Tracking the Short-Run Price Impact of U.S. Tariffs*

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Abstract

This paper examines the short-run impact of the 2025 U.S. tariffs on consumer prices using a novel integration of high-frequency retail pricing data, product-level country-of-origin information, and detailed tariff classifications. By linking daily prices from major U.S. retailers to Harmonized System (HS) codes and import origins, we construct custom price indices that isolate the direct effects of tariff changes across product categories and trading partners. Our analysis reveals rapid pricing responses, though their magnitude remains modest relative to the announced tariff rates and varies by country of origin. Both imported and domestic goods are affected, suggesting broader pricing and supply chain spillovers. These findings offer timely evidence for policymakers, businesses, and consumers navigating the immediate consequences of trade policy changes.

Keywords: Tariffs, Prices
JEL Classification: F13, F14, E31.

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1 Introduction

Tariffs have significant economic impacts that directly affect businesses, consumers, and policymakers. Understanding how tariffs influence retail prices is crucial, as price changes determine consumers' purchasing power, shape business decisions, and inform government trade policy. Despite their importance, measuring the price effects of tariffs at the retail level remains a challenge. Official price statistics and traditional surveys typically provide data with low frequency and with significant delays, limiting their usefulness for timely policy analysis. Furthermore, such aggregate measures lack sufficient granularity, obscuring which specific product categories are most affected or how goods from particular countries respond differently to tariff adjustments. A more detailed and timely analysis is therefore essential to provide clarity and actionable insights into the short-run price effects of tariff changes.

To address these challenges, we conduct an empirical analysis that combines micro-level retail price data with detailed information on product origin and tariff classifications. We link daily prices from major U.S. retailers to country-of-origin data, obtained either by searching UPC codes online or by using GenAI models to find the product's origin. We match these products to their corresponding tariff lines using publicly available data from the U.S. International Trade Commission, which reports effective tariff rates and their revisions by HS10 code and country. Using this integrated dataset, we construct custom price indices by product category, country of origin, and tariff exposure, and analyze their movements around the tariff implementation dates. This high-frequency, granular view reveals which goods were affected, how quickly prices adjusted, and whether the impact varied by country—insights not captured in conventional price statistics.

The remainder of the paper is organized as follows. Section 2 outlines the data sources and explains how we integrate them to construct the dataset. This includes a description of the retail price data, the procedure for matching products to their countries of origin, and our approach to leveraging tariff information from the United States International Trade Commission to determine tariff rates at the product level. Section 3 details the methodology for constructing custom price indices that capture the impact of tariffs across various product categories and source countries. We show the short-run effects around the time of tariff implementation and discuss the main findings. Section 4 presents a high-frequency event study that provides a sharper identification of the tariff impact by comparing the price dynamics of treated and untreated products within narrowly defined product categories. Section 5 concludes.

2 Data and Methodologies

2.1 Retail Prices

We use product-level retail price data provided by PriceStats, a private firm, whose data have been used before in academic papers by members of the Billion Prices Project, the HBS Pricing Lab, and other researchers (Cavallo, 2013; Cavallo & Rigobon, 2016). The dataset consists of daily prices collected by scraping the online stores of large multichannel U.S. retailers. These prices are collected at the product level and include detailed information such as product descriptions and unique identifiers. Each good is also categorized using COICOP (Classification of Individual Consumption According to Purpose), the standard classification system employed by most national statistical agencies worldwide to construct the Consumer Price Index (CPI).

The product coverage is broad among retail goods, with full coverage in categories such as furnishings and household goods, recreation and culture (including electronics), and food and non-alcoholic beverages. Furthermore, (Cavallo, 2017) shows that online prices from this dataset closely mirror those found in physical stores for the same retailers.[1]

For this version of the paper, we restrict our analysis to data from five large U.S. retailers, for which detailed country-of-origin information can be obtained as described below. While the sample is limited in terms of the number of retailers, the high frequency, granularity, and immediate availability of the data enable us to analyze short-run pricing dynamics across a broad range of consumer goods in response to the 2025 tariff measures.

2.2 Country-of-Origin (COO) Information

To assess the impact of country-level tariffs, we supplement retail price data with product-level information on countries of origin (COO). Since this information is not typically available on retail websites, we use two methods to obtain it.

2.2.1 UPC Matching

The first method uses a multistep procedure to recover the COO using the product identifiers. First, we obtain the Universal Product Codes (UPCs) for items in the PriceStats dataset. We then matched these UPCs to the unique product identifiers used by a large online-only retailer that publicly displays COO information for most of its items. Finally, we collected the individual product COO data from this retailer's website.

Using this method, we can identify the COO for approximately 308,000 individual products. Although this is a large number of products, the approach is limited in scope and coverage, as it can only be applied to three major US-based retailers in our sample.

[1] See (DellaVigna & Gentzkow, 2019) for more evidence of uniform pricing within chains in the U.S..

2.2.2 Generative AI Predictions

The second method relies on generative AI models to predict the COO using product descriptions. For each item, we submit both the product description and URL to the model via an API, prompting it to return the most likely COO. The prompt instructs the model to first search the retailer's website for COO metadata. If such metadata is unavailable, the model is directed to perform a targeted search for the same product on other online retail platforms. The model returns a specific country name when possible, and if only general information can be inferred, it reports either "Domestic" or "Imported". If no reliable evidence is found, the field is left blank. We find that these AI models can only achieve high levels of accuracy when they are able to search online. This search capability has only recently become available via API access. Moreover, the quality of the models' predictions has steadily improved over time, while API costs have also declined.

To evaluate the accuracy of this approach, we use a validation sample of 10,000 products with known COO, randomly drawn from the dataset described in Section 2.2.1. As shown in Table A2, the AI model achieves an accuracy rate of 88% when asked to classify products as either domestic or imported. This performance is consistent across both domestic and imported items. When asked to predict the specific country, the model achieves an accuracy of 85%. The bottom panel of the table demonstrates that this high level of accuracy holds across most product categories in the sample.

In this version of the paper, we use AI to identify the COO for approximately 13.9% of all products, including more than half of those in the "Food and Non-Alcoholic Beverages" category (57%). While the current use is limited in this sample, the high accuracy of the methodology gives us confidence in applying it more broadly in future iterations, as we expand the sample to include additional retailers, sectors, and countries.

2.2.3 Full Dataset with COO information

Table 1 summarizes the distribution of products in our full dataset by country of origin. We observe a total of 359,148 products with daily price information and identified country of origin. More than two thirds of these products originate from the United States (37.45%) or China (35.85%). India, Turkey, and Vietnam together account for almost 9% of the sample, while the remaining products come from a diverse set of countries, each contributing a relatively small share.

Table 1: Product Counts by Country of Origin

Product Origin	**Frequency**	**Percentage (%)**
US	134,484	37.45
China	128,760	35.85
India	14,561	4.05
Turkey	9,477	2.64
Vietnam	6,672	1.86
Taiwan	6,266	1.74
Mexico	5,007	1.39
Canada	4,652	1.30
Others	49,269	13.72
Total	**359,148**	**100.00**

Table 2 presents the distribution of products across different COICOP categories. The majority fall under the category of "Furnishings, household equipment and routine household maintenance," which accounts for nearly 53.58% of the sample. "Recreation and culture" is the second-largest category, with over 77,000 products. In contrast, categories such as "Alcoholic beverages, tobacco and narcotics", "Clothing and footwear" and "Housing, water, electricity, gas and other fuels" represent less than 2% of the total.

The distribution of countries and product categories in our sample is characteristic of large general-merchandise retailers in the U.S., which specialize in offering a broad selection of affordable consumer goods. In particular, the importance of chinese products, along with the concentration in categories such as household furnishings and recreational items, reflects typical sourcing practices and inventory structures in this segment of the retail U.S. market. Figure A3 in the Appendix provides a more detailed breakdown of goods by category and country, illustrating how Chinese imports dominate the two main product categories listed in Table 2.

2.3 Affected HS Trade Categories

Under the current U.S. tariff regime, trade restrictions are often applied selectively, targeting specific products rather than all imports from a given country. These tarrifs rely on detailed trade classifications to enable product-level precision. To capture this granularity, we begin by identifying affected categories through changes in tariff rates at the 10-digit level of the Harmonized System (HS), the international standard for classifying traded products. Our analysis draws on data from the Harmonized Tariff Schedule (HTS) revision archive, starting with revision 10 from 2024 onward, which enables us to pinpoint HS10 codes that experienced

Table 2: Number of Products by Category

Category Name	**Products**	**Percentage (%)**
Furnishings & Household	192,415	53.58
Recreation and culture	77,134	21.48
Food and non-alcoholic beverages	33,194	9.24
Miscellaneous goods and services	24,671	6.87
Transport	13,854	3.86
Health	7,247	2.02
Communication	4,973	1.38
Housing, water, electricity, gas and other fuels	2,804	0.78
Alcoholic beverages, tobacco and narcotics	1,945	0.54
Clothing and footwear	866	0.24
Total	**359,103**	**100.00**

tariff changes during this period. We focus on changes reported in Chapter 99 of the HTS revisions, as the tariffs introduced in 2025 were not included in the main duty panel and were instead listed separately at the end of the document. Additionally, we classify as affected any HS10 or HS8 codes explicitly identified in the Federal Register as subject to special tariffs, such as those on steel, iron, aluminum, vehicles, and automobile parts.

Next, we assign each individual good to its corresponding category within the HS framework. This classification is performed using an algorithm that systematically mapped each individual product description onto the HS hierarchy. The process is hierarchical and iterative: it begins at the broadest level and progressively narrows the classification by following the structure of the HS tree. At each level, the algorithm incorporates information from the previous step to improve precision, continuing until the product is accurately matched to the appropriate HS10 code.

2.4 Price Index Methodology

To analyze the effects of tariffs across different dimensions, we construct a set of custom price indices using micro-level data, using the methods described in (Cavallo, 2013). These indices differ in how products are grouped: in some cases, we classify goods by country of origin; in others, we group them into domestic versus imported, affected versus unaffected by tariffs. This flexible structure allows us to examine price dynamics along several axes and is particularly useful given the complexity and shifting scope of recent tariff announcements.

