State Control and the Effects of Foreign Relations on Bilateral Trade

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Annual Meeting of the International Political Economy Society
Charlottesville, Virginia
November 10, 2012

Motivation

- Growing consensus that systemic changes limit trade manipulation in response to political disputes
    - WTO
    - Global production networks
    - Intra-industry trade and specialized production

- But examples of this behavior abound
    - Argentina (Falkland Islands)
    - Russia and Ukraine (gas wars)
    - India (Iranian oil)
    - China (salmon, rare earths)

Chinese Boycott of Norwegian Salmon
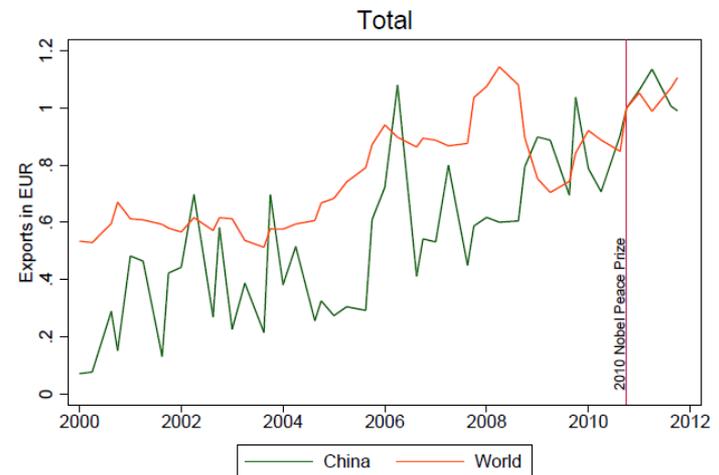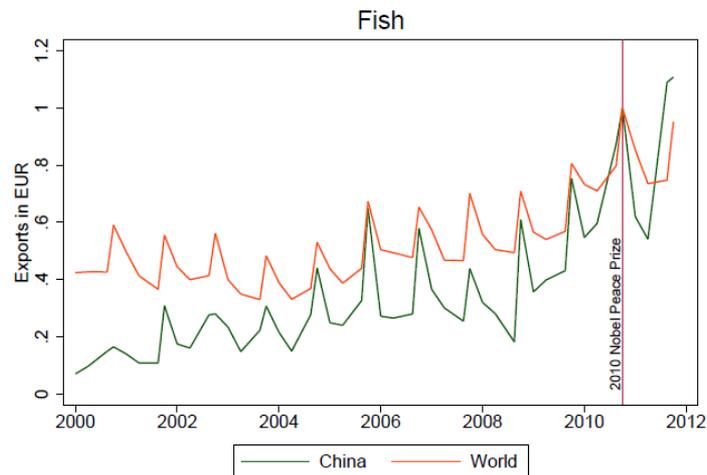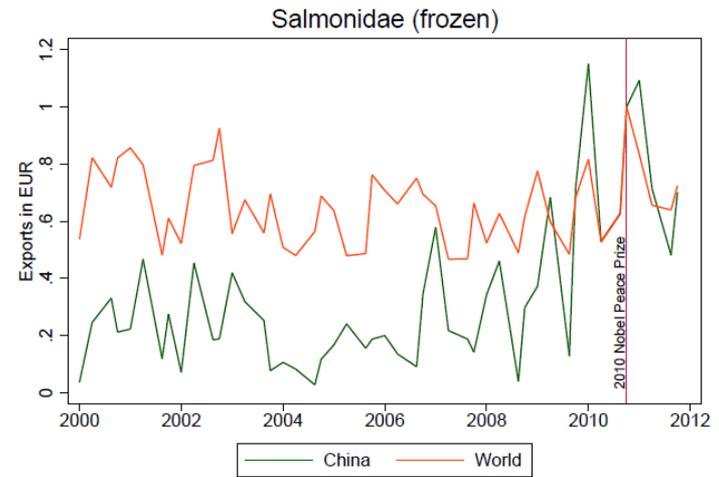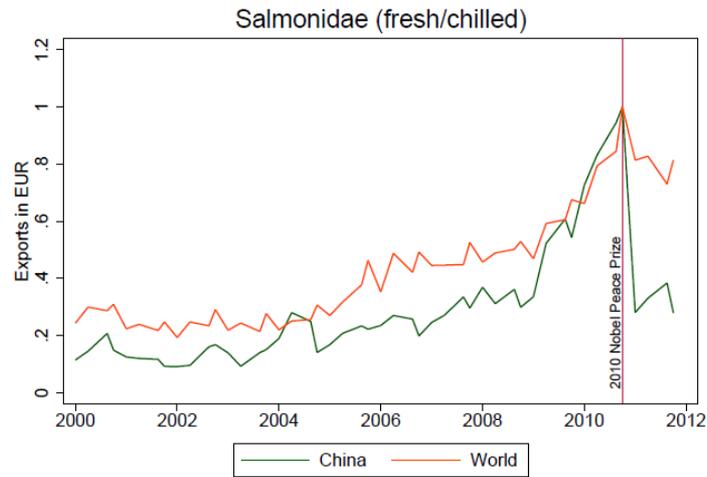
Why State Control Matters

