Improvements to the Budget Lab Tariff Model and a new tracking tool for making it more accessible

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Key Takeaways

1	This report introduces several changes to our tariff model, including refined measurement of statutory tariff rates and the incorporation of new evidence from the last year and a half of tariff policy into our measures of effective rates.
2	The net effect of these changes is to reduce our estimates of the consumer price impacts of tariffs.
3	After these changes, a refresh of our previously-released retrospective analysis — looking at how our estimates over the last year have compared to retrospective price-effects estimates — finds that we now neatly predict the outcomes of the 2025 tariff regime.
4	We also introduce a new format for our tariff analysis: an interactive web tool, which replaces our previous series of static reports.

Introduction

The Budget Lab at Yale has been producing economic estimates of the effects of the administration's tariff policies for over a year, starting even before the beginning of President Trump's second term. Today, we release an update to our tariff model that covers how the economic effects of tariffs are both calculated and presented. Importantly, these updates are the first to consider actual, observed economic behavior from the first year of the current tariff regime, grounding our analysis more firmly in what we have learned about how tariff policies have impacted the U.S. economy. In addition, we have entirely revamped how we present Budget Lab tariff analysis, consolidating it into a new interactive tool that makes all aspects of our analysis more accessible.

Our updated calculations include a few changes. The first and most straightforward change is a fix to how we calculate price effects. The second change is an improvement in our estimation of the actual tariff rates faced by many countries and products, as part of our ongoing efforts to improve our Tariff Rate Tracker model. We introduced similar changes in April 2026 and will continue to refine our estimates where possible.

The third change is the most consequential: we replace a prior assumption — that 10% of estimated tariff revenue disappears due to evasion — with an adjustment to statutory tariff rates that reflects the difference between statutory tariff rates and actual tariff collections. This is an improvement in three ways: it is driven by actual data from the first year of the tariff regime, it varies by country and product, and it captures not just evasion but also unobserved mismeasurement of tariff rates. It is only possible to implement this improvement now that there has been sufficient experience with the post-April 2025 tariff regime.

We find that, with our new approach, we estimate lower effective tariff rates (ETRs), price effects, and average household-level costs, as shown in Table 1. Revenue moves the least, because we already applied the prior evasion parameter to those estimates. We show step-by-step how our estimates have changed since our previous release in April 2026, which indicates that the price-effects fix and the model update have the largest effects. Finally, we apply these updates to the retrospective analysis we conducted looking at the first year of the current tariff regime. Our new estimates are much more closely in line with the price effects found by the literature, indicating that our updated model is well equipped to model future tariff policies.

TABLE 1

Headline results (July 2026 model)

Scenario	Effective tariff rate (%)			Price effect (%)	
	Statutory	Pre-substitution	Post-substitution	Pre-substitution	Post-substitution
Without new Sec. 301 (Sec. 122 expires, not replaced)	9.41	7.96	6.58	0.38	0.32
With new Sec. 301 actions (replacing Sec. 122)	12.52	10.85	9.05	0.81	0.70

The statutory ETR is the announced rate schedule, shown for comparison only. The pre-substitution ETR applies the calibrated η-parameters (statutory × (1 − η)) and drives prices, household cost, and revenue; the post-substitution ETR additionally reflects import substitution. Revenue holds the $166B refund

Data Image

Modeling Updates to the State of Tariffs Report

All of these updates are packaged within a new tool that makes Budget Lab tariff analysis more accessible. Our Tariff Tracker allows users to observe our current estimates of statutory tariff rates, the most up-to-date estimates of effects of these tariffs, and the effect of the most relevant series of proposed or announced tariff policies, all in one place, alongside relevant documentation and descriptions. We will publish all future releases in this more accessible, clearer interactive form. The tool will show our daily statutory tariff rates by authority, country, and product, as well as the results of our modeling of economic effects of tariffs for both the current baseline and potential alternative scenarios.

For example, we expect to receive new details about Section 301 tariffs in late July 2026. The Budget Lab will incorporate this new information and update its calculations in the new tool.

Considered together, the changes in the tariff model and calculations reduce the pre- and post-substitution ETRs as well as the price increases faced by US firms and consumers. We organize the first part of this blog around a decomposition of the changes in our economic estimates between April and today, assuming the scenario where Section 122 tariffs are allowed to expire.

