

The Economic Impact of Tier-2 Sugar Imports

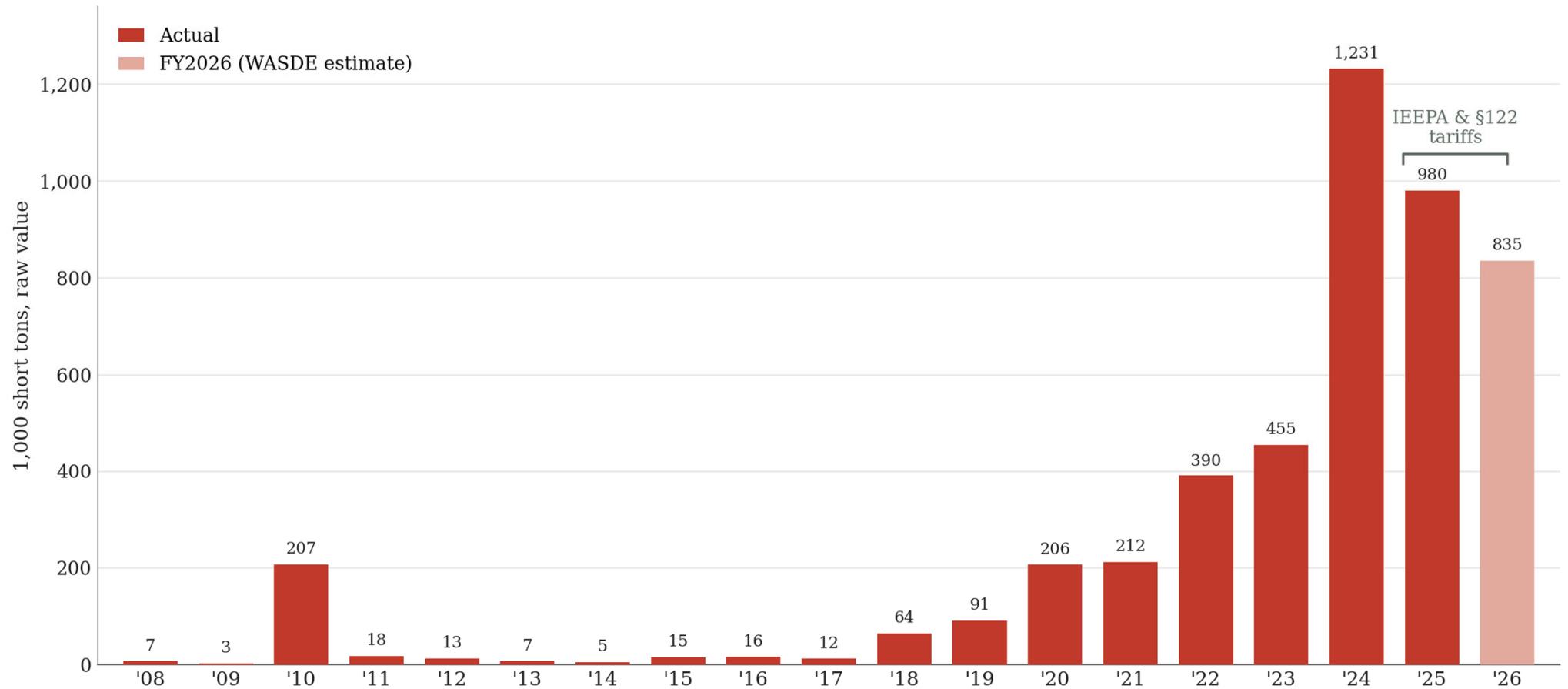
...and the shifting tariff landscape — IEEPA, Section 122, and Section 301

Shawn Arita, PhD

Associate Research Professor & Associate Director
Agricultural Risk Policy Center
North Dakota State University