We begin by standardizing and cleaning the raw price data. Missing prices are replaced

with the most recently available value for up to 30 consecutive days. Extreme price changes are treated as outliers and excluded from index calculations using guidelines from the US BLS Handbook of Methods.

To construct the daily price indices, we first compute price relatives at the product level—that is, the ratio of a product's price on a given day to its price on the previous day. These relatives capture the daily rate of price change for each item. We then calculate the unweighted geometric mean of these price relatives across all products within a given grouping (e.g., country of origin, product category). This yields a daily average price change for the group. The index is initialized at one in the earliest observation period and updated recursively by multiplying the previous day's index value by the current day's average relative. This chained matched-model approach allows us to capture cumulative price movements over time while accommodating product entry and exit. No adjustments are made for quality or seasonality.

3 Results

This section presents a set of selected graphs that illustrate key patterns in price dynamics across countries, product categories, and tariff exposures. These visualizations highlight representative trends observed in the analysis. In the subsections that follow, we provide additional details and context to aid interpretation of each plot.

3.0.1 Domestic vs Imported Goods

Figure 1 compares the price index of goods produced in the United States with those manufactured abroad,from October 1, 2024 to August 26, 2025. The vertical lines denote major tariff news or events, as detailed in Appendix A.

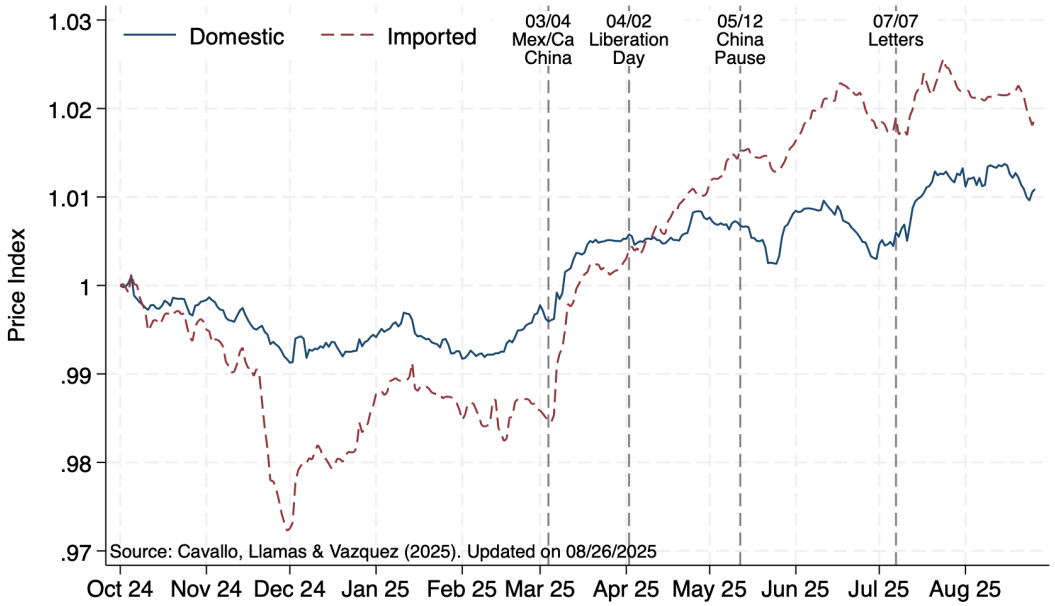


Figure 1: U.S. Retail Price Indices - Domestic vs Imported

Note: Data from five large U.S. retailers. Vertical lines denote major tariff events.

Before the tariffs take effect, two features are worth noting. First, there is a noticeable temporary drop in the prices of imported goods from late November to early January. This reflects typical holiday-season sales, especially in categories like electronics and household goods, which are largely composed of imports. Second, during the first three months, the price indices for both imported and domestic goods show a mild deflationary trend. Figure A5 in the Appendix extends the sample through January 1, 2024, and shows that both series display a similar pattern over this period. This pattern is expected given the sample composition and the use of a matched-model price index. Many of the goods in our data—such as electronics—are initially priced higher when new and tend to be discounted gradually over time. Because our index does not link older models to newer ones or apply quality adjustments, it captures these price declines as a steady deflationary trend. For this reason, a natural benchmark for evaluating price changes after the tariffs is the counterfactual path implied by the pre-tariff trend, as we show later on. Overall, both patterns reflect seasonal discounting and product turnover—both common features in retail pricing data.

The 2025 tariffs first became binding on February 4, at a rate of 10% on Chinese goods, but had little immediate effect on retail prices.[2] This changed on March 4—marked by the first dashed vertical line in the figure—when the U.S. imposed 25% tariffs on imports from Canada and Mexico, along with an additional 10% tariff on Chinese goods. Immediately afterward, the prices of imported goods increased by approximately 2 percentage points, while domestic goods

[2]See Appendix Table A for a timeline of U.S. tariffs implemented in 2025.

prices rose by roughly half as much.

After "Liberation Day" on April 2, the rate of price growth for imported goods again accelerated, coinciding with the announcement of a baseline 10% tariff on goods from all countries. For Chinese goods, the tariff was raised to 125% on April 10 as trade tensions between the two countries escalated. Domestic goods prices also increased during this period, but at a significantly slower pace.

Prices responded again after May 12, when the US temporarily reduced the additional tariffs on Chinese goods to 10 percent for a 90-day period. Following the announcement, prices declined modestly across all goods, but the drop was short-lived. By early June, both imported and domestic goods appeared to return to their previous trends, before falling again toward the end of the month. Then, on July 7, trade tensions escalated as the US issued letters to several countries announcing a new deadline for higher tariffs on August 1. Shortly thereafter, prices began to rise once more.

While prices responded quickly to tariff announcements, the overall magnitude of these changes remains modest. Since early March, prices have increased by approximately 4 percent for imported goods and 2 percent for domestic goods. Alternatively, we can assess these changes relative to the prices predicted by pre-tariff trends. To estimate these trends, we use robust regression with iteratively reweighted least squares, applying Huber and biweight functions to reduce the influence of outliers and limit sensitivity to the choice of start and end dates. Figure A1 in the Appendix shows this graphically. Based on this method, prices rose by 5.4 percent for imported goods and 2.6 percent for domestic goods. Overall, these increases remain moderate relative to the size of some announced tariff rates, particularly on Chinese products.

These short-run passthrough findings are consistent with patterns observed during the first round of U.S. trade tensions in 2018–2019. First, in that earlier period, Cavallo, Gopinath, Neiman, and Tang (2021) documented relatively rapid price increases in certain product categories—particularly those facing large and highly visible tariffs such as washing machines—yet overall, the magnitude of retail price increases was modest. The limited pass-through at the time was connected to a range of short-run retailer adjustment mechanisms, including margin reductions, inventory front-loading, and trade diversion. The same mechanisms, coupled with the growing uncertainty over the tariffs announcements, can help explain why the magnitude of these price inceases are still small relative to the size of the tariff announcements. However, the time horizon covered in this paper is much shorter that in previous papers—spanning only a few days and weeks following the policy change. This suggests that in the current context, retailers may be prepared to react quickly to the tariffs shocks, even as uncertainty around the persistence and scope of the measures tempers the overall magnitude of their initial pricing responses.

Second, the price increases observed for *domestic* goods suggest that tariffs have broader effects beyond directly targeted imports. Several mechanisms in the literature may explain this

pattern. Many U.S.-made products rely on imported inputs—such as components, packaging, or raw materials—from tariffed countries (Amiti, Redding, & Weinstein, 2019). Even when final assembly occurs domestically, firms may raise prices to reflect rising input costs. In addition, as tariffs make imported goods more expensive, firms may anticipate a shift in demand toward domestic substitutes. Expecting this substitution, they may increase prices on U.S.-made goods, especially in categories where domestic and foreign products are close substitutes (Flaaen, Hortaçsu, & Tintelnot, 2020).

3.0.2 Domestic Products in Affected and Unaffected Categories

To provide more evidence on what is driving the change in domestic goods, we combine data on country of origin and HS code categories to identify which goods are affected by tariffs and which are not. As of this writing, all imported goods in our sample are subject to at least the baseline tariff of 10%. However, domestic goods can be classified based on whether they are indirectly affected or not.

In our main analysis, we consider a domestic good to be affected if it either falls within an HS category subject to tariffs[3] or belongs to a 3-digit COICOP category where more than 50% of goods are imported. The second criterion expands the scope of affected goods to include those in broader consumption categories that, while not directly targeted by tariffs, are heavily composed of imported products. Since virtually all imported goods are subject to at least a 10% tariff at this stage, domestic goods in these import-heavy categories are likely to experience indirect effects through competitive pressures, supply-chain links, or pricing spillovers. In the Appendix, we present separate graphs that isolate the effects of each of these two conditions, and show that both are important drivers of domestic good's prices (see Figure A3 and Figure A4).

[3]The two most recent tariffs on copper, steel and aluminum are excluded from the definition of affected goods in this version of the paper, given that they have been in effect for only a few days.

