



Geoeconomic Pressure

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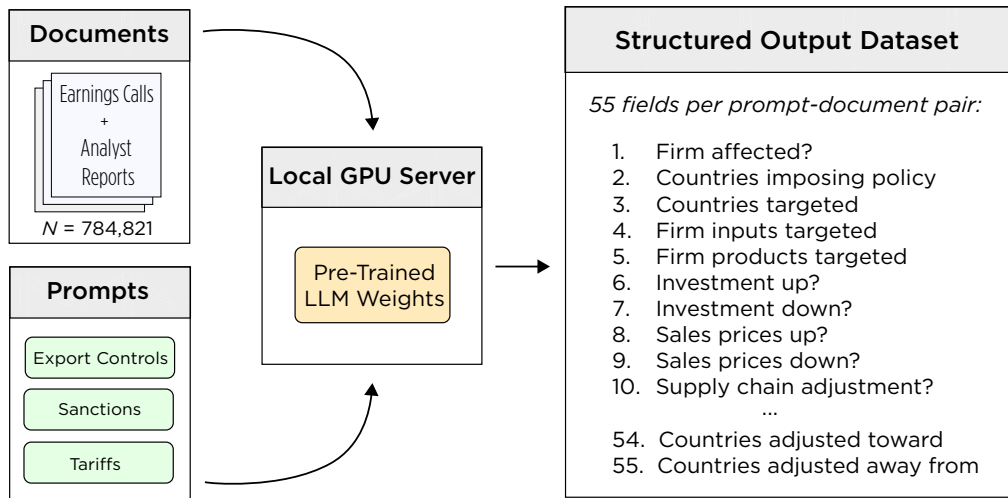


THE GLOBAL CAPITAL
ALLOCATION PROJECT

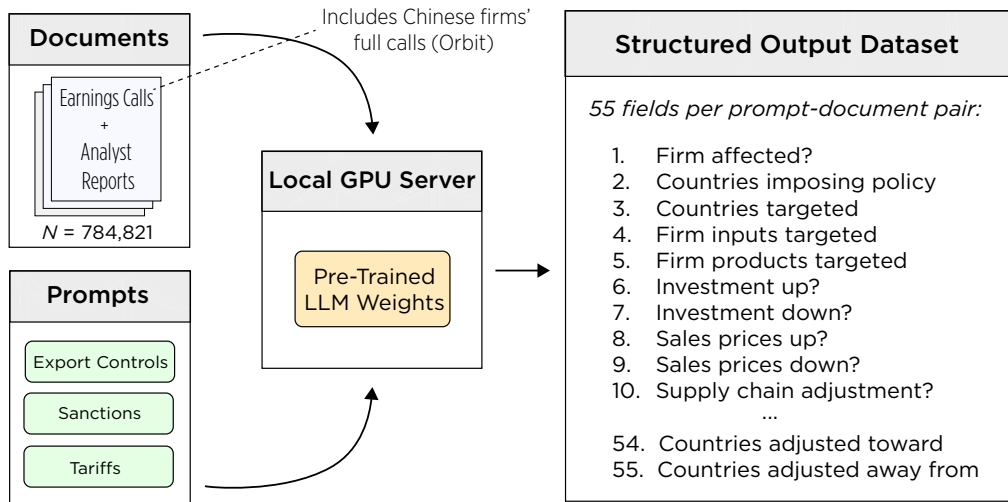
Geoeconomics and Economic Statecraft

- ▶ Hegemonic governments use their economic strength from existing financial and trade relationships to achieve geopolitical and economic goals
- ▶ Many prominent examples:
 - ▶ US government imposition of export controls in semiconductors
 - ▶ China threatening to cut off supply of rare earths
 - ▶ Trump administration using tariffs as negotiation tools
- ▶ Measuring geoeconomic pressure affecting firms' behavior
 - ▶ Pressure can be indirect and use different tools
 - ▶ Changes in target behavior multifaceted: wide range of economic actions
 - ▶ Threats often do not realize because target complies
- ▶ **This Paper:** Firm-level corporate text combined with large-scale, replicable LLM inference

