,000 jobs as a direct result of the Trump tariffs.

they also experienced stronger CDS dynamics. Caldara et al. (2020) further explore the uncertainty channel. After building a Trade Policy Uncertainty (TPU) Index, they show that spikes in the indicator in 2018-19 were associated with declines in investment.

3.5 Tax revenues and fiscal outlook

Beyond trade and industrial policy, the U.S. administration also frames tariffs as a tool to generate revenue for the federal government.

As already seen in section 1.2, unless tariffs are fully absorbed in import prices, from an economic standpoint they operate like a tax for the importing country. Quantities furthermore adjust dynamically: in presence of trade diversion – let alone a deterioration in GDP-, the taxable base shrinks and with it does the value of levies raised. Therefore, whether they represent a meaningful source of revenue depends on how trade volumes respond and how much of the tax is absorbed domestically.

York (2024) estimates that, had trade volumes remained at pre-tariff levels, the full suite of measures could have generated revenues around $80 billion per year. In practice, lower imports in the targeted categories meant smaller tax bases—and smaller revenues. From the start of the trade war through March 2024, total customs collections attributable to the tariffs reached $233 billion, with the bulk—$211 billion—coming from Section 301 tariffs on Chinese goods. Of that $233 billion, $89 billion was collected during 2018-19.

According to Rose (2024), tariff revenues from Chinese imports as a share of total U.S. imports peaked in 2021 before gradually declining. This reflected the reorientation of trade toward other countries and the erosion of taxable import volumes over time. Even at their highest, the revenues contributed only around 1.2% of total U.S. tax receipts. For context, the Tax Cuts and Jobs Act of 2017 is estimated to have reduced federal revenues by approximately $275 billion, or 7.6% of projected tax receipts (Gale and Krupkin, 2019).

At the household level, the impact was tangible. York and Durante (2025a) calculate that the higher tariffs directly increased taxes by $200 to $300 annually per U.S. household, on average, even after accounting for behavioral effects leading to product substitution. It is a large tax increase by historical standards. Moreover, the government incurred fiscal costs in response to retaliation. The Department of Agriculture distributed $28 billion in aid to U.S. farmers between 2018 and 2019 to compensate for lost export sales—particularly to China (York, 2025).

3.6 General equilibrium effects

The different channels outlined in the previous section were described until now in isolation, but they are often intertwined and can reinforce or dampen one another. To capture these complex interconnections, one needs to resort to general equilibrium models, that can account for feedback effects of all the relevant variables. An important caveat to keep in mind is that the quantifications provided by these tools depend on the model specifics, including which channels are presented and how they are modelled, the assumptions on agents' behaviors, etc.

Several general equilibrium models assess that the 2018-19 trade war resulted in a moderate output loss for the U.S.. Fajgelbaum et al. (2020b) (which updates Fajgelbaum et al. 2020a with data covering the 2019 tariff increases) estimate an aggregate annualized loss of $24.8 billion, or 0.13% of GDP, even taking into account the positive effects of the windfall revenues for the government budget. Kalemli-Özcan et al. (2025) obtain a similar result (-0.2% of GDP on impact, -0.1 in the long run); York and Durante (2025b), using the Tax Foundation general equilibrium model, also derive a similar quantification.

Evidence on the longer-term implications of the 2018-19 trade war is particularly scant. The imposition of tariffs was quickly followed by unprecedented shocks, most notably the pandemic, which affected trade patterns, supply conditions, policy responses, and geopolitical relations. As a result, disentangling the impact of the 2018-2019 trade war on slow-moving variables, such as productivity and innovation, is fundamentally challenging.

4. 2025 vs 2018-19

4.1 A new escalation

Since the new administration took office in January 2025, U.S. trade policy has undergone a major shift, marked by significant tariff hike announcements and subsequent adjustments.[17] In this subsection, we briefly summarize the timeline of the main interventions (up until mid-August 2025); in sub-section 4.2 we will delve into the possible implications for the U.S. economy of the implementation of such interventions and reference some preliminary evidence, where available.