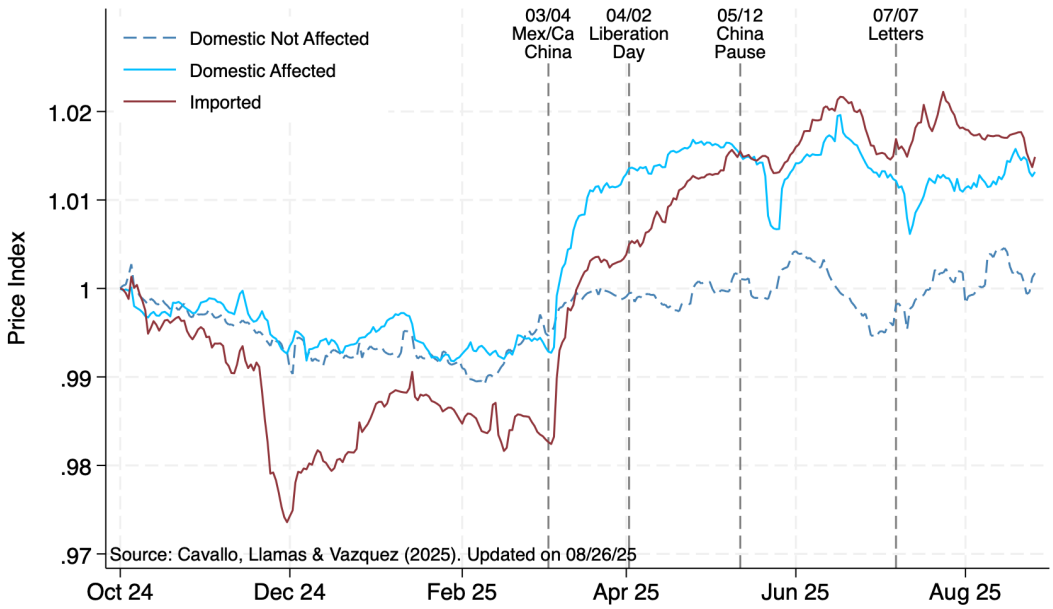


Figure 2: U.S. Retail Price Indices in Affected and Unaffected Categories

Note: Data from five large U.S. retailers. Vertical lines denote major tariff events.

Figure 2 shows that in early March, prices of domestically produced goods in affected categories rose by roughly the same amount as those of imported goods. However, starting in April, the two trends began to diverge: import prices continued to increase—driven by tariff pass-through and ongoing supply-chain frictions—while domestic prices in the same affected categories grew at a lower pace. Following the announcement of the tariff pause with China on May 12, domestic prices in these categories fell temporarily.

By contrast, domestic goods in unaffected categories experienced a far more gradual and milder increase. There is a small change in the price trend, which may reflect uncertainty regarding which sectors or inputs might eventually be subject to tariffs. Firms in these categories may have responded more slowly, incrementally adjusting prices in anticipation of future tariffs or disruptions. Alternatively, retailers might have raised prices in these categories to "'spread the pain" on consumers, protect their margins amid growing uncertainty, or to preserve relative pricing structures across different product categories.

Overall, the evidence in this section strongly suggests that the increase in domestic goods prices seen in Figure 1 is mostly due to competitive pricing decisions for domestics goods sold in the same categories as the affected imported goods. Figure A8 in the Appendix reproduces Figure 2, extending the sample to include data through January 1, 2024.

3.0.3 By Country of Origin

A common characteristic of the 2025 tariffs is that they were mostly applied to all products imported from a given country. To examine how the price effects differ across countries of origin, we first focus on the largest U.S. trading partners, comparing the evolution of price indices for products originating from China, Mexico, Canada. These were also the first countries to be affected by tariffs in early 2025.

Figure 3 shows prices indices constructed using all available products for each of these countries. Once again, we see a seasonal drop in prices for imported goods around the holidays, affecting all three foreign countries by roughly the same magnitude.

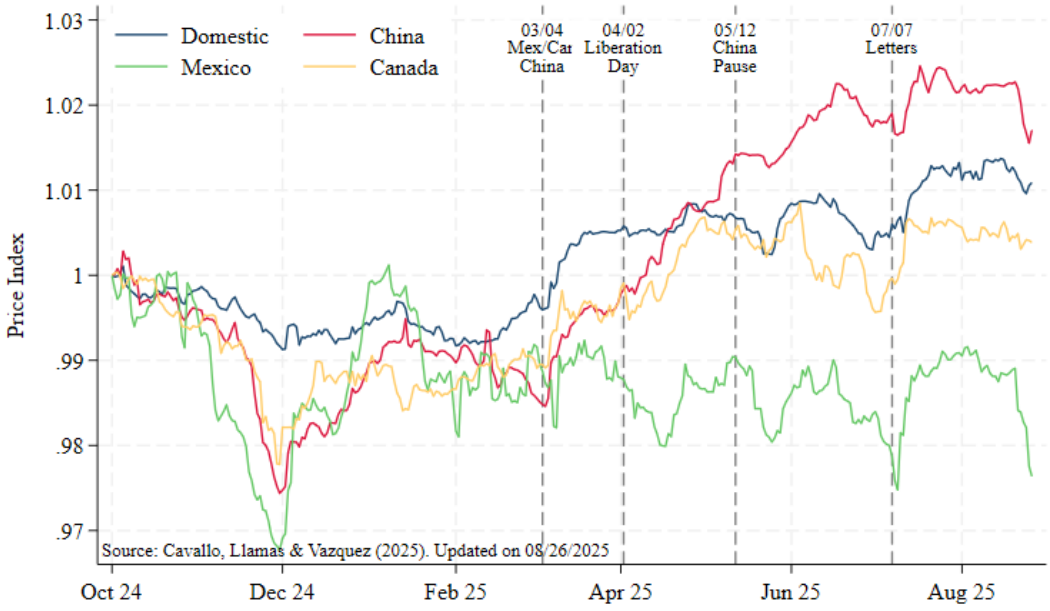


Figure 3: U.S. Retail Price Indices by Country of Origin

Note: Data from five large U.S. retailers. Vertical lines denote major tariff events.

Following the imposition of tariffs on March 4, prices started to diverge. The initial spike was more pronounced for Chinese and Canadian goods, but leveled out through the rest of March. Mexican prices did not react much. After the "Liberation Day" announcements on April 2, the divergence became clearer. Chinese prices continued to rise steadily in the weeks that followed, as the trade tensions escalated, with the US imposing tariffs rates up to 125% on Chinese imports. Canadian prices increased in late April and declined again until July. Mexican goods saw a more persistent decline, with the price index following closely the pre-tariff trend and volatility. Relative to pre-tariff trends, by late July prices had risen by 4.7% for Chinese goods, 3% for Canadian goods, and about 1% for Mexican goods, as shown in Appendix Figure A2.

These diverging country-specific price trajectories likely reflect the price-setter's expectations about tariff exposure and bilateral trade negotiations. China faced the highest effective tariffs and the fewest exemptions. Canada experienced moderate tension: although a 25% tariff was imposed on most imports starting March 4, many goods compliant with USMCA rules of origin were exempted and approximately 38% of Canadian exports qualified for this relief, with additional concessions made later in sectors like autos and metals. Mexico arguably saw the least tension; a larger share of its exports - estimated at more than 50% - qualified for USMCA exemptions, and the country secured a 90-day reprieve from further tariff increases on 30 July. These distinctions in policy treatment and perceived negotiating outcomes help explain the variation in retail price behavior following the April 2 announcements.

In Table 3 shows the price level increases for all countries with more than 1000 goods. These are shown relative to the value of the index on March 4th, and also relative to the value predicted by the pre-tariff trends, calculated for the period October 1, 2024 until March 4th, 2025. On average, prices increased by 3.98% compared to March 4th and by 6.03% relative to pre-tariff trends.

Table 3: U.S. Retail Price Level Changes by Country of Origin

Country	Price Change	Price Change vs. Pre-Tariff Trend
Turkey	26.66	34.19
Poland	12.74	13.74
United Kingdom	5.87	14.55
Japan	5.27	7.50
India	4.44	9.29
Thailand	4.43	6.36
Italy	4.34	5.77
France	3.26	4.12
China	3.23	4.13
Switzerland	3.08	4.15
Germany	3.04	4.19
Malaysia	2.90	10.09
Pakistan	1.91	3.13
Taiwan	1.62	1.60
US	1.50	2.52
Canada	1.43	3.03
Vietnam	3.50	5.85
Korea	-0.20	0.84
Mexico	-1.24	-0.45
Mean	**3.98**	**6.03**
Indonesia	-8.11	-13.90

Note: Price changes reflect cumulative increases since tariff announcements. Pre-tariff trend estimates are based on country-specific regressions between October 1st and March 4th.

The largest price increases are observed for imports from Turkey, Poland, and the United Kingdom. For Turkey, the rise is driven almost entirely by "Carpets and Other Floor Coverings," which make up 87% of Turkish goods in our sample. In Poland's case, 67% of imports fall under "Glassware, Tableware, and Household Utensils," explaining much of the observed increase. The U.K. sample, by contrast, is more evenly spread across categories, making it difficult to attribute the increase to a single sector. Still, because China accounts for 36% of all products in our dataset, Chinese imports remain the primary driver of the aggregate price effect.

Finally, as a robustness check, Table A6 in the Appendix reports these price level changes relative to a pre-tariff trend, where the trend is calculated using price movements from January

1, 2024, to March 4, 2025. The results are virtually unchanged.

3.1 By Categories

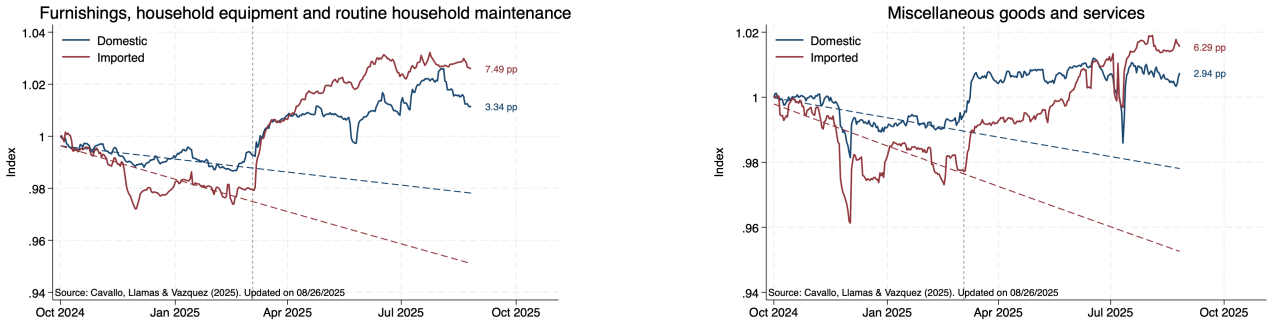
We now turn to the differential price impact across product categories, focusing on goods classified at the one-digit COICOP level. Table 4 shows the price level increases in all the categories with more than 5000 goods. These are shown relative to the value of the index on March 4th, and also relative to the value predicted by the pre-tariff trends.

