

U.S. Firms' Exposure to Tariffs: A Comparison of the 2018 and 2025 Episodes

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 - real effects on employment or investment
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- ▶ Firm-level decisions are relatively understudied
- ▶ Q: What is the impact of tariffs on US firms' outcomes?

What we do

1. We build **firm-level exposure measures** for both tariff episodes
 - Combine multiple datasets to construct import and export tariff exposures
 - Three channels:
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2. We validate those measures with **stock returns and earnings calls**
3. We trace effects on **sales, costs**, profits and investment
4. Main messages:
 - 2025 is **bigger and broader**
 - supplier exposure is **more pervasive** than direct importing
 - **sales and costs decline**, while profits and investment barely move
 - This holds across all channels
 - No significant differences in qualitative patterns between 2018 and 2025

Related Literature

- ▶ **Pass-through:** tariffs show up quickly in prices

Amiti et al. (2020); Cavallo et al. (2020, 2025); Fajgelbaum et al. (2020); Barbiero et al. (2026); Stumpner et al. (2025)

- ▶ **Reallocation:** firms and supply chains adjust sourcing and trade flows

Handley et al. (2025); Gopinath et al. (2025); Fajgelbaum et al. (2025); Freund et al. (2025); Alfaro et al. (2025); Flaaen et al. (2025)

- ▶ **Real effects:** returns, investment, and employment weaken after tariff shocks

Amiti et al. (2023); Flaaen–Pierce (2024)

- ▶ **Our paper**

- measures firm exposure to tariffs
- validates those measures
- studies their effects on sales, costs, profit, and investment

Outline

- ▶ Data and exposure construction
- ▶ Stylized facts: 2018 vs. 2025
- ▶ Validation: markets and managers
- ▶ Effects on firm outcomes
- ▶ Conclusion

Data

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 - balanced panels around 2018 and 2025 episodes
 - 2016–2019 for 2018 episode
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 - public firms, quarterly frequency
 - balanced panels around 2018 and 2025 episodes
 - 2016–2019 for 2018 episode
 - 2023–2025 for 2025 episode
- ▶ Today: observed tariffs only
 - Statutory rates give similar results

How We Construct Firm-level Exposures

- ▶ Pre-shock weights at $t_0 \in \{2017, 2024\}$
- ▶ **Import cost**: firm-specific tariff change scaled by pre-shock variable costs

$$\text{Import Cost}_{f,t} = \frac{\sum_c \sum_p \text{Imports}_{fcp,t_0} \Delta \tau_{cp,t}}{\text{COGS}_{f,t_0}}$$

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- ▶ **Export retaliation:** foreign-revenue-weighted tariff on the firm's primary industry

$$\text{Export Retaliation}_{f,t} = \frac{\sum_c \text{Revenue}_{f,c,t_0} \Delta\tau_{f(i),t}^*}{\sum_c \text{Revenue}_{f,c,t_0}}$$

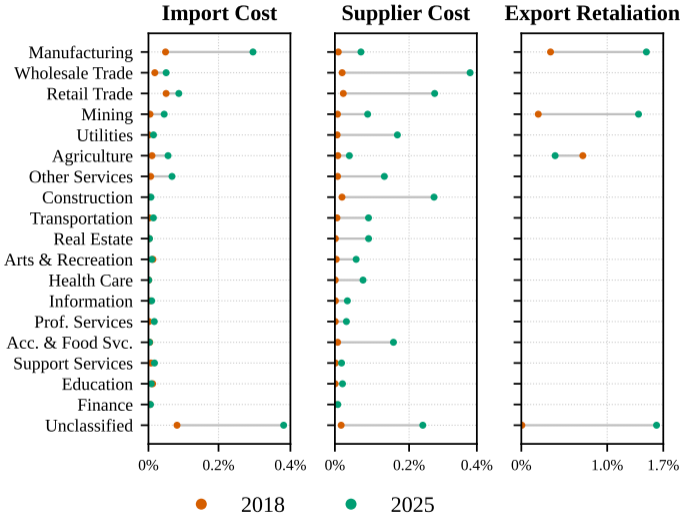
Stylized Facts

Fact 1: 2025 Is Much Bigger

Average exposure (%)	2018	2025
Δ tariff rate	3.46	14.06
Direct import cost	0.10	0.54
Supplier cost	0.05	0.22
Export retaliation	0.34	0.59