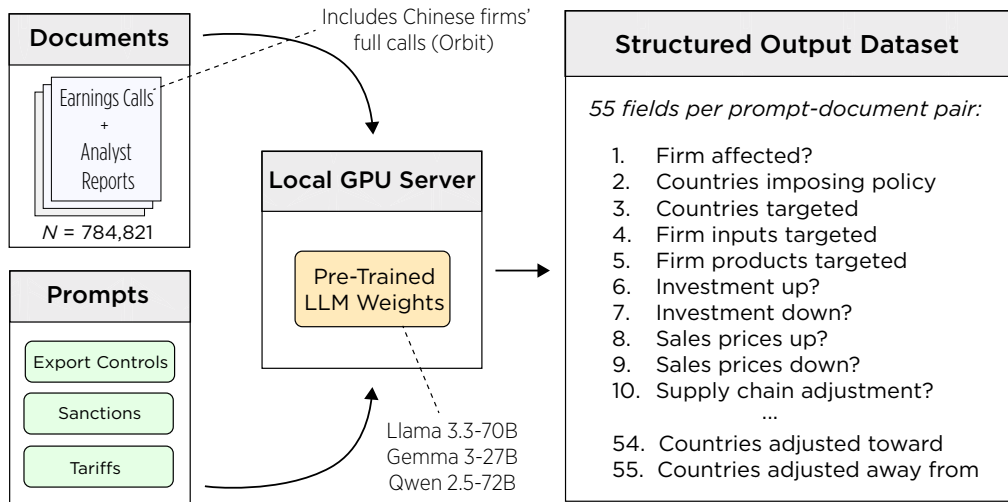
Using LLMs to Extract Large-Scale Structured Data From Text



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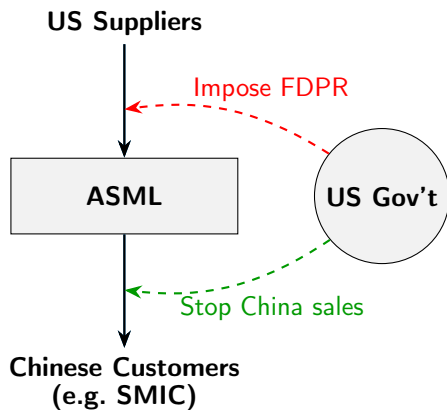


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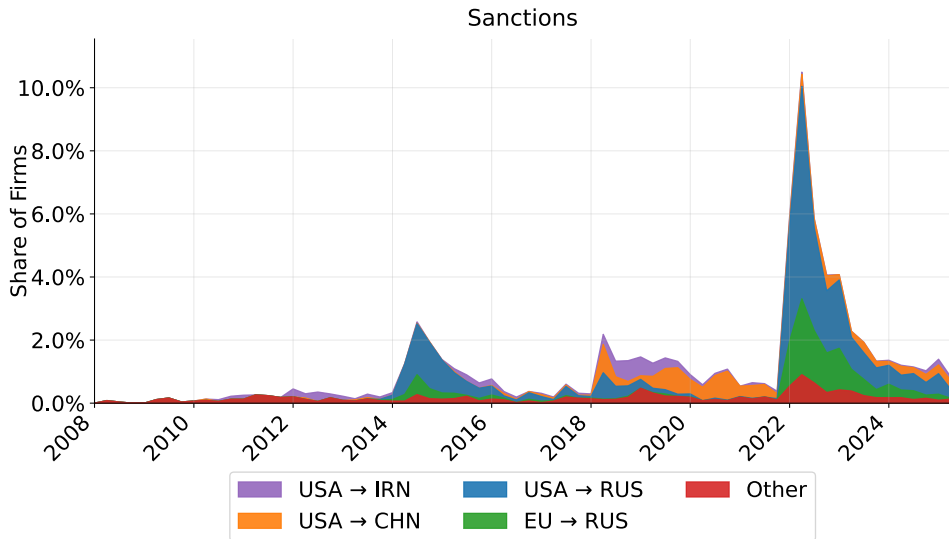
Example of LLM Inference From Textual Data

- ▶ ASML flagged as affected by export controls in multiple earnings calls and reports (2021-25)
- ▶ Structured field **outputs** from LLM:
 1. Countries imposing controls: **US, Netherlands**
 2. Country receiving export controls: **China**
 3. Firm's products targeted: **EUV and DUV systems, lithography tools**
 4. Overall impact on firm: **negative**
 5. Firm's responses: **lower sales**
 6. Country of lower sales: **China**

