Discussion of "Tariffs in 2025: Short-Run Impacts on the US Economy" by Pablo Fajgelbaum and Amit Khandelwal

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The return of tariffs to the centre of US economic policy in 2025 has generated an unusually large gap between political salience and conventional quantitative estimates. Tariffs were treated in public debate as a major macroeconomic turning point. Yet, the direct arithmetic of the shock, using Hulten's theorem, is modest: an *effective* (as opposed to announced) tariff increase of roughly 7.2 percent applied to an import share of GDP of about 10.8 percent should generate a macroeconomic effect of approximately 0.8 percent of GDP. To be clear, this is a significant macroeconomic shock with first-order aggregate and redistributive consequences. But it is also not — by itself and when viewed as a regular tax — a shock of the scale sometimes implied by the political rhetoric surrounding it.

Fajgelbaum and Khandelwal's Brookings paper is valuable precisely because it imposes academic discipline on this important policy debate. It provides a snapshot of how the modern field of International Trade evaluates tariffs: with pass-through estimates evaluating changes in trade prices and quantities using cross-sectional variation in applied tariffs, and welfare assessment using quantitative general equilibrium models disciplined by observed trade elasticities. The paper's conclusions are therefore intentionally non-sensational. The tariff shock is large relative to recent US tariff episodes — in particular, the 2025 shock is much broader and more salient than 2018 tariffs — but its aggregate welfare effects are small, on the order of one-tenth of a percent of GDP according to the model.

This number should not be read as saying that tariffs do not matter. It says instead that the deadweight loss is small relative to the gross redistribution that this tariff induces, and, to a first approximation, a tariff is a tool of redistribution. Despite the small aggregate welfare effect, the distributional consequences for domestic firms and consumers are negative and at least an order of magnitude larger, resulting in US government tariff revenues of nearly one percent of GDP — large enough to eliminate a third of the primary fiscal deficit, even though it is a suboptimal way to collect government revenues (Alessandria et al 2026). The small aggregate welfare number arises because transfers from the private to public sector net out in aggregate welfare calculations, while distortions are second order for moderate wedges. A net positive aggregate welfare effect for the US may arise if the tax burden is at least in part on the foreigners.

Using cross-sectional variation in applied new tariff rates, the authors find a near-complete pass-through of tariffs into US import prices. The pass-through estimate, around 90 percent, is consistent with the evidence from 2018. This finding has two implications. First, foreign exporters appear not to have absorbed most of the tariff by lowering their pre-tariff prices so far. Second, the scope for a large direct terms-of-trade gain through foreign price concessions is limited, at least in the short run and in the observed variation. The third finding concerns the determinants of tariffs: China is the dominant factor; beyond China, tariff rates correlate with pre-existing bilateral trade deficits, but do not appear to systematically reduce bilateral deficits going forward. There is also substantial residual variation. From an empirical perspective, this random component is useful because it helps identify causal pass-through and trade responses. From a macro perspective, however, the aggregate component — that is, the unidentified regression *intercept* — may be the most important part of the episode, and this component is precisely what cross-sectional methods cannot capture.

This contrast is not a criticism of the methodology. It is a statement about what the methodology is optimized to do. When the tariff shock is heterogeneous across goods and source countries, and the aggregate component is small, cross-sectional regressions are powerful. They compare high-tariff to low-tariff products, or more-exposed to less-exposed firms, and recover incidence and substitution responses. But any effect common to all goods at a point in time — including, exchange rate movements, monetary policy responses, changes in international portfolios, aggregate savings and investment (which together determine the current account), or shifts in macroeconomic expectations — is absorbed by time fixed effects or the empirical intercept. These aggregate variables are not residual details; in 2025, they may have been at the centre of the story, in which case the cross-sectional evidence is necessary but incomplete.

