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by

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Fast and Furious: Daily Export Responses to the Liberation Day Tariff Shock*

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Abstract

How rapidly can firms re-time international shipments when faced with sudden changes in trade policy? We provide new evidence on this high-frequency adjustment margin using the United States' Liberation Day tariffs (LDT) as an unexpected policy shock, together with confidential daily customs data from Thailand. Our identification strategy exploits a novel shift–share exposure measure, the "LDT gap," which captures product-level variation at the HS6 level in relative tariff increases faced by Thai exporters. We find that exporters adjust within days: products with higher LDT gaps experience increases in export values and quantities, with no statistically significant change in export prices, and these responses are mainly concentrated in the announcement period. The effects are stronger for agricultural than for manufacturing products. Across product use categories, the strongest responses are observed among consumer goods. The paper provides the first daily-frequency evidence on rapid shipment reallocation under sudden policy shocks and introduces a transparent exposure measure for identifying heterogeneous effects.

Key Words: Trade War, Liberation Day, Reciprocal Tariffs, Trade Policy Uncertainty, Thailand
JEL Code: F1

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1 Introduction

How quickly can firms adjust international shipments when trade policy suddenly changes? The timing of adjustment is central to understanding how exporters manage inventories, schedule production, and reallocate shipments across borders when confronted with uncertainty about future market access. Yet despite its importance, the speed and magnitude of these high-frequency responses remain largely unmeasured. The main empirical reason is that trade data are almost always reported at monthly or quarterly intervals, making it impossible to observe the short-lived dynamics that occur in the days immediately surrounding a policy shock.

This paper provides new evidence on exporters' ability to re-time international shipments by leveraging an unusually sharp and sudden trade policy event: the United States' "Liberation Day" tariffs, announced without advance warning on April 2, 2025, with implementation scheduled to take effect at 12:01 a.m. on April 9. The policy assigned country-specific tariff rates using a transparent formula tied to bilateral trade imbalances, implying large, plausibly exogenous variation in exposure across U.S. trading partners. In an unexpected reversal, a second executive order issued late on April 9 suspended the country-specific rates and replaced them with a uniform 10 percent tariff for a 90–day transitional period. This sequence created two distinct and precisely timed information shocks within the span of one week, offering a rare setting to observe exporters' responses to policy uncertainty in real time.

Daily data are essential in this context because the policy shock unfolds over days, rendering the resulting adjustment margin effectively invisible in monthly or quarterly trade data. We study these dynamics using confidential, transaction-level daily customs records from Thailand—one of the most exposed countries under the tariff formula. These records capture the exact paid date of each export declaration, allowing us to track shipments at a daily frequency by product, quantity, value, and destination.

Thailand provides an ideal setting to study how exporters adjust to sudden tariff shocks. First, it was among the countries most severely affected by the Liberation Day policy, facing a 36 percent tariff—the fourth highest rate assigned—due to its large and persistent trade surplus with the United States. This sizeable and plausibly exogenous shock increases the likelihood of a measurable response in export behavior. Second, Thailand's export structure is highly diversified, spanning manufacturing, agricultural, and intermediate goods, which enables an analysis of sector-specific adjustment. Third, because the United States is Thailand's largest export market, the country provides a representative case of export-dependent developing economies whose performance is particularly sensitive to changes in U.S. trade policy.

Our empirical design exploits cross-product variation in exposure to an unexpected and short-lived tariff shock. Identification relies on a novel product-level shift–share exposure measure, the Liberation Day Tariff (LDT) gap, defined as the difference between Thailand's assigned tariff rate and the trade-weighted average tariff rate applied to its competitors in the U.S. market, constructed using predetermined U.S. import shares from 2024. Because the timing of the announcement and suspension is common across products and countries, while exposure intensity varies sharply across products, this variation generates differential incentives to re-time shipments that are orthogonal to contemporaneous demand or supply shocks.

We document three main findings. First, exporters adjust extremely quickly. On aggregate, U.S.-bound shipments increase sharply in both the announcement and suspension windows. However, when comparing across LDT–gap exposure, products with larger gaps exhibit substantially stronger responses during the announcement period, while exposure-driven heterogeneity weakens during the suspension period. This pattern is intuitive: once the country-specific tariff schedule is suspended and all rates converge to 10 percent, variation in the LDT gap no longer generates strong differential incentives to front-load shipments. Second, these adjustments operate almost entirely through quantities rather than unit values. Export values rise because firms ship more units, not because prices change. This pattern is consistent with exporters reallocating inventory or accelerating the release of already-produced goods rather than renegotiating prices under tight deadlines.

Third, sectoral heterogeneity reveals meaningful differences in adjustment behavior. Agricultural goods experience a larger exposure-driven increase during the announcement window compared with manufacturing goods, but exhibit no statistically significant responses during the suspension period. Manufacturing products, by contrast, display small positive exposure-driven responses during the suspension window. When differentiating products by final use, final consumption goods exhibit the strongest anticipatory responses, with statistically significant increases in both export values and quantities during the announcement window. By contrast, we find no statistically significant exposure-driven responses for capital goods, raw and intermediate goods, or other product categories. Across all product types, unit value effects are statistically insignificant.

This paper makes three main contributions. First, it provides the first direct daily-frequency evidence on exporters' ability to intertemporally reallocate international shipments when confronted with sudden policy shocks. Although prior work documents anticipation effects around trade reforms, the absence of daily data has prevented a precise measurement of adjustment speed. Second, we introduce *the LDT gap*, a new product-level exposure measure, to identify heterogeneous treatment effects. Third, we show that firms' ability to re-time exports is both substantial and highly transient, with most of the adjustment occurring before the policy was suspended—revealing a fast-moving margin of behavior that standard monthly or quarterly trade data cannot capture.

This study contributes to three strands of literature. First, it complements emerging work on the 2025 U.S. reciprocal tariffs, which has thus far relied primarily on theoretical and quantitative approaches due to the absence of high-frequency trade data. By exploiting daily transaction-level customs records, we provide the first empirical evidence on how international trade flows responded in real time to the Liberation Day tariff announcement. This allows us to observe adjustment dynamics that unfold over days rather than months, a dimension that has been largely inaccessible in prior work.

Following the April 2, 2025 announcement, a growing literature has examined the macroeconomic and trade implications of the tariffs. For example, Aguiar et al. (2025) derive conditions under which a country with non-zero net foreign assets can use tariffs to rebalance trade, while Costinot and Werning (2025) develop a sufficient-statistic approach to quantify the effects of permanent tariffs on trade imbalances. Ignatenko et al. (2025) incorporate imperfect pass-through, persistent trade imbalances, and labor market frictions into a structural model to assess long-run bilateral trade patterns. Auray et al. (2025) and Auclert et al. (2025) analyze the broader macroeconomic effects of the tariffs in open-economy New Keynesian models, and Rodriguez-Clare et al. (2025) study the distributional implications and reallocation effects across U.S. states and trading partners.

Despite this active line of research, empirical evidence on the immediate, high-frequency response of trade flows to the tariff announcement remains scarce. Rao et al. (2025) and Kaczmarek et al. (2025) examine financial market reactions to the shock, and Suwanprasert (2025) shows that countries facing larger reciprocal tariffs experienced temporary exchange rate depreciations. However, no existing work directly measures how exporters adjusted shipments in the days surrounding the announcement. Our paper fills this gap by providing the first daily-frequency evidence on how exporters reallocated shipments in response to the tariff shock.

Second, our study also relates to the broader literature on trade policy uncertainty and the timing of trade flows. A large body of research shows that exporters adjust shipment schedules when anticipating changes to trade policy. Staiger and Wolak (1994) find that firms accelerate shipments before the implementation of antidumping duties. Metiu (2021) shows that expectations of U.S. protectionism affect foreign business cycles. A related strand of the literature examines discrete episodes of trade policy uncertainty, including the U.S. annual review of China's NTR status (Pierce and Schott, 2016; Handley and Limão, 2017; Alessandria et al., 2024; Suwanprasert, 2022, 2023) and trade policy uncertainty associated with Brexit (Graziano et al., 2021, 2024). Our contribution to this literature is to show that exporters can re-time international shipments within a matter of days, revealing a high-frequency adjustment margin that previous work—limited to monthly or quarterly data—could not capture.

Third, our results relate to the literature on trade policy and price adjustment. Existing studies document substantial tariff pass-through into prices once policies are in effect, but provide limited evidence on how prices respond during short-lived periods of uncertainty surrounding potential tariff changes (e.g., Amiti et al. (2019); Fajgelbaum et al. (2020); Cavallo et al. (2021)). Using daily export unit values, we find that exporters respond to the Liberation Day announcement almost entirely on the quantity margin. Overall, these patterns suggest that when policy shocks arrive with extremely tight deadlines and are quickly reversed, the primary margin of adjustment is the timing of shipments rather than export prices.