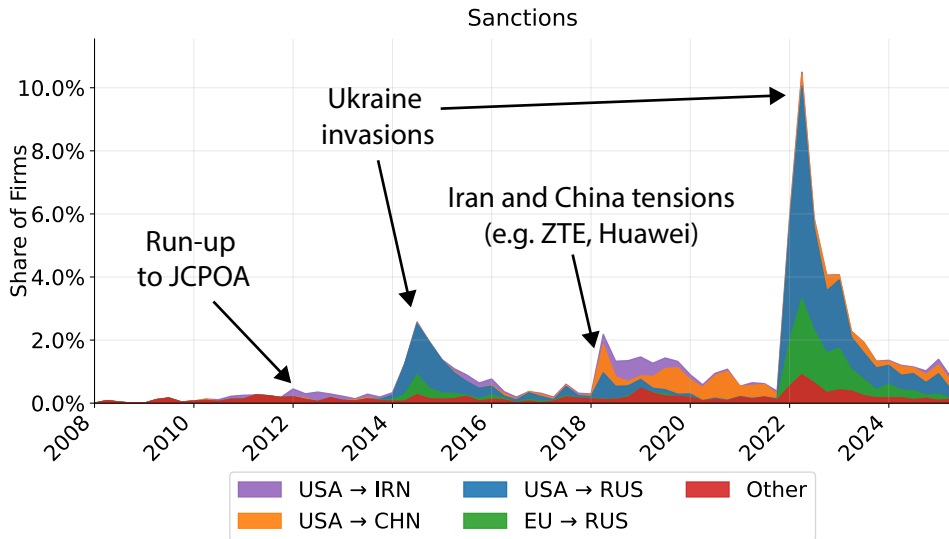


- ▶ Additionally, we also capture data from Chinese customers such as SMIC

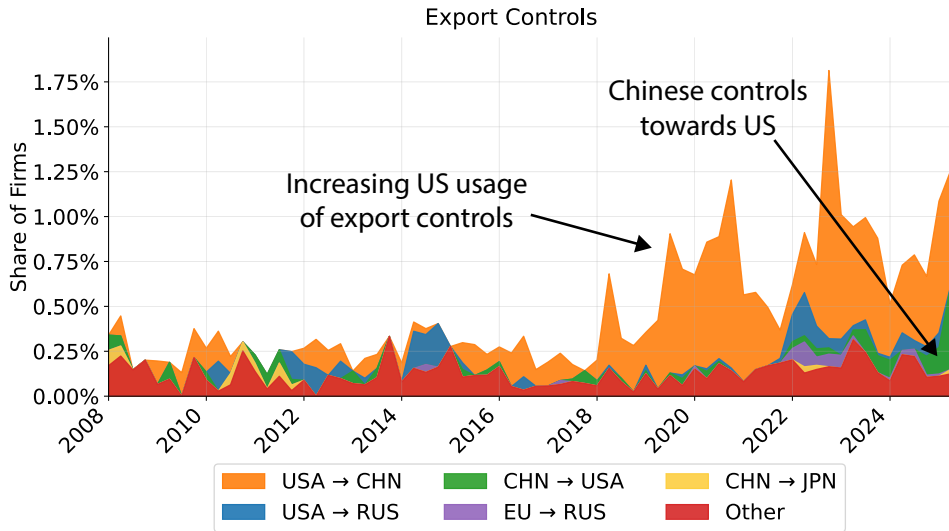
Aggregate Patterns: Who Imposes Pressure and Who Is on Receiving End?