While the paper provides a snapshot of the Trade field's evaluation of the tariffs, this discussion offers a complementary International Macro perspective, which intentionally overlooks the cross-sectional effects and focuses on the aggregates. The exchange rate acts as a natural bridge between the trade and macro views, with the latter interested in particular in the consequences for monetary policy, asset prices, aggregate savings and investments. Therefore, the exchange rate is at the center of this discussion. A major economic fact of 2025 is the large US dollar *depreciation* which followed in a conspicuous way the April 2 tariff announcement (see Figure 1a). This is puzzling because a broad tariff by itself should have resulted in a US dollar *appreciation*, as in many previous episodes. Therefore, the observed depreciation is informative as it provides a hint at other macroeconomic shocks that likely occurred with, or arose from, the April tariff announcement.

What's in the intercept?

Several aggregate channels can mediate the macroeconomic consequences of tariffs. Monetary policy is the most immediate. If the central bank accommodates tariff-induced price increases with a permissive monetary stance or in contrast tightens in response to tariff-induced inflation, then the aggregate macro consequences may be driven by the monetary response rather than by the tariff itself (see discussion in Barbiero et al 2019). In 2025 this does not seem to be the central channel, and the more striking movements occurred in exchange rates and asset markets unrelated to monetary policy news.

A second channel is investment, and, in particular, investment linked to global value chains.

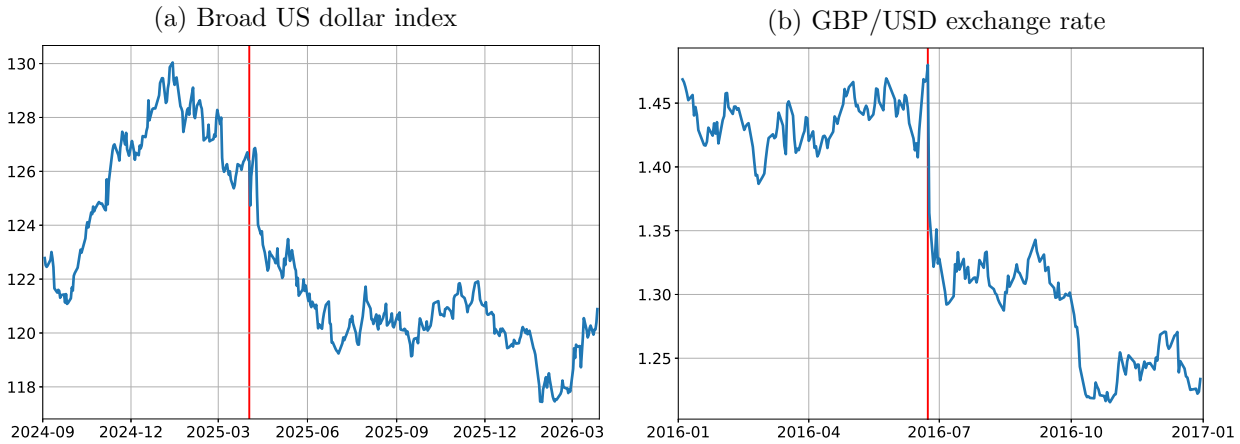

Figure 1: Broad US dollar index around the Liberation day (April 2, 2025) tariff announcement and the GBP/USD exchange rate around Brexit vote (June 23, 2016).

Source: St.Louis Fed FRED database, "Nominal Broad U.S. Dollar Index (DTWEXBGS)" and "U.S. Dollars to U.K. Pound Sterling Spot Exchange Rate (DEXUSUK)" series (daily data).

Tariffs — and, equally important, trade policy uncertainty — can induce firms to reorganize supply chains, move production, or delay investment. These effects are likely to be slow-moving and difficult to identify in the short-run price and quantity data. They may also differ sharply across sectors in ways that are not immediately linked to the applied sectoral tariffs. Furthermore, the resulting welfare effects are not necessarily captured by static trade elasticities. Long-run changes in trade patterns are, perhaps, at least as sensitive to the location of supply chains (that adjust slowly) as they are to bilateral trade impediments (which may be changed multiple times a year, as in 2025). Tariff uncertainty can curb investment. In contrast, tariffs that induce reallocation of global value chains may result in the short-run spike in investment and, hence, increased short-run aggregate demand and current account deficits.