- ▶ 2025 is **much bigger** on average

Fact 1: 2025 Is Much Bigger



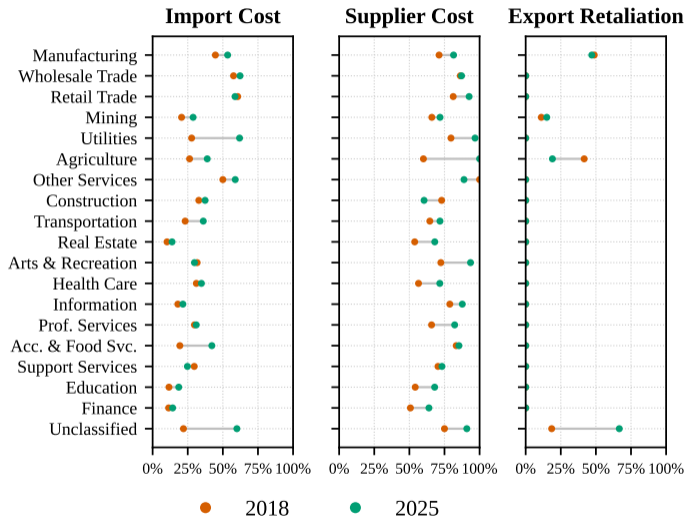
► The increase is broad across **industries and channels**

Fact 2: Supplier Exposure Is Broader Than Direct Importing

Share with exposure (%)	2018	2025
Direct import cost	38.5	48.8
Supplier cost	63.7	68.4
Export retaliation	24.3	23.9

- ▶ Most firms have an **affected supplier**

Fact 2: Supplier Exposure Is Broader Than Direct Importing



► Supplier exposure is broader than direct importing across industries

Fact 3: Exposure and Firm Size

Episode	Employment size bin	Import cost	Supplier cost	Retaliation
2018	p0-50	0.05	0.03	0.08
	p50-75	0.13	0.03	0.20
	p75-90	0.17	0.03	0.27
	p90-100	0.21	0.04	0.30
2025	p0-50	0.36	0.25	0.40
	p50-75	0.67	0.15	0.62
	p75-90	0.85	0.20	0.89
	p90-100	0.83	0.20	1.05

- ▶ Bigger firms import more and sell more abroad
- ▶ Supplier exposure is broad at every size

Validation

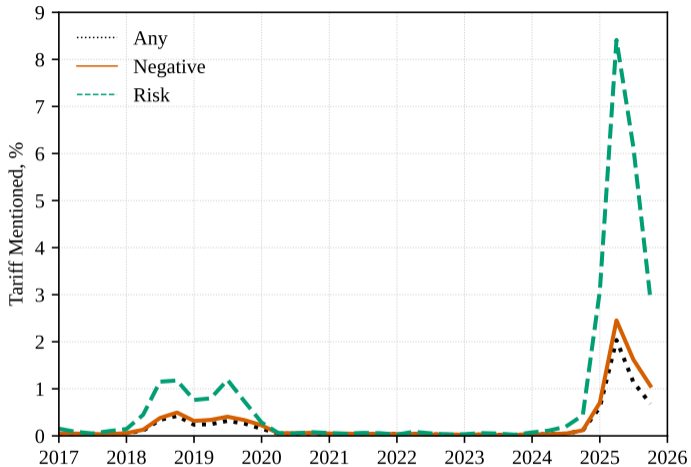
What We Validate

- ▶ Validation I: do managers talk more about tariffs when exposure is higher?
 - tariff, negative, and risk mentions in earnings-call text
 - cross section: regress mentions on firm exposures

