TRADE UNCERTAINTY AND U.S. BANK LENDING

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THE EFFECTS OF NEW GEOPOLITICAL RISKS ON FINANCIAL MARKETS AND FIRMS- 22-23 AUGUST

MOTIVATION

- There is a growing literature on the **economic consequences of trade wars** (Amiti et al. (2019), Cavallo et al. (2021), Fajgelbaum et al. (2020), Flaaen et al. (2020), Flaaen and Pierce (2019))

- This paper shows that trade uncertainty can also have an impact on **financial intermediation** and this can **reinforce** and **amplify** the economic consequences of trade tensions

LITERATURE ON TRADE AND BANKING

- Impact of banking shocks on trade (i.e., Amiti and Weinstein (2011), Paravisini et al. (2015)…)

- Impact of trade shocks on banking
  - On trade **liberalization**: how China's accession to the WTO in 2001 affects banks' supply of credit in Italy (Federico et al. ,2022) and Spain (Mayordomo and Rachedi, 2022)
  - On trade **fragmentation**:
    - Over the past decade, there has been a series of adverse shocks to globalization
    - The IBRN initiated a project where country teams investigated how fragmentation events and deglobalisation shocks are amplified through the supply of credit

DOES TRADE FRAGMENTATION SPILL OVER INTO BANK LENDING ACTIVITY? CONTEMPORANEOUS RESEARCH

- Specific episodes:
  - Russia's invasion of Ukraine in 2014 on Italian banks (Federico et al. 2023), Brexit referendum on German banks (Imbierowicz et al. 2023), retaliatory trade restrictions from China on Norwegian banks (Cao et al. 2022), euro area sovereign debt crisis on Portuguese banks (Bonfim and Fèlix 2023, Pedrono 2022), and of trade tensions between the US and China on US, Chilean, and Mexican banks (Correa et al. 2023, Margaretic and Moreno 2023, Bush et al. 2023)

- General lesson that we are starting to learn (Buch et al. 2023, VOXEU)
  - Banks react to trade fragmentation shocks by reducing credit supply. This is true not only for firms immediately affected but also to firms which are not directly exposed to the event. This has real economic effects.

THIS PAPER

- **Diff-in-Diff:**
  - Most important deglobalization event: the trade tensions/war between the US and China in 2018/19
  - Data: FR Y-14Q "U.S. Credit Register" 83,970 observations between 2016-2019
  - Bank heterogeneity: before the shock, some banks have higher exposure to industrial sectors which are characterized by higher trade uncertainty during the period 2018-19

- **Results**
  - In 2018-2019 affected banks reduce credit supply
  - They do it to all borrowers, not only to affected firms (there are spillover effects)
  - Firms associated to these banks are not able to substitute credit and suffer (there are real effects)
  - Two channels are identified: a financial frictions channel and wait-and-see channel

OVERALL ASSESSMENT

- **Very important question contributing both to finance and international econ literature**
  - Do deglobalization shocks impact financial intermediation? Does this reinforce and amplify economic consequences?

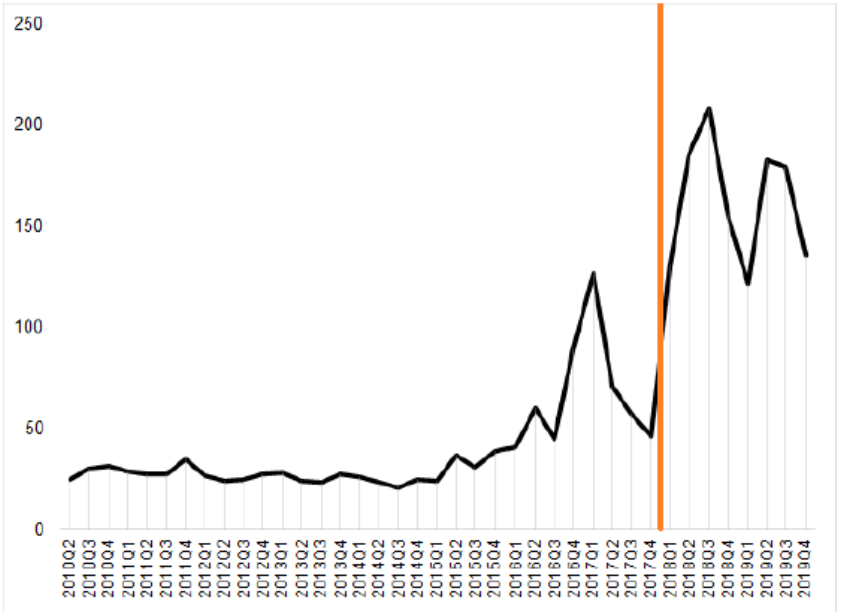
- **Biggest shock, excellent data and already robust results** (paper has been presented several times …)
  - In presence of bank specialization firm FE not enough (adding control for specialization dummies, adding the dimension of loan-type in the FEs, focus on subsamples of non affected firms)
  - Distinction of trade uncertanty vs overall uncertanty
  - Placebo tests
  - ….