A third, indirect, channel is expectations. A tariff announcement can change beliefs about the future policy regime even before it changes and physical costs or production decisions. The analogy here is Brexit. On the day of the Brexit referendum on June 23, 2016, the real productive capacity of the United Kingdom did not suddenly fall, neither did any cross-border costs change. Yet, the pound depreciated sharply (see Figure 1b) because markets revised beliefs about future access, institutions and policies, as well as financial returns to UK-based activities. Similarly, a tariff announcement may have effects through expectations about future trade policy, the rules-based trading system, the fiscal and monetary regime, and the role of the US in global financial markets.

This distinction between direct and indirect effects is essential. The direct partial-equilibirum effect of a tariff is to raise the relative price of imports and, thus, shift expenditure away from imports provided elasticity of substitution is sufficiently high. The indirect effect may be to alter beliefs about the future productivity of tangible and intangible sectors, especially the financial sector. If investors infer that the United States is less committed to open markets, predictable institutions, or the international public good embodied in dollar liquidity, the value of dollar services may fall. In that case, tariffs have collateral damage beyond the goods they tax. The exchange rate aggregates both the direct and indirect channels in general equilibrium.

Tariffs and the exchange rate

An aggregate import tariff shock on its own must trigger an exchange rate appreciation. This can be seen both from the currency market and the goods market perspective (see Itskhoki and Mukhin 2025). An import tariff reduces the demand for foreign goods and therefore the demand for foreign currency needed to purchase them, resulting in an appreciation of the domestic currency. Under balanced trade, as tariff reduces imports, the real exchange rate must appreciate to reduce foreign demand for domestic exports and restore equilibrium. This appreciation curbs the effect of the tariff on imports, undoing part of the increase in their relative cost for domestic consumers. The same mechanism extends to economies with trade imbalances, where the intertemporal budget constraint and international asset positions become central.

A useful rule of thumb is that the elasticity of the real exchange rate (RER) with respect to an aggregate import tariff τ^I is approximately one half:

$$\Delta \log RER \approx \frac{\sigma}{\sigma + \sigma^* - 1} \Delta \tau^I \approx \frac{1}{2} \Delta \tau^I, \tag{1}$$

where σ and σ^* are the home and foreign import demand elasticities (Itskhoki and Mukhin 2026).[1] The exact coefficient in (1) depends on trade elasticities, as well as the openness of the two economies more generally, but a value near one half is a useful benchmark: the real exchange rate appreciation offsets roughly half of the effect of the tariff on imports and induces an effect on exports of the same magnitude. For tariffs applied idiosyncratically to individual sectors or countries, the aggregate feedback via the exchange rate is negligible. In contrast, when the aggregate tariff increases by 7 percentage points, we should expect an exchange rate appreciation of roughly 3.5 percent which leads to a reduction in both aggregate imports and exports by 3.5 percent times the trade elasticity.

The foreign import demand elasticity σ^* in (1) also shapes the size of the optimal tariff. The optimal aggregate terms of trade manipulation is attained for an import tariff approximately equal to $1/(\sigma^* - 1)$. For low (short-run) trade elasticities, such as $\sigma^* = 2.5$ as estimated in the paper, the optimal tariff can be as large as 67% with large shift of welfare towards the home economy and away from the rest of the world.[2] Against this benchmark, the 2025 average tariff increase from 3 to 10 percent looks far below the model-implied optimal tariff, and the associated positive welfare effects for the US are surprisingly small given that much of the rest of the world did not retaliate.