Table 4: Retail Price Changes by Sector

Category	**Price Change**			**vs. Pre-Tariff Trend**		
	All	Imports	Domestic	All	Imports	Domestic
Furnishings, household equipment	3.95	4.66	1.90	6.34	7.49	3.34
Miscellaneous goods and services	2.73	3.83	1.28	4.83	6.29	2.94
Recreation and culture	1.19	1.39	1.33	0.30	-0.33	2.19
Health	1.12	1.56	1.38	1.95	1.87	2.46
Food and non-alcoholic beverages	0.98	1.49	0.85	1.04	2.06	0.81
Mean	**1.01**	**1.56**	**1.11**	**3.41**	**3.83**	**2.14**

Note: Price changes reflect cumulative increases since tariff announcements. Pre-tariff trend estimates are based on category-specific regressions between October 1st and March 4th.

The impact of tariffs is highest for Furnishings & Household Equipment and Miscellaneous Goods. The price indices for both domestic and imported goods in these categories are shown in Figure 4, along with the estimated pre-tariff trends for each. Both indices show a clear increase immediately after the imposition of the tariffs. This pattern is consistent with the fact that these categories are highly dependent on imports, about 65% of which originate from China.



(a) Furnishings and household equipment

(b) Miscellaneous goods and services

Figure 4: U.S. Retail Price Indices – Most Impacted Sectors

Note: Data from five large U.S. retailers. Vertical lines denote major tariff events.

In nearly all cases, imported goods have risen more than domestic goods. Also, accounting for pre-tariff trends tends to increase the measured impact, more than doubling it on average. The results are similar if we extend the measurement of pre-tariff trends to begin in January 2024 (instead of October), as shown in Appendix Figure A10 and Table A5.

In the Appendix, we provide a more detailed analysis covering all 3-digit COICOP categories. Table A4 shows that most of the categories with the largest price increases are household goods, while those with the smallest changes are primarily food and beverages. One notable exception is coffee, which experienced a significant price rise—possibly due to the 50% tariff imposed on imports from Brazil.

4 Event Study

To complement the descriptive patterns above, we implement a high-frequency event study that provides a sharper identification of the tariff impact by comparing the price dynamics of treated and untreated products within narrowly defined product categories. While the custom price indices and deviations from pre-tariff trends used earlier offer a useful descriptive account, they are limited in their ability to separate tariff-induced price changes from broader forces such as seasonality, product turnover, or category-specific shocks. The event study addresses these limitations by leveraging the sharp timing of the March 4 tariff implementation and partitioning goods into three mutually exclusive groups—imported, domestic-affected, and domestic-unaffected—within each COICOP Level-1 category. We also remove v-shaped sales and extend the carry forward of missing values to 150 days, to reduce the high-frequency noise and allow for longer temporary stockouts.

This design helps control for potential confounding factors by providing a more precise separation between exposed and unexposed goods within each product category. Domestic-unaffected products serve as a control group that shares the same seasonal patterns and

category-level dynamics as treated goods, allowing us to difference out common shocks. The short time window around the event further limits contamination from slower-moving mechanisms. As a result, this approach offers a cleaner lower-bound estimate of the immediate price response to tariffs and a dynamic view of short-run pass-through over time.

We begin with daily estimates to provide an interpretable picture of the short-run response over a 15-day period. We then extend the daily window to 90 days to capture the full post-event dynamics, while noting that subsequent tariff announcements after early April may also contribute to the longer-run pattern. Finally, we present weekly estimates over a 15-week window as a robustness check, confirming that the patterns observed at the daily frequency are not driven by short-term volatility.

4.1 Empirical Setup and Specification

We implement this design by partitioning products into three mutually exclusive groups, following the same criteria used in Figure 2. The first group consists of *Imported* goods, which comprise all foreign–made products, each facing at least the baseline 10 percent tariff during our study period. The second group includes*Domestic–Affected* goods, which are U.S.–made items that either share an HS code subject to tariffs or fall within a 3-digit COICOP class where more than 50 percent of items are imported. Finally, the third group is *Domestic–Unaffected* goods, defined as all remaining U.S.–made products that do not meet those criteria.

For each group, we construct daily price indices at the COICOP Level-1. *Domestic—unaffected* goods serve as the control, while *imported* and *domestic—affected* goods are treated on March 4. This split removes from the control group domestic items most likely touched by the tariff, sharpening identification. Formally, we estimate

$$\text{Index}_{c,o,t} = \sum_{k=-10}^{15} \beta_k \, \mathbf{1}\{t - t_0 = k\} \; + \; \alpha_{co} \; + \; \lambda_t \; + \; \varepsilon_{c,o,t}, \tag{1}$$

where c indexes COICOP Level-1 categories, $o \in \{\text{Imported, Domestic-Affected, Domestic-Unaffected}\}$ denotes origin/exposure status, and t_0 is the tariff date. The fixed effects α_{co} absorb all time-invariant heterogeneity within each COICOP $\times$ Origin cell, while λ_t denotes year–month fixed effects that capture shocks and common time trends affecting all units simultaneously. Standard errors are clustered at the COICOP $\times$ Origin level.

Table 5 reports product counts by COICOP Level-1 and treatment status. The largest numbers are in Furnishings, household equipment & routine maintenance and Recreation and culture. By contrast, Communication and Clothing and footwear have no domestic—unaffected items; lacking a credible control, these categories are omitted from the specification.

Table 5: Product counts by sector and treatment status.

COICOP	Domestic (Affected)	Domestic (Unaffected)	Imported
Furnishings, household equipment & routine maintenance	43 601	6 678	126 239
Recreation and culture	18 424	7 563	43 260
Transport	4 826	380	7 749
Communication	1 633	0	2 875
Miscellaneous goods and services	1 223	8 891	12 229
Health	1 043	3 577	2 621
Food and non–alcoholic beverages	265	24 695	7 622
Housing, water, electricity, gas & other fuels	71	1 674	830
Clothing and footwear	31	0	767
Alcoholic beverages, tobacco & narcotics	2	1 656	245

The results are shown in Figure 5. The pre-treatment coefficients are flat and insignificant, consistent with parallel trends. The series rises shortly after the tariff date and becomes statistically significant by approximately day +7. Effects then accumulate smoothly: roughly 1.0% by day 10, 1.5% by day 20, 2.0% by days 40 to 50, and about 2.0 to 2.5% by days 60 to 90.

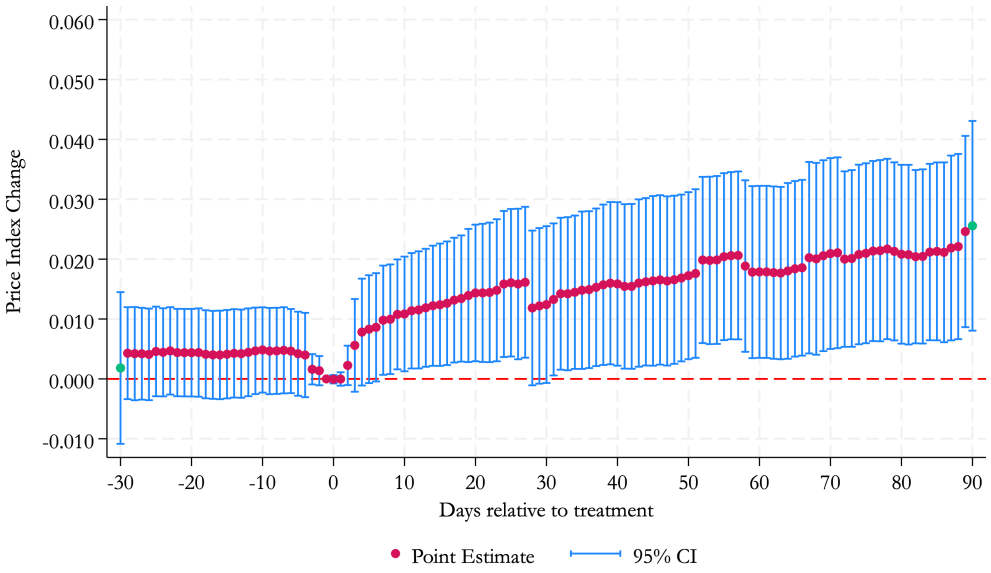


Figure 5: Event-study daily estimates for 90 days around tariff implementation.

These magnitudes provide a lower-bound estimate of the impact because the control group of domestic-unaffected appears to be slightly impacted as well, as shown before in Figure 2.

At the same time, because additional tariff measures were introduced starting in early April, estimates beyond the first month may also reflect the influence of subsequent trade policy changes.

In the Appendix, we provide a plot that focuses on the first 15 days, and also show similar results with weekly data. As a robustness, we also include a version without time fixed effects, and another one using all domestic goods as the untreated group. Our results are qualitatively similar in all of these alternative specifications.

Taken together, the event study results provide clear evidence of a gradual but persistent pass-through to retail prices. Prices begin rising within a week of the March 4 announcement, and the effects accumulate steadily over time. The response is both rapid and persistent, with cumulative increases of around 2.0–2.5% observed within three months of implementation. Importantly, the use of granular product-level classifications and an appropriate control group allows us to isolate policy-driven movements from broader price trends and seasonal patterns, reinforcing the descriptive patterns shown earlier.

5 Conclusion

This paper presents a timely analysis of the short-run impact of the 2025 U.S. tariffs on consumer prices, using a novel combination of high-frequency retail price data, detailed country-of-origin information, and tariff classifications. By constructing customized price indices, we track how prices evolved across affected and unaffected product categories, and between imported and domestic goods. The results underscore how trade policy changes can lead to immediate and heterogeneous price responses—patterns often obscured in aggregate inflation statistics.

We find that the tariff announcements led to rapid, though still moderate, price increases. Imported goods rose by about 4% since early March—or 5% relative to a counterfactual based on pre-tariff trends. Domestic goods also experienced price increases, primarily in categories directly affected by tariffs on imports, reflecting competitive pricing behavior rather than cost pressures alone. These findings highlight the broad reach of trade policy, which can influence retail prices even for goods not directly subject to tariffs.