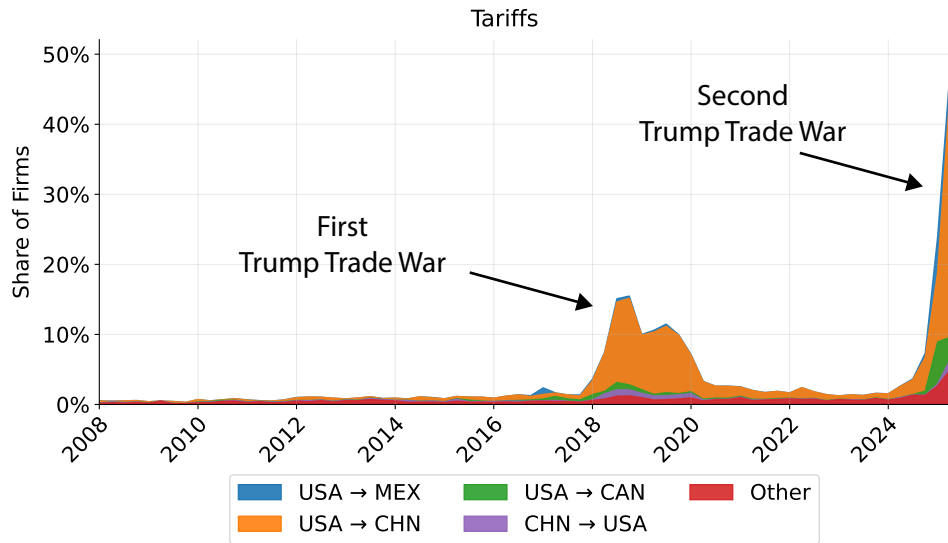
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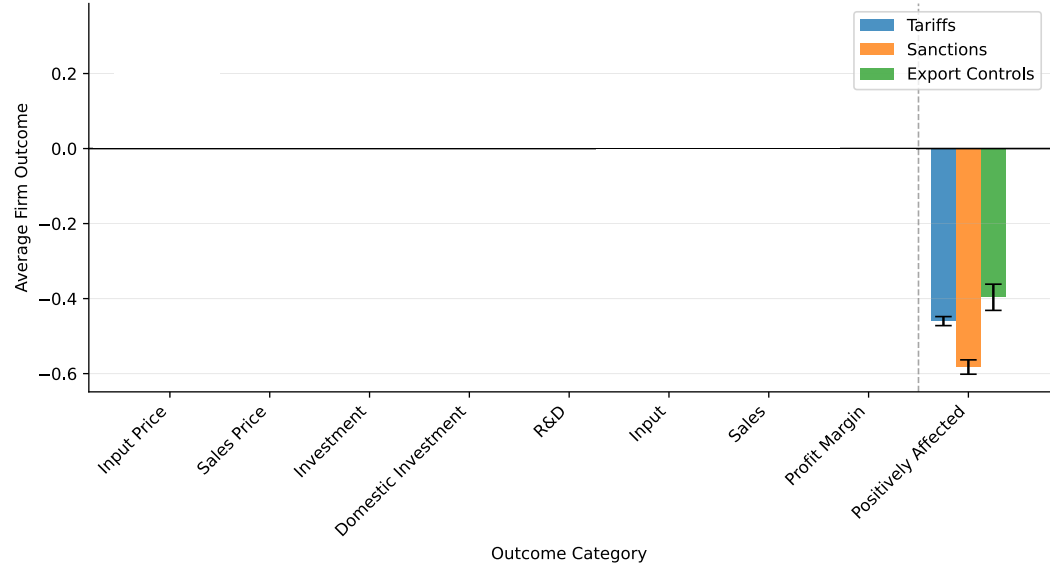
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