Of course, realizing the terms of trade improvement requires that either foreign exporters reduce prices (which they did little) or that the nominal exchange rate appreciates (which it did not, as we discuss next). Nonetheless, if the terms of trade benefits were achieved primarily via an aggregate exchange rate adjustment, then cross-sectional regressions would fail to identify them. The distinction between partial-equilibrium and general-equilibrium terms of trade improvement is therefore important. A sector-specific tariff can move the price of that sector's imported good

[1] Note that $\sigma + \sigma^* > 1$ is the Marshall-Lerner condition for the trade balance to improve in response to a depreciation. The magnitudes of σ and σ^* range, in the literature from around 1.5 in the short run to 4 and above in the long-run cross-section. The required adjustment in the real exchange rate can occur through changes in nominal wages and prices, but the most natural way it happens in practice is by means of a nominal exchange rate appreciation provided monetary authorities keep inflation rates stable.

[2] Tariffs are bad for global trade and global welfare, but can be good for the home economy — pushing losses onto the rest of the world and achieving redistribution towards the home economy due to the improved terms of trade. This is the case only if the rest of the world does not retaliate, and the optimal retaliation is a part of the trade-war Nash equilibrium.

relative to other goods. An aggregate tariff can move the entire structure of domestic relative costs vis-à-vis the rest of the world by means of an exchange rate adjustment.

Many considerations change the algebra of the optimal tariff, including more elastic trade response in the long run, trade in intermediate inputs, and endogenous location of global value chains. One consideration that was often omitted from the optimal tariff discussion is financial valuation effects induced by the tariff. The most direct such effect is the welfare transfer associated with an exchange rate movement. A US dollar appreciation results in a wealth transfer away from the US and towards the rest of the world in proportion to the size of the US gross external liabilities. This valuation channel is quantitatively large for the US which has a large external balance sheet with net external dollar-denominated liabilities equal to about 175 percent of US GDP. Given this, a 3.5 percent appreciation of the US dollar implies a valuation transfer abroad of around 6 percent of GDP — a welfare loss for the US. This effect is an order of magnitude larger than the estimated positive terms of trade effect from the tariff, and it changes dramatically the calculus of the optimal tariff even in the absence of any retaliation.[3]

Why did the US dollar depreciate?

Perhaps, one of the central puzzles of 2025 is why did the US dollar depreciate along with the US tariff and absent a significant foreign retaliation. In most previous circumstances, the prediction that tariff news must be accompanied by an appreciation pans out in the date (see e.g. Ostry et al 2025). Why was the 2025 tariff different? Figure 1a plots the dynamics of the US dollar both before and after the April 2 tariff announcement, after which the dollar persistently depreciated. Notably, a trend towards depreciation started in the end of January 2025, right around the early first tariff announcements against Canada and Mexico. However, this was preceded by a steep US dollar appreciation between October 2024 and January 2025. Thus, one argument is that the US dollar did appreciate in anticipation of the trade war and started 2025 at an abnormally strong level. Nonetheless, the 2025 US dollar depreciation is too conspicuously correlated with the tariff announcements making it hard to dismiss it.

The most intuitive interpretation of the 2025 dollar depreciation is that the tariff shock results in a secondary shock that altered beliefs in the financial market. If a tariff alone should appreciate the dollar, then the tariff event must have been bundled with another shock that overwhelmed the impact in the currency market. A natural candidate for such a shock is a loss, or at least a partial repricing, of the US dollar's convenience yield: a decline in the special value investors attach to holding dollar assets or unhedged dollar exposure. In this case, the tariff shock is not just a tax on imports. It is also a signal about the future policy regime, the durability of US institutions, the reliability of the dollar as a safe asset, and the willingness of global investors to hold unhedged US dollar exposure.

Two irregular time-series correlations appeared in the aftermath of the April 2 announcement. First, 10-year US treasury yields went up sharply starting April 4 as the dollar depreciated. Such comovement is atypical for the US and other developed countries and, in contrast, is common for emerging markets under stress. It also has the opposite sign from the dollar-treasury yield comovement that was pronounced in the previous two years (see Figure 2a). Second, the strong

[3]Note that the valuation effect is one-time and happens immediately upon the movement of the exchange rate, while the terms of trade benefits are collected over time in every period the tariff is levied.