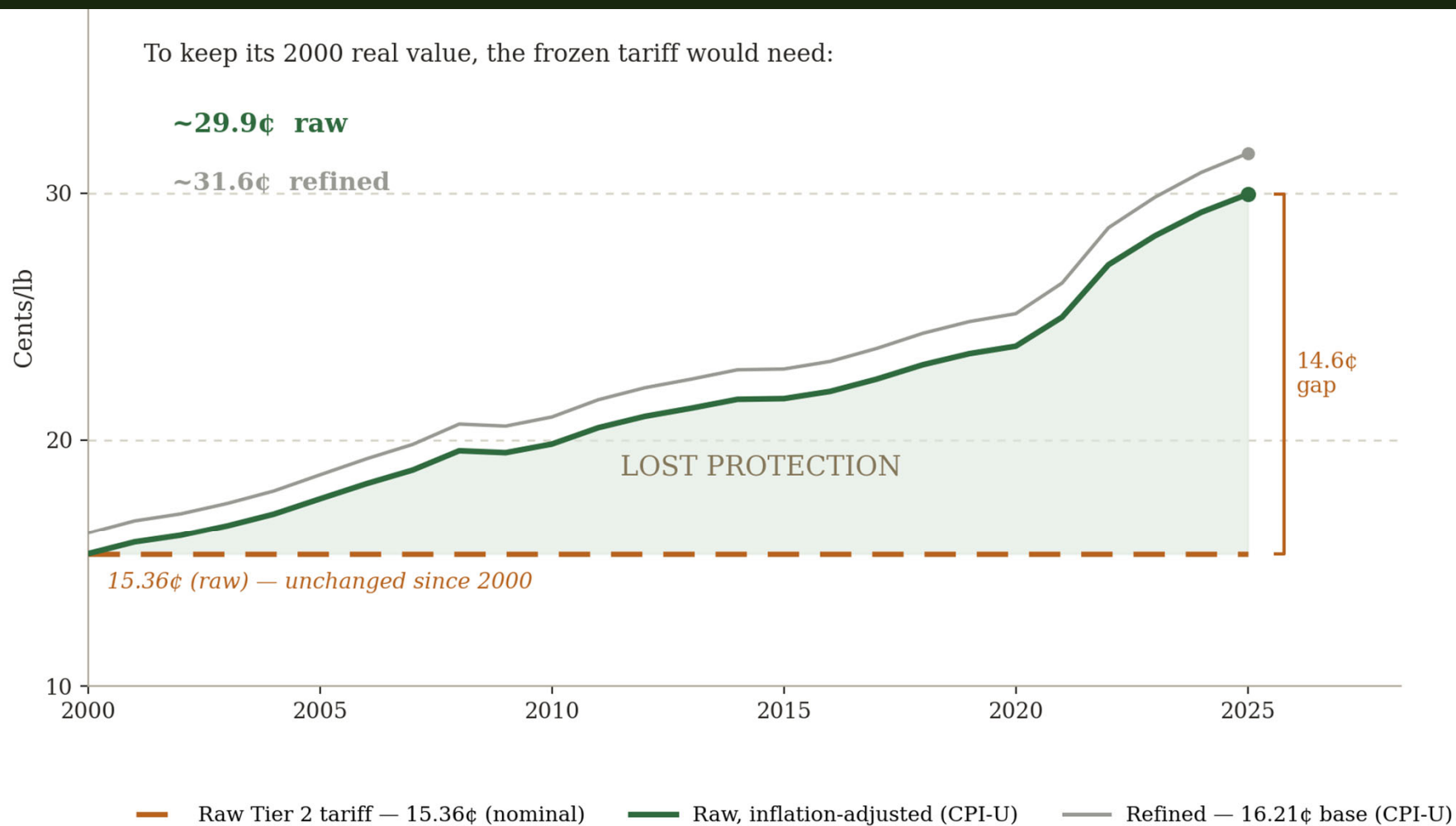
U.S. Tier 2 (High-Tier Tariff) Sugar Imports

Over-quota entries only. FY2026 is the July 2026 WASDE full-year estimate.



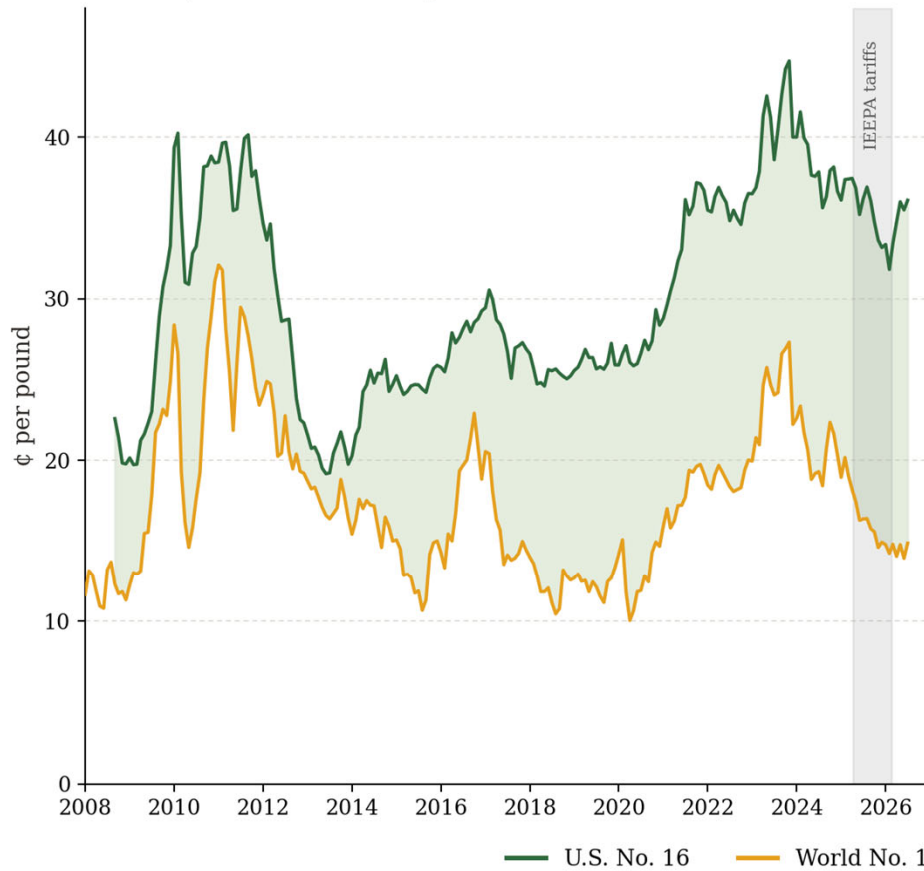
Source: NDSU-ARPC using USDA WASDE (July 2026) and ERS/USITC customs data (STRV). FY2008-FY2025 actual; FY2026 = full-year estimate.

The fixed Tier-2 duty has lost nearly half of its real protective value since 2000



As the fixed duty lost real value and the U.S.-World price spread widened, Tier-2 imports surged.

