The Price Impact of Canadian Retaliatory Tariffs

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Proposal

Recent trade tensions between Canada and the United States have reignited interest in the inflationary consequences of tariffs in advanced economies. In this paper, we study the impact of Canadian retaliatory tariffs on consumer prices using high-frequency online micro data collected from three major Canadian retailers: two national grocery chains and one appliance retailer. We will expand the dataset to cover 10 large retailers in multiple sectors in the paper.

The current dataset includes daily scraped product-level information from the retailers' websites between October 1, 2024 and July 2, 2025. Each observation contains detailed product attributes, including price, packaging, and key banners such as "Tariffed" and "Prepared in Canada." To map products to affected tariff categories, we apply large language models (LLMs) to identify countries of origin and classify goods into Harmonized System (HS8) categories targeted by Canadian tariffs.

We categorize the products into five mutually exclusive groups: (i) **Tariffed products**—goods imported from the U.S. that are directly targeted by Canadian tariffs; (ii) **Domestic substitutes**—domestic goods in the same HS8 categories; (iii) **Third-country substitutes**—goods imported from countries other than the U.S. within the same HS8 categories; (iv) **Imported non-substitutes**—goods imported from the U.S. or third countries in unaffected categories; and (v) **Domestic non-substitutes**—domestic goods in unaffected categories, which we use as our control group.

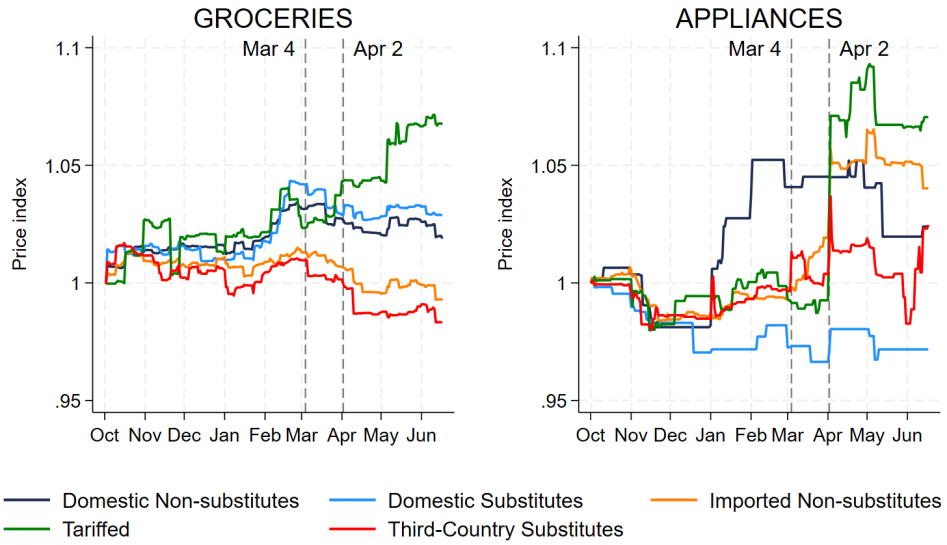
We assess the direct effect of Canadian tariffs on tariffed products (imported from the U.S.) and spillover effects on substitute goods (domestic or imported from third countries in

tariffed categories) and on non-substitute goods (imported from the U.S. or from third countries, not in tariffed categories). The effect is relative to domestic non-substitute products not affected by the tariffs.

Key Stylized Facts

Figure 1 illustrates the average price dynamics for groceries and appliances across these groups. Price indexes are constructed as unweighted geometric means, excluding temporary discounts. Prices for tariffed products diverge markedly starting in February 2025, with a sharp uptick in appliance prices post-April 2—coinciding with the U.S. announcement of universal tariffs.