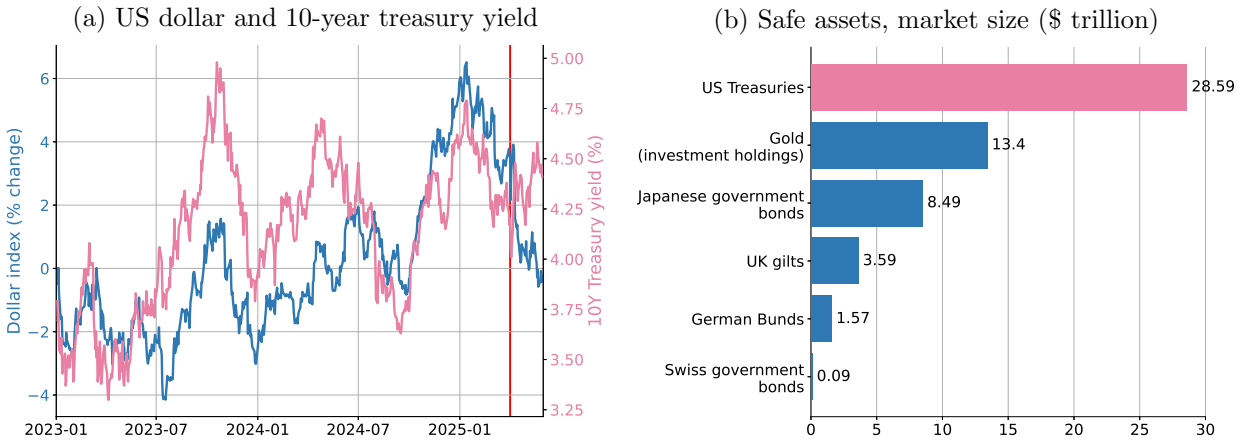

Figure 2: US dollar and treasury yield comovement and market size of safe asset proxies

Source: In panel (a), FRED database, "Nominal Broad U.S. Dollar Index (DTWEXBGS)" and "Market Yield on US Treasury Securities at 10-Year Constant Maturity, Quoted on an Investment Basis (DGS10)" series (daily data). In panel (b), US Treasuries correspond to all marketable Treasury securities outstanding as reported by the US Treasury (March 2025); Japanese government bonds (JGBs), UK gilts, German Bunds, and Swiss government bonds correspond to outstanding central-government debt securities reported respectively by Japan's Ministry of Finance, the UK Debt Management Office, the Deutsche Bundesbank, and the Swiss National Bank. Local-currency values are converted into US dollars using end-April 2025 exchange rates. Gold corresponds to the estimated value of above-ground investment gold holdings, including central-bank reserves, bars and coins, gold-backed exchange-traded funds, and related investment holdings, but excluding jewelry and industrial uses at $3,500 per troy ounce.

dollar comovement with financial volatility (VIX) reversed sign with the dollar depreciating as financial volatility spiked in April 2025. While such uncommon dollar depreciation in "bad times" can explain why investors may no longer want to hold large unhedged US dollar positions going forward, this does not explain the specific mechanism by which the comovement itself has changed, which is an open question for future research.

While many asset prices, including stock market valuation and US treasury yields, recovered shortly in the aftermath of the April 2 announcement, the dollar exchange rate remained persistently depreciated. This suggests that the "loss of privilege" was more specific to the dollar rather than the dollar-denominated US government bonds or other US-issued assets. Investors did not abandon US assets wholesale; instead, they became less willing to bear unhedged dollar exposure. Indeed, the world has few assets to offer that can currently replace US bonds and equities (e.g., see Figure 2b showing the market size for various safe assets proxies). At the same time, investors increasingly prefer to sell off the US dollar risk in the currency market using derivatives (currency futures, forwards, and swaps; see Dao et al 2025). It remains to be seen whether this remains a lasting equilibrium, where the US funding "privilege" is lost only partially — primarily in the currency market, but not in the asset market. Alternatively, the currency market may eventually mean-revert, as did other asset markets, or, conversely, there may be a slow-moving deleveraging from US assets around the world anticipated by the 2025 US dollar depreciation.