[17] For real-time updates on the US trade actions during the second Trump administration, see Bown (2025a, 2025b).

- On February 1, the U.S. imposed a 25% additional tariff on imports from Canada and Mexico; the tariffs on goods from these two countries ranged between 0 and 5% before this decision. At the same time, a 10% additional tariff was imposed on imports from China. On February 10, the tariff on steel and aluminum was raised to 25% independent of the country of origin.
- On March 26, the U.S. imposed a tariff increase of 25% on automobiles and certain automotive parts, such as engines, transmissions, powertrain parts, and electrical components, reaching levels close to 30%.
- On April 2, President Trump held the so-called "Liberation Day" in which he announced two measures:
    - a baseline 10% tariff on virtually all countries;
    - additional "reciprocal" tariffs on countries with significant trade surpluses with the U.S., with levels ranging from 17% to 46%. They virtually affected all trading partners, including China, the European Union, India, and Japan. This move raised the effective U.S. tariff rate on Chinese goods to 54%.[18]

Tariffs in this scenario affect most sectors, with few exceptions (such as raw materials, pharmaceutical products and semiconductors); for pharmaceuticals and semiconductors, however, it later was announced that some tariff increases would be enacted in the near future.

After April 2, while most trading partners were waiting to enact retaliatory measures, China responded by imposing a 34% tariff on all U.S. goods. The tit-for-tat escalated rapidly: the U.S. increased tariffs on Chinese goods by 145 p.p., while China raised its tariffs on U.S. goods to 84%, and subsequently to 125%. The US effective tariff rate towards China reached 120%; (it was 11.5% at the end of 2024). Beyond tariffs, China implemented additional retaliatory measures by suspending exports of critical minerals and magnets essential to the automotive, defense, aerospace, and semiconductor industries.

On April 9 the U.S. President announced a 90-day suspension on reciprocal tariffs to a vast majority of U.S. trading partners, with the notable exception of China. The suspension was motivated to allow for trade negotiations with partners; the stance with China was kept unchanged.

[18] The logic of the country-specific "reciprocal" tariffs is to match effective tariffs imposed on U.S. exports, as calculated by the U.S. administration by considering not only standard tariffs but also "non-monetary barriers" (i.e., standard, mostly regulatory, non-tariff trade barriers but also different taxation schemes such as VAT) and the effects of "currency manipulation". In practice, reciprocal tariffs imposed on each country were calculated as the ratio of the bilateral trade deficit with that partner to U.S. imports from that partner, divided by two.

However, on May 10-11, China and the U.S. agreed to a 90-day truce, intended for further negotiations. During this period, the combined additional 145 p.p. U.S. levies on most Chinese imports were reduced to 30 p.p. (including the rate tied to fentanyl), while the 125% Chinese duties on U.S. goods dropped to 10%. As an effect of this agreement, the U.S. effective tariffs on China are temporarily slightly below 40%. Additionally, China agreed to lift certain export restrictions, including those on rare earth elements.

As the end of the 90-day suspension of reciprocal tariffs announced on April 9 was approaching, the U.S. administration struck deals with several countries. On May 8, a trade deal between the UK and the U.S. was announced: while the baseline 10% tariff remains in effect, an alternative arrangement for tariffs on UK autos was introduced. The UK was not subject to reciprocal tariffs, as it runs a goods trade deficit with the U.S.. On July 23, an agreement with Japan was announced, setting tariffs on U.S. imports from this country at 15% on most goods (including cars, that were subject to a 27.5% tariff before the deal), and including $550 billion of Japanese investments in the U.S.. The deal with the EU, announced on July 27, entails a 15% import tariff on most goods (including cars), plus the EU commitment to import $250 billion yearly of energy goods from the U.S. and to invest $600 billion in the U.S. by 2029. Indonesia, the Philippines and Vietnam reached a deal with the U.S. as well, securing a baseline tariff rate around 20%. On August 12, a further 90-day extension of the truce between China and the U.S. was announced, leaving their bilateral tariffs at the post- May 10-11 levels.

