Protection for Free? The Political Economy of U.S. Tariff Suspensions

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Tariff Suspensions

- Each year, members of Congress sponsor hundreds of *tariff suspension bills* on behalf of domestic "proponent" firms.
- Each bill specifies a product, usually an intermediate input imported by the proponent, to be granted duty-free status for a period of 2-3 years (renewable).
- Bills are referred to a Congressional committee, and then to the USITC, where a report is prepared on each bill containing:
  - Estimates of dutiable imports and tariff revenue loss.
  - A survey of domestic producers of similar goods to determine if there is opposition.
- The committee then decides which bills to include in a big Miscellaneous Trade Bill (MTB), which is passed by the full Congress.
- Question: which suspension bills make it into the MTB and why?

Why Study Tariff Suspensions?

- One of the largest unilateral trade policy programs.
  - Over 1400 suspension bills introduced in 1999-2006, covering 600 tariff lines and worth an estimated $1.6 billion in revenue.
  - But relatively unknown.
- Unique laboratory for studying special interest politics.
- Suspensions are precisely-measured, discretionary policies.
  - Previous work on trade policy uses coverage ratios of NTBs.
  - WTO imposes no constraints on tariff reductions.

Why Study Tariff Suspensions? (cont.)

- We observe the individual firms involved.
  - Previous work is at sector level.
- We observe different instruments firms use to influence policy.
  - Firm-level political spending: lobbying expenditures on trade and PAC contributions.
  - Messages: government solicits information from parties.
  - Thus, we can examine whether information conveyed by firms influences the government, independent of spending, and quantify the relative impact of messages and spending on policy.

Impact of special interest groups

- **Quid pro quo** vs. **Information transmission** channels
  - Grossman and Helpman (2001) discuss both
- Literature divided
  - Trade literature focuses on quid pro quo (see Grossman and Helpman 1994)
  - Information transmission is common in political science
- Empirical findings provide mixed evidence
  - PAC contributions influence government policy: This result is often interpreted as evidence of quid pro quo
    - e.g., Snyder (1990), Goldberg and Maggi (1999), Gawande and Bandyopadhyay (2000).
  - Lobbying expenditures influence government policy: This result is often interpreted as evidence of information transmission
    - e.g., de Figueiredo and Silverman (2008), Gawande, Maloney and Montes-Rojas (2009)
- Political spending cannot be clearly separated b/w the two channels.
  - PAC contributions may convey information (Lohmann, 1995)
  - Lobbying expenditures may indirectly benefit politicians.
- We consider messages (besides political spending): If such messages are effective in influencing policy – even in the absence of political spending – then we have solid evidence for at least one version of the

Outline of Paper

- Data on tariff suspensions and lobbying
- Stylized facts
- Model
- Estimation
- Structural parameters

Data – tariff suspensions

- USITC bill reports for Congresses -- 106th (1999-2000), 107th (2001-2002), 108th (2003-2004), 109th (2005-2006)
- Reports include:
  - Congressman who is the sponsor of the bill
  - Proponent firm
  - Product description and 8-digit HTS code
  - Existing tariff rate, dutiable imports, and expected revenue loss.
  - Results of questionnaires sent to domestic producers (or potential producers) of the good.
- Questionnaires seek to identify whether firms actually produce (or will produce) the good and whether they oppose the bill.
- An opponent is defined as a firm which reports producing the product (106-107) or which reports opposing the bill (108-109).
- We search Chapter 99 of the Harmonized Tariff Schedule to ascertain whether tariff suspension bills were enacted into law.

UNITED STATES INTERNATIONAL TRADE COMMISSION
Washington, DC 20436

MEMORANDUM ON PROPOSED TARIFF LEGISLATION of the 109th Congress [1]

[Date approved: August 1, 2005][2]

Bill No. and sponsor: S. 698 (Mr. Lautenberg)

Proponent name, location: Rhodia Inc.
259 Prospect Plains Road, CN 7500
Cranbury, New Jersey 08512-7500

Other bills on product (109th Congress only): H.R. 1392

Nature of bill: Temporary duty suspension through December 31, 2007.