The first change is a fix to how the price effects of tariffs are generated, given the calculated ETRs. When calculating price impacts based on the tariff rate increases above January 2025 policy, for some products, the base-rate tariff (that was in effect prior to 2025) should be considered (and now is in our calculations) part of baseline rather than an increase from baseline. Making this change reduces both pre- and post-substitution ETRs by around 0.3 percentage points, resulting in slightly smaller price, household cost, and revenue effects. These differences are described in Table 2.

TABLE 2

Decomposing the change from April to July (without new Section 301)

Step	Effective tariff rate (%)			Price effect (%)		Average hou
	Statutory	Pre-substitution	Post-substitution	Pre-substitution	Post-substitution	
Published April 8	9.66	9.66	8.21	0.68	0.55	
Base-rate Fix	9.40	9.40	7.87	0.48	0.40	
Updated Tariff Rates	9.41	9.41	7.70	0.54	0.46	
Model Updates	9.41	7.96	6.58	0.38	0.32	

The first row reports the results published on April 8, 2026, for the scenario where Section 122 tariffs are allowed to expire. The second row fixes the baseline MFN tariff rate; the third updates our estimates of tariff rates, reflecting improved estimation of baseline, Section 232, and Section 301 tariffs. The fourth

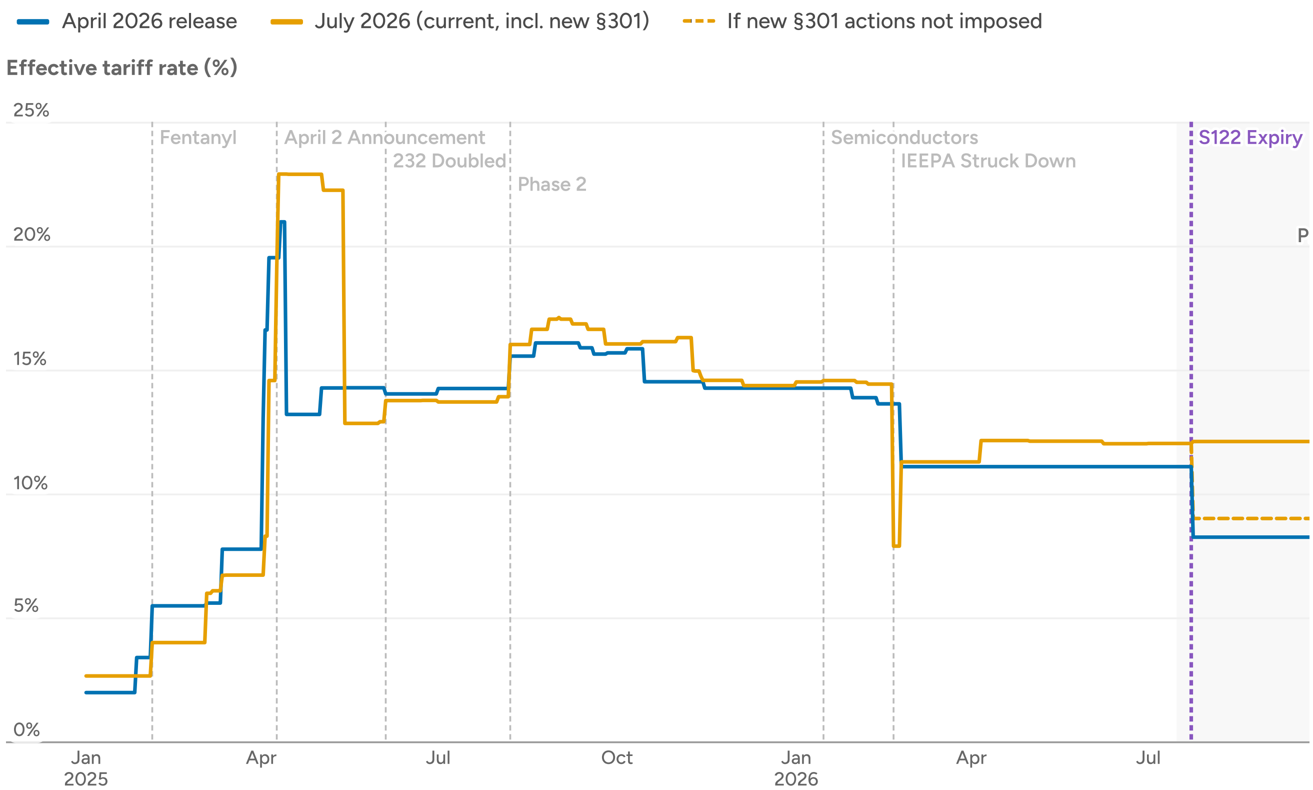
Data Image

Second, we continue to update our measurement of tariff rates, which allows us to more accurately capture the costs faced by importers. In the last two months, we have improved our measurement in several ways. These refinements included aligning HTS release dates with effective policy dates, updating our Section 232 modeling, updated Section 301 exclusion modeling, exempt-list audits across the Section 122, Section 301, and IEEPA statutory corrections, updated USMCA preference claim shares, and a re-measured pre-2025 MFN baseline. All of these changes are documented on our GitHub page. This led to a drop in average pre-substitution ETR of about 0.3 percentage points with matching reductions in other outcomes.