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- ▶ Validation I: do managers talk more about tariffs when exposure is higher?
 - tariff, negative, and risk mentions in earnings-call text
 - cross section: regress mentions on firm exposures
- ▶ Validation II: do markets price tariff exposure?
 - 1-day CRSP returns around tariff-announcement dates
 - parent-firm returns aggregate subsidiaries by market-cap weights

Validation I: Earnings Calls, Time Series



- ▶ Tariff mentions jump when tariffs hit
- ▶ The 2025 spike is bigger

Validation I: Earnings Calls, Cross Section

	2018 Episode			2025 Episode		
	(1) Exposure	(2) Negative	(3) Risk	(4) Exposure	(5) Negative	(6) Risk
Import Cost	0.315*** (0.034)	0.380*** (0.047)	1.008*** (0.142)	0.090*** (0.006)	0.105*** (0.010)	0.247*** (0.026)
Suppliers' Cost	0.962*** (0.161)	1.160*** (0.232)	3.334*** (0.595)	0.053*** (0.019)	0.067*** (0.026)	0.144** (0.069)
Export Retaliation	0.078*** (0.025)	0.127*** (0.037)	0.276*** (0.075)	0.029*** (0.004)	0.039*** (0.007)	0.122*** (0.024)
R ²	0.104	0.095	0.114	0.210	0.141	0.090
Firms	2,804	2,804	2,804	2,462	2,462	2,462

► Higher exposure means more tariff mentions

► Panel Version

Validation II: Stock Returns

	2018 Episode (2) Returns _f	2025 Episode (4) Returns _f
Import Cost	-0.069*** (0.012)	-0.020*** (0.004)
Suppliers' Cost	-1.038*** (0.287)	0.025 (0.055)
Export Retaliation	-0.063*** (0.011)	-0.010*** (0.003)
R ²	0.039	0.019
Firms	2,745	2,334

- ▶ More exposed firms underperform on tariff news

▶ Full Table

Effects on Firm Outcomes

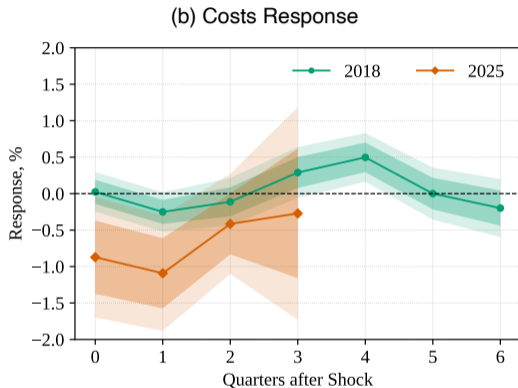
Empirical Strategy

- ▶ We estimate

$$y_{f,t+h} - y_{f,t-1} = \alpha_f + \alpha_{it} + \Gamma' Z_{f,t} + \beta_h^{IC} \text{Import Cost}_{f,t} + \beta_h^{SC} \text{Suppliers' Cost}_{f,t} \\ + \beta_h^{ER} \text{Export Retaliation}_{f,t} + \varepsilon_{f,t+h}$$

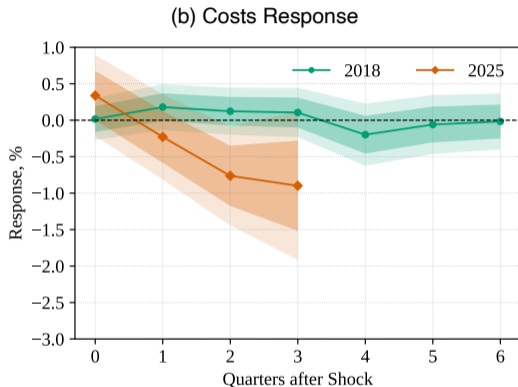
- firm fixed effects and industry-time fixed effects
- $Z_{f,t}$: four lags of outcomes and shocks
- ▶ We exploit variation across firms within industries
- ▶ Dependent vars: sales, variable costs, profits, and investment