Cross-country differences are significant. Among the main U.S. trading partners, Chinese goods experienced the largest and most persistent price increases. In contrast, goods from Canada and Mexico—where tariffs were perceived as more temporary or less binding—showed smaller adjustments. Other countries, including Turkey, Poland, the United Kingdom, Japan, and Italy, saw even larger price increases. However, because China accounts for 36% of all products in our sample, most of the aggregate effect is driven by Chinese imports. At the sector level, the largest impacts were concentrated in "Furnishings and Household Goods," which include many Chinese-made products.

Our event study analysis strengthens these findings by isolating the price response to the initial tariff shock using high-frequency data and a credible control group. The results show that retail prices began rising within a week of the March 4 announcement, with cumulative increases of up to 2.5% over the following months—consistent with gradual, yet sustained, pass-through.

Several factors likely contributed to this measured pricing response. These include concerns about consumer backlash, the front-loading of inventories, trade diversion strategies, exemptions or delays in implementation, and, most notably, heightened uncertainty about the scope and duration of the measures. Many of these mechanisms were already observed during the first U.S.–China trade war, but the current episode appears to involve an even greater degree of policy uncertainty. This uncertainty likely discourages firms from making immediate or full price adjustments, contributing to the gradual and uneven passthrough observed across product categories.

As trade policy continues to evolve, our analysis will be updated to reflect new developments. Future iterations will expand the dataset and refine our methods for tracking real-time price responses. Our aim is to inform evidence-based decisions by policymakers, firms, and consumers navigating a rapidly changing global trade environment.

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Appendix

A Timeline of Main U.S. Tariff Measures in 2025

Date	Description
February 4, 2025	10% tariff imposed on all imports from China.
March 4, 2025*	Increase from 10% to 20% on all imports from China. 25% on all imports from Mexico. 10% on Canadian energy products, including oil, natural gas, and electricity. 25% on all other Canadian imports.
March 4, 2025	Exemptions for Canadian and Mexican goods meeting USMCA rules of origin.
March 12, 2025	25% tariffs on steel, aluminum, and derivative products take effect.
April 2, 2025*	"Liberation Day" tariffs announced: 10% baseline on nearly all countries, with higher reciprocal rates for countries driving sustained U.S. trade deficits.
April 3, 2025	25% tariff on automobiles takes effect; tariffs on auto parts delayed until May 3.
April 10, 2025	10% baseline tariff takes effect on nearly all countries; tariffs on Chinese imports raised to 125%.
April 11, 2025	Exemptions announced for a list of semiconductor-containing products, including smartphones and other consumer electronics.
May 3, 2025	25% tariff on autoparts takes effect.
May 12, 2025*	90-day pause with China: reduction in the additional tariff on imports from China from 125 percent to 10 percent (subject to carve outs for certain products) for 90 days.
June 3, 2025	50% tariffs on steel, aluminum, and derivative products take effect.
June 11, 2025	President Trump announces deal with China on Truth Social; no legal details provided.
June 23, 2025	Additional steel tariffs on appliances take effect.
July 7-9, 2025*	New tariff rates announcements, including 25% for Japan and South Korea, and 50% for Brazil. Implementation was delayed until August 1.
August 1, 2025[4]	50% tariffs on copper and derivative products take effect.
August 18, 2025[4]	Additional steel and aluminum tariffs more derivative products take effect.

[4]The two most recent tariffs are excluded from the definition of affected goods in this version of the paper, given that they have been in effect for only a few days.

Source: *Trump's Trade War Timeline 2.0: An Up-to-Date Guide* *(2025), Peterson Institute for International Economics.*

*Note: * These events are marked with vertical lines in some of the figures throughout the paper.*

Table A2: AI-Based Predictions of Country of Origin

	Products	**Accuracy (%)**
Domestic/Imported	9840	88
Imported	7827	87
Domestic	2013	89
Country Of Origin	6820	85
China	3074	84
Canada	127	82
Mexico	84	68
Taiwan	200	83
Turkey	294	96
India	333	93
Vietnam	134	81
Malaysia	54	87
Other countries	507	68
Food and Beverages	315	90
Household and Furnishings	4171	86
Health	130	93
Transportation	372	69
Electronics and Recreation	1228	87
Miscellaneous Goods	383	92

Note: This table reports the number of products and prediction accuracy for AI-based country-of-origin classification. Accuracy is defined as the percentage of correctly predicted instances. The model used for these results in May 2025 was *gpt-4o-search-preview* by OpenAI.

Table A3: Product Counts by COICOP and Country of Origin

COICOP	**Canada**	**China**	**India**	**Mexico**	**Taiwan**	**Turkey**	**US**	**Vietnam**	**All Other**	**Total**
Food and non-alcoholic beverages	854	532	377	666	42	64	25300	70	5277	33182
Alcoholic beverages, tobacco and narcotics	14	4	0	15	0	0	1662	0	250	1945
Clothing and footwear	2	206	4	1	0	6	46	61	539	865
Housing, water, electricity, gas and other fuels	73	624	8	9	12	2	1869	3	193	2793
Furnishings, household equipment...	2379	78596	13165	1703	4034	9333	55832	4680	21957	191679
Health	94	945	114	72	80	4	4623	11	1304	7247
Transport	177	4736	64	701	743	26	5682	73	1620	13822
Communication	33	2585	8	37	18	5	1730	124	422	4962
Recreation and culture	428	34314	414	1446	1237	14	27198	1423	10336	76810
Miscellaneous goods and services	576	5807	388	280	67	11	10315	142	6985	24571
Total	**4630**	**128349**	**14542**	**4930**	**6233**	**9465**	**134257**	**6587**	**48883**	**357876**

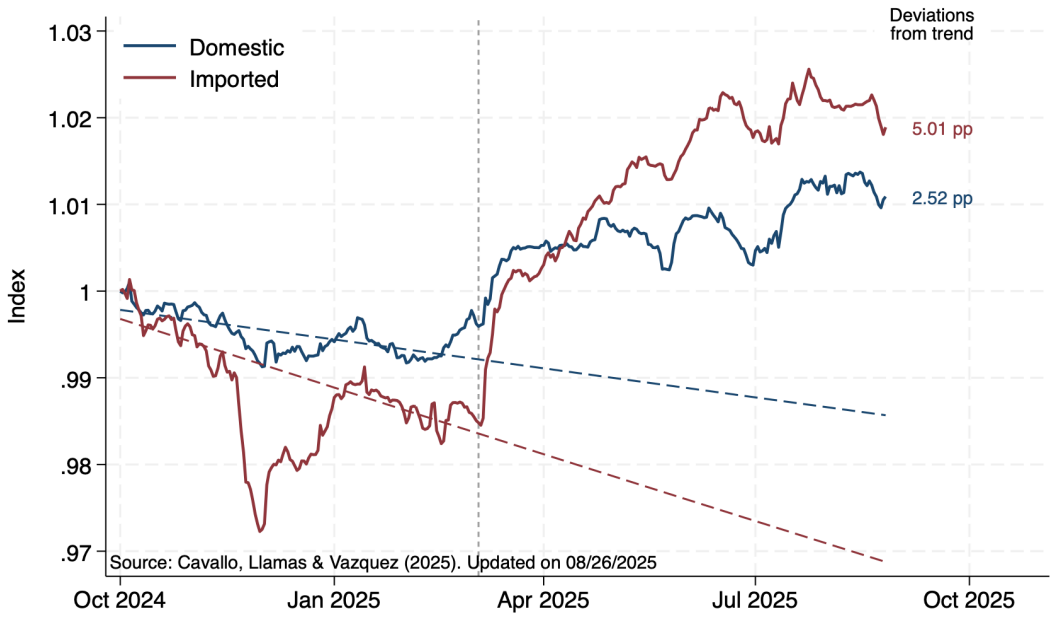


Figure A1: U.S. Retail Price Indices With Pre-Tariff Trends - Domestic vs Imported

Note: Data from five large U.S. retailers. Vertical line denotes the first major tariff event on March 4th. Pre-tariff trends estimated from October 1st to March 4th using a robust regression using Huber and biweight estimators with preliminary outlier deletion based on Cook's distance.

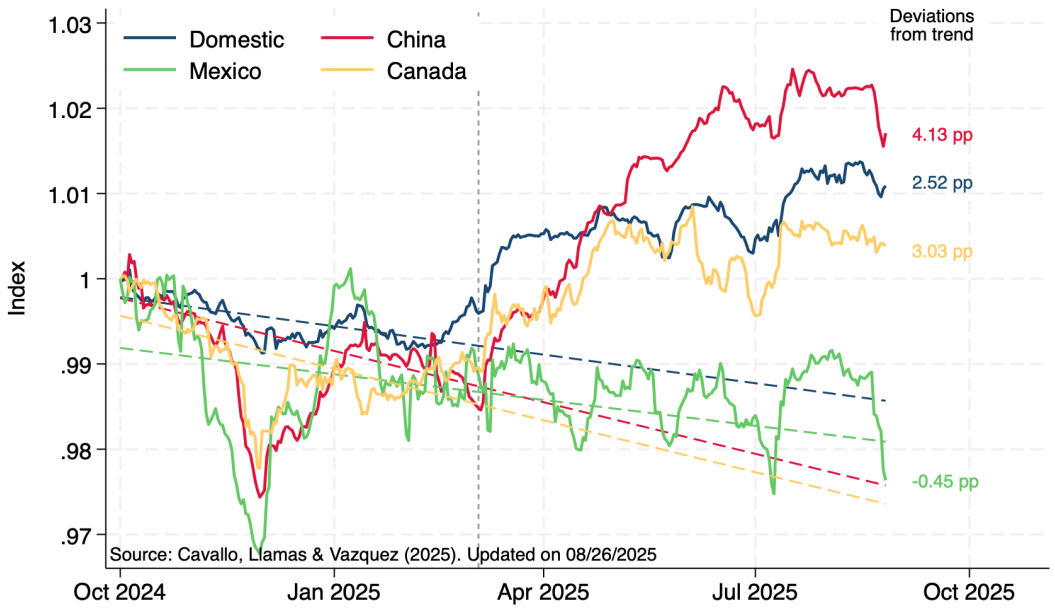


Figure A2: U.S. Retail Price Indices by Country of Origin With Pre-Tariff Trends

Note: Data from five large U.S. retailers. Vertical line denotes the first major tariff event on March 4th. Pre-tariff trends estimated from October 1st to March 4th using a robust regression using Huber and biweight estimators with preliminary outlier deletion based on Cook's distance.