Retroactive effect: None.

Suggested article description(s) for enactment (including appropriate HTS subheading(s)):

Mixtures of N-[2-(2-Oxo-1-imidazolidinyl)ethyl]methacrylamide (CAS No. 3089-19-8), methacrylic acid (CAS No. 79-41-4), and water (CAS No. 7732-18-5) (provided for in subheading 3824.90.91).

Check one: X Same as that in bill as introduced
___ Different from that in bill as introduced (explain differences in Technical comments section)

Product information, including uses/applications and source(s) of imports:

The product is used primarily to make polymer resins that are incorporated into architectural coatings. The product is imported from France.

[1] Industry analyst preparing report: Jack Greenblatt (202-205-3353); Tariff Affairs contact: Dave Michels (202-205-3440)
[2] Access to an electronic copy of this memorandum is available at http://www.usitc.gov/tata/hts/other/rel_doc/bill_reports/index

Estimated effect on customs revenue:

HTS subheading: 3824.90.91					
	2005	2006	2007	2008	2009
Col. 1-General rate of duty (AVE) 1/	5.0%	5.0%	5.0%	5.0%	5.0%
Estimated value *dutiable* imports	$3,300,000	$3,300,000	$3,300,000	$3,300,000	$3,300,000
Customs revenue loss	$165,000	$165,000	$165,000	$165,000	$165,000

1/ The AVE is the ad valorem equivalent of a specific or compound duty rate expressed as a percent, using the most recent import data available.
Source of estimated dutiable import data: Industry estimates. The Customs revenue loss estimates provided in the above table assumes that the duty suspension will be renewed in 2008 and 2009.

Contacts with domestic firms/organizations (including the proponent):

Name of firm/organization	Date contacted	US production of same or competitive product claimed?	Submission attached?	Opposition noted?
		(Yes/No)		
Rhodia (proponent) Preston Gates, Rick Valentine (202) 661-3802	6/6/2005	No	No	No
Rohm & Haas Hank Stoebenau 215-628-4919	6/7/2005	Yes	Yes	Yes
Perstorp Polyols, Inc. Mai Pham 202-293-8144	6/7/2005	No	No	No
Bayer Corp. Karen Niedermeyer 412-777-2058	6/6/2005	No	No	No
Avecia Limited (Crowell & Moring) Ms. Melissa Coyle 202-624-2500	6/6/2005	No	No	No
Solutia, Inc. Mary Woodward 314-674-7211	6/7/2005	No	No	No

Data – lobbying expenditures

- Objective: measure payments that firms make to influence suspensions.
- Compile a novel firm-level dataset on lobbying expenditures from the Center for Responsive Politics and Senate Office of Public Records
- Semi-annual reports filed under the 1995 Lobbying Disclosure Act by lobbyists and firms with in-house lobbyists.
- Reports include:
  - Name of the lobbying firm hired or firm (client) hiring.
  - Total amount received or spent.
  - List of general and specific lobbying issues.
  - List of government entities contacted.
- For each proponent or opponent listed in a tariff suspension bill, we define those that report lobbying on "trade" or other issues related to the bill (e.g., chemicals, textiles) to be organized.
- The amount of spending assigned to tariff suspension = total spending during the Congress × share of bill-related issues in total issues reported.
- Years 1999-2006.