Result 1: Direct Import Costs Move Sales and Costs Together



- ▶ Both sales and costs decline after a direct import shock, especially in 2025
- ▶ For the average exposed firm in 2025
 - sales decline by 0.92%
 - variable costs decline by 0.66%

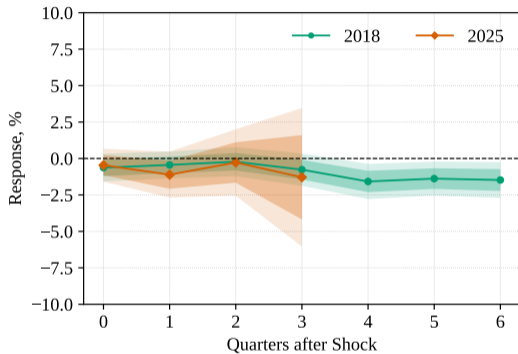
Result 2: Supplier Exposure Moves Sales and Costs Too



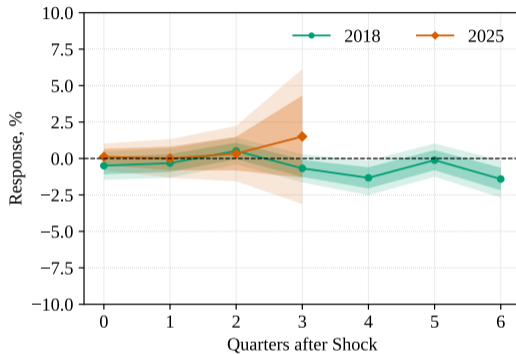
- ▶ Both sales and costs decline after a supplier cost shock, especially in 2025
 - In line with the direct import cost channel
- ▶ For the average exposed firm in 2025
 - sales decline by 0.85%
 - variable costs decline by 0.4%

Result 3: Retaliation Is Narrower but Still Important

(a) Sales Response



(b) Costs Response



- ▶ Retaliation tends to push **sales and costs down together**
- ▶ Estimates are **directionally consistent**, but noisier, especially for 2025
- ▶ For the average exposed firm in 2025
 - sales decline by 0.78%
 - variable costs *increase* by 0.5%

How Should We Read These Results? Work in Progress

- ▶ What do typical trade models predict?
- ▶ Constant-markup models predict **sales and variable costs move together**
 - With sufficiently elastic demand, both can **decline** after an input-cost shock
 - The model then predicts **profit margins barely move**
- ▶ So far, the results are in line with typical models

Conclusion

- ▶ We construct firm-level measures of tariff exposure
- ▶ We compare two episodes: 2018 and 2025
- ▶ We validate those measures with stock returns and earnings calls
- ▶ We found
 - sales and costs decline
 - profits and investment barely move
- ▶ The 2025 episode is much bigger and broader than the 2018 episode
 - but the qualitative patterns are similar across episodes
- ▶ Results are, so far, in line with predictions of constant-markup models