Figure 1: Large price movements across groups (Groceries and Appliances)



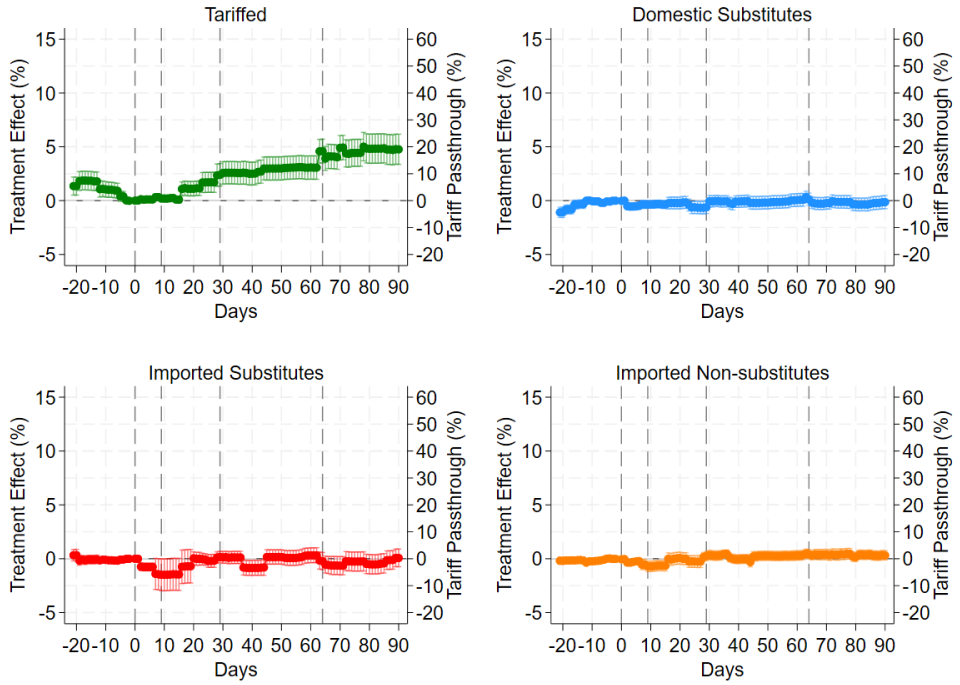
Note: Price indexes are unweighted geometric means of price changes, excluding price discounts. Tariffed are goods imported from the US subject to Canadian tariffs; Domestic substitutes are domestic goods in the tariffed HS8 categories; Third-Country substitutes are goods imported from third countries in tariffed HS8 categories; Imported Non-substitutes are goods imported from the US or third countries in non-tariffed HS8 categories; and Domestic Non-substitutes are domestic goods in non-tariffed HS8 categories. Canadian retaliatory tariffs are imposed at HS8 level.

We estimate difference-in-differences regressions to quantify the passthrough of tariffs, comparing price changes in treated groups relative to the control group. The results are shown in Figures 2 and 3. The passthrough is estimated using linear projections of the March 4 effect, with sample weights applied to account for product-level relevance. Each plot displays the estimated impact for one of the four treated groups—Tariffed, Domestic

substitutes, Third-Country substitutes, and Imported Non-substitutes—relative to the control group of Domestic Non-substitutes. The right-hand axis shows the implied passthrough rate of the 25 percent retaliation tariffs. Vertical lines mark key dates for the retaliation tariffs: March 4th, March 13th, April 2nd, and May 7th (see Appendix for details).

For groceries, Figure 2 shows that tariffed products experienced a **20% passthrough** of the 25% tariff by late June, with minimal or no response in substitute groups.