4.2 Implications for the U.S. economy

In this Section, we provide some considerations on the possible impacts of the set of measures that have been in place as of mid-August, informed by the literature on the domestic consequences for the U.S. of the 2018-19 trade war.

Under the scenario prevailing in mid-August, the effective tariff rate of the U.S. towards the rest of the world is almost 19% (from about 3%), while that towards China is slightly above 40% (from about 11%); see Table 1, Columns 1 and 2.

In comparison with the 2018-19 trade war, the size of the increase of the effective tariff rate to all trading partners is of another order of magnitude: against an increase of just below two percentage points throughout 2018-19, as estimated by Conteduca et al. (2025), we would be witnessing a jump of more than six-fold.

Should the truce with China expire with no improvements in trade negotiations, and tariffs go back to April levels, the effective tariff rate applied to Beijing would skyrocket to almost 110%,

pushing the effective tariff rate towards all trading partners up an additional 10 percentage points (see Table 1, Column 3).

Table 1: U.S. effective tariff rate

	End-2024	August 2025 - China Truce	August 2025 - China back to April 9 tariffs
With respect to the world	3	19	29
With respect to China	11	41	109

Source: Bank of Italy calculations.

Abstracting from this extreme scenario, for now, the configuration of early August still marks a considerable shift from the previous tariff war. Three dimensions stand out:

- a higher average *size* in the tariff increases imposed by the U.S. administration. Even net of eventual further escalation towards China, the increase is very large.
- a wider *product scope*, as the tariff shock encompasses most traded products. Were it also to include pharmaceutical products and semiconductors, 80% of the value of U.S. imports would be subject to some tariff hike. Given the wide product scope, most likely consumer goods, which were less affected relative to intermediate goods in the first trade war, would be hit more severely than in the past.
- A larger *geographical scope* of the measures, as the number of countries affected is much higher.

We now flesh out how these differences might play out relative to the 2018-19 trade war.

First, the tariff increase is likely to be felt significantly both by exporters and U.S. counterparties, all the way to final consumers.

To start, the terms of trade shock will affect both exporters and importers, making the full pass through onto import prices observed during the 2018-19 episode quite unlikely. Preliminary evidence suggests that in certain countries and product categories, exporters to the U.S. may be absorbing part of the increased tariff burden. Goldman Sachs (2025b) uses data on U.S. import prices through May 2025, compares import prices for tariff-affected goods to those not subject to

tariff hikes, and estimates that a 1 percentage point increase in tariffs led to a 0.07% drop in import prices after two months and a further 0.12% drop in the third month.[19] Their study also finds — consistently with the body of academic work surveyed in Section 3 — that in 2018–2019 the trade tariff increases had no statistically significant impact on import prices.

A "shared" pass-through outcome reflects two factors.

The mere size of the tariff rate increase might induce exporters to absorb part of the shock: in many sectors, the import price that would be induced by a full pass-through would be so large as to result in a collapse of U.S. demand for certain imports.[20] The other factor supporting an impartial pass through is the limited extent of diversification that is available to both importers and exporters. As explained in Fajgelbaum and Khandelwal (2022), interpretations for a high pass-through into import prices of the tariff increase could lie in inelastic U.S. demand or elastic supply of exports to the U.S.. As tariffs are raised towards most of the trading partners, there is limited scope for trade diversion, weakening both explanations. In fact, on the one hand, U.S. importers would have much less space to divert some of their orders to other countries in search for cheaper goods, as all the trading partners are hit by the tariffs hike, hence strengthening the downward pressure on U.S. imports demand (*higher import demand elasticity*).[21][22] On the other hand, it would be more difficult for countries exporting to the U.S. to reallocate exports from the U.S. to other destinations, as all the possible alternative destinations would face the same need (*lower import supply elasticity*).[23]

[19] A large part of this results from the absorption by China's exporters; when China is excluded, the impact is smaller and shows a reversal.