WHEN IS THE START OF TRADE UNCERTANTY?

- Post dummy starts at 2018Q1 but…
- November 2016: Trump's election (with his protectionist agenda) is somewhat unexpected
- January 2017: the US withdraws from the Trans-Pacific Partnership (TPP)

- Already results in this direction by removing 2017 from the pre period but post dummy could always start from Trump's election (post: 2017-2019)

Figure: Trade Policy Uncertainty Index



Source: "Trade Policy Uncertainty Index" from Caldara et al. (2020).

TRADE UNCERTANTY VARIABLE

- Main variable is based on evidence from text-based analysis in earnings call in Hassan et al. (2019) for **listed firms**
  1. Which companies declare more trade uncertainty?
  2. Can one extend this variable from listed firms to all firms in the **industrial sectors** by taking averages?

- It would be useful to bring more economics and further evidence to validate this measure

TRADE UNCERTANTY VARIABLE: FROM LISTED TO PRIVATE FIRMS

- Trade-policy concerns major source of US stock market volatility (Baker, et al. 2019) however if one asks companies if trade-policy tensions had caused it to alter their CAPEX in 2018 effects are small (-32.5 B relative to 20 T size of US economy) (Altig et al. 2019)

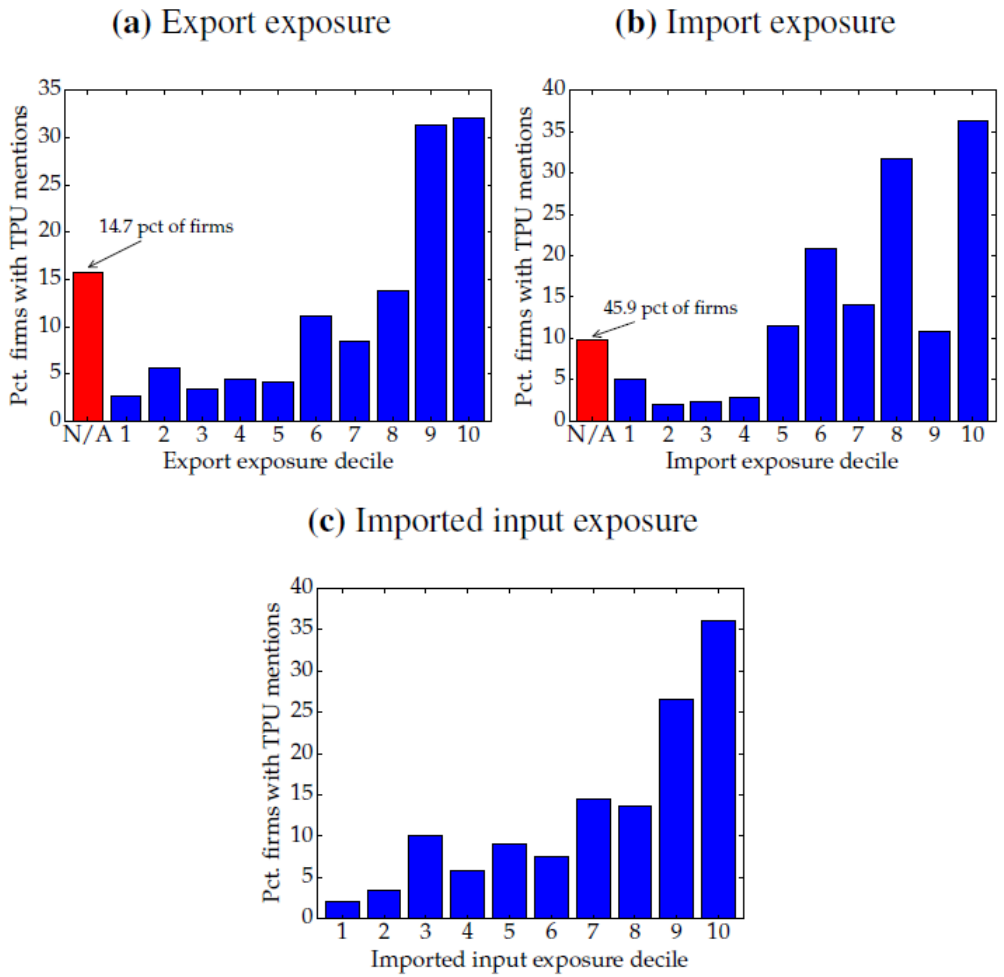
- How can we reconcile?
  - Many companies listed on the US stock market have significant commercial interests abroad, foreign production facilities that export to the US, supply chains that run through China, and brand values and distribution networks in foreign economies (Davis, 2019)
  - Other non listed firms in the same sector may not have these concerns (89% of firms are private in the sample)

TRADE UNCERTANTY VARIABLE: WHICH COMPANIES SHOULD HAVE HIGHER TFU?