FIGURE 1

The measured tariff-rate path has shifted only modestly since our April 2026 release

Overall import-weighted effective tariff rate in percent, April 2026 vs. July 2026 (current, incl. new Section 301).



Import-weighted using 2024 Census import values. The April 2026 series is the rate as published on that date; the July 2026 series is the tracker build pinned to the vintage the posted model results consumed. Values after July 16, 2026 (shaded) are projected assuming no further policy changes. From the late-July 2026 Section 122 expiry the current series follows the tracker's new_301 scenario; the dashed

Data Image

Figure 1 shows how our estimated ETRs have changed over this period. We can see that many of the largest net changes are due to our refinement of policy timing — see the higher levels of tariffs directed at China following April 2nd, 2025 and the variability of tariffs following the SCOTUS decision on IEEPA in February 2026 — but there have also been offsetting improvements in how we estimated different tariff authorities.

Third, the last year of tariff policies has been highly instructive, and we've incorporated some of these lessons into our tariff estimates today. In particular, prior to this release, we had assumed a flat 10% avoidance and evasion parameter that applied *only* to our estimates of federal revenue. Now, with the benefit of the last year of data, we can calibrate what we call the "η parameters" that describe the difference between statutory and actual ETRs.

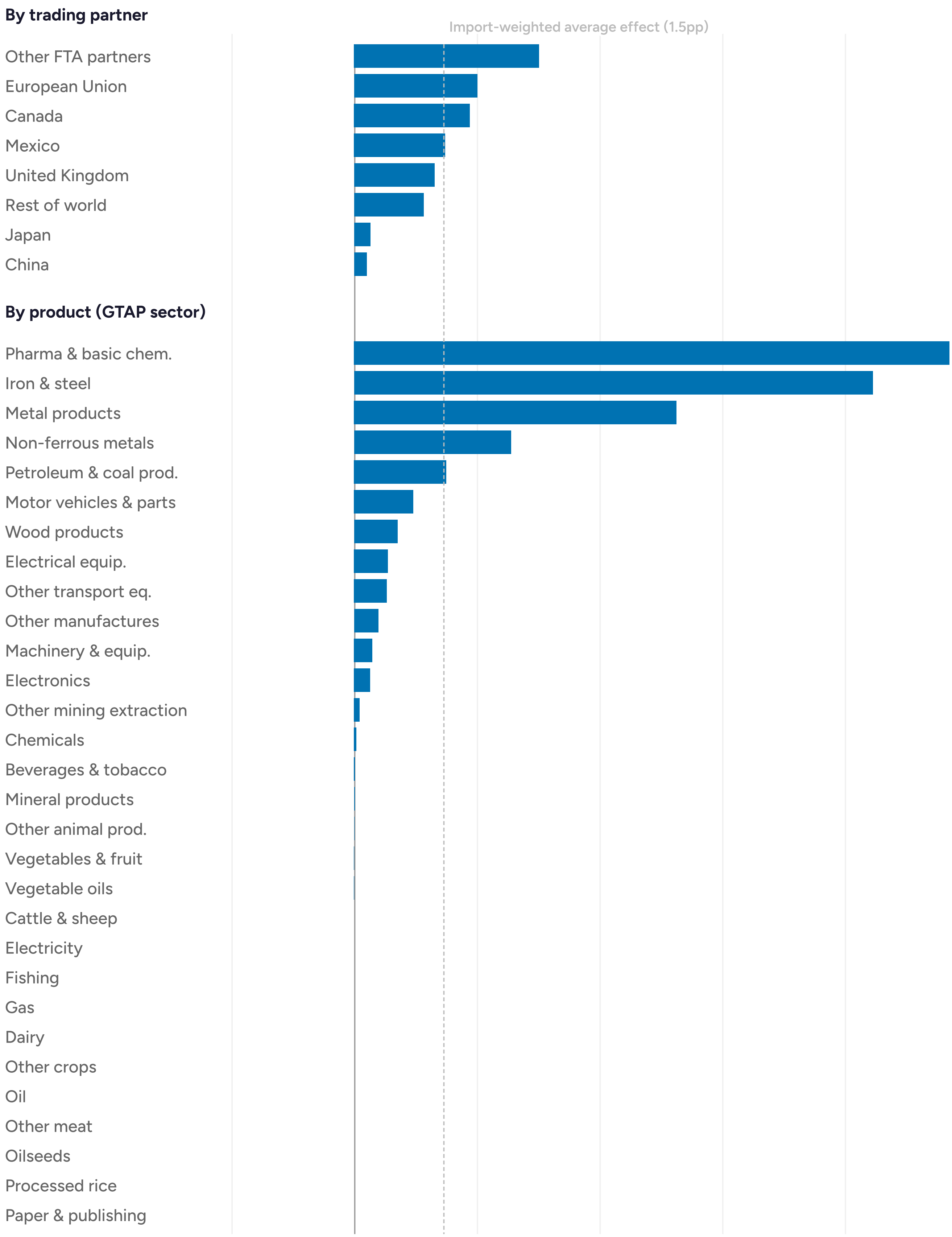
These parameters are not an estimate of avoidance, but rather capture the share of the statutory tariff rate for a specific trading partner and product that does not show up in the observed import and Treasury data.[1] This could be due to avoidance or evasion — for example, the claiming of hard-to-measure statutory exemptions or aggressive classification of products — or to mis-estimation of tariff policies, like mis-estimating the metal content of certain goods.