The paper proceeds as follows. Section 2 provides background on the Liberation Day Tariffs. Section 3 describes the data sources and variable construction. Section 4 introduces the LDT gap and presents the stylized facts. Section 5 outlines the empirical strategy and presents the estimation results. Section 6 examines how these patterns vary across different types of products. Section 7 reports additional robustness exercises. Section 8 concludes.

2 Background on the Liberation Day Tariffs

On April 2, 2025 (U.S. time, GMT–4), President Donald Trump declared what was termed "Liberation Day," announcing a comprehensive set of reciprocal tariffs on virtually all U.S. trading partners. The policy was intended to promote domestic manufacturing and reduce bilateral trade deficits by aligning tariff rates with the size of each country's trade surplus against the United States. The tariffs were scheduled to take effect at 12:01 a.m. Eastern Daylight Time (EDT) on April 9, leaving less than one week between announcement and enforcement. Due to the time zone difference, the announcement made in Washington, D.C., on the afternoon of April 2 corresponded to the morning of April 3 in Thailand (GMT+7), and therefore, Thai exporters had only a few business days to react before the tariffs were initially scheduled to take effect.

The structure of the policy was detailed in *Executive Order 14257*, which specified a baseline 10 percent tariff on all imports and higher rates for countries with larger U.S. trade deficits—for example, 20 percent for the European Union, 36 percent for Thailand, and 54 percent for China. The country-specific tariff rates were mechanically determined by a published formula based on observable trade imbalances and elasticity parameters,[1] making the assignment plausibly exogenous to contemporaneous political or macroeconomic shocks. The mechanical nature of the formula and the short implementation window created an unusually transparent and unanticipated policy shock.

In an unexpected policy reversal, a second executive order was issued late on April 9 (EDT), only hours after the tariffs were set to take effect. The new order temporarily suspended the country-specific rates and imposed a uniform 10 percent tariff on all imports for a 90-day "transitional period" between April 10 and July 9. This reversal effectively introduced two distinct and precisely timed policy shocks: the initial announcement of country-specific tariffs and the subsequent suspension that temporarily unified them. Together, these events form a sharp natural experiment for examining how exporters respond to sudden and short-lived policy deadlines.

This episode presents an unusually clean natural experiment for assessing the short-run effects of a large and sudden tariff shock. The announcement was unanticipated, the implementation was immediate, and the tariff assignments were determined by a transparent formula based solely on observable trade data. This construction rules out targeting based on unobserved political motives or contemporaneous economic conditions. Furthermore, the narrow time window—spanning only a few working days—minimizes the risk of confounding influences such as retaliatory actions, lobbying responses, or medium-run price and quantity adjustments.

3 Data Sources and Variable Construction

This study uses confidential transaction-level customs data from the Thai Customs Department under the Ministry of Finance. Each observation is recorded at the product-destination-date

[1]The formula and explanatory note were released by the U.S. Trade Representative at https://ustr.gov/issue-areas/reciprocal-tariff-calculations.

level, with detailed information including export values, quantities, destination countries, product classification based on the Harmonized System (HS) code at the 11-digit level, and the paid date of export declaration.[2] Given the raw data, we initially exclude gold; exclude solar panel and component transactions[3]; exclude transactions with values less than 1,500 Thai baht; keep only transactions with reporting units in kilograms or pieces; and, focus only on trade with Thailand's major trading partners.[4] Export values are recorded in both Thai baht (THB) and U.S. dollars (USD), with all analyses conducted in USD. Based on export values and quantity (reported in kilograms or pieces) we follow the literature and compute unit values for a specific product (HS11)-destination-date level. Unit values are calculated by dividing the export value by the export quantity, as a proxy for export prices.

We construct the daily export dataset for the period 1 January 2024 to 30 April 2025 using the paid date of export declarations, and then collapse the Thai customs records to the product (HS6)–destination–date level. The daily dataset is restricted to official working days, as export declarations are not processed on weekends or national holidays.[5] The resulting unit value is computed as the export-value-weighted average across all products shipped to a given destination on a given day. This level of aggregation facilitates the international standard practice in empirical trade research, ensures comparability across countries, helps mitigate noise due to firm-level idiosyncrasies, and also reduces the frequency of zero trade flows, which are prevalent in daily customs records. Product types are classified into capital goods, consumer goods, raw and intermediate goods, and other categories, following the definitions provided by the Bank of Thailand.

We omit product (HS6)-destination cells that trade infrequently, defined as those with trade in fewer than four of the six quarters, where a quarter is considered active if trade occurs on any day within that quarter. After excluding weekends and national holidays, the resulting dataset is a balanced panel of Thai exports at the product (HS6)-destination-date level. This panel dataset allows us to identify 38,546 unique product (HS6)-destination combinations, yielding approximately 12.5 million observations, which constitute almost 76 percent of the total exports.

[2] The paid date is the day on which exporters officially submit and pay for the export declaration to Thai Customs. This timestamp precedes physical shipment and reflects the moment at which exporters commit to sending goods abroad. Because firms must complete this step before containers enter the logistics queue, the paid date provides the most accurate high-frequency signal of exporters' export decisions and their intertemporal adjustments in response to policy shocks.

[3] We exclude solar panels and components (HS 6-digit codes 8541.42, 8541.43, and 8507.20) to avoid further exacerbating the decreasing trend of these exports following the U.S. imposition of anti-dumping and countervailing duties on Thai exports of solar panels and components since April 2024.

[4] 30 countries in total including Argentina, Australia, Belgium, Brazil, Cambodia, Canada, China, France, Germany, Hong Kong, India, Indonesia, Italy, Japan, Korea, Lao PDR, Malaysia, Mexico, Myanmar, Netherlands, Philippines, Switzerland, Saudi Arabia, Singapore, South Africa, Taiwan, UAE, United Kingdom, United States, Vietnam.

[5] The national holidays excluded from the sample are as follows. In 2024: April 8, 12, 15–16; May 1, 6, 22; June 3; July 22, 29; August 12; October 14, 23; and December 5, 10, 30–31. In 2025: January 1–2; February 12; April 7; and April 14–16.

4 Product-Level Exposure: The LDT Gap

A central component of our empirical strategy is a product-level measure of tariff exposure that exploits the structure of the Liberation Day tariffs. We construct a shift–share measure, the *LDT gap* (LDT_gap_p), which captures how much higher Thailand's assigned tariff rate is for product p relative to the trade-weighted average tariff rate faced by its competitors in the U.S. market. Shift–share designs of this form have been widely used to generate plausibly exogenous variation in trade and labor studies (Autor et al., 2013; Bartik, 1991; Borusyak et al., 2022; Goldsmith-Pinkham et al., 2020; Pierce and Schott, 2016, 2020).

Formally, the LDT gap for product p is defined as:

$$\text{LDT\_gap}_p = \text{LDT}_p^{\text{THA}} - \sum_{c \neq \text{THA}} \left(\frac{\text{Import}_{pc}^{US,2024}}{\text{TotalImport}_p^{US,2024}} \times \text{LDT}_p^c \right), \tag{1}$$

where $\text{Import}_{pc}^{US,2024}$ denotes U.S. imports of product p from country c in 2024, $\text{TotalImport}_p^{US,2024}$ is total U.S. imports of product p, and LDT_p^c is the tariff rate assigned to country c under the Liberation Day Tariff formula. The measure is predetermined using 2024 import shares and is thus orthogonal to exporters' behavior during the 2025 shock period.

Intuitively, the LDT gap quantifies Thailand's *relative* tariff disadvantage at the product level. A higher value indicates that Thailand would have faced a steeper tariff increase than its competitors, and therefore had stronger incentives to accelerate shipments before the new tariff regime took effect. This exposure measure serves as the primary source of cross-sectional variation in our identification strategy: the tariff shock supplies the "shift," and the 2024 U.S. import shares provide predetermined, economically meaningful "shares."

Figure 1 illustrates how this LDT gap exposure is distributed across products and how it maps into changes in trade flows at different levels of aggregation. Figure 1a provides a first look at the product-level exposure by plotting the distribution of the LDT gap across HS6 products. The distribution has a mean and median of approximately 0.17, but it also features a pronounced spike at 0.36. This mass point reflects the set of products for which Thailand is the sole U.S. supplier, so these goods would have absorbed the full reciprocal tariff. The distribution highlights that potential tariff exposure is not uniform across products, creating a natural source of cross-sectional variation in the incentives to re-time shipments.