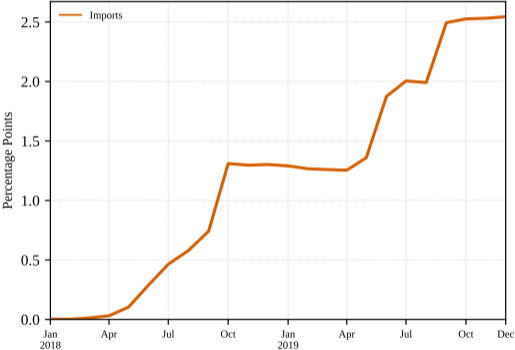
Thank you

<https://asilvub.github.io>

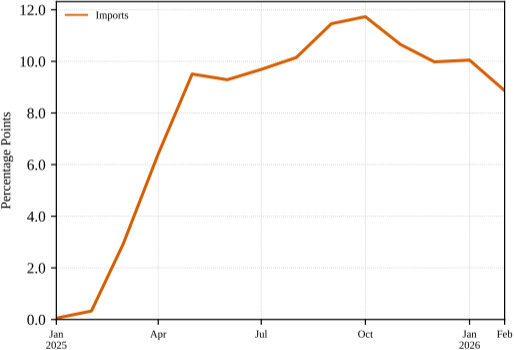
Comments welcome

Average Tariff Rates

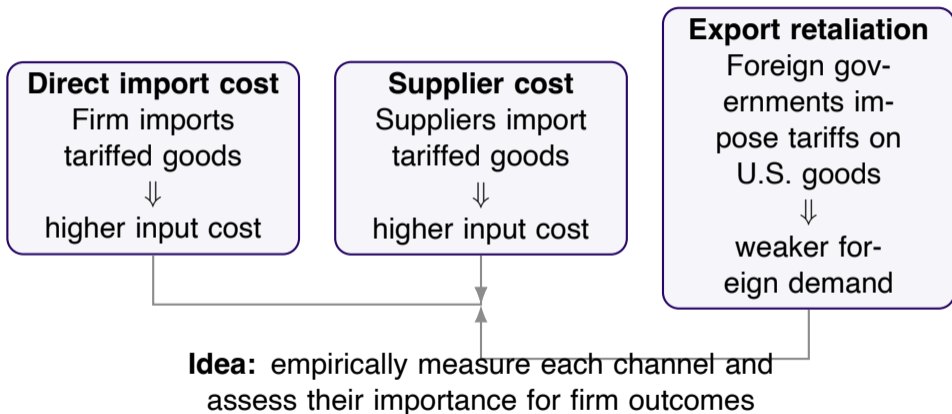
(a) 2018 Episode



(b) 2025 Episode



Three Exposure Channels



Validation II: Stock Returns Full Table

	2018 Episode		2025 Episode	
	(1) Returns _{f,t}	(2) Returns _f	(3) Returns _{f,t}	(4) Returns _f
Import Cost	-4.500*** (0.492)	-0.069*** (0.012)	-0.181** (0.073)	-0.020*** (0.004)
Suppliers' Cost	-20.087*** (6.035)	-1.038*** (0.287)	-0.754** (0.328)	0.025 (0.055)
Export Retaliation	-0.330 (4.173)	-0.063*** (0.011)	-0.018 (0.012)	-0.010*** (0.003)
R ²	0.238	0.039	0.462	0.019
Within R ²	0.006	.	0.001	.
Time FE	✓		✓	
N	16,324	2,745	13,982	2,334
Firms	2,745	2,745	2,334	2,334

Validation I: E-Calls Panel

	2018 Episode			2025 Episode		
	(1) Exposure	(2) Negative	(3) Risk	(4) Exposure	(5) Negative	(6) Risk
Import Cost	4.043*** (0.370)	4.337*** (0.481)	11.716*** (1.805)	1.566*** (0.096)	1.691*** (0.158)	4.139*** (0.433)
Suppliers' Cost	7.592*** (0.958)	7.820*** (1.383)	26.322*** (5.885)	1.142*** (0.247)	1.298*** (0.355)	3.838*** (1.214)
Retaliation	0.823*** (0.149)	1.045*** (0.219)	2.649*** (0.616)	0.648*** (0.069)	0.864*** (0.121)	2.262*** (0.383)
R ²	0.398	0.279	0.144	0.511	0.366	0.287
Within R ²	0.067	0.031	0.014	0.185	0.091	0.041
Time FE	✓	✓	✓	✓	✓	✓
Firm	✓	✓	✓	✓	✓	✓
FE	49,499	49,499	49,499	52,512	52,512	52,512
N	2,762	2,762	2,762	2,452	2,452	2,452