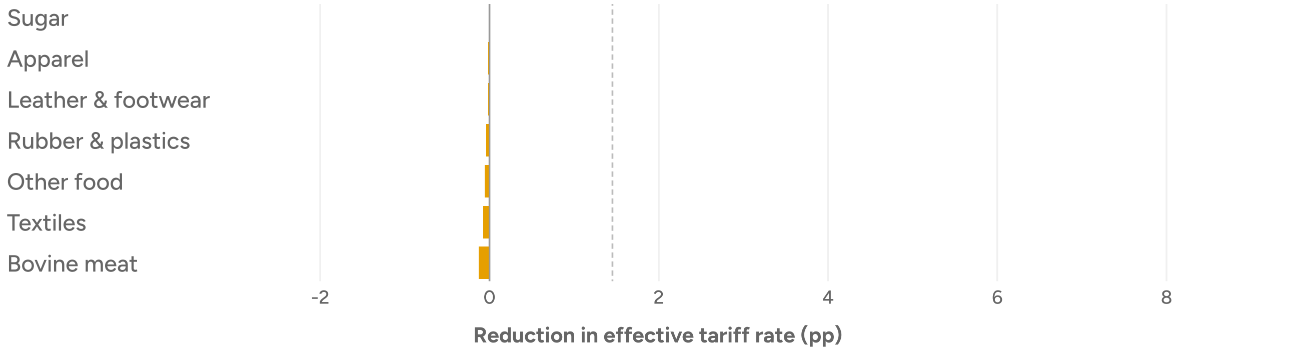
The results imply a weighted average η of approximately 15%, which, applied through the model, reduces the tariff rate collected from a statutory 9.41% to 7.96%, leaving aside the new Section 301 actions (including them, the reduction is from 12.52% to 10.85%). In Figure 2, we show the effect of the η parameters on measured tariff rates, by country and product; the underlying η values are shown in Appendix Figure A1. Some countries, like Canada, the UK, the EU member states, and Mexico have higher adjustments (i.e., larger η parameters), while others, like Japan and China, have lower ones. There is more variation in the by-product η estimates. Here, we see the largest η parameters for pharmaceuticals, iron and steel, and metal products, reflecting the reality that there are more options for non-statutory avoidance behavior in those areas.