[20] This adjustment nevertheless might find an obstacle in the build-up of overcapacity in China after the pandemic. Such overcapacity has reduced Chinese firms' profit margins, which were already low enough to motivate limited price adjustments in the 2018-19 trade war with the U.S.. If this were a binding constraint, Chinese exporters might prefer squeezing the quantities they sell at the risk of losing one destination market, rather than cutting selling prices and operating at a loss.

[21] Cavallo et al. (2021) show that while the US retailers in their sample imported almost entirely from China before the tariffs, they started diverting some of their orders to other countries once the tariffs were put in place. However, an important caveat to keep in mind is that goods from countries severely hit by tariffs, like China, could still being re-routed through other countries and enter the US, unless stricter rules of origin are implemented. As mentioned in Section 3, this happened also during the first Trump administration.

[22] Somewhat relatedly, also the wide scope in terms of products hit by the tariff shock would work against the full pass-through of the tariff. In fact, it would make more difficult to substitute with imported goods that are not hit, hence adding to the downward pressure on US imports demand.

[23] This mechanism does not necessarily work for goods whose world production is highly concentrated in China and cannot be easily substituted with other goods, which would more easily diverted to non-US countries.

While the tariff pass-through to import prices will arguably be smaller than in the 2018-19 episode, the pass-through from import prices to domestic prices is likely to be stronger.[24] The size of the shock is again decisive. Given its magnitude, it would be hardly sustainable to absorb the import price increase in the margins along the pricing chain, thus strengthening the pass-through from import prices to consumer prices. Besides being stronger, the pass-through to consumer prices might also be quicker: as documented in Cavallo et al. (2024), "*a large cost shock triggers a swift increase in the frequency of price adjustments, causing a rapid pass-through from costs to prices*". Cavallo et al. (2025) report first and preliminary evidence on the short-run impact of tariff increases on U.S. retail prices; linking daily prices from major U.S. retailers to product-level country-of origin information and detailed tariff classifications, they observe how imported and domestic products in specific categories are responding to the 2025 trade policy changes.[25] They document rapid but still relatively modest price adjustments, more pronounced among imported goods; however, also domestic products saw some gains, likely driven by expectations of rising input costs and shifts in consumer demand. The limited scope for import substitution would hamper the possibility for retailers to direct their orders towards countries or products not targeted by the tariff increase. This is also consistent with the empirical evidence on the 2018-19 trade war summarized earlier: in case of products subject to tariffs regardless of the country of origin, the pass-through into retail prices was quite substantial (Flaaen et al. 2020). Also some soft data point towards a significant effect of tariffs on consumer prices: recent surveys by the New York and Atlanta Feds show that U.S. companies passed (or expect to pass) roughly 50% of the tariff costs on to consumers or downstream businesses.[26] In the New York Fed survey, nearly a third of manufacturers and about 45 percent of service firms are fully passing along all tariff-induced cost increases by raising their price.[27]

At the same time the dynamics of consumer inflation will not only depend on the full pass through sketched above, but will also result from other factors set in motion in general equilibrium. These can have opposite effects, so it is ex ante unclear which one will prevail. On the supply side, the increase in input costs that domestic firms would face because of tariffs increase might add inflationary pressures. According to De Michelis and Somale (2023), nearly one-third of intermediate inputs used to manufacture goods in the U.S. originate from abroad, both directly and indirectly (foreign inputs used to produce domestic inputs). This supply-side effect, akin to a cost-push

24 The strength of the transmission from import to consumer prices, together with the size of the shock, would arguably result in sizeable effects for U.S. consumers, even if the tariff pass-through into import prices would not be complete.