Prices, with the U.S. premium shaded



Spread vs. cost of entry, and imports pulled in

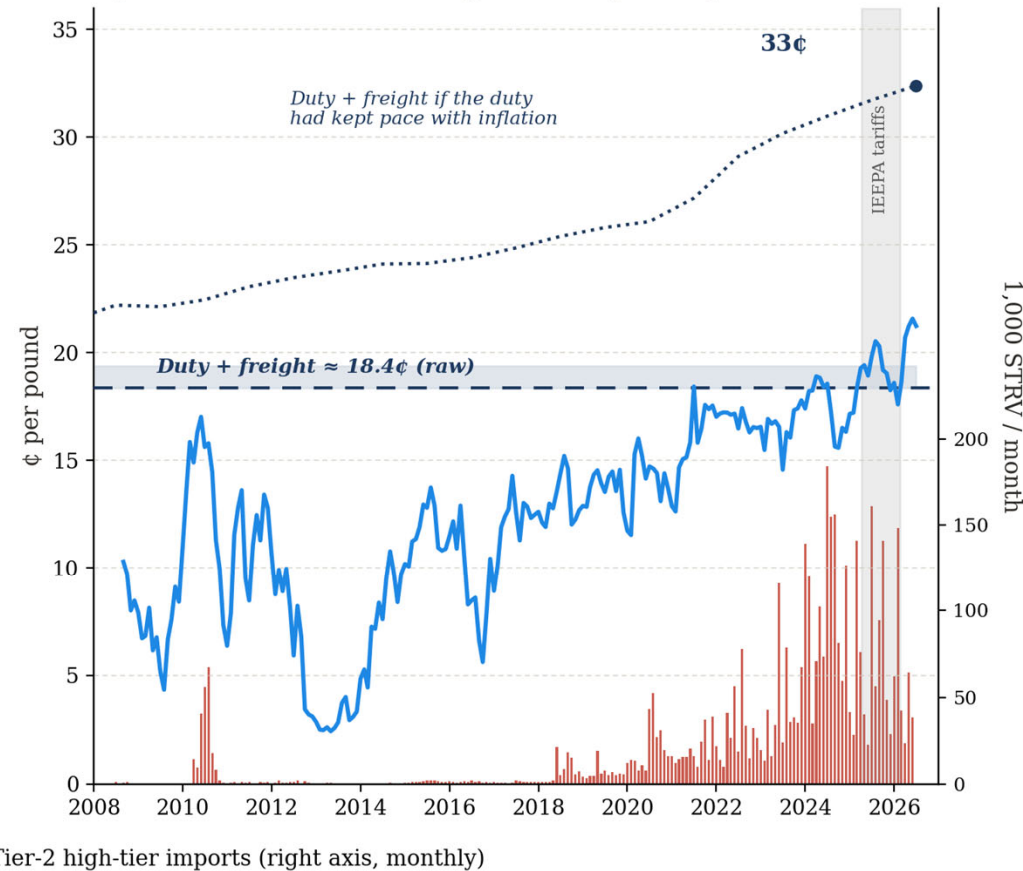
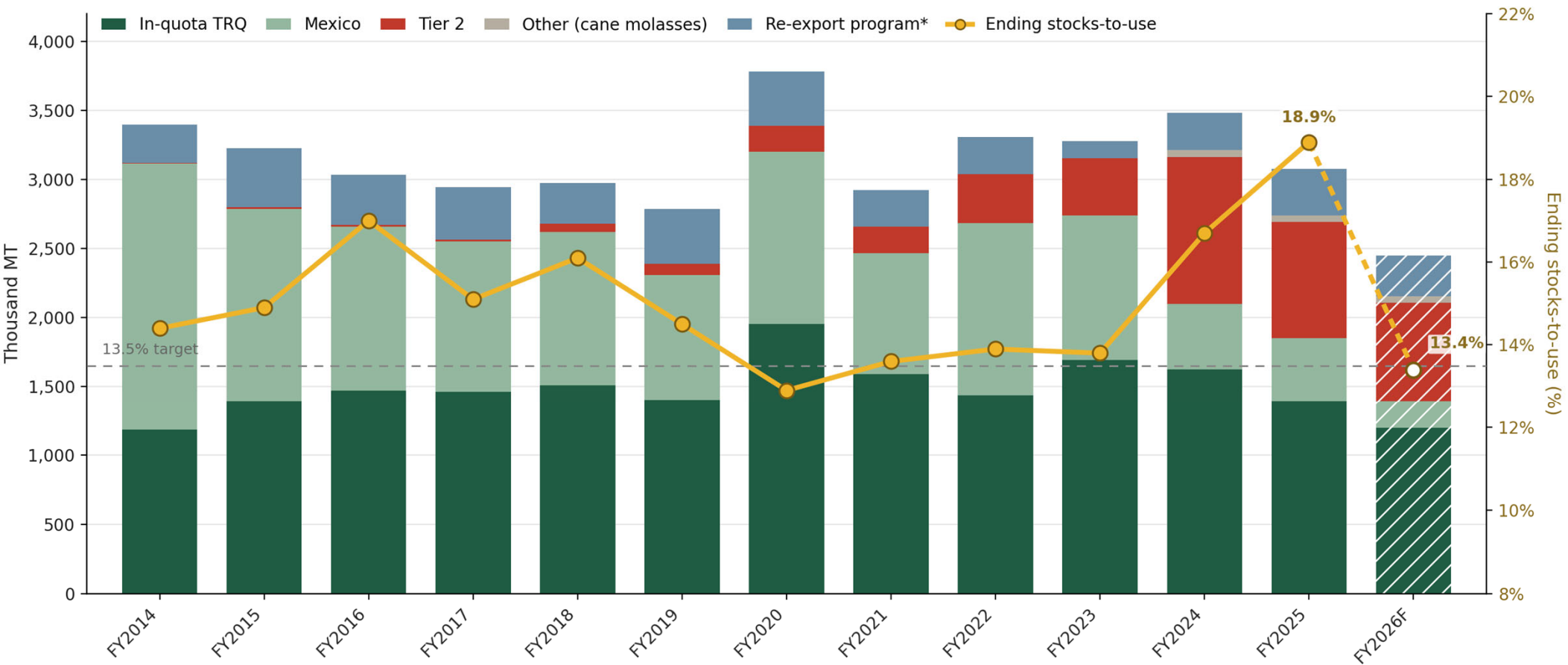


Exhibit 1: The Frozen Tier-2 Duty, the U.S.-World Price Spread, and Over-Quota Imports, 2008-2026.