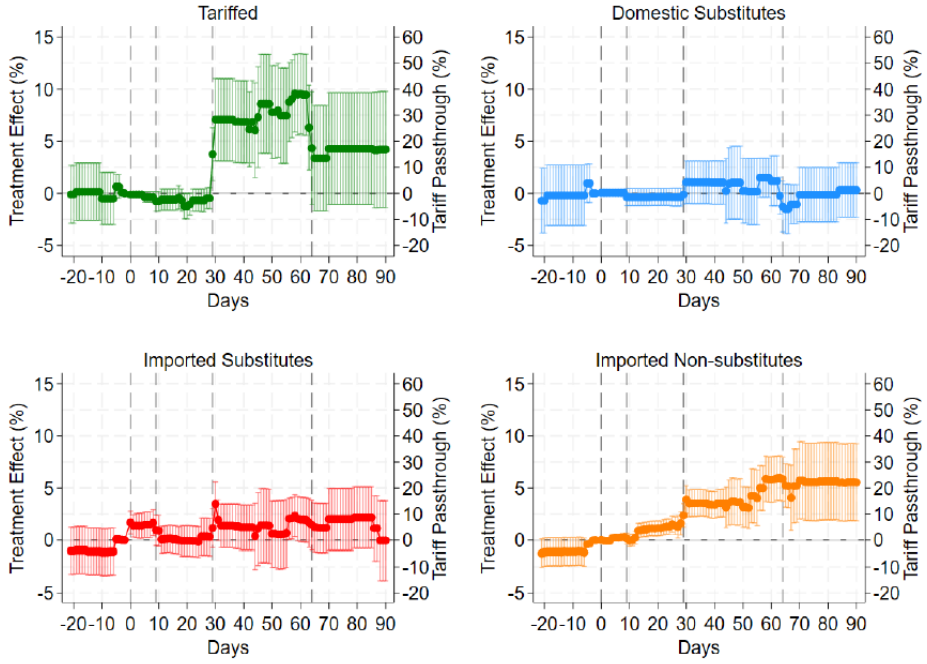
Figure 2: Passthrough estimates for groceries



Note: The passthrough is estimated by the difference-in-differences linear projections of the March 4 effect, with sample weights. Each plot provides the estimates for each of the four treated groups (Tariffed, Domestic substitutes, Third-Country substitutes, and Imported Non-substitutes) relative to the control group (Domestic Non-substitutes). The right axis provides the passthrough of the 25% tariff. Vertical lines refer to March 4th, March 13th, April 2nd, and May 7th, respectively.

For appliances (Figure 3), passthrough temporarily exceeded **40%** for tariffed items, and settled at **20%**. Importantly, the sharp increase in appliance prices following the April 2 announcement suggests that expectations play a key role in price-setting decisions. This effect partially reverses after May 7, when a Canadian remission order was registered.

Figure 3: Passthrough estimates for appliances

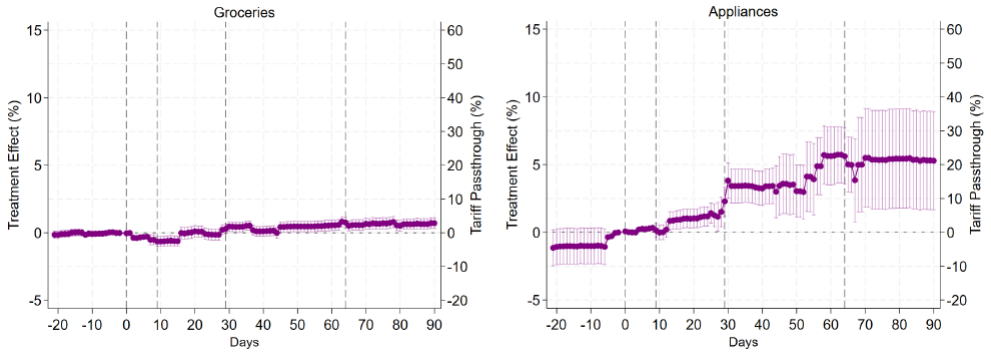


Note: The passthrough is estimated by the difference-in-differences linear projections of the March 4 effect, with sample weights. Each plot provides the estimates for each of the four treated groups (Tariffed, Domestic substitutes, Third-Country substitutes, and Imported Non-substitutes) relative to the control group (Domestic Non-substitutes). The right axis provides the passthrough of the 25% tariff. Vertical lines refer to March 4th, March 13th, April 2nd, and May 7th, respectively.

In the case of appliances, imported non-substitutes also show a passthroguh rate of about **20%**. These imported non-substitute appliances include certain types of washing and dishwashing machines, chest and upright freezers, combined refrigerator-freezers, ovens, cookers, grillers, cooking plates and fans. This effect is likely indicative of the impact of the U.S. tariffs on inputs (steel and aluminum) or directly on final goods.