- Which companies should suffer from trade uncertanty?

1. Exporters (or potential exporters) might worry that foreign trade barriers on their products could rise
2. Non-exporters might be concerned about import competition;
3. Firms that import intermediate inputs might worry about their production costs

TRADE UNCERTANTY VARIABLE: VALIDATION



- Steinberg (2020) addresses the two concerns validating the variable for you!!
- For each 6-digit NAICS industry, uses the input-output data, to compute three measures of trade exposure and then merges these with the Caldara et al. (2019) firm-level TPU dataset using NAICS codes of the listed firms
- You can also explore which of the 3 dimensions is more important for your analysis

IS IT UNCERTANTY OR IT IS JUST THE COSTS OF IMPOSED TARIFFS?

- As usual, during a war or a crisis, first moments and second moments are related
  - My prior: if they want to focus convincincly on the second moment, they need to stop the sample in march 2018 when tariffs are finally imposed and the uncertanty is revealed….

- No! The **uncertanty on the *level and sectors* of tariffs has been very high throughout the period** (see Benguria et al. 2022)
  - Useful to document the timeline of the events! From March 2018 when the first tariffs were imposed by the US, there is the relatiation from China and other countries, than the US impose additional tariffs, they enlarge the sectors, other countries are involved. The tit-for-tat escalation ended in December 2019 when the U.S. and China entered into a Phase One agreement

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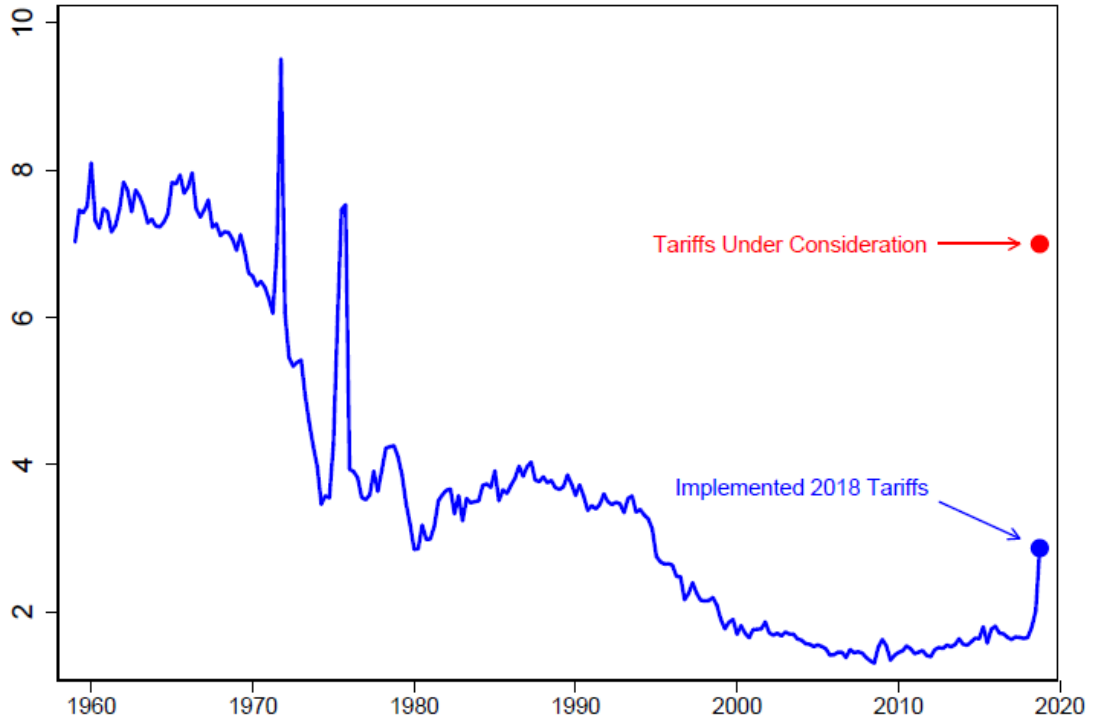