25 The paper is constantly updated, as new data become available; the latest version is available here.

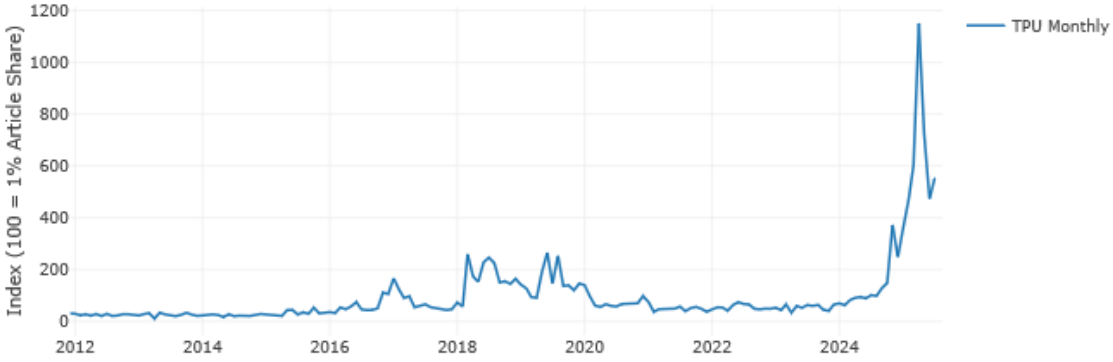
26 Goldman Sachs (2025a).

27 Abel et al. (2025).

shock, would be most pronounced for imports of intermediate from China given the size of the tariff increase against Beijing.

On the demand side, deflationary pressures, especially if trading partners of the U.S. choose to retaliate, could in principle be particularly sizable, as a widespread retaliation would trigger a downturn in global demand that would make the consequences of the tariff war more similar to a demand shock; however, little retaliation has taken place up until August.[28] Another drag on demand can come from the protracted extreme uncertainty surrounding how the trade war will play out: the Trade Policy Uncertainty Index developed in Caldara et al. (2020) hovers at levels well above the peaks reached during the first Trump administration (Figure 3).

Figure 3: Trade policy uncertainty



Source: The Trade Policy Uncertainty (TPU) index is taken from Matteo Iacoviello's website*, and is based on Caldara et al. (2020). The last observation refers to July 2025.*

The outcome on the aggregate U.S. trade balance might turn out more effective than in the previous trade war. Lessons from 2018-19 teach us that a tariff increase heavily concentrated on China can shrink the bilateral U.S. trade deficit vis-à-vis China, but it does not necessarily choke off the aggregate U.S. trade deficit. It remains to be seen how trade flows in and out of the U.S. will be redirected following a tariff increase much greater and much more widespread across trading partners. Theory does not offer univocal views. On the one hand, traditional insights of macroeconomics would suggest that also a significant tariff increase vis-à-vis *all major trade partners* would leave the overall trade balance largely unchanged. Theory dictates that trade imbalances are fundamentally shaped by national savings and investment decisions that are not related to trade policy, as tariffs affect the extent and nature of *intratemporal* trade, but the trade balance

[28] As Bergin and Corsetti (2023) point out, tariffs are quite different from a standard productivity shock, in that they combine elements of supply shocks with demand shocks: while a tariff war raises the average price of all consumption goods, including imports, the contraction in global demand tends to reduce the prices set by domestic firms. In other words, tariffs raise CPI inflation but tend to depress PPI inflation.

issue is one of *intertemporal* trade: countries with above average productivity growth should run current account deficits, in order to smooth consumption across time.[29] However, intuitions aside, formal analyses of the impact of tariffs on trade imbalances are scarce. This argument, on the other hand, has been recently revisited. Costinot and Werning (2025) use a flexible trade model to show that an increase of tariffs can indeed affect trade imbalances and reduce them if it shifts up the real interest rate of the country in deficit. Intuitively, it happens if the cost in terms of reduced consumption of a cut of imports (everything else equal) is more severe, the higher are imports. A permanent tariff then raises the cost of consumption more in the first period, creating a substitution effect away from consumption today towards consumption tomorrow, i.e. an incentive to save, which reduces the trade deficit. [30] Auclert et al. (2025) show that a temporary unilateral tariff can shrink the aggregate trade balance (thanks both to substitution away from imports and to the likely recession), but retaliatory tariffs make the trade balance likely to deteriorate. Moreover, the lack of recent historical episodes of widespread trade tensions of this size does not allow drawing guidance from the past.