Figure 1b begins to show how exporters responded to this variation. The figure plots the change in Thailand's U.S. export share against the LDT gap at the HS2 level. Each point represents an HS2-level average, constructed by aggregating HS6 products and weighting observations by pre-period total exports (U.S. plus non-U.S. destinations). The change in the U.S. export share is defined as the difference between the post-period and pre-period shares, where the pre-period runs from January 1, 2024 to April 2, 2025 and the post-period covers April 2025. The fitted line is estimated separately for manufacturing and agricultural products. The scatter plot shows that agricultural products, denoted by black dots, are more concentrated toward the right side of the figure, while manufacturing products, denoted by red open circles, are more dispersed. This pattern reflects the higher average LDT gap for agricultural products (0.24) relative to manufacturing products (0.17). A clear positive pattern emerges: HS2 categories facing larger prospective tariff increases display larger rises in the U.S. share of Thailand's total exports. This relationship appears in both manufacturing and agriculture, suggesting that the response is not driven by a narrow set of sectors.

Figure 1c examines the same relationship at a finer level of disaggregation. To reduce noise inherent in the full HS6 distribution, the sample is restricted to the 500 HS6 products with the highest pre-period U.S. export values. Export growth is measured as the change in log average daily exports between the pre-period (1 January 2024 to 2 April 2025) and the post-period (3 to 30 April 2025). Each point therefore captures how much U.S.-bound shipments of a given product increased during April relative to its own pre-period baseline. The positive relationship between export growth and the LDT gap persists. Products more exposed to the tariff formula exhibit systematically larger increases in U.S.-bound shipments during April. The consistency of this pattern across levels of aggregation strengthens the interpretation that exporters actively re-timed shipments in response to anticipated tariff increases.

5 Estimation and Empirical Results

5.1 Baseline and Exposure-Based Difference-in-Differences

Baseline Estimation. We begin by examining how Thai exporters responded to the Liberation Day tariff announcement. Using daily HS6–destination export flows from January 1, 2024 to April 30, 2025, we estimate a difference-in-differences specification comparing U.S.-bound shipments with exports of the same product to other destinations before and after the announcement.

The baseline estimating equation is

$$\log(y_{pct}) = \beta(\text{Post}_t \times \text{US}_c) + \boldsymbol{X}'_{pct}\boldsymbol{\theta} + \delta_{pc} + \gamma_{cw} + \vartheta_{pw} + \zeta_{pd} + \varepsilon_{pct}, \tag{2}$$

where y_{pct} denotes export value, quantity, or unit value for product p shipped to country c on day t.[6] The variable US_c is a binary indicator equal to 1 if the destination country is the United States, and Post_t equals one for dates within the treatment window (April 3–30, 2025).

The control vector X_{pct} includes sector-specific U.S. tariff rates and competitor U.S. import tariff (CUSIMT) rates. The sector-specific tariff rates are interacted with time dummies for the announcement and implementation dates to control for both anticipatory (front-loading) behavior and the direct effects of tariff enforcement in sectors such as steel, aluminum, and automobiles. The CUSIMT measure is constructed as the import-share-weighted average of U.S. tariffs imposed

[6] Unit values are defined only for positive export flows. Regressions with unit values as the dependent variable exclude zero-value observations and are estimated on the intensive margin.

on competing exporters of product p and accounts for reciprocal tariffs already applied to major competitors such as China, Canada, and Mexico prior to the LDT announcement.

The fixed-effects structure absorbs multiple layers of high-frequency heterogeneity. HS6$\times$country fixed effects (δ_{pc}) absorb time-invariant product-level patterns in bilateral trade relationships. Country$\times$week fixed effects (γ_{cw}) control for destination-specific macroeconomic or demand shocks that vary at a weekly frequency. HS6$\times$week fixed effects (ϑ_{pw}) capture short-term fluctuations specific to individual products, such as export cycles or weather-related variation. HS6$\times$day-of-week fixed effects (ζ_{pd}) account for systematic within-week shipment timing patterns. Standard errors are clustered at the HS6–country level. Because daily export data contain frequent zeros, we use the inverse hyperbolic sine transformation to maintain comparability with logarithmic specifications.

Columns (1)–(3) of Table 2 (Panel A) report the aggregate effects. The estimated coefficients capture changes in U.S.-bound exports relative to contemporaneous exports of the same products to non-U.S. destinations. Export values to the United States rose by roughly 71.7 percent following the announcement, while quantities increased by 57.4 percent. Unit values show no detectable change. These patterns indicate that the immediate response occurred almost entirely through higher shipment volumes rather than price adjustments, consistent with exporters accelerating pre-existing inventories before the potential tariff increase.

Product-Level Heterogeneity: The LDT Gap. Aggregate effects may mask substantial variation across products. To capture differential exposure to the reciprocal tariff formula, we incorporate the product-level LDT gap described in Section 4. This shift–share measure compares Thailand's assigned tariff rate for product p with the trade-weighted average rate applied to its competitors in the U.S. market. Products with larger LDT gaps face a greater prospective tariff disadvantage and therefore stronger incentives to accelerate shipments.

To examine this heterogeneity, we extend the baseline specification in Equation (2) by interacting the LDT gap with both the post-announcement indicator and the U.S. destination dummy. We also replace country–month fixed effects with more granular country–week fixed effects (γ_{cw}) to absorb high-frequency destination-specific demand or macroeconomic shocks. The extended specification is:

$$\log(y_{pct}) = \beta_1 \left(\text{Post}_t \times \text{US}_c \times \text{LDT\_gap}_p \right) + \boldsymbol{X}'_{pct}\boldsymbol{\theta} + \delta_{pc} + \gamma_{cw} + \vartheta_{pw} + \zeta_{pd} + \varepsilon_{pct}. \tag{3}$$

Columns (4)–(6) of Table 2 (Panel A) report the heterogeneous-effects estimates based on the LDT gap. The coefficients therefore measure how changes in U.S.-bound exports for more exposed products differ from those for less exposed products, relative to exports of the same products to other destinations in the same week. Products with higher LDT gaps exhibit substantially stronger export responses: products with a ten–percentage-point higher LDT gap experience a 7.1 percentage-point increase in export value and a 5.7 percentage-point increase in export quantity to the United States relative to other destinations. We find no statistically significant change in unit values, indicating that the expansion in U.S.-bound exports was driven primarily by higher shipment volumes rather than price adjustments. These results show that exporters disproportionately accelerated shipments for products facing greater prospective tariff exposure, consistent with anticipatory front-loading behavior.

5.2 Timing of Adjustment: Announcement versus Suspension

Short-Run Adjustment Across Policy Windows. We next use the daily frequency of the customs data to distinguish between anticipatory behavior and responses to the subsequent policy reversal. The first period, the *announcement window* (April 3–9, 2025), captures exporter reactions after the tariff announcement but before its scheduled implementation. The second period, the *suspension window* (April 10–30, 2025), corresponds to the immediate aftermath of the policy reversal, when the United States formally paused the tariff measure.

The estimating equation is as follows:

$$\log(y_{pct}) = \beta_1(\text{Announce}_t \times \text{US}_c) + \beta_2(\text{Suspend}_t \times \text{US}_c) + \boldsymbol{X}'_{pct}\boldsymbol{\theta} + \delta_{pc} + \gamma_{cw} + \vartheta_{pw} + \zeta_{pd} + \varepsilon_{pct}, \tag{4}$$

where Announce_t is a binary indicator that equals one on April 3–9 and Suspend_t is a binary indicator that equals one on April 10–30. The key regressors are interaction terms between the U.S.–destination dummy and the period-specific indicators, which isolate exporter responses during each phase of the policy timeline. Coefficient β_1 captures anticipatory adjustments following the tariff announcement, while coefficient β_2 measures exporters' reactions once the tariff policy was suspended.

Panel B of Table 2 reports the results. Column (1) shows that export values to the United States rose by approximately 63.5 percent during the announcement window and 75.0 percent during the suspension window, relative to exports to other destinations. Column (2) shows a similar pattern for export quantities, which increased by about 50.8 percent and 60.1 percent, respectively. Column (3) reports a small and statistically insignificant decline in unit values, indicating that these increases were driven almost entirely by higher shipment volumes rather than price adjustments. The continued elevation of shipments during the suspension window suggests that many shipments had already been arranged or loaded prior to the reversal, consistent with short-lived front-loading behavior.