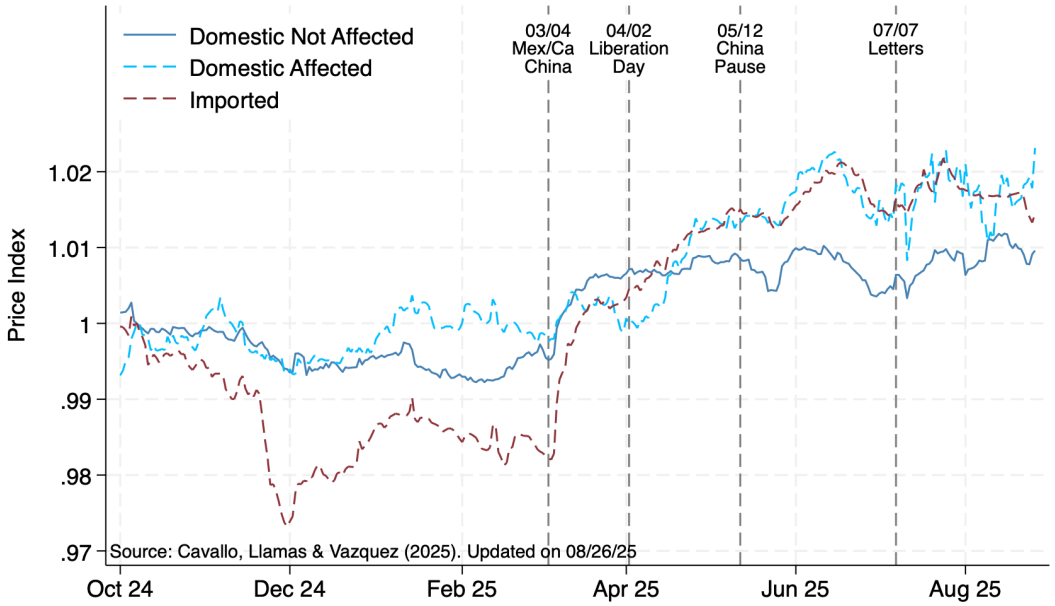


Figure A3: U.S. Retail Price Indices in Affected and Unaffected HS Categories

Note: Data from five large U.S. retailers. Vertical lines denote major tariff events.

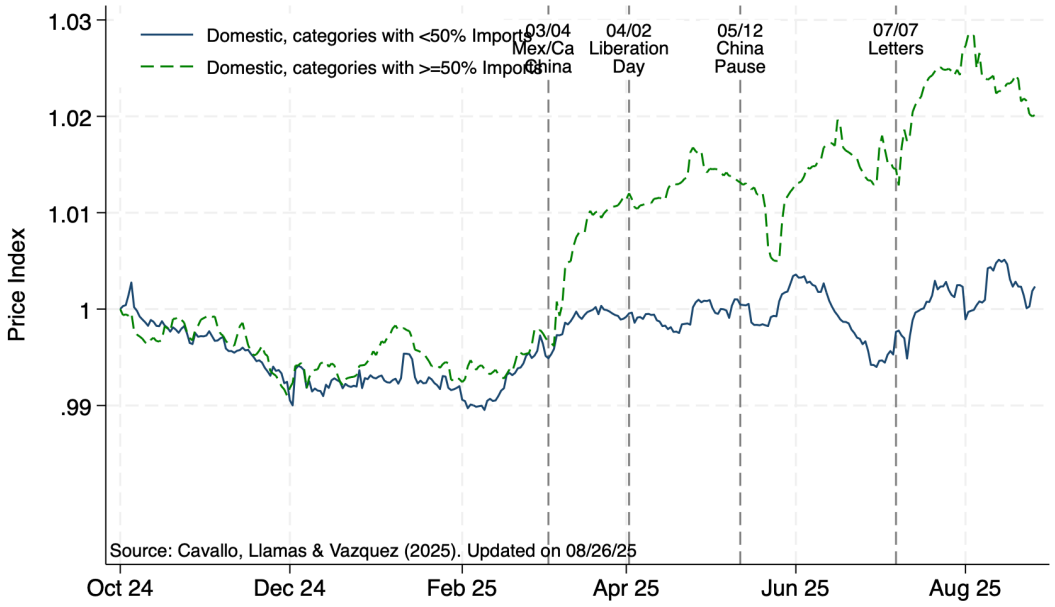


Figure A4: U.S. Retail Price Indices In Categories with Different Share of Imported Goods

Note: Data from five large U.S. retailers. Vertical lines denote major tariff events.

Table A4: Price Changes Relative to Pre-Tariff Trend (%)

Category	All	Imported	Domestic
Carpets and other floor coverings	36.41	36.44	35.18
Other articles of clothing and clothing accessories	10.31	11.97	4.66
Coffee, tea and cocoa	9.77	8.91	10.80
Motorcycles, bicycles and animal drawn vehicles	9.02	9.18	8.75
Other personal effects	6.91	6.89	7.90
Major tools and equipment	5.92	5.75	4.43
Photographic and cinematographic equipment and optical instruments	5.52	5.04	10.81
Furniture and furnishings	5.40	5.68	4.49
Gardens, plants and flowers	5.37	5.53	2.70
Major durables for indoor and outdoor recreation including musical instruments	5.33	3.10	8.97
Glassware, tableware and household utensils	4.93	6.60	-1.40
Household textiles	4.73	4.94	3.45
Major household appliances whether electric or not and small electric household appliances	4.68	5.69	2.65
Fruits	3.98	4.72	2.92
Other medical products; therapeutic appliances and equipment	3.73	3.58	3.93
Miscellaneous printed matter; stationery and drawing materials	3.30	4.33	2.28
Materials for the maintenance and repair of the dwelling	3.24	4.23	3.58
Small tools and miscellaneous accessories	3.18	3.12	3.96
Electrical appliances for personal care; other appliances, articles and products for personal care	3.14	4.45	2.24
Food products n.e.c.	2.87	1.36	3.44
Fish and seafood	2.57	5.98	-3.06
Non-durable household goods	2.48	4.01	1.82
Wine	2.12	0.64	2.55
Meat	2.01	6.04	1.51
Spare parts and accessories for personal transport equipment	1.63	4.09	-0.85
Beer	1.57	-9.11	2.65
Pharmaceutical products	1.31	0.12	2.24
Games, toys and hobbies	1.27	-0.02	6.12
Bread and cereals	0.75	-0.90	1.47
Pets and related products, veterinary and other services for pets	0.75	-0.20	1.33
Fuels and lubricants for personal transport equipment	0.52	-0.31	0.54
Telephone and telefax equipment	-0.35	-0.03	0.01
Vegetables	-0.70	4.46	-2.70
Mineral waters, soft drinks, fruit and vegetable juices	-1.08	-1.60	-1.11
Milk, cheese and eggs	-1.47	8.75	-3.31
Equipment for the reception, recording and reproduction of sound and picture	-2.27	-4.17	4.91
Sugar, jam, honey, chocolate and confectionery	-2.42	-1.64	-2.67
Oils and fats	-3.42	-0.77	-5.83
Equipment for sport, camping and open-air recreation	-3.58	4.26	-11.08
Spirits	-5.33	-6.53	-4.83
Information processing equipment	-8.81	-10.23	11.98
Mean	**3.06**	**3.52**	**3.11**

B Extended Data: Starting in January 2024

The plots in this section extend the main results back to January 1, 2024. They show that pre-tariff trends remained stable from January 2024 through early March 2025, making it clear that the price movements observed after March reflect the impact of the tariffs rather than seasonal effects.