As of August 2025, the exchange rate seems to have reinforced the tariff impact on the trade balance, via a dollar depreciation against a large set of currencies, and in contrast with previous episodes of trade wars. In principle, tariff increases *per se* should lead to an appreciation of the U.S. currency, for the reasons outlined in the previous Section; Kalemli-Özcan et al (2025) provide a model-based quantification of the dollar appreciation determined by the April 2 announcement of around 10% (in nominal effective terms). The dollar appreciation would dampen the desired (by the U.S. administration) shrinking of U.S. trade imbalances: it would partly offset the direct impact of tariffs on import prices (when converted in dollars) and make U.S. goods less competitive. However, in fact, the dollar depreciated in nominal effective terms by around 5% in the 20 days after the April 2 announcement and, by mid-August 2025, the dollar has not yet shown signs of a sustained recovery. This unexpected movement (with the opposite sign compared to other episodes of *flight-to-safety*) could be due to fears of retaliation or increased global uncertainty. If related to a shift in investors' perceptions of the dollar's safe-haven status, a whole new set of implications could come into play, as trade policy changes could be intertwined with a significant adjustment in global financial markets.

[29] For a summary of this traditional tenet, see Bekkers and Schroeter (2020).

[30] This mechanism might operate, for example, if an extensive margin in international trade is active, namely if some good can be traded and others not: in this case, as long as aggregate imports are reduced, some goods that were previously imported stop being imported, limiting the consumption adjustment along the aggregate import margin. However, the quantitative relevance of their result is not explored yet.

The effects on manufacturing and employment will depend on the extent to which the tariff hike is going to affect intermediate inputs and on the intensity of foreign countries' retaliation. The three channels singled out by Flaaen and Pierce (2025) - *import protection*, *export retaliation, and input costs* - are likely to play out differently relative to the previous trade war. Import protection should play a bigger role in supporting domestic activity: as more countries and more sectors are affected by the tariffs, the restriction to foreign competition is higher. As to retaliation, while in theory this could be a lot more damaging than in 2018-19, given the wide geographical scope of the current tariffs, the actual degree of retaliation has been relatively modest by August suggesting that its harmful potential may be less than theorized. What seems more menacing for U.S. manufacturing at the current stage is *rising input costs.* As the tariff increase affects basically all countries and all products (even if with different intensity), there is more scope for a sharp increase in input costs via supply chain linkages with foreign countries than in the past episode.

The recent unprecedented spike in uncertainty (shown above) will weigh on firms' investment, as suggested by the evidence produced by Caldara et al. (2020) for the 2018-19 trade war. This effect will be compounded by a deterioration in firms' performance in sectors most exposed to the tariffs. Besides these mostly short-term effects, the outlook of capital accumulation is crucial to assess the long-run effects of the trade war on U.S. production capacity. As shown by Baqaee and Malmberg (2025), domestic welfare costs of trade wars can be significantly higher once the margin of capital adjustment is taken into account. Import tariffs tend to raise the price of capital goods relative to other factors like labor and land, as the former are more reliant on imports. This increase in relative prices lowers the demand for investment relative to other factor inputs and, in turn, reduces the long-run capital stock.[31] Baqaee and Malmberg show that, calibrating their model to the April 2 configuration of tariffs (plus symmetric retaliations from non-U.S. countries), the reduction in the capital stock accounts for a drop in consumption five-fold larger than if the capital stock were to remain constant.

The fiscal windfall stemming from tariffs depends on the exact configuration of trade measures, but it can be substantial. Some recent simulations by the CBO imply that the changes in tariffs (as of May 13) would reduce the total deficit by $2.8 trillion between 2026 and 2034 (CBO 2025a), while the Budget Lab at Yale University estimates a tax revenue increase of $2.3 trillion over the same period (considering the tariffs at July 30; Budget Lab 2025). To provide some context, the large tax reform package announced by the U.S. administration under the name of "One Big

[31] Provided that households' savings decisions are not fully inelastic.