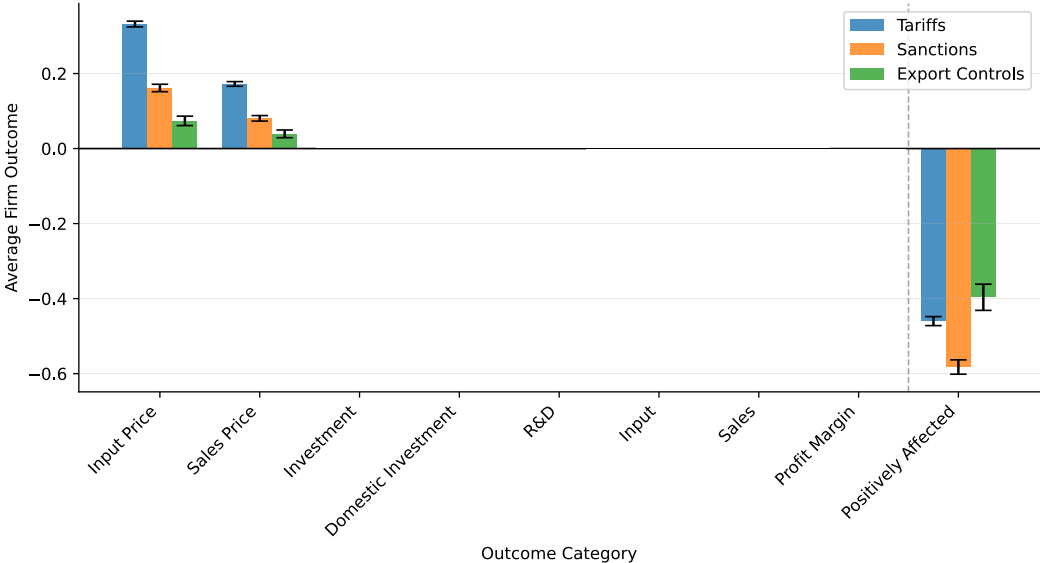
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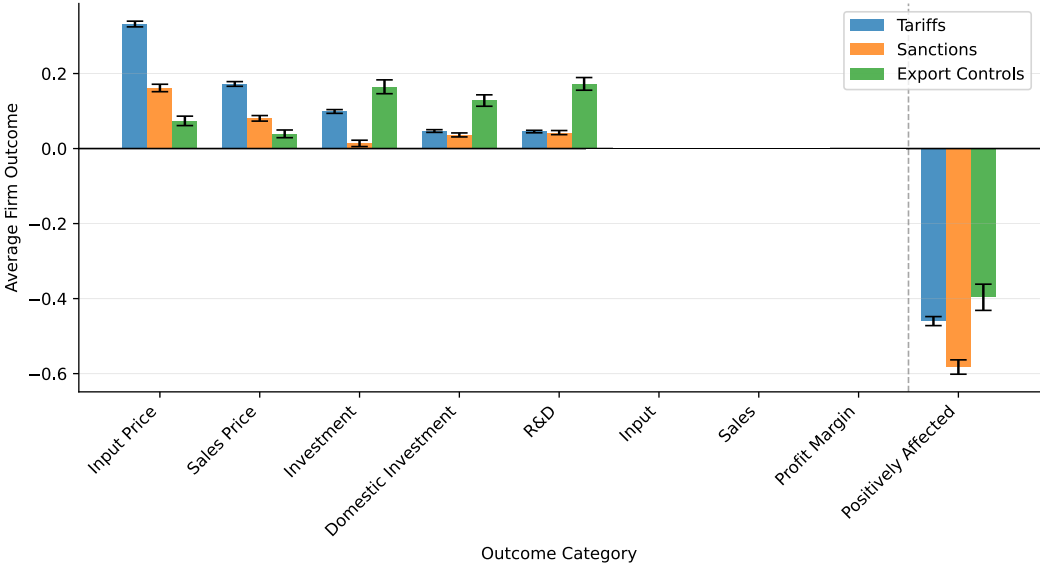
Firms' Responses to Pressure Along Multiple Margins