Venn Diagrams of Exposure

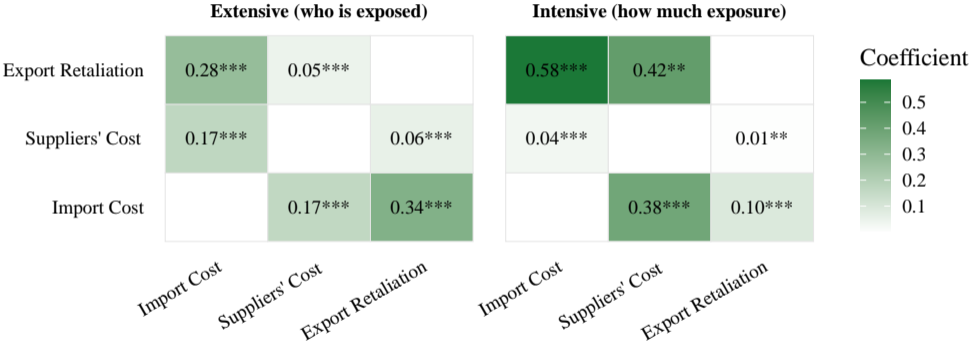
(a) 2018 Episode



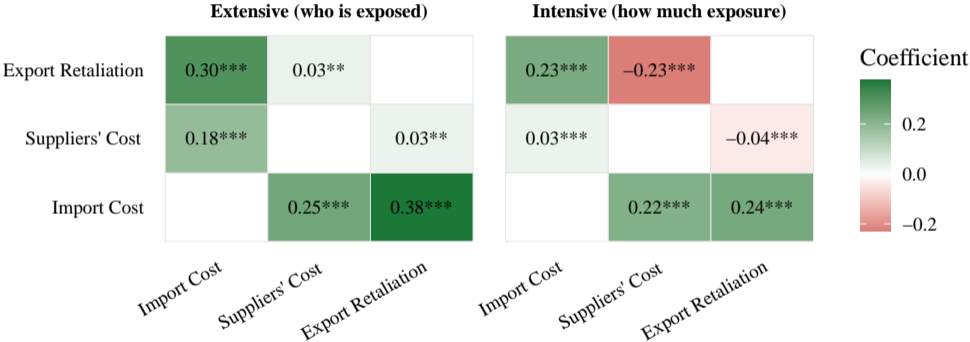
(b) 2025 Episode



Correlation across exposures in 2018

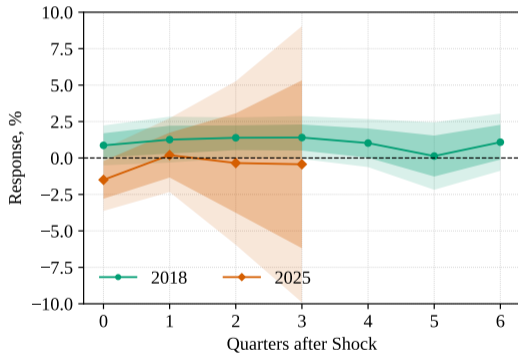


Correlation across exposures in 2025

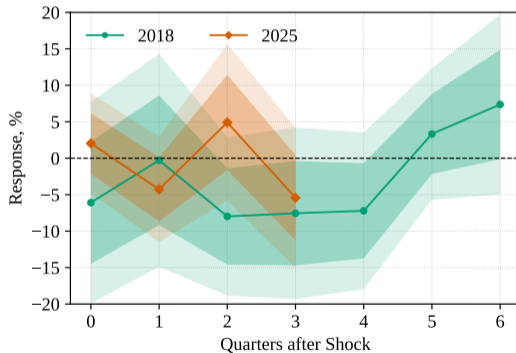


Profits

(a) Direct Import Exposure

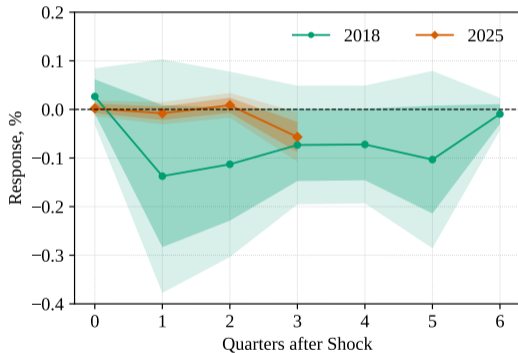


(b) Supplier Exposure



Investment

(a) Direct Import Exposure



(b) Supplier Exposure