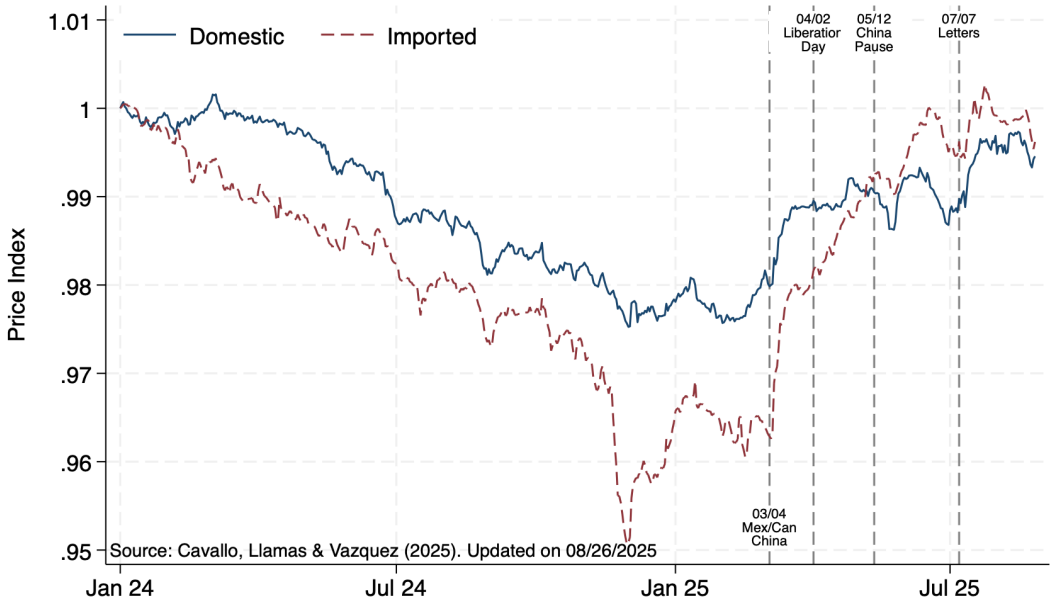


Figure A5: U.S. Retail Price Indices - Domestic vs Imported

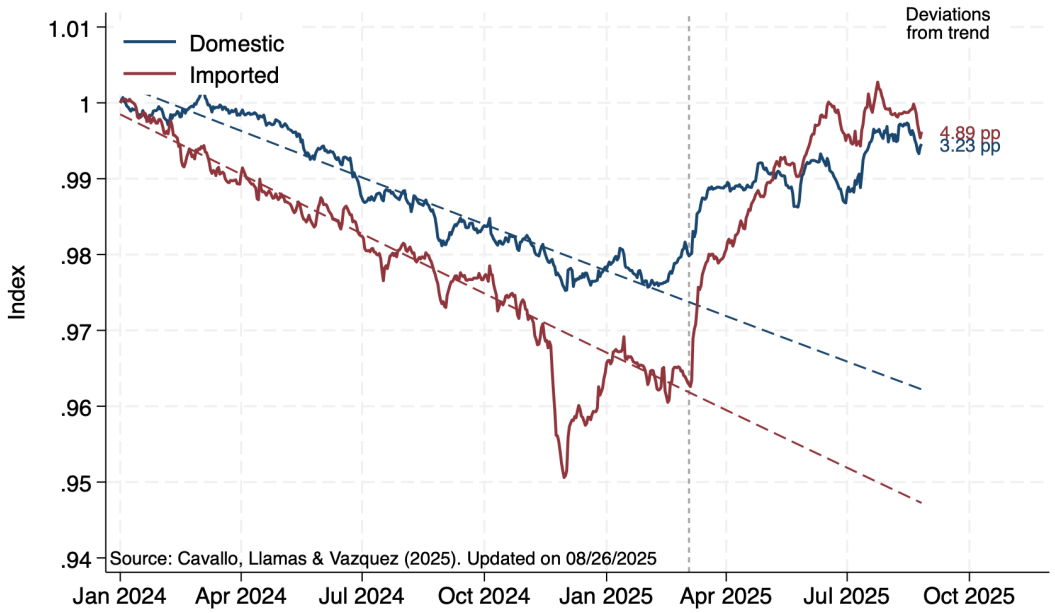


Figure A6: U.S. Retail Price Indices With Pre-Tariff Trends with Extended Horizon - Domestic vs Imported

Note: Data from five large U.S. retailers. Vertical line denotes the first major tariff event on March 4th. Pre-tariff trends estimated from January 1st to March 4th using a robust regression using Huber and biweight estimators with preliminary outlier deletion based on Cook's distance.

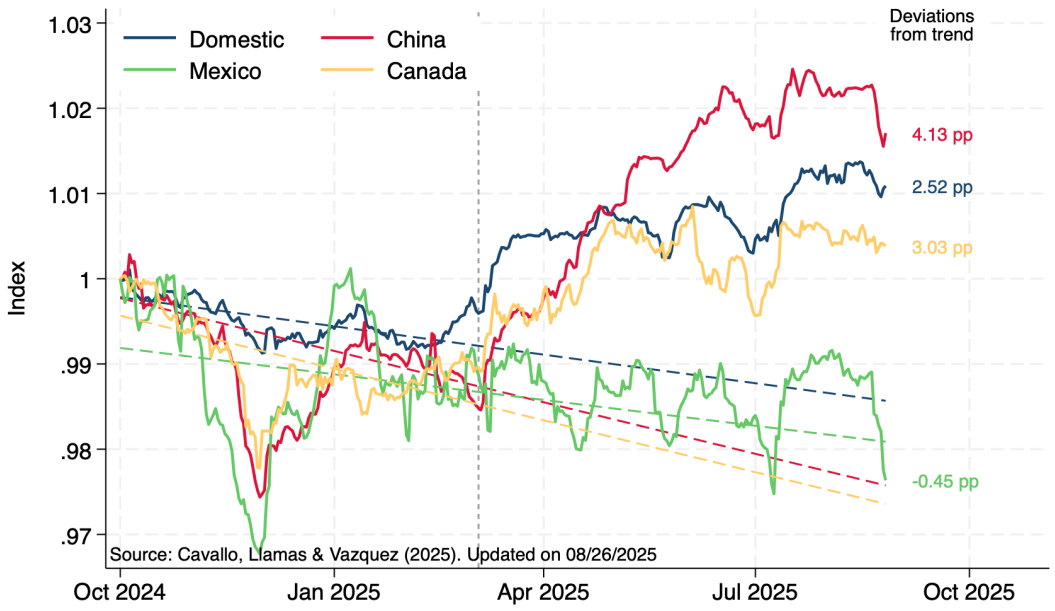


Figure A7: U.S. Retail Price Indices by Country of Origin With Pre-Tariff Trends: Extended Horizon

Note: Data from five large U.S. retailers. Vertical line denotes the first major tariff event on March 4th. Pre-tariff trends estimated from January 1st to March 4th using a robust regression using Huber and biweight estimators with preliminary outlier deletion based on Cook's distance.

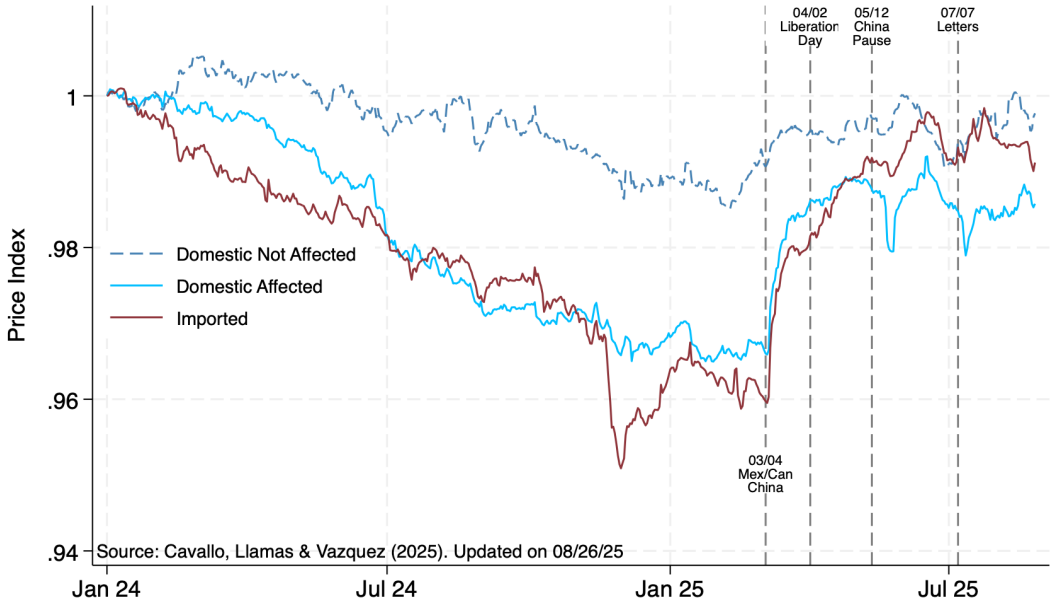


Figure A8: U.S. Retail Price Indices in Affected and Unaffected HS Categories

Note: Data from five large U.S. retailers. Vertical lines denote major tariff events.

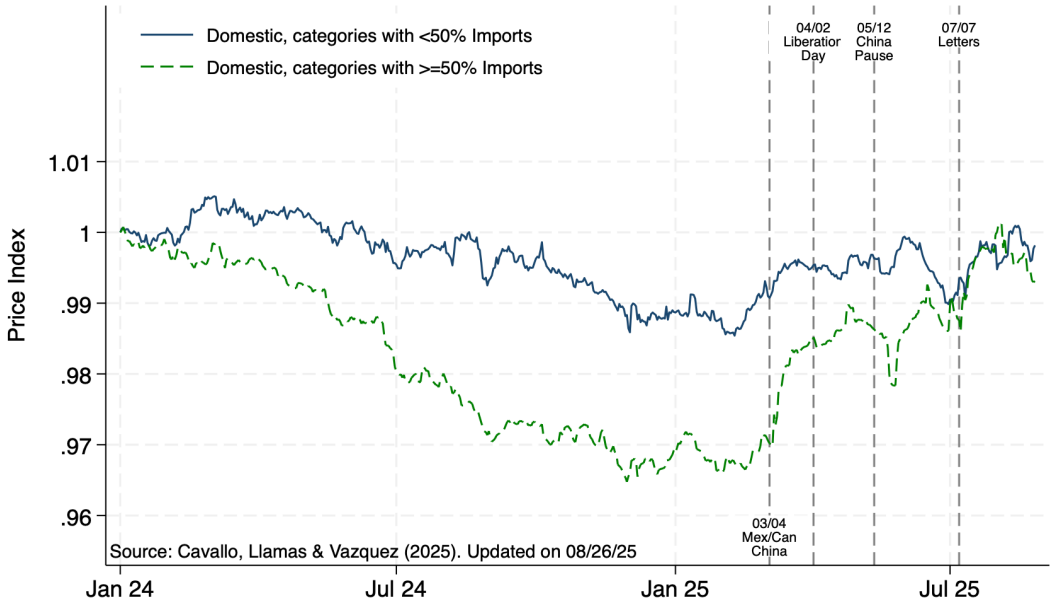
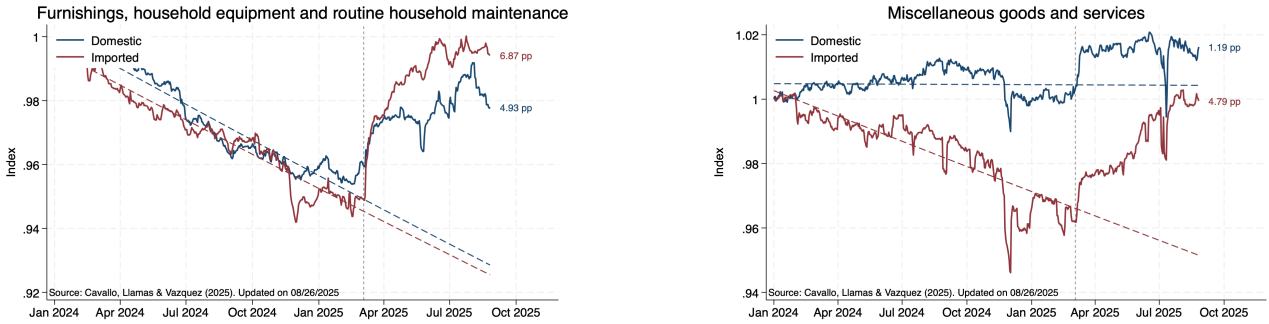


Figure A9: U.S. Retail Price Indices In Categories with Different Share of Imported Goods

Note: Data from five large U.S. retailers. Vertical lines denote major tariff events.