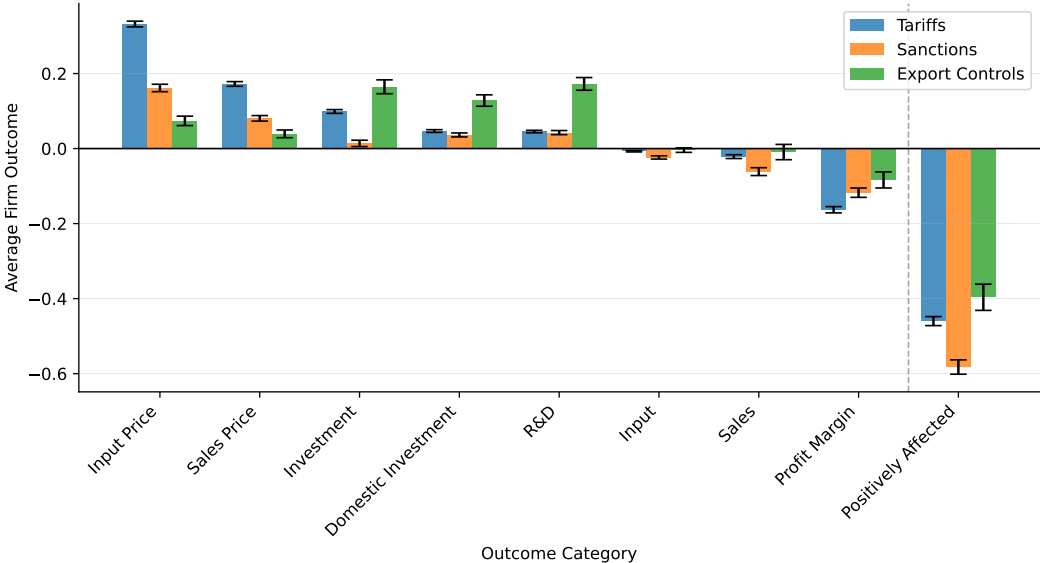
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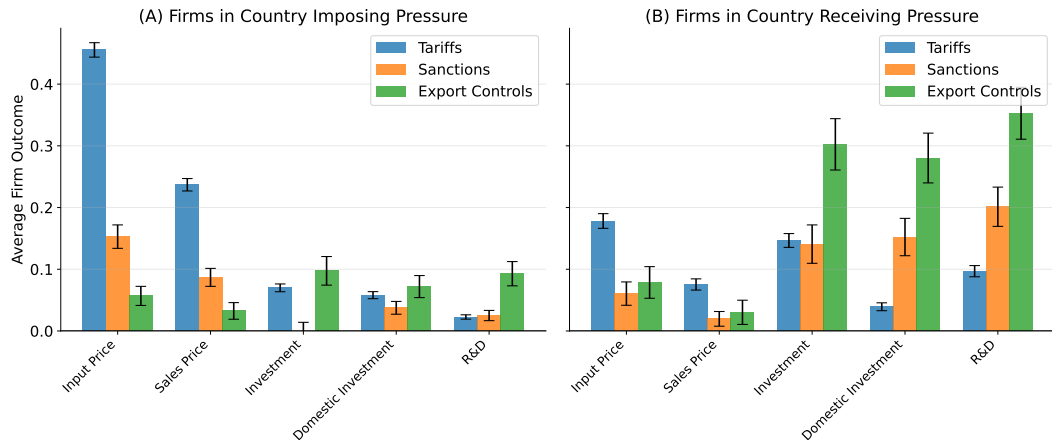
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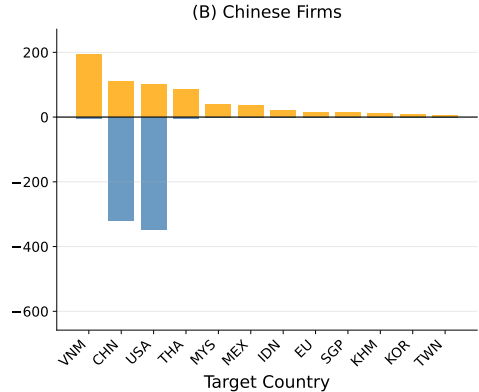
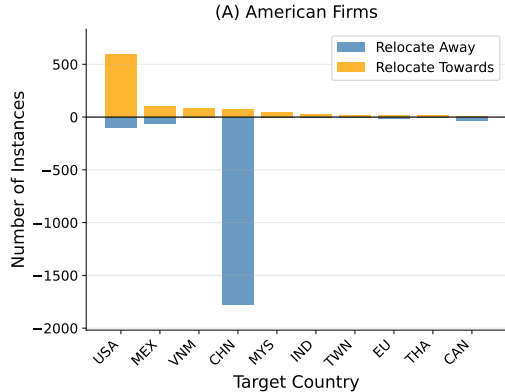
Responses to Pressure Are Heterogeneous by Firm's Country Role