Bars = monthly Tier-2 (high-tier tariff) imports, USDA ERS Table 61b (updated 7/17/2026). Prices monthly; spread = U.S. No. 16 – World No. 11.

Imports by Channel and Ending Stocks to Use



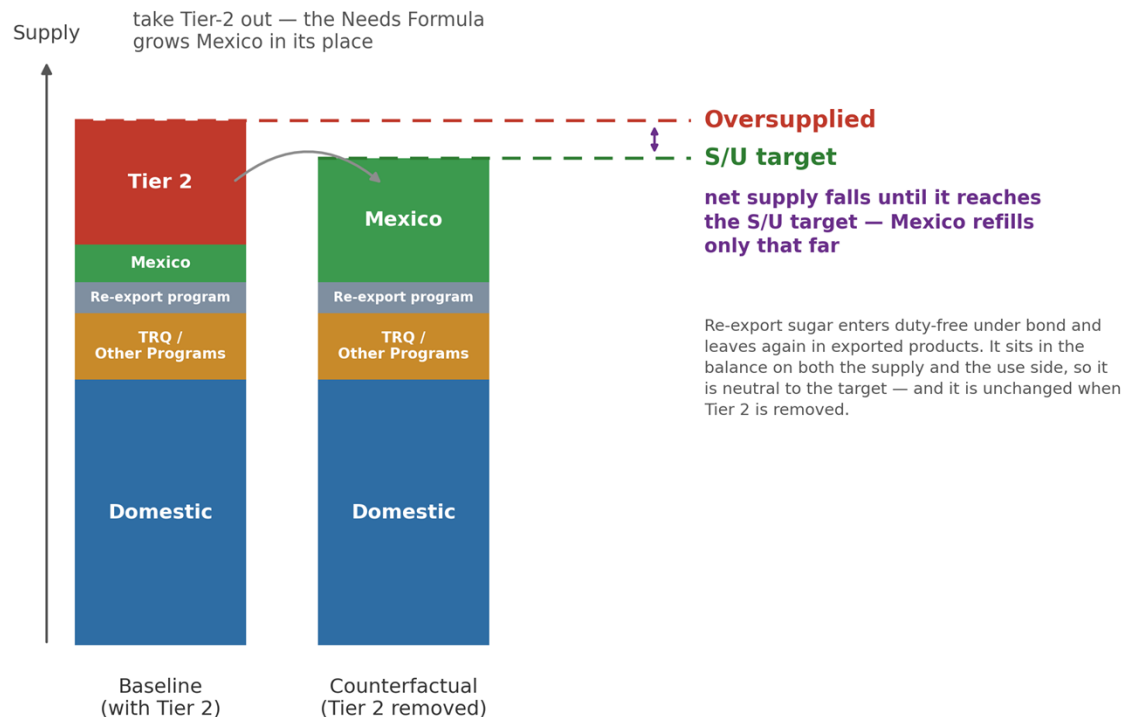
What has been the impact of Tier-2 imports on U.S. sugar producers?

Economic Assessment: isolate the effect of Tier-2 imports on U.S. prices from other market factors and quantify losses.

Approach:

1. Calibrate a model to 2024-2026 sugar supply and demand conditions with oversupplied tier 2.
2. Simulate a complete removal of Tier 2 imports (i.e. assume a prohibitive tariff)
3. Allow Mexico offsetting supply through Needs Formula (13.5% target)
4. Model solves for counterfactual world without Tier 2 imports: prices are higher due to lower supply/elimination of stock overhang
5. Economic losses are calculated as the difference between producer revenue had there not been Tier 2 imports.

drop in net supply and decrease in stocks, raises the market price — that gap (ΔP) is the Tier-2 effect.



The Needs Formula — sets Mexico's cap

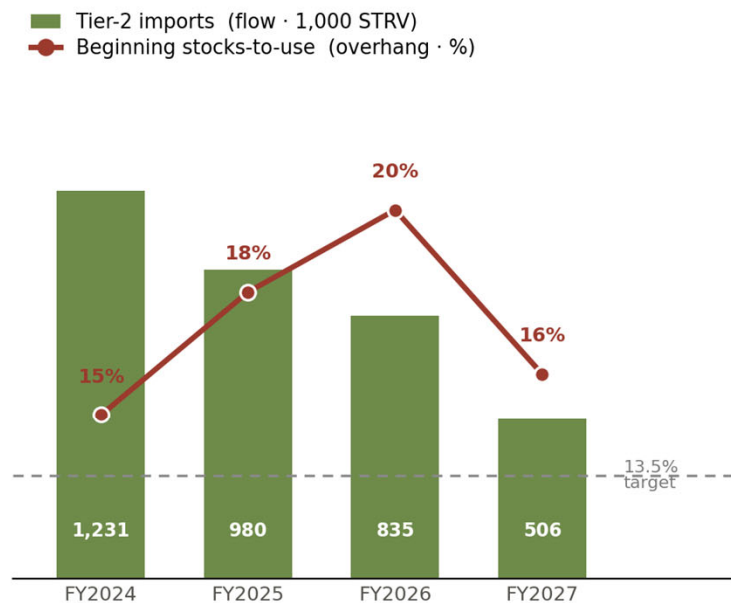
U.S. Needs = Total Use $\times$ 1.135 – beginning stocks – U.S. production – TRQ – other-program – Tier-2

1.135 = 1 + the 13.5% stocks target. $\uparrow$ Tier-2 $\Rightarrow$ $\downarrow$ Mexico's volume.