(a) Furnishings and household equipment

(b) Miscellaneous goods and services

Figure A10: U.S. Retail Price Indices – Most Impacted Sectors

Note: Data from five large U.S. retailers. Vertical lines denote major tariff events.

Table A5: Retail Price Changes by Sector

Category	**Price Change**			**vs. Pre-Tariff Trend**		
	All	Imports	Domestic	All	Imports	Domestic
Furnishings, household equipment	3.83	4.52	1.84	6.34	6.87	4.93
Miscellaneous goods and services	2.71	3.77	1.29	3.18	4.79	1.19
Recreation and culture	1.17	1.38	1.31	2.15	2.46	2.08
Health	1.11	1.57	1.37	1.95	1.83	2.52
Food and non-alcoholic beverages	0.98	1.49	0.86	2.17	1.67	2.39
Mean	**1.00**	**1.55**	**1.13**	**2.74**	**3.20**	**1.87**

Note: Price changes reflect cumulative increases since tariff announcements. Pre-tariff trend estimates are based on category-specific regressions between January 1st and March 4th.

Table A6: U.S. Retail Price Level Changes by Country of Origin with Extended Horizon

Country	**Price Change**	**Price Change vs. Pre-Tariff Trend**
Turkey	26.29	33.87
Poland	12.95	12.39
United Kingdom	5.78	8.03
Japan	5.13	8.74
Italy	4.35	4.42
Thailand	4.33	5.93
India	4.29	7.86
France	3.29	3.80
China	3.14	4.52
Switzerland	3.11	2.28
Germany	3.02	4.78
Malaysia	2.83	7.45
Pakistan	1.82	-0.90
Taiwan	1.60	2.47
US	1.47	3.23
Canada	1.44	2.08
Vietnam	3.35	6.45
Korea	-0.19	1.16
Mexico	-1.19	1.56
Mean	**3.92**	**5.44**

Note: Price changes reflect cumulative increases since tariff announcements. Pre-tariff trend estimates are based on country-specific regressions between January 1st and March 4th.

C Event Study - Additional Specifications

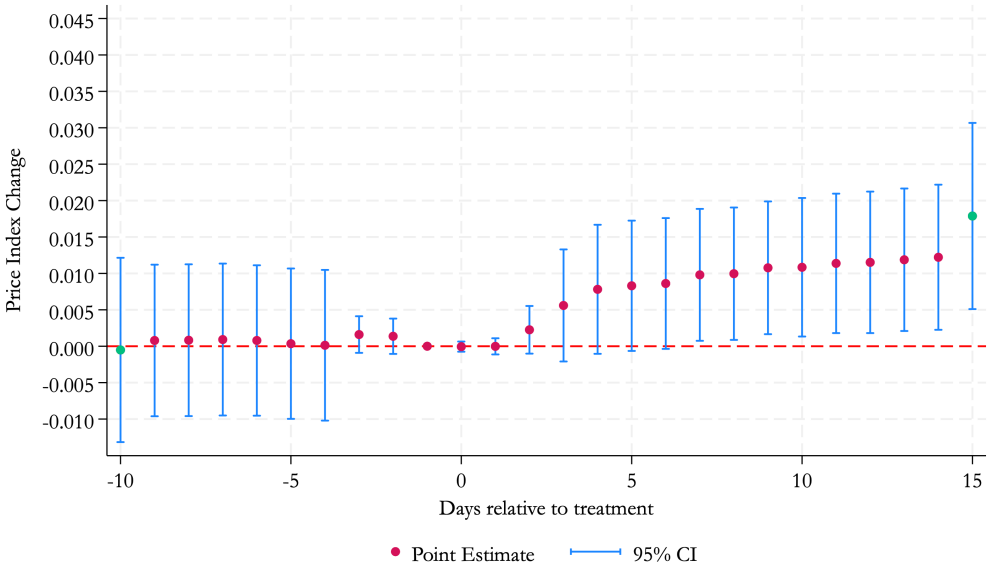


Figure A11: Event-study - First 15 days

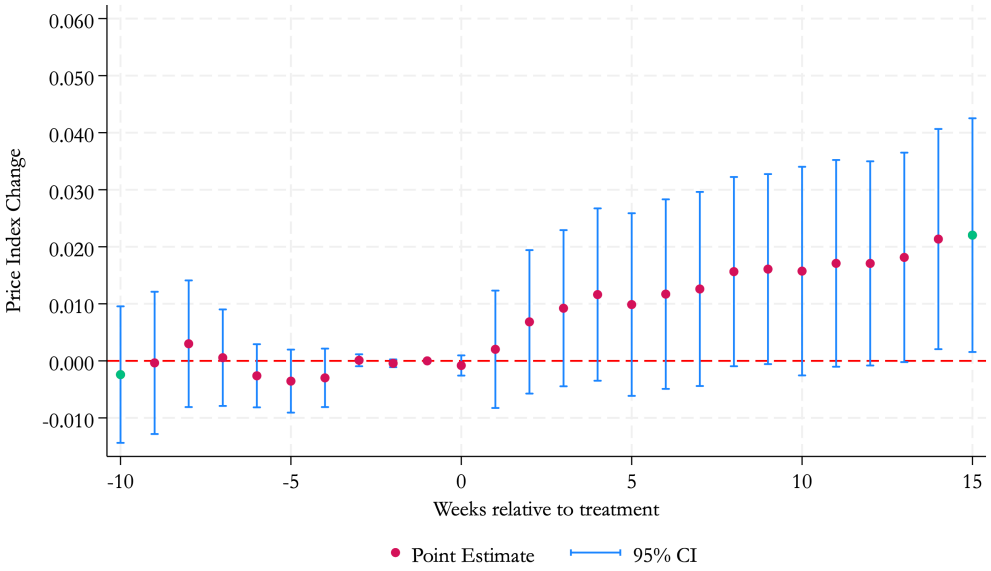


Figure A12: Event-study weekly estimates.

C.1 All Domestic as untreated group

As an additional specification, we collapse the exposure split to a two-group design that places *all* domestic products in the control group and compares them to imported goods. We build weekly and daily indices at the COICOP Level-1 × origin level and re-estimate the event study.

The results—reported in Appendix Figures A13 and A14, and —show a noticeably slower and smaller response: coefficients take longer to become significant and accumulate more gradually. This attenuation is consistent with contamination of the control by tariff-exposed domestic items, implying that the two-group estimates are conservative lower bounds on short-run pass-through and motivating the three-category split used in the main analysis.

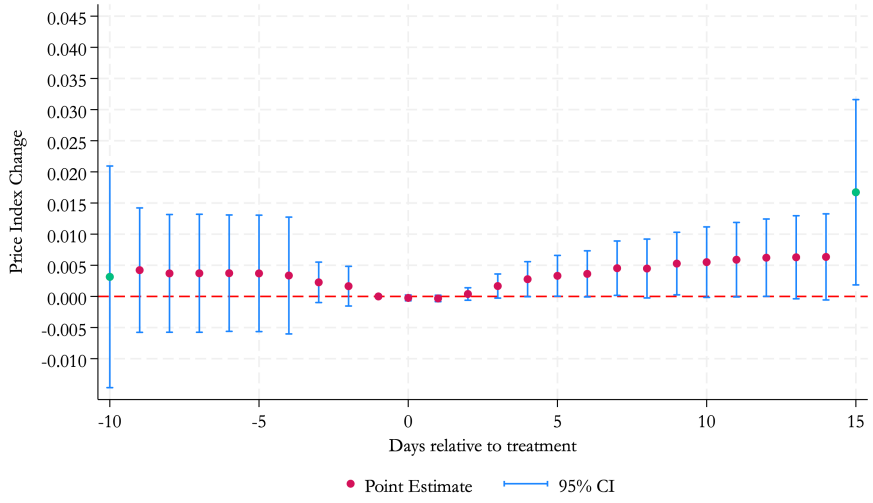


Figure A13: Event-study daily alternative estimates around tariff implementation.

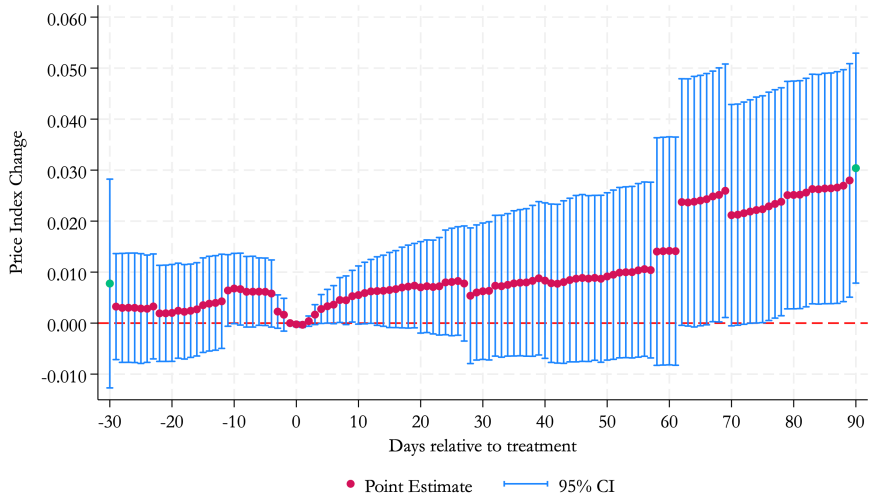


Figure A14: Event-study daily alternative for 90 days around tariff implementation.