Overall, because the group of tariffed products represents a relatively small share of our sample—approximately 4%—the average passthrough to all treated products is modest, as shown in Figure!4. For groceries, we estimate an average passthrough of only 3%, as the majority of products in this category are either domestic substitutes or imported from third countries, both of which experienced limited price effects. In contrast, the passthrough for appliances is substantially higher, at 21%. This reflects significant price increases concentrated among imported non-substitute products, for which consumers had fewer viable alternatives. The variation across sectors underscores how the structure of supply chains and the availability of substitutes condition the degree of tariff passthrough to retail prices.

Figure 4: Average passthrough across treated product groups



Note: The passthrough is estimated by the difference-in-differences linear projections of the March 4 effect, with sample weights. Each plot provides the estimates for each of the four treated groups (Tariffed, Domestic substitutes, Third-Country substitutes, and Imported Non-substitutes) relative to the control group (Domestic Non-substitutes). The right axis provides the passthrough of the 25% tariff. Vertical lines refer to March 4th, March 13th, April 2nd, and May 7th, respectively.

Summary of Results

Our preliminary findings highlight several important dimensions:

- Direct passthrough on tariffed products is sizeable (20%) and rapid.
- There is no evidence of spillover effects to domestic or third-country substitutes.
- Indirect effects appear in imported non-substitutes appliances, likely due to upstream cost channels (e.g. U.S. tariffs on aluminum or steel).
- Overall inflation impact is muted due to small product share: 3% average passthrough for groceries, 21% for appliances (Figure 4).

Future Work and Extensions

We plan to extend this analysis by incorporating data from a broader set of retailers and sectors, including department stores, specialty retailers, and other non-grocery channels. Expanding the sectors will allow us to capture a wider range of consumer goods and pricing strategies, as well as assess whether the patterns of tariff passthrough observed in groceries and appliances hold in other parts of the retail sector. We will also expand the sample over time by adding new data and analyzing additional tariff announcements, allowing us to track how pricing responses evolve and whether firms adjust differently as trade shocks accumulate.

Another extension will be to study how tariff "visibility" and customer perception influence passthrough. One distinctive feature of Canada's retail sector is the use of tariff banners in stores, which clearly signal to consumers that price increases are due to government tariffs. This potentially reduces customer backlash and encourages firms to adjust prices more freely—possibly explaining why passthrough appears higher in Canada than in the U.S.. The role of customer anger in pricing decisions has received relatively little attention in the academic literature, but it is widely acknowledged by firms as a key concern in surveys about price-setting behaviors. This mechanism could have important policy implications: more targeted and transparent tariff policies may lead to faster and more complete passthrough to retail prices, while uncertainty or ambiguity around who is affected may delay or dampen price adjustments.

Conclusion

This paper will contribute new empirical evidence on tariff pass-through using high-frequency micro data from online Canadian retailers. The results underscore that expectations and input cost channels matter for price dynamics. The absence of opportunistic pricing behavior also challenges some common assumptions about retail response to trade shocks among domestic producers. We expect these findings to inform both the academic literature and policy discussions on inflation risks tied to global trade tensions.

A Appendix

Table A.1: Canadian Retaliatory Tariffs and Relief Measures in 2025

Date	**Measure**	**Tariff/Action**	**Product Scope**	**Policy Details**
March 4	Phase 1 Retaliatory Tariffs	25% surtax	Machinery, appliances, furniture, electronics	First wave of retaliatory tariffs targeting approximately C$30 billion in U.S. imports
March 13	Phase 1B Retaliatory Tariffs	25% surtax	Steel, aluminum, consumer durables	Expanded list worth about C$29.8 billion; intended to increase pressure on key U.S. exports
April 2	Phase 2 Retaliatory Tariffs	25% surtax	Additional U.S. goods (non-food)	Covers roughly C$125 billion in trade; exemptions granted for food, packaging, and manufacturing inputs
April 9	Auto Tariffs Introduced	25% surtax	U.S.-origin vehicles and auto parts (non-USMCA-compliant)	Strategic focus on autos; subject to exemptions and future quota arrangements
May 7	Remission Order: General Sectors	0% effective rate (relief)	Medical, public safety, packaging, manufacturing, and food processing inputs	Temporary surtax relief for eligible goods imported on or before October 16, 2025; must meet CBSA criteria