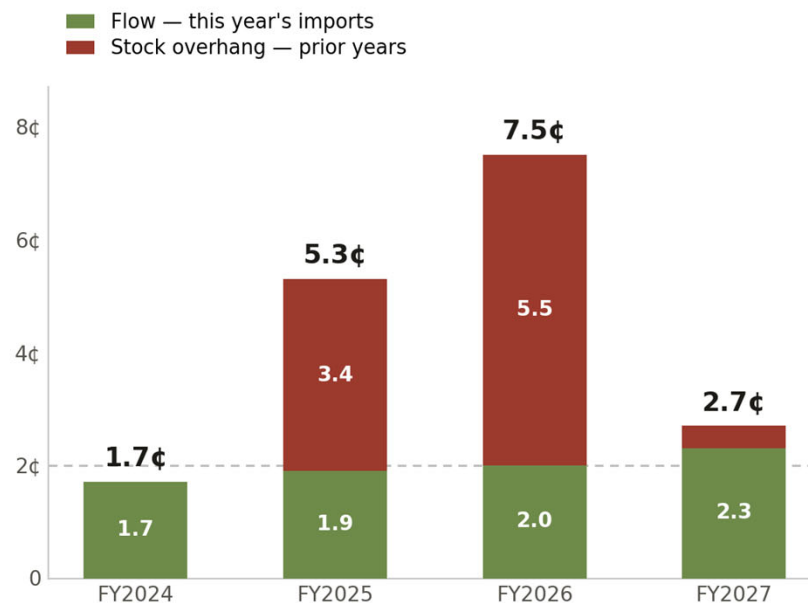
Tier-2 depresses the U.S. price through two Channels

The flow (this year's imports) and the stock overhang (accumulated inventory that keeps stocks-to-use above target).

① The two drivers



② Model-Estimated Price Loss by Channel (¢/lb)



Flow $\approx$ 2¢/lb and steady — this year's imports adding to supply. Stock overhang is the larger, building drag: it peaks at 5.5¢/lb (FY2026), then fades as Tier-2 is cut.

Note: May 2026 study estimates (Arita, Wang & Steinbach) — before the July 2026 WASDE backward stock revision, which lowers the total effect to $\approx$ 4–7¢/lb.

Estimated Effects of Removing Tier 2 Imports

FY2025		FY2026	
Actual Tier 2 imports	980k STRV	Actual Tier 2 imports	641k STRV
CF Tier 2 imports	0k STRV	CF Tier 2 imports	0k STRV
Actual imports from Mexico	504k STRV	Actual imports from Mexico	220k STRV
Counterfactual imports from Mexico w/out Tier 2	659k STRV	Counterfactual imports from Mexico w/out Tier 2	621k STRV
Net reduction in imports w/out Tier 2	825k STRV	Net reduction in imports w/out Tier 2	240k STRV
Net price recovery		Net price recovery	
Raw: +5 cents/lb		Raw: +8 cents/lb	
Refined: +7 cents/lb		Refined: +10 cents/lb	

Estimated annual revenue impact (FY2025-FY2026)