- Systemic changes reduce the *capacity* but not the *motive* to manipulate trade

- Trade manipulation can occur at the firm level
  - Capacity to influence firm decisions → manipulation
  - Capacity highest for *state-owned enterprises* (SOEs)
    - Less opposition from SOEs to trade diversion
    - Advancing political goals is a primary objective of SOEs
    - Close links between state leadership and SOEs

- Capacity varies:
  - Across countries (emerging markets vs. major powers)
  - Across sectors (SOE vs. non-SOE sectors)

Overview

- Argument:

  – The impact of bilateral political events on trade is conditional on state control of the sector

- Empirical Analysis:

  – Measure variation in political relations

  – China and India

  – Imports vs. exports

- Findings:

  – Negative political events → lower imports

    • bigger effect in SOE sectors (China and India)

  – Political events → changes in exports sometimes

    • bigger effect in SOE sectors (India only)

Trade with the state-controlled sector of the economy

- Separate statistics on trade for SOEs and non-SOE not available

- Match disaggregated bilateral trade data with industry-level data on the share of assets held by SOEs

SOE share by sector (ISIC 2-digit)

Total imports/exports

Imports/exports through SOE sector

Imports/exports through private sector
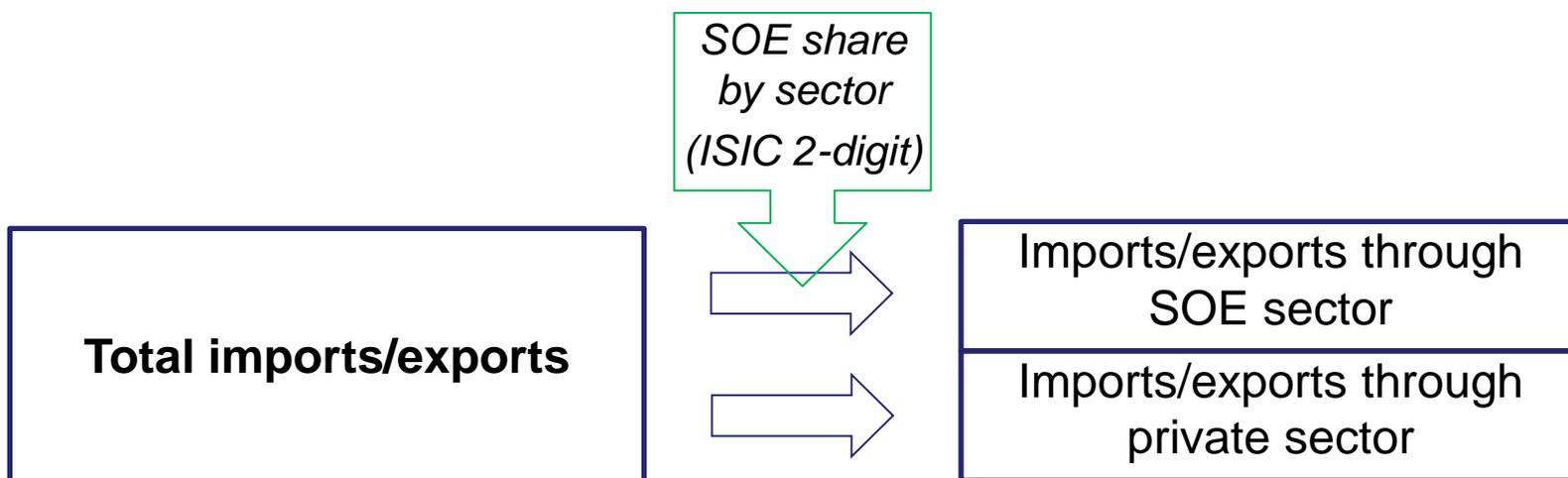
- We multiply sectoral trade values with the respective SOE share in total assets and sum the resulting values