Timing and Exposure: LDT Gap Interactions. We then refine the analysis by interacting product-level exposure with the timing indicators. This allows us to assess whether more exposed products responded differently across the announcement and suspension windows. The heterogeneous specification is:

The estimating equation is expressed as

$$\log(y_{pct}) = \beta_1\left(\text{Announce}_t \times \text{US}_c \times \text{LDT\_gap}_p\right) + \beta_2\left(\text{Suspend}_t \times \text{US}_c \times \text{LDT\_gap}_p\right) + \boldsymbol{X}'_{pct}\boldsymbol{\theta} + \delta_{pc} + \gamma_{cw} + \vartheta_{pw} + \zeta_{pd} + \varepsilon_{pct}. \tag{5}$$

The estimation results are reported in Panel B of Table 2. Products with higher LDT gaps experienced markedly stronger export surges during the announcement phase: products with a ten–percentage-point increase in the LDT gap is associated with a 9.6 percentage-point increase in export value and a 8.2 percentage-point increase in export quantity. The effects during the suspension window are weaker and only marginally statistically significant, consistent with shipments that were already in transit or had been arranged prior to the policy reversal. Across all specifications, the coefficients on unit values remain negative and statistically insignificant, indicating that exporters responded to tariff uncertainty primarily by accelerating shipment volumes rather than adjusting prices.

Overall, the timing evidence shows that more exposed products exhibited disproportionately large anticipatory responses concentrated in the narrow announcement window, consistent with temporary front-loading behavior concentrated among more exposed products.

6 Heterogeneous Responses Across Product Categories

Having documented substantial anticipatory responses and strong exposure-driven effects, we next examine how these patterns vary across different types of products. This section considers two complementary dimensions of heterogeneity. Section 6.1 compares agricultural and manufacturing goods, which differ in storability, shipment flexibility, and production cycles. Section 6.2 then examines heterogeneity across product uses—capital goods, consumer goods, raw materials and intermediates, and other categories—to assess whether exporters' ability to re-time shipments depends on the downstream role of the product in the supply chain.

6.1 Sectoral Heterogeneity: Agriculture versus Manufacturing

We begin by comparing the heterogeneous effects of the LDT gap across agricultural and manufacturing products. These two sectors differ sharply in their ability to re-time exports. Agricultural goods are often perishable or subject to storage constraints, while manufacturing goods typically have greater inventory flexibility and can be shipped on shorter notice. Table 3 reports the results.

Panel A considers the overall post-announcement window. Both sectors exhibit positive and statistically significant exposure-driven responses. Conditional on a given increase in the LDT gap, agricultural products display larger coefficient estimates: a ten–percentage-point increase in the LDT gap is associated with an 8.5 percentage-point increase in export value and a 7.0 percentage-point increase in export quantity, compared with increases of 7.6 and 6.0 percentage points, respectively, for manufacturing products. Unit values remain unchanged across both sectors.

Panel B decomposes these effects into the announcement and suspension windows. Conditional on a given increase in the LDT gap, agricultural products exhibit larger coefficient estimates during the announcement period: products with a ten–percentage-point higher LDT gap experienced a 15.8 percentage-point increase in export value and a 13.2 percentage-point increase in quantities, compared with increases of 8.1 and 7.0 percentage points, respectively, for manufacturing products. In contrast, during the suspension window, the exposure-driven heterogeneity weakens substantially for both sectors. We find no statistically significant response for agricultural products, while manufacturing products exhibit small positive responses. This pattern indicates that the overall heterogeneous effect is driven primarily by anticipatory adjustments concentrated in the announcement period.

6.2 Heterogeneity by Product Use: Capital, Consumer, and Intermediate Goods

We next examine whether exporters' ability to re-time shipments varies with the downstream use of the product. Table 4 reports the estimated heterogeneous effects of the LDT gap across four product categories: capital goods, consumer goods, raw and intermediate goods, and other products.

Panel A presents the estimates for the overall post-announcement window. Consumer goods exhibit the strongest exposure-driven responses: a ten–percentage-point increase in the LDT gap is associated with an 8.6 percentage-point increase in export value and a 7.6 percentage-point increase in quantities. This pattern suggests aggressive front-loading of final consumer goods, potentially reflecting inventory drawdowns or discounts to move products quickly before the expected tariff increase. We find no statistically significant exposure-driven responses for capital goods, raw and intermediate goods, or other products, and no statistically significant effects on unit values across categories.

Panel B decomposes responses across the announcement and suspension phases. During the announcement window, only consumer goods show a positive anticipatory response: products with a ten–percentage-point increase in the LDT gap experience an increase of approximately 16.0 percentage points in export values and 13.9 percentage points in quantities. Capital goods also exhibit a positive response on the quantity margin, with a ten–percentage-point increase in the LDT gap associated with an 8.1 percentage-point increase in quantities, while the corresponding value effect is not statistically significant. In contrast, we find no statistically significant exposure-driven responses for any product category during the suspension period.

7 Robustness Checks

We conduct a series of robustness exercises to verify that our results are not driven by specific window definitions, functional form choices, or outliers, with detailed results reported in the online appendix. Across all checks, the estimates for both the announcement and suspension windows remain stable in sign, magnitude, and significance, reinforcing the validity of the baseline findings.

Event-study dynamics and parallel trends. We replace the period dummies with an event-study design that interacts the LDT Gap with leads and lags centered on April 3. The lead coefficients are small and statistically indistinguishable from zero, providing evidence of parallel pre-trends across products with different levels of exposure. The dynamics show that the export surge begins precisely after the announcement, consistent with anticipatory front-loading rather than ongoing pre-existing trends.

Placebo shocks. We repeat the baseline estimation in periods where no tariff-related policy announcement occurred. Using the sample window ending on March 31, 2025—several days before Liberation Day—we assign placebo "announcement" dates at different times: November 2024, December 2024, January 2025, February 2025, and March 2025. The interaction between these placebo periods and the LDT gap yields coefficients close to zero and statistically insignificant, indicating that the LDT gap does not predict export changes in periods where no tariff-related information shock occurred. This validation exercise supports the interpretation that the main results are specific to the April 2025 policy events.

Robustness to Product-Level Aggregation. We re-estimate the baseline specifications using HS4–level products instead of HS6 $\times$ week fixed effects, addressing the concern that narrowly defined HS6 products exported to only one destination may have their variation absorbed by high-dimensional fixed effects. The HS4–level results are quantitatively similar to the baseline estimates, confirming that our findings are not driven by product-level over-disaggregation.

Alternative exposure weights in LDT gaps. We reconstruct LDT_gap_p using alternative import-share weights based on 2023–2024 average U.S. market shares (instead of 2024 alone). The effects associated with LDT_gap_p remain stable across weighting schemes, confirming that our conclusions do not hinge on a particular choice of base year for the exposure measure.

Alternative time windows. To assess robustness to the sample window, we restrict the analysis to January 1, 2025 through April 30, 2025, corresponding to the period after Donald Trump began his second presidential term, which mitigates concerns about potential structural shifts. The estimated effects for the announcement and suspension windows remain similar in magnitude and significance to the baseline, indicating that the results are not driven by the choice of sample window.

Outlier handling. We winsorize the growth rates of export value, quantity, and unit value at the 1 percent level within product–country cells and re-estimate all specifications. The coefficients on the announcement and suspension interactions, as well as those on the LDT_gap_p interactions, are virtually unchanged, indicating that extreme transactions do not drive the main results.

Overall, across alternative windows, dynamic specifications, alternative exposure weights, and outlier treatments, the results are stable in sign and magnitude. The evidence consistently points to anticipatory front-loading concentrated among products with higher relative exposure to the U.S. tariff shock.

8 Conclusion

This paper provides the first empirical evidence on how exporters responded to the U.S. "Liberation Day" tariffs announced on April 2, 2025. Using daily transaction-level customs data from Thailand, we document sharp, short-run adjustments in the timing and composition of Thailand's exports to the United States. Export values and quantities rose markedly in the days following the announcement, reflecting anticipatory front-loading behavior in response to policy uncertainty. These effects were concentrated among products more exposed to the tariff shock, as captured by the product-level LDT gap.

The findings highlight the ability of exporters in a developing economy to re-time shipments at very high frequencies when confronted with abrupt and uncertain policy changes. Exposure-driven heterogeneity is concentrated in the announcement window and weakens substantially once the tariff schedule is suspended and rates converge. These results demonstrate the importance of high-frequency trade data for uncovering short-lived adjustment dynamics that are typically obscured in monthly or quarterly aggregates. More broadly, the paper contributes to the literature on trade policy uncertainty by showing that policy announcements alone, before any tariff is implemented, can generate immediate and heterogeneous real-time shifts in export behavior.