Beautiful Bill Act" is estimated to increase the federal budget deficit over the decade through Fiscal Year 2034 by at least $2.9-3.0 trillion (CBO 2025b). The implications for tax revenues also will depend on foreign partners' retaliation choices. Some indications can be drawn from some recent estimates of revenues under different hypotheses of tariff rates, lower than what would be entailed by the full implementation of the trade measures announced by the U.S. administration (York and Durante 2025b and McKibbin and Shuetrim 2025).[32] These calculations indicate an increase in the magnitude of $2-3 trillion over the 2025-34 budget window – the revenue feedback from the negative macroeconomic effects would be half a trillion. Adding the assumption of a symmetric retaliation further compresses revenues.

5. Way forward

Despite the easing of trade tensions with the recent trade deals and the truce with China, an important aspect to consider is that uncertainty on the final configuration of tariffs remains elevated; several countries are still facing severe tariffs, and potential for re-escalation looms if a substantive agreement is not reached with China within the designated timeframe. (As shown in Table 1, reverting to the pre-truce tariffs on China would by itself increase the U.S. effective tariff rate by around 10 percentage points). Moreover, sectoral tariffs remain elevated, and more are in the pipeline (e.g. for semiconductors and pharmaceutical products).

Should the easing prove temporary, most of the arguments outlined above would still hold qualitatively, but their quantitative relevance would be greater, with two major differences.

First, the size of tariff increases would be so large as to induce a complete dry out of imports of certain goods (or from certain countries); this could lead in the short term to shortages of inter-

[32] In the assessment of the Tax Foundation, reduction in imports and increase in noncompliance shrink the tax base in 2025 for a tariff on all U.S. imports of goods from 3.3 trillion dollars to 2.7, 2.6 and 2.3 trillion for a 10 percent, 15 percent and 20 percent tariff, respectively (York and Durante 2025b). Over the 2025-34 budget window the direct effect of the universal tariffs would amount in a windfall of 2.2, 2.9 and 3.4 trillion dollars for the 3 scenarios. However, incorporating the revenue feedback from the negative macroeconomic effects estimated by the Tax Foundation model, the gains over the 10-year budget window would drop to 1.7, 2.2 and 2.6 trillion dollars. Revenues would fall further in case of foreign retaliations, as the ensuing adverse impact on U.S. output and on corporate and household incomes would induce a negative feedback on revenues; considering these offsetting effects, the net windfall for the Federal Government stemming from tariffs would then amount to 1.4, 1.8 and 2.0 trillion dollars, in case of a symmetric retaliation. McKibbin and Shuetrim (2025) carry out an exercise along the same vein, obtaining quite different results. They use the G-Cubed general equilibrium model to simulate three alternative tariff changes: a 10 percentage point, a 15 percentage point, and a 20 percentage point increase in tariffs on all imports of goods into the U.S., with a particular focus on the federal government revenue implications. Compared to York and Durante (2025b), in their simulations the net revenue increases from tariffs in the 2024-35 budget window would be higher absent any retaliation (2.5, 3.2 and 3.6 trillion dollars), but the effect of a symmetric retaliation would be much more severe (revenues would drop to 1.6, 1.5 and 0.8 trillion dollars).

mediates, and an ensuing non-linear steepening of the supply curve. Similar effects could materialize if China were to resume the ban on the exports of critical materials to the U.S.. The inflationary consequences of this outturn could be sizeable: similar shortages were an important factor behind the post-COVID inflation surge.[33]

Second, the risk of a scenario characterized by widespread, full-blown retaliatory measures by many countries might increase, hence making more concrete the possibility that the ensuing trade war would result in a massive, negative global demand shock.

[33] See Bernanke and Blanchard (2023) and arguments in Attinasi, Mancini et al. (2024) Chapter 5, among others.

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