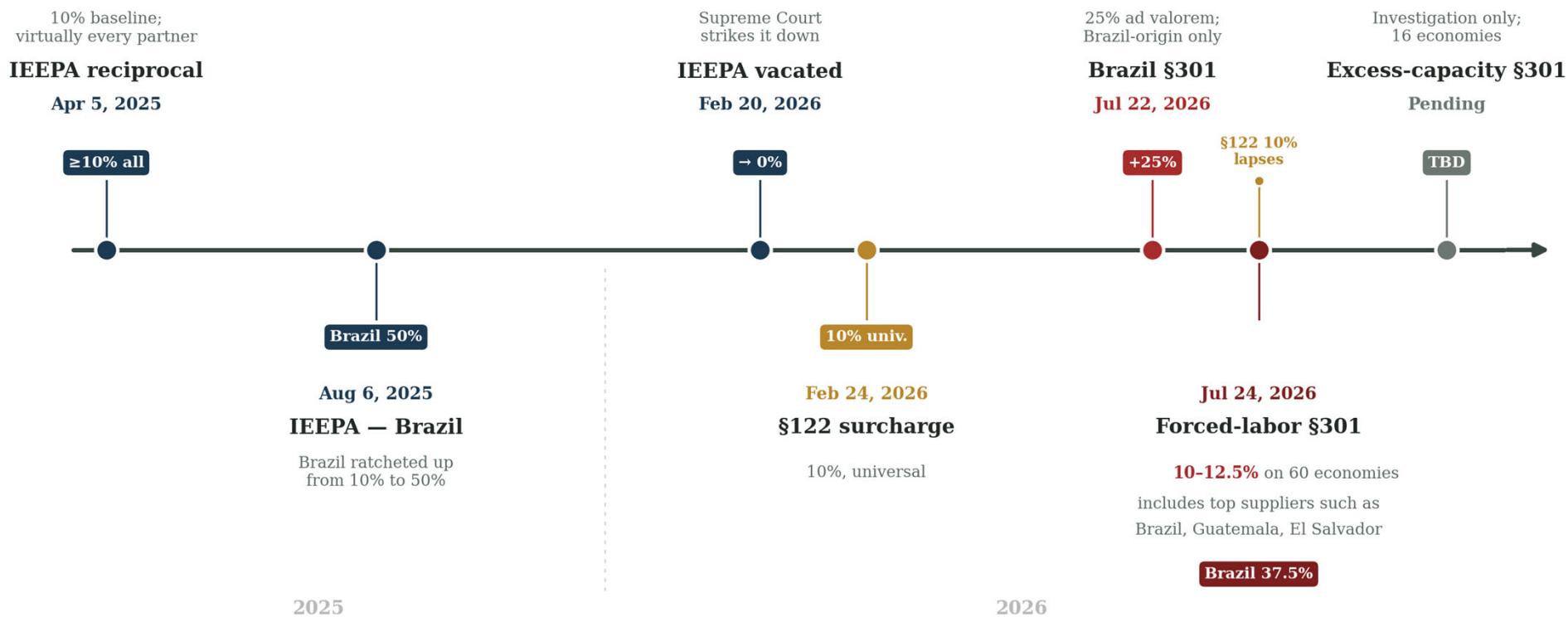
\$0.9 - \$1.5 billion

Note: These are estimates from study conducted in May 2026 (Arita, Wang, and Steinbach). Rerunning the model with USDA's subsequent backward revision to reported ending stocks (July 2026 WASDE) lowers the estimated raw-price effect to about 4 to 7¢/lb.

Shifting Tariff Landscape

From the IEEPA tariffs to the Section 301 wave — a moving target for the Tier-2 channel, 2025–2026

Under IEEPA, most other sugar suppliers faced a higher 10-20% tariff



IEEPA redirected Tier-2 sugar sourcing away from Brazil toward other suppliers

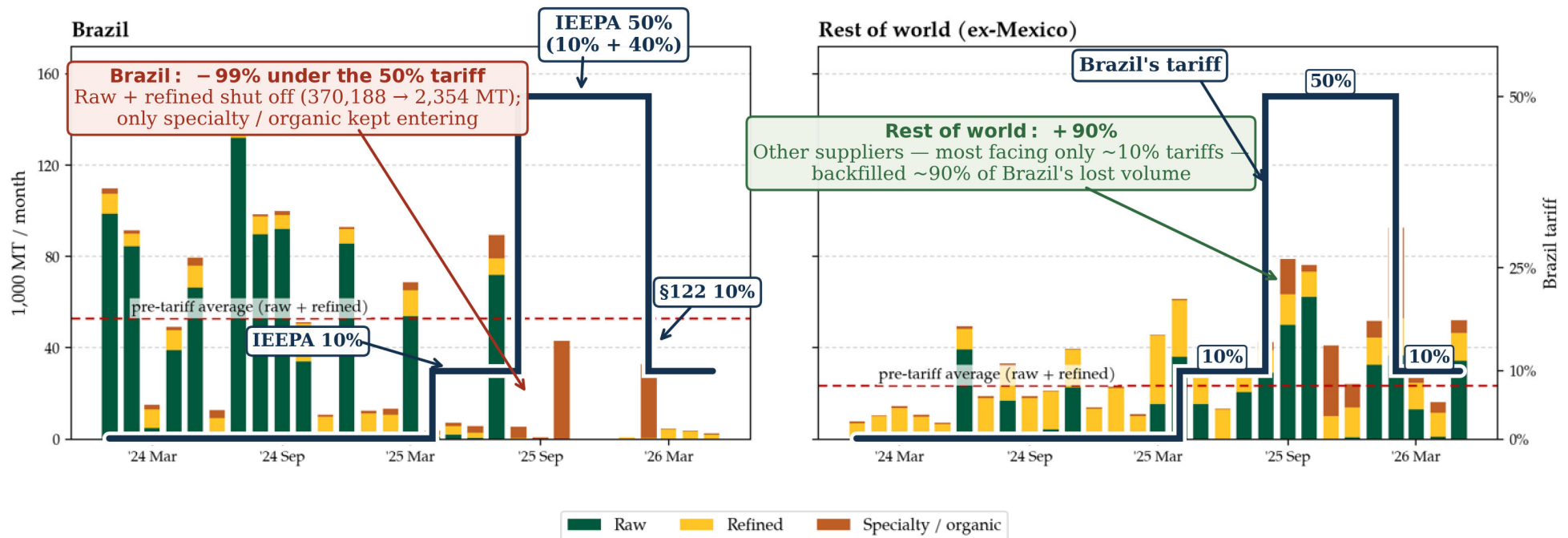


Exhibit 5: Monthly Tier-2 Imports by Product and Supplier Group, With the Brazil Tariff Path, January 2024–May 2026. Mexico excluded. Source: NDSU using USITC DataWeb.

Other suppliers replaced about 55% of Brazil’s lost raw volume under IEEPA.