Future work could examine how firm characteristics, such as size, ownership structure, prior exposure to the U.S. market, and positions within global value chains, mediate these responses and whether such anticipatory behavior comes at the cost of future export volumes.

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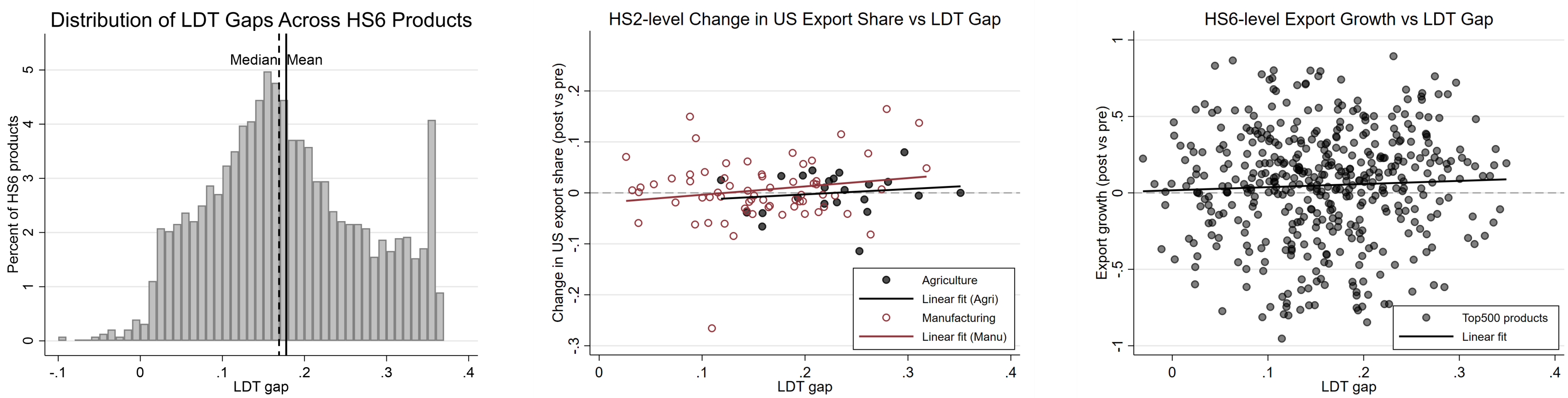
A Appendix

Table 1: Summary Statistics

Variables	Obs.	Mean	S.D.	Min	Median	Max
Panel A: Tariff Variables (All Destinations)						
LDT Gap	12,430,908	0.17	0.09	-0.10	0.17	0.36
CUSIMT	12,430,908	0.06	0.07	0.00	0.04	0.70
Sectoral tariff × Announce	12,488,904	0.00	0.02	0.00	0.00	0.25
Sectoral tariff × Suspend	12,488,904	0.00	0.02	0.00	0.00	0.25
Panel B: Trade Variables (All Destinations)						
Export values (USD)	12,488,904	24,754	395,118	0	0	218,042,400
Export quantities	12,488,904	10,125	307,397	0	0	129,997,912
Unit value	12,488,904	59	2,513	0	0	2,948,791
Log(Export value)	12,488,904	2.07	4.13	0.00	0.00	19.89
Log(Export quantity)	12,488,904	1.51	3.29	0.00	0.00	19.38
Log(Unit value)	12,488,904	0.77	1.75	0.00	0.00	15.59
Panel C: Trade Variables (Non-U.S. Destinations)						
Export values (USD)	11,849,004	20,920	355,038	0	0	218,042,400
Export quantities	11,849,004	9,828	311,707	0	0	129,997,912
Unit value	11,849,004	57	2,373	0	0	2,948,791
Log(Export value)	11,849,004	2.00	4.06	0.00	0.00	19.89
Log(Export quantity)	11,849,004	1.46	3.23	0.00	0.00	19.38
Log(Unit value)	11,849,004	0.74	1.72	0.00	0.00	15.59
Panel D: Trade Variables (U.S. Destinations)						
Export values (USD)	639,900	95,751	841,157	0	0	76,900,000
Export quantities	639,900	15,630	212,260	0	0	36,400,000
Unit value	639,900	101	4,360	0	0	1,958,563
Log(Export value)	639,900	3.32	5.17	0.00	0.00	18.85
Log(Export quantity)	639,900	2.43	4.10	0.00	0.00	18.10
Log(Unit value)	639,900	1.22	2.11	0.00	0.00	15.18

Figure 1: Stylized facts: The LDT gaps and product-level patterns.



(a) Distribution of LDT gaps across HS6 products.

(b) LDT gaps and HS2-level changes in the U.S. export share, by manufacturing and agriculture.

(c) LDT gaps and export growth for Thailand's 500 largest HS6 products exported to the U.S.

Notes: **Figure 1a.** The histogram reports the HS6-level distribution of LDT gaps, defined as Thailand's assigned tariff rate minus the import–share–weighted average tariff rate applied to competing exporters in the U.S. market. **Figure 1b.** Each point represents an HS2-level average, weighted by pre-period total exports (U.S. + non-U.S.). The change in the U.S. export share is the difference between the pre- and post-period shares. The fitted line is estimated separately for manufacturing and agriculture. **Figure 1c.** Export growth is measured as the change in log(average daily exports) between Jan. 1, 2024–Apr. 2, 2025 and Apr. 3–Apr. 30, 2025. The sample includes the 500 HS6 products with the highest pre-period U.S. export value.

Table 2: Impact of U.S. Reciprocal Tariffs and LDT Exposure on Thai Exports

	Aggregate Effects			LDT Gap Effects		
	(1) Value	(2) Quantity	(3) Unit Value	(4) Value	(5) Quantity	(6) Unit Value
Panel A: Post Period						
$Post_t \times US_c$	0.717***	0.574***	-0.035			
	(0.059)	(0.047)	(0.035)			
$Post_t \times US_c \times LDT\_gap_p$				0.707***	0.570***	0.044
				(0.269)	(0.219)	(0.126)
Observations	12,488,358	12,488,358	2,628,233	12,430,373	12,430,373	2,619,464
R-squared	0.472	0.487	0.809	0.473	0.488	0.808
Adjusted R-squared	0.458	0.474	0.792	0.459	0.474	0.791
Panel B: Announcement and Suspension Periods						
$Announce_t \times US_c$	0.635***	0.508***	-0.066			
	(0.067)	(0.053)	(0.040)			
$Suspend_t \times US_c$	0.750***	0.601***	-0.021			
	(0.061)	(0.049)	(0.035)			
$Announce_t \times US_c \times LDT\_gap_p$				0.957***	0.818***	0.052
				(0.337)	(0.274)	(0.175)
$Suspend_t \times US_c \times LDT\_gap_p$				0.557*	0.420*	0.039
				(0.310)	(0.253)	(0.137)
Observations	12,488,358	12,488,358	2,628,233	12,430,373	12,430,373	2,619,464
R-squared	0.472	0.487	0.809	0.473	0.488	0.808
Adjusted R-squared	0.458	0.474	0.792	0.459	0.474	0.791

Notes: The dependent variable is daily export value, quantity, or unit value at the HS6–country–day level. Standard errors in parentheses are clustered at the HS6–country level. *, **, and *** denote significance at the 10, 5, and 1 percent levels, respectively. All regressions include HS6×week, HS6×day-of-week, country×week, and HS6×country fixed effects, as well as the control variables described in the text. For the aggregate-effects specification in columns (1)–(3), country×week fixed effects are replaced with country×month fixed effects.

Table 3: Heterogeneous Effects of LDT Gaps on Thai Exports by Sector

	Panel A			Panel B		
	(1)	(2)	(3)	(4)	(5)	(6)
VARIABLES	Value	Quantity	Unit Value	Value	Quantity	Unit Value
$\text{Post}_t \times \text{US}_c \times \text{LDT\_gap}_p \times \text{Agri}_p$	0.852***	0.704***	-0.047			
	(0.309)	(0.258)	(0.125)			
$\text{Post}_t \times \text{US}_c \times \text{LDT\_gap}_p \times \text{Manu}_p$	0.757**	0.604**	0.120			
	(0.312)	(0.256)	(0.148)			
$\text{Announce}_t \times \text{US}_c \times \text{LDT\_gap}_p \times \text{Agri}_p$				1.575***	1.316***	-0.050
				(0.491)	(0.422)	(0.182)
$\text{Announce}_t \times \text{US}_c \times \text{LDT\_gap}_p \times \text{Manu}_p$				0.813**	0.703**	0.124
				(0.390)	(0.315)	(0.209)
$\text{Suspend}_t \times \text{US}_c \times \text{LDT\_gap}_p \times \text{Agri}_p$				0.565	0.452	-0.047
				(0.344)	(0.287)	(0.139)
$\text{Suspend}_t \times \text{US}_c \times \text{LDT\_gap}_p \times \text{Manu}_p$				0.686*	0.514*	0.117
				(0.357)	(0.293)	(0.159)
Observations	12,430,373	12,430,373	2,619,464	12,430,373	12,430,373	2,619,464
R-squared	0.473	0.488	0.808	0.473	0.488	0.808
Adjusted R-squared	0.459	0.474	0.791	0.459	0.474	0.791

Notes: Standard errors in parentheses are clustered at the HS6–country level. *, **, and *** indicate the significance level of 0.10, 0.05, and 0.01, respectively. All regressions include HS6×week, HS6×day-of-week, country×week, and HS6×country fixed effects, as well as the control variables described in the text. Agri_p and Manu_p are dummy variables equal to one for agricultural and manufacturing products, respectively.