Trade with the state-controlled sector of the economy

China

ISIC sector	SOE
Extraction of crude petroleum and natural gas, related services	98.0%
Manufacture of basic metals	71.4%
Manufacture of chemicals and chemical products	57.6%
Manufacture of machinery and equipment n.e.s.	55.9%
Manufacture of radio, television and communication …	43.0%
Manufacture of medical, precision and optical instruments, …	42.9%

Source: *China Statistical Yearbook*

India

ISIC sector	SOE
Extraction of crude petroleum and natural gas, related services	89.9%
Manufacture of machinery and equipment n.e.s.	44.9%
Manufacture of coke, refined petroleum products and nuclear fuel	43.6%
Manufacture of basic metals	40.3%
Manufacture of chemicals and chemical products	13.1%
Other mining and quarrying	2.1%

Source: *PROWESS database*

Measuring political relations

1. Number of negative events (King and Lowe 2003)
2. Voting alignment in the UNGA (Voeten and Merdzanovic 2009)

China-specific measures:

3. Count of People's Daily references to actions that "hurt feelings" of the Chinese people (Fang 2010)
4. Conflict-cooperation index (Yan et al. 2010)

We focus on the <u>number of negative events</u>

- *China's worst relations:* USA, Taiwan, UK, Japan, Philippines,…
- *India's worst relations:* Pakistan, USA, Bangladesh, Saudi Arabia, UK,…

Empirical strategy

- Gravity model of international trade

$$trade_{SOE,ij} = \beta_0 + \beta_1 relations_{ijt} + \beta_2 distance_{ijt} + \beta_3 gdp_{ijt} + \beta_4 X_{ijt} + \tau_t + \varepsilon_{ijt} \qquad (1)$$

$$trade_{nonSOE,ij} = \tilde{\beta}_0 + \beta_1 relations_{ijt} + \tilde{\beta}_2 distance_{ijt} + \tilde{\beta}_3 gdp_{ijt} + \tilde{\beta}_4 X_{ijt} + \tau_t + \tilde{\varepsilon}_{ijt} \qquad (2)$$

- *trade*: exports or imports (Source: WITS)
- *relations*: 1 of the 4 measures of political relations
- Controls: Distance, GDP, Population, Neighbor, Common language, Landlocked, Both in WTO, PTA, Democracy, US ally, and time dummies (all IVs lagged)
- Time period: 1991/95-2009
- Seemingly unrelated estimations to combine estimation results
- Hypothesis:

$$\beta_1 > \tilde{\beta}_1$$

Main results

	China Imports	China Exports	India Imports	India Exports
SOE Negative events	-0.004*** (0.001)	0.001 (0.001)	-0.007** (0.003)	-0.006*** (0.001)
Non-SOE Negative events	-0.003*** (0.001)	0.001 (0.001)	-0.005* (0.002)	-0.005*** (0.001)
Observations	*1,654*	*1,863*	*2,006*	*2,412*
Wald test (p-value)	*0.007*	*0.527*	*0.005*	*0.004*

✓ Controlled for distance, GDP, Population, Neighbor, Common language, Landlocked, Both in WTO, PTA, Democracy, US ally, and time dummies

▪ Results confirmed with "hurt feelings" variable

▪ Mixed results for UNGA voting and Yan index

Further results

- Consumer vs non-consumer goods
  - WTO membership restricts trade policy levers
  - State control of the media offers an alternative
  - Statistically significant difference in the coefficients on negative events for imports to China (but not for India)
- Partner country fixed effects
  - Similar results for India
  - No significant effect for China
- Hong Kong
  - Special administrative zone reports separate trade statistics
  - Results robust to the inclusion of trade via Hong Kong

Conclusions

- Trade is more likely to follow the flag when government controls firms

- China and India exhibit similar patterns

- Some evidence that individual events impact on trade

- Political relations may become more important drivers of trade patterns as more countries with partially state-controlled economies emerge as important players in international trade