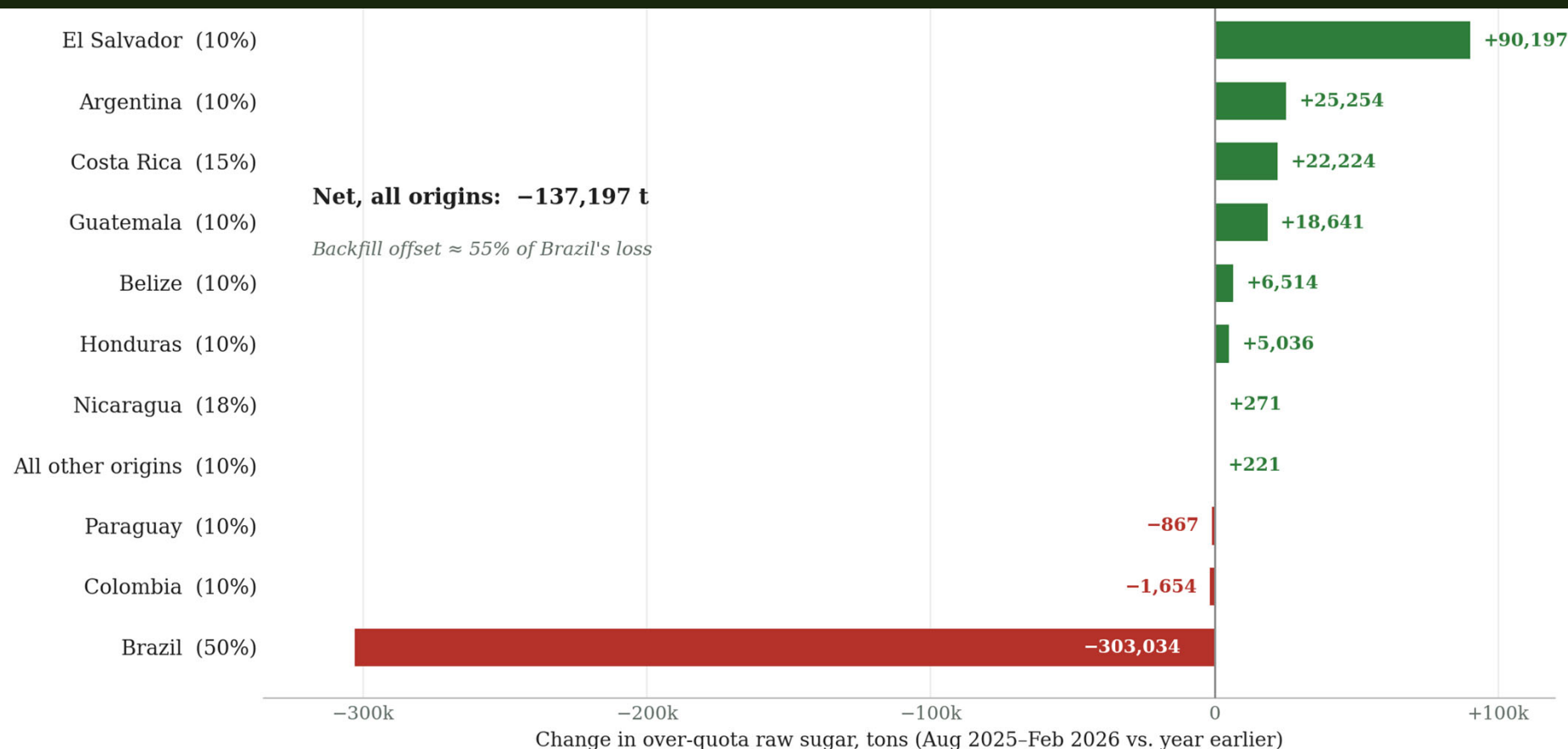
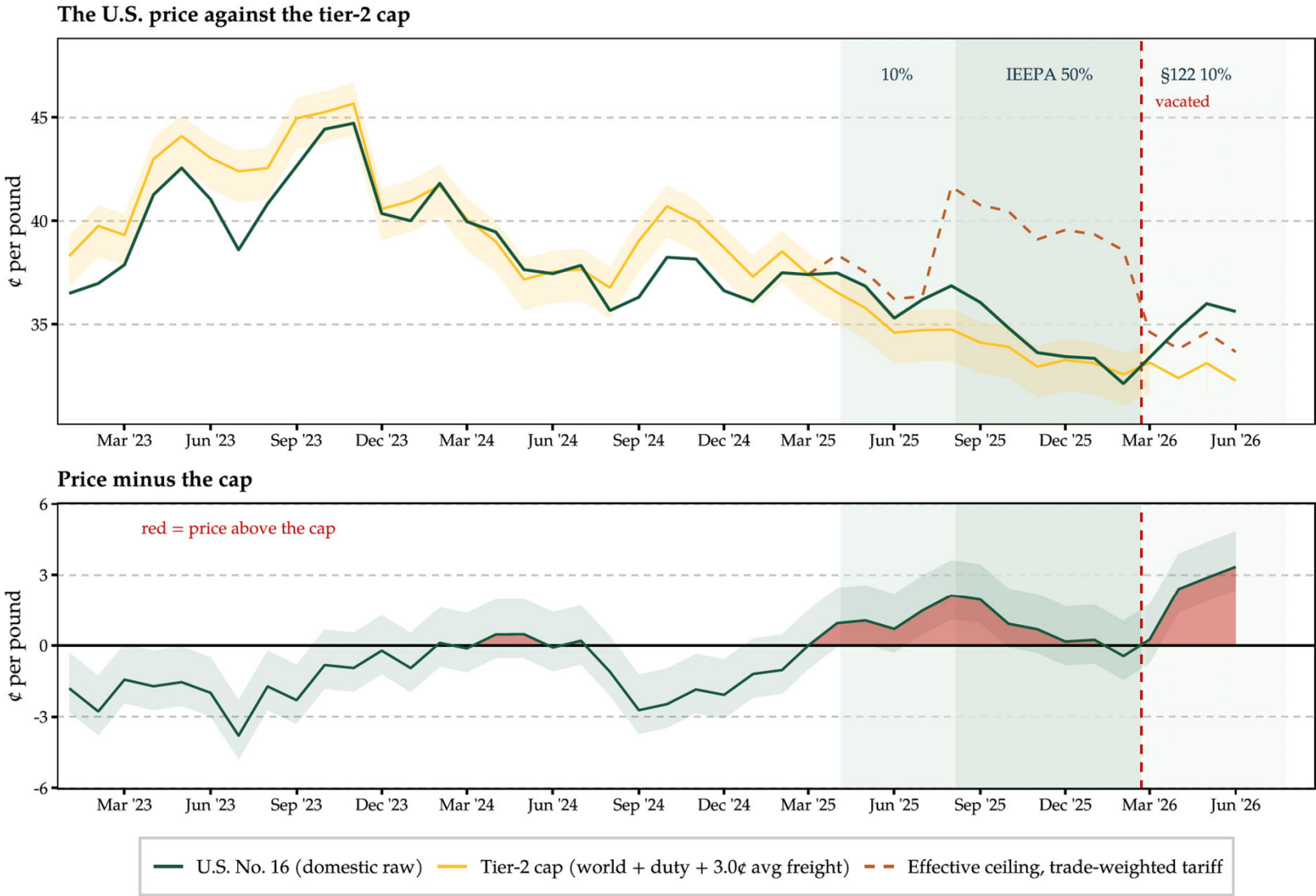