Table 4: Heterogeneous Effects of LDT Gaps on Thai Exports by Product Types

	Panel A			Panel B		
	(1)	(2)	(3)	(4)	(5)	(6)
VARIABLES	Value	Quantity	Unit Value	Value	Quantity	Unit Value
$Post_t \times US_c \times LDT\_gap_p \times Capital_p$	0.448	0.387	-0.029			
	(0.387)	(0.303)	(0.224)			
$Post_t \times US_c \times LDT\_gap_p \times Consumer_p$	0.855***	0.760***	-0.198			
	(0.325)	(0.266)	(0.138)			
$Post_t \times US_c \times LDT\_gap_p \times Raw\&Intermediate_p$	0.571	0.401	0.122			
	(0.349)	(0.296)	(0.148)			
$Post_t \times US_c \times LDT\_gap_p \times Other_p$	1.145*	0.825	0.256			
	(0.689)	(0.535)	(0.421)			
$Announce_t \times US_c \times LDT\_gap_p \times Capital_p$				0.733	0.807**	-0.041
				(0.533)	(0.402)	(0.398)
$Announce_t \times US_c \times LDT\_gap_p \times Consumer_p$				1.603***	1.391***	-0.191
				(0.471)	(0.385)	(0.188)
$Announce_t \times US_c \times LDT\_gap_p \times Raw\&Intermediate_p$				0.512	0.344	0.140
				(0.490)	(0.414)	(0.218)
$Announce_t \times US_c \times LDT\_gap_p \times Other_p$				1.052	0.829	0.628
				(0.884)	(0.614)	(0.890)
$Suspend_t \times US_c \times LDT\_gap_p \times Capital_p$				0.272	0.162	-0.031
				(0.444)	(0.345)	(0.246)
$Suspend_t \times US_c \times LDT\_gap_p \times Consumer_p$				0.535	0.479	-0.206
				(0.367)	(0.302)	(0.154)
$Suspend_t \times US_c \times LDT\_gap_p \times Raw\&Intermediate_p$				0.523	0.352	0.110
				(0.387)	(0.328)	(0.159)
$Suspend_t \times US_c \times LDT\_gap_p \times Other_p$				1.105	0.751	0.121
				(0.748)	(0.595)	(0.428)
Observations	12,430,373	12,430,373	2,619,464	12,430,373	12,430,373	2,619,464
R-squared	0.473	0.488	0.808	0.473	0.488	0.808
Adjusted R-squared	0.459	0.474	0.791	0.459	0.474	0.791

Notes: Standard errors in parentheses are clustered at the HS6–country level. *, **, and *** indicate the significance level of 0.10, 0.05, and 0.01, respectively. All regressions include HS6×week, HS6×day-of-week, country×week, and HS6×country fixed effects, as well as the control variables described in the text. $Capital_p$, $Consumer_p$, $Raw\&Intermediate_p$ and $Other_p$ are dummy variables equal to one for products classified in capital, consumer, raw material & intermediate and other products, respectively.

B Online Appendix

B.1 Summary Statistics

Table B.1.1: Summary Statistics (Jan 1, 2024 – Apr 2, 2025)

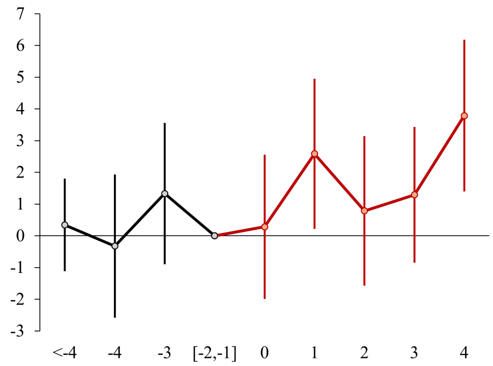
All countries	Obs.	Mean	S.D.	Min	Median	Max
Export values (USD)	11,872,168	24,600	391,920	0	0	218,042,400
Export quantities	11,872,168	10,064	302,872	0	0	120,597,401
Unit value	11,872,168	59	2,500	0	0	2,948,791
Log(Export value)	11,872,168	2.06	4.13	0.00	0.00	19.89
Log(Export quantity)	11,872,168	1.51	3.29	0.00	0.00	19.30
Log(Unit value)	11,872,168	0.77	1.74	0.00	0.00	15.59
LDT Gap	11,817,036	0.17	0.09	-0.10	0.17	0.36
CUSIMT	11,817,036	0.06	0.06	0.00	0.04	0.70
Sectoral tariff x Announce	11,872,168	0.00	0.02	0.00	0.00	0.25
Sectoral tariff x Suspend	11,872,168	0.00	0.01	0.00	0.00	0.25
Export to non-U.S.						
Export values (USD)	11,263,868	20,781	351,843	0	0	218,042,400
Export quantities	11,263,868	9,767	307,047	0	0	120,597,401
Unit value	11,263,868	57	2,409	0	0	2,948,791
Log(Export value)	11,263,868	2.00	4.05	0.00	0.00	19.89
Log(Export quantity)	11,263,868	1.46	3.23	0.00	0.00	19.30
Log(Unit value)	11,263,868	0.74	1.72	0.00	0.00	15.59
LDT Gap	11,211,200	0.17	0.09	-0.10	0.17	0.36
CUSIMT	11,211,200	0.06	0.06	0.00	0.04	0.70
Sectoral tariff x Announce	11,263,868	0.00	0.02	0.00	0.00	0.25
Sectoral tariff x Suspend	11,263,868	0.00	0.01	0.00	0.00	0.25
Export to the U.S.						
Export values (USD)	608,300	95,329	836,829	0	0	76,915,535
Export quantities	608,300	15,566	211,059	0	0	36,400,000
Unit value	608,300	97	3,804	0	0	1,958,563
Log(Export value)	608,300	3.31	5.16	0.00	0.00	18.85
Log(Export quantity)	608300	2.42	4.10	0.00	0.00	18.10
Log(Unit value)	608,300	1.21	2.11	0.00	0.00	15.18
LDT Gap	605,836	0.16	0.09	-0.08	0.16	0.36
CUSIMT	605,836	0.06	0.07	0.00	0.04	0.70
Sectoral tariff x Announce	608,300	0.00	0.02	0.00	0.00	0.25
Sectoral tariff x Suspend	608,300	0.00	0.01	0.00	0.00	0.25

Table B.1.2: Summary Statistics (April 3 – 30, 2025)