U.S. Import Tariffs as % Share of Total Imports of Goods

(Caldara et al. 2019)

FINANCIAL FRICTIONS CHANNEL

- "Lower capitalized banks exposed to trade uncertainty contract lending by more"
- Risk in bank portfolios go up, loan loss provisions go up, net worth of banks go down

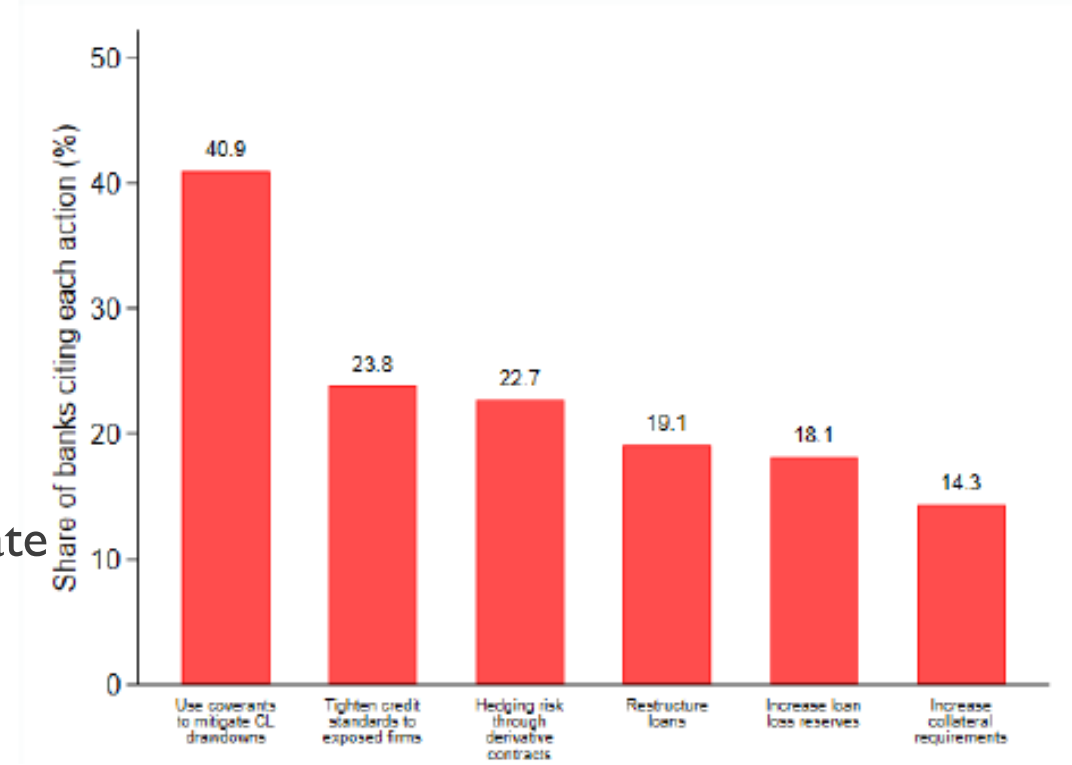
- Any direct evidence?
  - Did loan loss provisions increase?
  - In the post period, is there any evidence that loans to high uncertainty sector perform worse? (see increase in NPLs in Federico et al. 2022)
  - If no evidence (short sample?), are banks acting in expectation of future capital losses?

WAIT-AND-SEE CHANNEL

- Exposed banks adopt a wait-and-see attitude, reducing the maturity of loans, downgrading the expected creditworthiness of firms
- Less convincing

- Is this really a different channel? Maturity is one of the dimension of the multifaceted credit contract. Tighten lending standards= reduce quantity, increase price, ask for more collateral and… reduce maturity
- Evidence on PDs not clear. PDs are based on internal models that need to be approved by a supervisor. Here affected banks would increase PDs of all their borrowers, How? Ad hoc change? (complicated, think of PD and climate risk). Not in the action list...
- Any evidence on covenants or hedging?

Figure A3. Bank Actions to Mitigate Trade Risks



SMALL ISSUES

- Only 2.4% of the loans are trade finance loans? How are trade finance loans defined in FR Y-14Q data?

- Bank trade uncertainty variable calculated on the basis of share of loans in 2014-15, while specialization on the basis of share of loans at the end of 2017

CONCLUSION

- My comments:
  - Better justify why focusing on uncertainty and why their variable is the best exposure variable
  - Do more on channels: bring more evidence and clarify whether the two mechanisms do not boil down just to one

- Important results with contribution to very important agenda both for finance and international economics
- Already robust analysis with several robustness checks