FIGURE 2

The gap between statutory and effective tariff rates varies substantially by country and product

Gap between the statutory effective tariff rate and the eta-adjusted (realized) rate, in pp. Bars use each category's own import weights.





Computed from the eta diagnostic grid (partner x GTAP trade values and statutory revenue), model results vintage 202607071520 (tracker calibration 2026-06-25-14). Eta applied as realized = statutory x (1 - eta). Amber bars: realized rate above statutory. 'Other FTA partners' includes South Korea. Product section omits sectors with under $1B of imports each; the average line uses all sectors. See

Data Image

Our methodological improvement has implications for our estimated economic effects that flow through two channels. The first is the application of *any* avoidance (or mismeasurement) term to parts of the tariff model other than revenue, which had previously been the only outcome to which it was applied. The second channel is through refinement of the actual parameter values used (e.g., switching from a constant 10% to a calibrated set of country- and product-specific parameters). One caveat to this approach is a concern of over-fitting: if either tariff policies themselves or economic responses to these policies shift, η parameters estimated on the 2025–2026 IEEPA period may not capture future actual-statutory ETR gaps. Future work will use more recent data as the post-IEEPA period grows. We believe that this approach moves us notably closer to an accurate picture of the economic effects of tariff policies.

The updates discussed above, without the new Section 301 actions, result in the pre- and post-substitution ETRs falling by between 1.6 and 1.7 percentage points (roughly 20%). The pre- and post-substitution price effects fall by around 40%, or by between 0.2 and 0.3 percentage points, and average household costs are about $325 lower than in our April 2026 estimate. The revenue numbers change the least because the existing avoidance parameter was already applied to their estimation.[2]

Re-assessing our 2025 Retrospective Analysis

Given these modeling updates, we wanted to refresh the retrospective analysis — released this April — that asked how well our model would have fared at estimating the price effects of the first year of tariff policies under the current administration. At that time, we estimated that the tariff policies as announced on April 2nd, 2025 would increase prices by 2.32%. Our retrospective analysis — reproduced in Figure 3 below — showed that this exceeded more recent empirical estimates of the price effects (between 0.5 and 1%) due to frequent downward revisions of tariff rates, improved estimation of actual tariff rates faced by firms, and model improvements. Accounting for these reduced our price effects from 2.3% to 1.4%. This is still about 0.4 percentage points higher than the upper bound estimate of the literature, 1.0% via Cavallo et al. (2026).[3]

After incorporating the adjustments announced today — shown in the second panel of Figure 3 — our 2025 price estimates are more in line with estimates found by the economic literature. When we assume that 100% of the burden of tariffs falls on US consumers, we estimate that tariffs increased prices by 1.0%, a price estimate virtually indistinguishable from that of Cavallo et al. (2026). A 50% passthrough rate matches the 0.5% effect estimated by Dvorkin et al. (2025), and the more recent Minton, Ray, and Somale (2026) estimate falls right in between the two. The update to the statutory tariff rates increases the price estimate given updates to policy timing (among others), but the modeling updates (which include the error discussed above) and the introduction of the η parameters move the estimated short-run price effect down to 1.02%.

This exercise both explains the full gap between our estimates from April 2, 2025 and the published short-term price effects and shows that our model is well-situated to model the future of the current tariff regime. There are always caveats to future modeling work, especially those that condition on past responses to policy changes — a future tariff could have importers responding in new ways that are inconsistent with the η parameters we've estimated here. But we view this modeling change as a data-driven and verifiable process that takes advantage of what we've learned from over a year of this new tariff regime.

Appendix

Footnotes

1 We take a dataset of every country and product pair and estimate the day-weighted average statutory tariff rate for June 2025 through February 2026. We then compare this rate to the effective tariff rate calculated via the U.S. Census Bureau's Imports of Merchandise data (IMDB), which has information on calculated duties (numerator) and custom values (denominator). We test a number of estimation approaches to calculate product-and-country-level η terms, using out-of-sample validation with the March 2026 period as a test case. We prefer a model where the log gap is a function of two fixed-effects at the country-group and HS2 level. Importantly, this approach controls for shifts in import quantities by weighting both actual and statutory ETRs by concurrent trade weights.

2 In fact, the evasion term was being minorly over-applied to baseline tariff revenue, rather than to just the marginal increase in tariff rates, an extension of the error highlighted in Table 1.

3 We also add a more recent estimate of the price effects, from Minton, Ray, and Somale (2026).