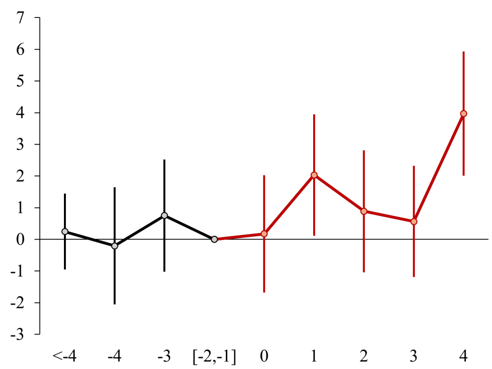
All countries	Obs.	Mean	S.D.	Min	Median	Max
Export values (USD)	616,736	27,720	452,283	0	0	92,000,000
Export quantities	616,736	11,302	384,260	0	0	130,000,000
Unit value	616,736	64	2,755	0	0	1,263,770
Log(Export value)	616,736	2.11	4.18	0.00	0.00	19.03
Log(Export quantity)	616,736	1.54	3.32	0.00	0.00	19.38
Log(Unit value)	616,736	0.79	1.77	0.00	0.00	14.74
LDT Gap	613,872	0.17	0.09	-0.10	0.17	0.36
CUSIMT	613,872	0.13	0.10	0.00	0.11	0.70
Sectoral tariff x Announce	616,736	0.00	0.01	0.00	0.00	0.25
Sectoral tariff x Suspend	616,736	0.01	0.06	0.00	0.00	0.25
Export to non-U.S.						
Export values (USD)	616,736	27,720	452,283	0	0	92,000,000
Export quantities	616,736	11,302	384,260	0	0	130,000,000
Unit value	616,736	64	2,755	0	0	1,263,770
Log(Export value)	616,736	2.11	4.18	0.00	0.00	19.03
Log(Export quantity)	616,736	1.54	3.32	0.00	0.00	19.38
Log(Unit value)	616,736	0.79	1.77	0.00	0.00	14.74
LDT Gap	613,872	0.17	0.09	-0.10	0.17	0.36
CUSIMT	613,872	0.13	0.10	0.00	0.11	0.70
Sectoral tariff x Announce	616,736	0.00	0.01	0.00	0.00	0.25
Sectoral tariff x Suspend	616,736	0.01	0.06	0.00	0.00	0.25
Export to the U.S.						
Export values (USD)	31,600	103,884	920,482	0	0	50,800,000
Export quantities	31,600	16,855	234,194	0	0	35,000,000
Unit value	31,600	184	10,319	0	0	1,263,770
Log(Export value)	31,600	3.44	5.26	0.00	0.00	18.44
Log(Export quantity)	31,600	2.53	4.19	0.00	0.00	18.06
Log(Unit value)	31,600	1.25	2.14	0.00	0.00	14.74
LDT Gap	31,472	0.16	0.09	-0.08	0.16	0.36
CUSIMT	31,472	0.13	0.10	0.00	0.11	0.70
Sectoral tariff x Announce	31,600	0.00	0.01	0.00	0.00	0.25
Sectoral tariff x Suspend	31,600	0.01	0.06	0.00	0.00	0.25

B.2 Event-study Dynamics and Parallel Trends

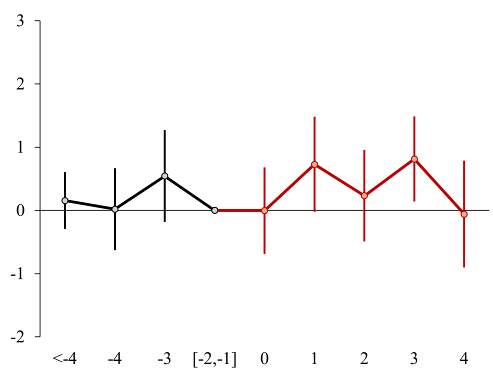
Figure B.2.1: Event-study dynamics of exports around the Liberation Day tariff announcement



(a) Export Value



(b) Export Quantity



(c) Export Unit Value

Notes: This figure reports event-study estimates of the interaction between the LDT gap and leads and lags relative to the tariff announcement date. Coefficients are normalized to zero in the omitted pre-announcement period. The absence of significant lead coefficients provides evidence of parallel pre-trends across products with different levels of tariff exposure. Panels (a)–(c) use export value, export quantity, and export unit value as the dependent variable, respectively. Standard errors are clustered at the HS6–country level.

B.3 Placebo Test

Table B.3.1: LDT Gap and Exports: Placebo Test

Dep. Var.: **Value**	(1)	(2)	(3)	(4)	(5)
$\text{Post}_{t\geq \text{Mar 2025}} \times \text{US}_c \times \text{LDT\_gap}_p$	0.154				
	(0.253)				
$\text{Post}_{t\geq \text{Feb 2025}} \times \text{US}_c \times \text{LDT\_gap}_p$		0.089			
		(0.231)			
$\text{Post}_{t\geq \text{Jan 2025}} \times \text{US}_c \times \text{LDT\_gap}_p$			-0.091		
			(0.243)		
$\text{Post}_{t\geq \text{Dec 2024}} \times \text{US}_c \times \text{LDT\_gap}_p$				-0.192	
				(0.233)	
$\text{Post}_{t\geq \text{Nov 2024}} \times \text{US}_c \times \text{LDT\_gap}_p$					-0.320
					(0.226)
Observations	11,740,302	11,740,302	11,740,302	11,740,302	11,740,302
R-squared	0.473	0.473	0.473	0.473	0.473
Adjusted R-squared	0.460	0.460	0.460	0.460	0.460
Dep. Var.: **Quantity**	(6)	(7)	(8)	(9)	(10)
$\text{Post}_{t\geq \text{Mar 2025}} \times \text{US}_c \times \text{LDT\_gap}_p$	0.175				
	(0.210)				
$\text{Post}_{t\geq \text{Feb 2025}} \times \text{US}_c \times \text{LDT\_gap}_p$		0.100			
		(0.191)			
$\text{Post}_{t\geq \text{Jan 2025}} \times \text{US}_c \times \text{LDT\_gap}_p$			-0.114		
			(0.203)		
$\text{Post}_{t\geq \text{Dec 2024}} \times \text{US}_c \times \text{LDT\_gap}_p$				-0.157	
				(0.196)	
$\text{Post}_{t\geq \text{Nov 2024}} \times \text{US}_c \times \text{LDT\_gap}_p$					-0.216
					(0.190)
Observations	11,740,302	11,740,302	11,740,302	11,740,302	11,740,302
R-squared	0.488	0.488	0.488	0.488	0.488
Adjusted R-squared	0.475	0.475	0.475	0.475	0.475
Dep. Var.: **Unit Value**	(11)	(12)	(13)	(14)	(15)
$\text{Post}_{t\geq \text{Mar 2025}} \times \text{US}_c \times \text{LDT\_gap}_p$	-0.094				
	(0.113)				
$\text{Post}_{t\geq \text{Feb 2025}} \times \text{US}_c \times \text{LDT\_gap}_p$		0.005			
		(0.101)			
$\text{Post}_{t\geq \text{Jan 2025}} \times \text{US}_c \times \text{LDT\_gap}_p$			0.123		
			(0.101)		
$\text{Post}_{t\geq \text{Dec 2024}} \times \text{US}_c \times \text{LDT\_gap}_p$				0.002	
				(0.089)	
$\text{Post}_{t\geq \text{Nov 2024}} \times \text{US}_c \times \text{LDT\_gap}_p$					-0.008
					(0.084)
Observations	2,474,676	2,474,676	2,474,676	2,474,676	2,474,676
R-squared	0.808	0.808	0.808	0.808	0.808
Adjusted R-squared	0.791	0.791	0.791	0.791	0.791

Notes: Standard errors in parentheses are clustered at the HS6–country level. *, **, and *** indicate the significance level of 0.10, 0.05, and 0.01, respectively. All regressions include HS6×week, HS6×day-of-week, country×week, and HS6×country fixed effects, as well as the control variables described in the text. Sample ends on March 31, 2025.

B.4 Robustness to Product-Level Aggregation

Table B.4.1: LDT Gap and Exports: HS4×Week FEs

Overall	(1)	(2)	(3)
	Value	Quantity	Unit Value
$Post_t \times US_c \times LDT\_gap_p$	0.729***	0.574***	0.105
	(0.274)	(0.221)	(0.123)
Observations	12,430,838	12,430,838	2,651,625
R-squared	0.465	0.480	0.801
Adjusted R-squared	0.460	0.475	0.792
By Sector	(4)	(5)	(6)
	Value	Quantity	Unit Value
$Post_t \times US_c \times LDT\_gap_p \times Agri_p$	0.907***	0.755***	-0.038
	(0.308)	(0.254)	(0.126)
$Post_t \times US_c \times LDT\_gap_p \times Manu_p$	0.756**	0.581**	0.187
	(0.318)	(0.258)	(0.143)
Observations	12,430,838	12,430,838	2,651,625
R-squared	0.465	0.480	0.801
Adjusted R-squared	0.460	0.475	0.792
By Product Types	(7)	(8)	(9)
	Value	Quantity	Unit Value
$Post_t \times US_c \times LDT\_gap_p \times Capital_p$	0.571	0.466	0.007
	(0.396)	(0.305)	(0.222)
$Post_t \times US_c \times LDT\_gap_p \times Consumer_p$	0.866***	0.769***	-0.136
	(0.332)	(0.269)	(0.133)
$Post_t \times US_c \times LDT\_gap_p \times Raw\&Intermediate_p$	0.534	0.355	0.157
	(0.352)	(0.295)	(0.144)
$Post_t \times US_c \times LDT\_gap_p \times Other_p$	1.172*	0.848	0.349
	(0.695)	(0.537)	(0.437)
Observations	12,430,838	12,430,838	2,651,625
R-squared	0.465	0.480	0.801
Adjusted R-squared	0.460	0.475	0.792

Notes: Standard errors in parentheses are clustered at the HS6–country level. *, **, and *** indicate the significance level of 0.10, 0.05, and 0.01, respectively. All regressions include HS4×week, HS6×day-of-week, country×week, and HS6×country fixed effects. $Agri_p$ and $Manu_p$ are dummy variables equal to one for agricultural and manufacturing products, respectively. $Capital_p$, $Consumer_p$, $Raw\&Intermediate_p$ and $Other_p$ are dummy variables equal to one for products classified in capital, consumer, raw material & intermediate and other products, respectively.