- Pricing outcomes most relevant for firms in imposing country; investment and R&D for firms in countries receiving pressure

Firms' Responses: Assessing Supply Chain Reshuffling Systematically

Supply Chain Readjustment in Response to US Tariffs



- In response to tariffs, American firms re-onshore away from China; Chinese firms expand supply chains in Asia (e.g., Vietnam) and Mexico

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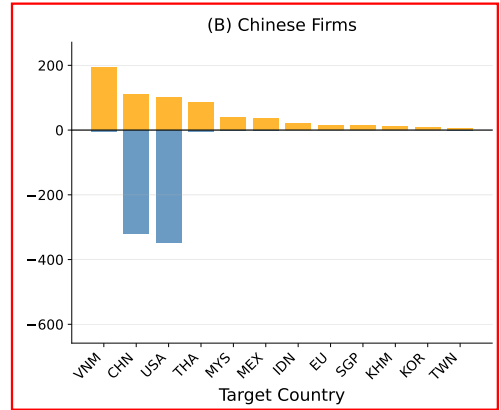
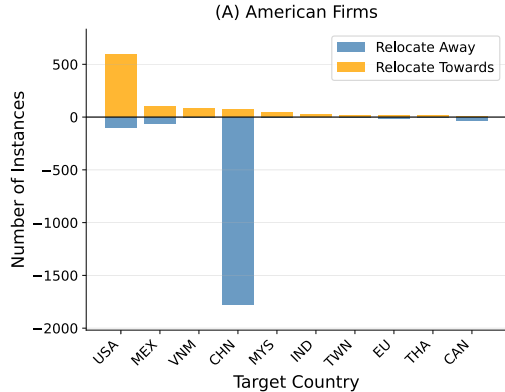
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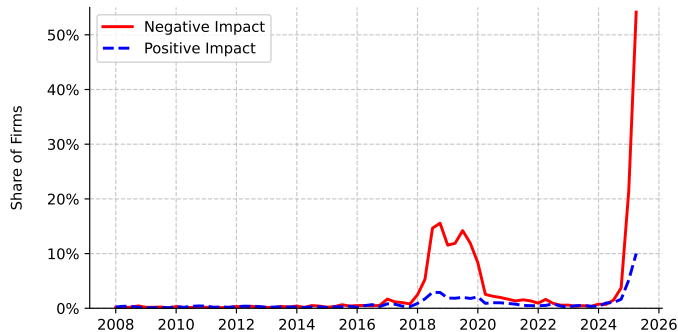
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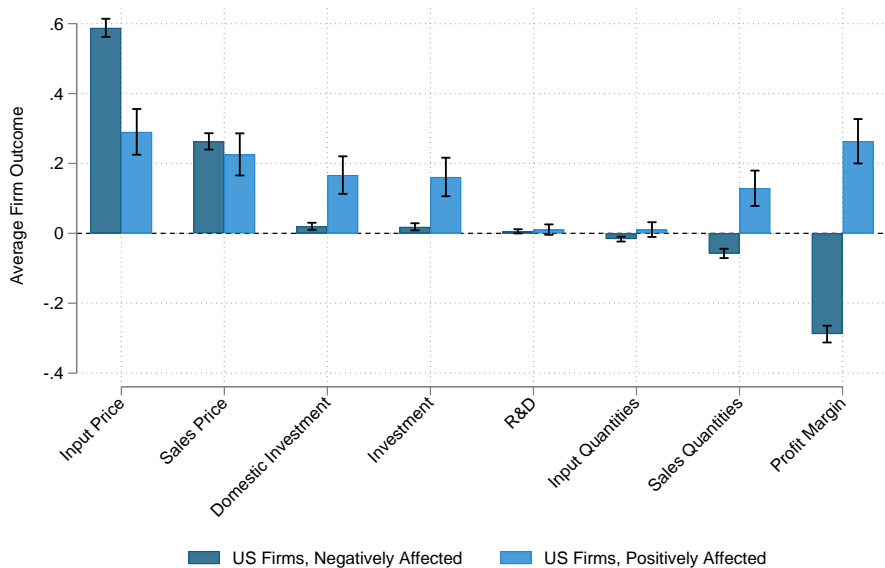
An Ongoing Look at the Trade War of 2025

- ▶ An advantage of our approach is ability of examine events in near real-time
- ▶ We track US firms reporting positive or negative impact during current trade war:



- ▶ Positive effects reflect reduced competition, domestic producer subsidy aspect of tariffs

An Ongoing Look at the Trade War of 2025: US Firms' Adjustment



Conclusion

- ▶ Novel, systematic approach to measuring **geoeconomic pressure** using firm-level text
- ▶ Methodology: replicable, large-scale LLM inference at scale
- ▶ Identify which firms affected by various types of pressure, details of pressure instrument
- ▶ Characterize what leads firms and sectors to be used as means of pressure
- ▶ Analyze firms' downstream behavior along multiple margins