Mar-a-Lago accord and the US trade deficit

The political motivation for tariffs in 2025 was often framed in terms of trade deficits, and indeed the paper shows that the applied country-specific tariffs correlate with bilateral trade deficits. An important open question is whether the tariff shock and trade war can deliver a Plaza-Accord-like adjustment for the aggregate US trade deficit. After mid-1980s, the US dollar depreciated substantially, and the US trade balance temporarily improved in the early 1990s, albeit causality of this delayed comovement remains disputed. The contemporary analogue is sometimes described as the "Mar-a-Lago accord" — an attempt to reduce the international role of the dollar and the desirability of US assets, thus triggering rebalancing of the US trade deficit under a weaker dollar.

A country's intertemporal budget constraint provides a useful economic discipline for analyzing the relationship between tariffs, the exchange rate, and the trade deficit. In Itskhoki and Mukhin (2026), we show that:

$$\begin{array}{c}\text{Long-run}\\ \text{Trade Deficit}\end{array} = \begin{array}{c}\text{Initial Net}\\ \text{Foreign Wealth}\end{array} + \begin{array}{c}\text{On-impact}\\ \text{Valuation Effect}\end{array} + \begin{array}{c}\text{Future}\\ \text{Excess Returns}\end{array}, \tag{2}$$

where Valuation Effects are capital gains and losses on the international portfolio that arise from the exchange rate adjustment and Future Excess Returns reflect the systematic difference in the rates of return on gross external assets and liabilities, including differential convenience yields. To the extent the US enjoys such convenience yields on the assets that it sells to the foreigners, it can run trade deficits beyond its initial financial wealth.

Tariffs affect the long-run trade deficits if and only if they alter the last two terms on the right-hand side of formula (2), namely via the induced valuation effects discussed above, but also due to the erosion of future excess returns. Theoretically, the tariff and trade war should result in de-leveraging of the rest of the world from the US assets, thus reducing the revenue associated with American financial intermediation. This is, however, not enough to cause the tariff-induced exchange rate movement to turn into a devaluation. If, in addition, there is a reduction in the convenience yield on the US assets, beyond the direct portfolio retrenchment effect of a tariff, then the US dollar can lose its value, as we observed in 2025. In this case, we also expect the trade war to result in a (partial) rebalancing of the long-run US trade deficit.[4]

Are we observing a trade deficit compression in the data? Figure 3a plots quarterly dynamics of the US trade balance in goods as a share of GDP from 1996:Q1 to 2026:Q1. The recent trade data are difficult to interpret because the US trade balance showed a record deficit in excess of 5 percent of GDP in 2025:Q1 in anticipation of the tariffs. Therefore, the more recent compression in the trade deficit may reflect firms drawing down on accumulated inventories. Even with this caveat in mind, all recent trade deficits were in excess of 2.5 percent of GDP without showing a clear tendency towards reduction. Interestingly, as authors point out, post-Liberation-day changes in bilateral trade deficits with individual countries do not seem to correlate with the cross-sectional variation in tariff increases. Of course, the aggregate trade deficit is an intertemporal phenomenon (shaped by aggregate savings and investment), while the variation in bilateral trade deficits (in particular, after absorbing time fixed effects) is not.

[4]Note that this adjustment happens only in part due to the "price effect" of a weaker dollar, and it also importantly reflects shifts in aggregate savings and investment arising from changing portfolio positions of foreign investors.