Exhibit 4: Over-Quota Raw Sugar While the 50% Tariff on Brazil Was in Force (Aug 2025–Feb 2026): Brazil Versus Its Cane Competitors.
Source: NDSU using USITC DataWeb. Bars = change in over-quota (Tier-2) raw sugar; tariff rate in parentheses.

U.S. sugar prices supported by IEEPA and Section 122 Tariffs



Even with the new Section 301 rates, the spread clears the cost of entry for many suppliers, suggesting continued import pressure.

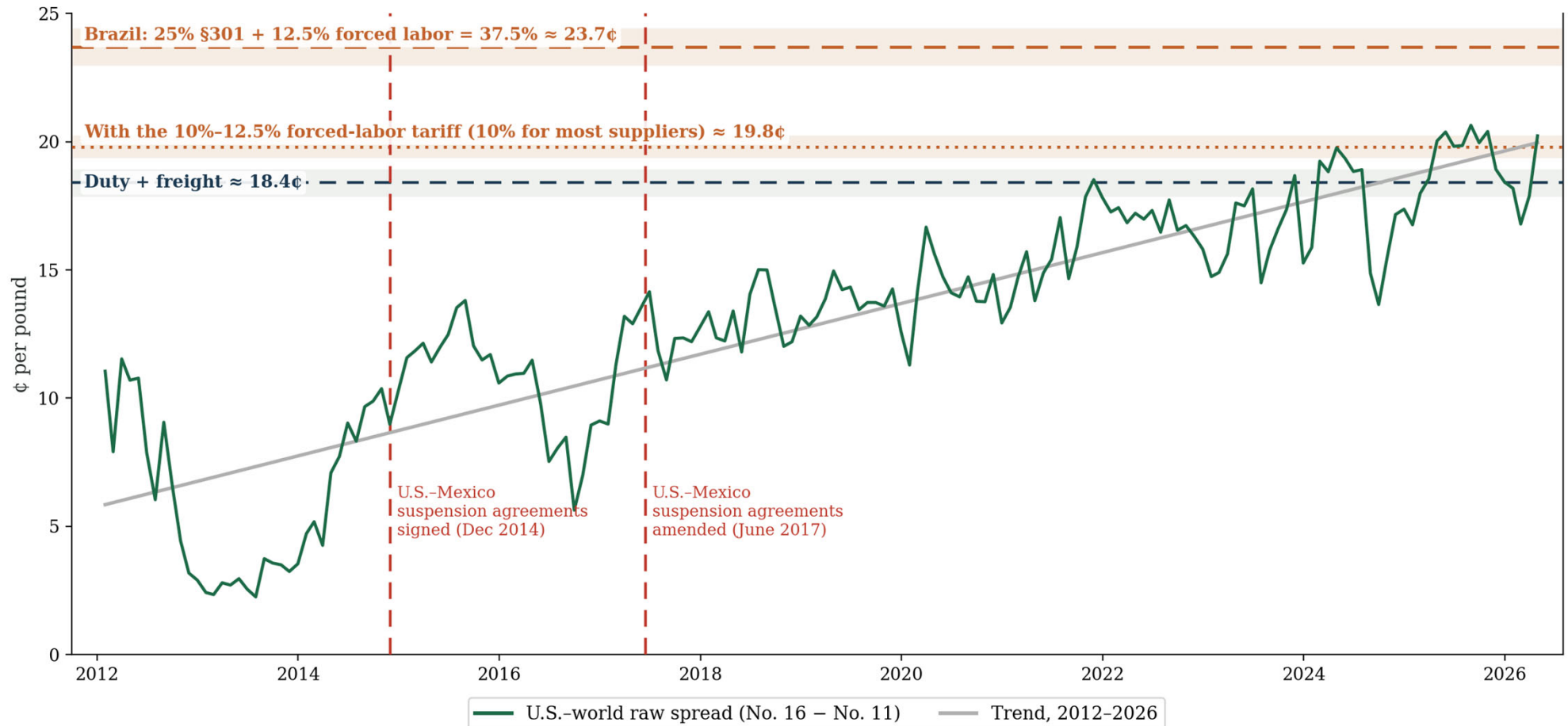


Exhibit 9: The U.S.-World Raw Sugar Spread and the Cost of Shipping Over the Tier-2 Duty, 2012-2026.

Thank you — questions?

Shawn Arita

shawn.arita@ndsu.edu

NDSU Agricultural Risk Policy Center