B.5 LDT Gaps are constructed using their 2023–2024 Weights

Table B.5.1: LDT Gap and Exports: 2023–2024 Weight

Overall	(1)	(2)	(3)
	Value	Quantity	Unit Value
$\text{Post}_t \times \text{US}_c \times \text{LDT\_gap}_p$	0.562**	0.375**	0.123
	(0.226)	(0.180)	(0.116)
Observations	12,436,524	12,436,524	2,620,335
R-squared	0.473	0.488	0.808
Adjusted R-squared	0.459	0.474	0.791
By Sector	(4)	(5)	(6)
	Value	Quantity	Unit Value
$\text{Post}_t \times \text{US}_c \times \text{LDT\_gap}_p \times \text{Agri}_p$	0.723***	0.543**	0.028
	(0.276)	(0.230)	(0.121)
$\text{Post}_t \times \text{US}_c \times \text{LDT\_gap}_p \times \text{Manu}_p$	0.577**	0.376*	0.177
	(0.248)	(0.198)	(0.131)
Observations	12,436,524	12,436,524	2,620,335
R-squared	0.473	0.488	0.808
Adjusted R-squared	0.459	0.474	0.791
By Product Types	(7)	(8)	(9)
	Value	Quantity	Unit Value
$\text{Post}_t \times \text{US}_c \times \text{LDT\_gap}_p \times \text{Capital}_p$	0.362	0.216	0.060
	(0.293)	(0.223)	(0.188)
$\text{Post}_t \times \text{US}_c \times \text{LDT\_gap}_p \times \text{Consumer}_p$	0.683**	0.541**	-0.114
	(0.282)	(0.227)	(0.132)
$\text{Post}_t \times \text{US}_c \times \text{LDT\_gap}_p \times \text{Raw\&Intermediate}_p$	0.488*	0.270	0.178
	(0.293)	(0.244)	(0.136)
$\text{Post}_t \times \text{US}_c \times \text{LDT\_gap}_p \times \text{Other}_p$	1.087*	0.690	0.315
	(0.628)	(0.482)	(0.391)
Observations	12,436,524	12,436,524	2,620,335
R-squared	0.473	0.488	0.808
Adjusted R-squared	0.459	0.474	0.791

Notes: Standard errors in parentheses are clustered at the HS6–country level. *, **, and *** indicate the significance level of 0.10, 0.05, and 0.01, respectively. All regressions include HS6×week, HS6×day-of-week, country×week, and HS6×country fixed effects, as well as the control variables described in the text. Agri_p and Manu_p are dummy variables equal to one for agricultural and manufacturing products, respectively. Capital_p, Consumer_p, $\text{Raw\&Intermediate}_p$ and Other_p are dummy variables equal to one for products classified in capital, consumer, raw material & intermediate and other products, respectively.

B.6 Alternative Time Windows

Table B.6.1: LDT Gap and Exports: Subsample (Jan 1, 2025–Apr 30, 2025)

Overall	(1)	(2)	(3)
	Value	Quantity	Unit Value
$\text{Post}_t \times \text{US}_c \times \text{LDT\_gap}_p$	0.819***	0.682***	-0.064
	(0.244)	(0.197)	(0.125)
Observations	3,030,458	3,030,458	624,915
R-squared	0.486	0.501	0.822
Adjusted R-squared	0.464	0.480	0.796
By Sector	(4)	(5)	(6)
	Value	Quantity	Unit Value
$\text{Post}_t \times \text{US}_c \times \text{LDT\_gap}_p \times \text{Agri}_p$	1.172***	0.954***	-0.021
	(0.289)	(0.240)	(0.128)
$\text{Post}_t \times \text{US}_c \times \text{LDT\_gap}_p \times \text{Manu}_p$	0.652**	0.554**	-0.065
	(0.277)	(0.223)	(0.145)
Observations	3,030,458	3,030,458	624,915
R-squared	0.486	0.501	0.822
Adjusted R-squared	0.464	0.480	0.796
By Product Types	(7)	(8)	(9)
	Value	Quantity	Unit Value
$\text{Post}_t \times \text{US}_c \times \text{LDT\_gap}_p \times \text{Capital}_p$	0.200	0.208	-0.105
	(0.349)	(0.266)	(0.225)
$\text{Post}_t \times \text{US}_c \times \text{LDT\_gap}_p \times \text{Consumer}_p$	1.241***	1.067***	-0.188
	(0.298)	(0.245)	(0.137)
$\text{Post}_t \times \text{US}_c \times \text{LDT\_gap}_p \times \text{Raw\&Intermediate}_p$	0.740**	0.559**	0.032
	(0.305)	(0.251)	(0.149)
$\text{Post}_t \times \text{US}_c \times \text{LDT\_gap}_p \times \text{Other}_p$	1.155*	0.908**	-0.122
	(0.607)	(0.458)	(0.469)
Observations	3,030,458	3,030,458	624,915
R-squared	0.486	0.501	0.822
Adjusted R-squared	0.464	0.480	0.796

Notes: Standard errors in parentheses are clustered at the HS6–country level. *, **, and *** indicate the significance level of 0.10, 0.05, and 0.01, respectively. All regressions include HS6×week, HS6×day-of-week, country×week, and HS6×country×fixed effects. Agri_p and Manu_p are dummy variables equal to one for agricultural and manufacturing products, respectively. Capital_p, Consumer_p, $\text{Raw\&Intermediate}_p$ and Other_p are dummy variables equal to one for products classified in capital, consumer, raw material & intermediate and other products, respectively.

B.7 Outlier Handling

Table B.7.1: LDT Gap and Exports: Winsorize at the 1 Percent of Growth Level

Overall	(1)	(2)	(3)
	Value	Quantity	Unit Value
$Post_t \times US_c \times LDT\_gap_p$	0.670**	0.549**	-0.036
	(0.288)	(0.233)	(0.126)
Observations	9,323,494	9,322,541	1,940,469
R-squared	0.509	0.534	0.817
Adjusted R-squared	0.491	0.518	0.797
By Sector	(4)	(5)	(6)
	Value	Quantity	Unit Value
$Post_t \times US_c \times LDT\_gap_p \times Agri_p$	0.879***	0.775***	-0.031
	(0.328)	(0.275)	(0.131)
$Post_t \times US_c \times LDT\_gap_p \times Manu_p$	0.660**	0.542**	-0.003
	(0.333)	(0.271)	(0.148)
Observations	9,323,494	9,322,541	1,940,469
R-squared	0.509	0.534	0.817
Adjusted R-squared	0.491	0.518	0.797
By Product Types	(7)	(8)	(9)
	Value	Quantity	Unit Value
$Post_t \times US_c \times LDT\_gap_p \times Capital_p$	0.583	0.691**	-0.199
	(0.424)	(0.324)	(0.232)
$Post_t \times US_c \times LDT\_gap_p \times Consumer_p$	0.774**	0.748***	-0.163
	(0.344)	(0.278)	(0.139)
$Post_t \times US_c \times LDT\_gap_p \times Raw\&Intermediate_p$	0.525	0.303	-0.009
	(0.382)	(0.323)	(0.148)
$Post_t \times US_c \times LDT\_gap_p \times Other_p$	1.669**	0.737	0.571
	(0.734)	(0.509)	(0.466)
Observations	9,323,494	9,322,541	1,940,469
R-squared	0.509	0.534	0.817
Adjusted R-squared	0.491	0.518	0.797

Notes: Standard errors in parentheses are clustered at the HS6–country level. *, **, and *** indicate the significance level of 0.10, 0.05, and 0.01, respectively. All regressions include HS6×week, HS6×day-of-week, country×week, and HS6×country fixed effects. $Agri_p$ and $Manu_p$ are dummy variables equal to one for agricultural and manufacturing products, respectively. $Capital_p$, $Consumer_p$, $Raw\&Intermediate_p$ and $Other_p$ are dummy variables equal to one for products classified in capital, consumer, raw material & intermediate and other products, respectively.