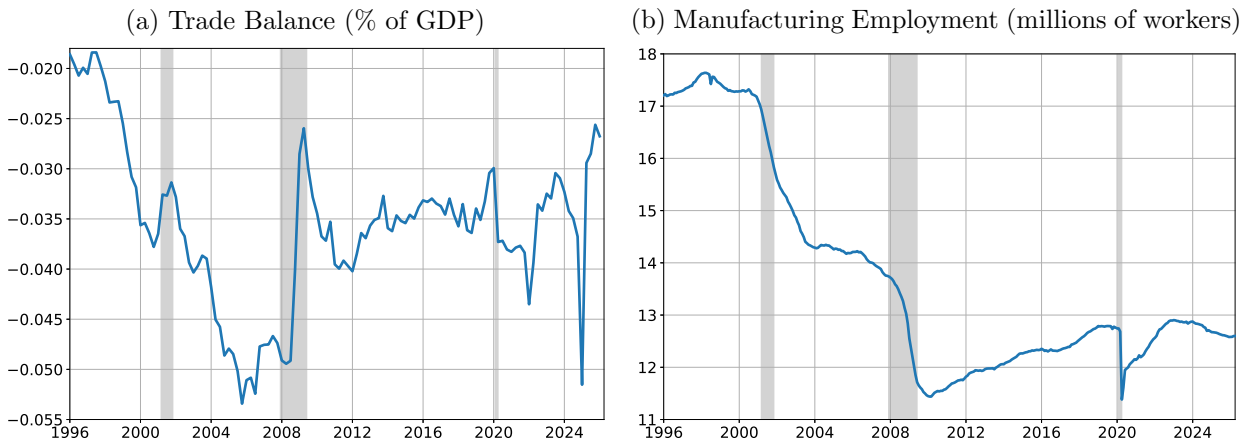

Figure 3: Trade Balance and Manufacturing Employment

Source: St.Louis Fed FRED dataset, "Trade Balance: Goods, Balance of Payment Basis (BOPGTB) / Gross Domestic Product (GDP)" quarterly series and "All Employees, Manufacturing (MANEMP)" monthly series.

Manufacturing employment and conflicting objectives

Tariffs are also often justified as a way to revive manufacturing employment. Both theory and evidence give little reason to expect large aggregate employment gains or gains in tradable-sector employment. Import-substitution sectors may expand, but export-oriented jobs contract. Jobs gained in protected sectors need not offset jobs lost elsewhere. It is possible, however, that manufacturing jobs increase at the expense of jobs in other tradable sectors (Rodríguez-Clare et al 2026). In practice, monthly data up to May 2026 do not show any signs of manufacturing revival (Figure 3b).

There is also a deeper inconsistency between the goals of reducing the current-account deficit and attracting foreign direct investment. If tariffs induce foreign firms to build factories in the United States, they may create some manufacturing jobs. But the financing of those factories is a capital inflow resulting in a current account deficit, at least in the short run. Thus, a policy package that seeks both to attract FDI and reduce the trade deficit may contain conflicting objectives.

The timing of the protectionist turn is itself revealing. If manufacturing employment or cyclical labor-market weakness were the main driver, one might have expected a stronger protectionist response after the global financial crisis, in 2009, when manufacturing jobs collapsed by nearly 20 percent, the unemployment was at historic highs, and the labor market recovery was slow. Instead, the major tariff escalation occurred during a period of nearly full employment and record-low unemployment.

Conclusion

Fajgelbaum and Khandelwal's Brookings paper provides a careful and persuasive account of the cross-sectional effects of tariffs on prices, trade flows, and welfare, and these estimates are indispensable for understanding the transmission of tariffs in the cross-section of goods and trade partners. Yet many of the most consequential developments of 2025 occurred at the aggregate level:

the depreciation of the dollar, unusual movements in asset markets, changes in expectations about future policy regimes, and the possible implications for international portfolios and the long-run current account. By construction, these effects are largely absorbed by time fixed effects and therefore cannot be identified from cross-sectional variation in tariff exposure. Whether the 2025 tariffs ultimately prove economically consequential will depend less on the heterogeneous responses across goods, sectors, and countries, and more on whether they triggered broader changes in macroeconomic expectations, capital flows, and the international role of the dollar. In this sense, the most important impact of the 2025 tariff shock may be precisely the part that is orthogonal to the cross-section. The central empirical challenge going forward is therefore to identify these aggregate effects with the same credibility that current work has brought to the cross-sectional analysis of trade policy.

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