Clerk of the House of Representatives	Secretary of the Senate
Legislative Resource Center	Office of Public Records
B-106 Cannon Building	232 Hart Building
Washington, DC 20515	Washington, DC 20510

SECRETARY OF THE SENATE
06 AUG 22 AM 11:03

LOBBYING REPORT

Lobbying Disclosure Act of 1995 (Section 5) - **All Filers Are Required to Complete This Page**

1. Registrant name
3M COMPANY

2. Address ☐ Check if different than previously reported
1425 K STREET, N.W. SUITE 300
WASHINGTON DC 20005 USA

3. Principal place of business (if different than line 2)
City State/Zip or Country

4a. Contact Name: Mr. THOMAS F. BEDDOW | b. Telephone number: 202-414-3001 | c. E-mail: TFBEDDOW@MMM.COM

5. Senate ID #: 25465-12

7. Client Name ☒ Self
3M COMPANY

6. House ID #: 31984000

TYPE OF REPORT 8. Year 2006 Midyear (January 1-June30) ☒ OR Year End (July 1-December 31) ☐

9. Check if this filing amends a previously filed version of this report ☐

10. Check if this is a Termination Report ☐ ⇨ Termination Date _____ 11. No Lobbying Activity ☐

INCOME OR EXPENSES - Complete Either Line 12 OR Line 13

12. Lobbying Firms

INCOME relating to lobbying activities for this reporting period was:

Less than $10,000 ☐

$10,000 or more ☐ ⇨ $ _____

Provide a good faith estimate, rounded to the nearest $20,000, of all lobbying related income from the client (including all payments to the registrant by any other entity for lobbying activities on behalf of the client).

13. Organizations

EXPENSES relating to lobbying activities for this reporting period were:

Less than $10,000 ☐

$10,000 or more ☒ ⇨ $ 985,300

14. REPORTING METHOD. Check box to indicate expense accounting method. See instructions for description of options.

☒ **Method A.** Reporting amounts using LDA definitions only
☐ **Method B.** Reporting amounts under section 6033(b)(8) of the Internal Revenue Code
☐ **Method C.** Reporting amounts under section 162(e) of the Internal Revenue Code

Senate Password _____ Forgot your Password?

Signature THOMAS F BEDDOW Date 8/14/2006

Printed Name and Title THOMAS F. BEDDOW, STAFF V.P. CORPORATE PUBLIC AFFAIRS

LD-2DS (Rev. 4.07)

00000231146

Registrant Name 3M COMPANY Client Name 3M COMPANY

LOBBYING ACTIVITY. Select as many codes as necessary to reflect the general issue areas in which the registrant engaged in lobbying on behalf of the client during the reporting period. **Using a separate page for each code,** provide information as requested. Attach additional page(s) as needed.

15. General issue area code TRD - Trade (Domestic & Foreign) (one per page)

16. Specific lobbying issues

FREE TRADE AGREEMENTS AND COMPLIANCE
SANCTIONS REFORM
AFRICA GROWTH & OPPORTUNITY ACT
DUTY SUSPENSIONS

17. House(s) of Congress and Federal agencies contacted ☐ None ☒ House ☒ Senate ☒ Other

USTR
DEPARTMENT OF COMMERCE

18. Name of each individual who acted as a lobbyist in this issue area

Name		Covered Official Position (if applicable)	New
MILDRED	HAYNES		☐
THOMAS	BEDDOW		☐
			☐
			☐
			☐
			☐
			☐
			☐
			☐

19. Interest of each foreign entity in the specific issues listed on line 16 above ☒ Check if None

Printed Name and Title THOMAS F. BEDDOW, STAFF V.P. CORPORATE PUBLIC AFFAIRS

LD-2DS (Rev. 4.07)

Table 1. Targeted Political Activity: Lobbying Expenditures and Campaign Contributions
In millions of US Dollars

Election cycle	1999-2000	2001-02	2003-04	2005-06
Overall lobbying exp	2972	3348	4081	4747
Of which exp for trade and other issues related to tariff suspension bills	233	251	313	340
Contributions from PACs	326	348	461	509
Total targeted political activity	3298	3696	4542	5256

Source. Center for Responsive Politics

Figure 3. Scatter Plots between Lobbying Expenditures and Campaign Contributions from Political Action Committees (PACs) at the Firm Level

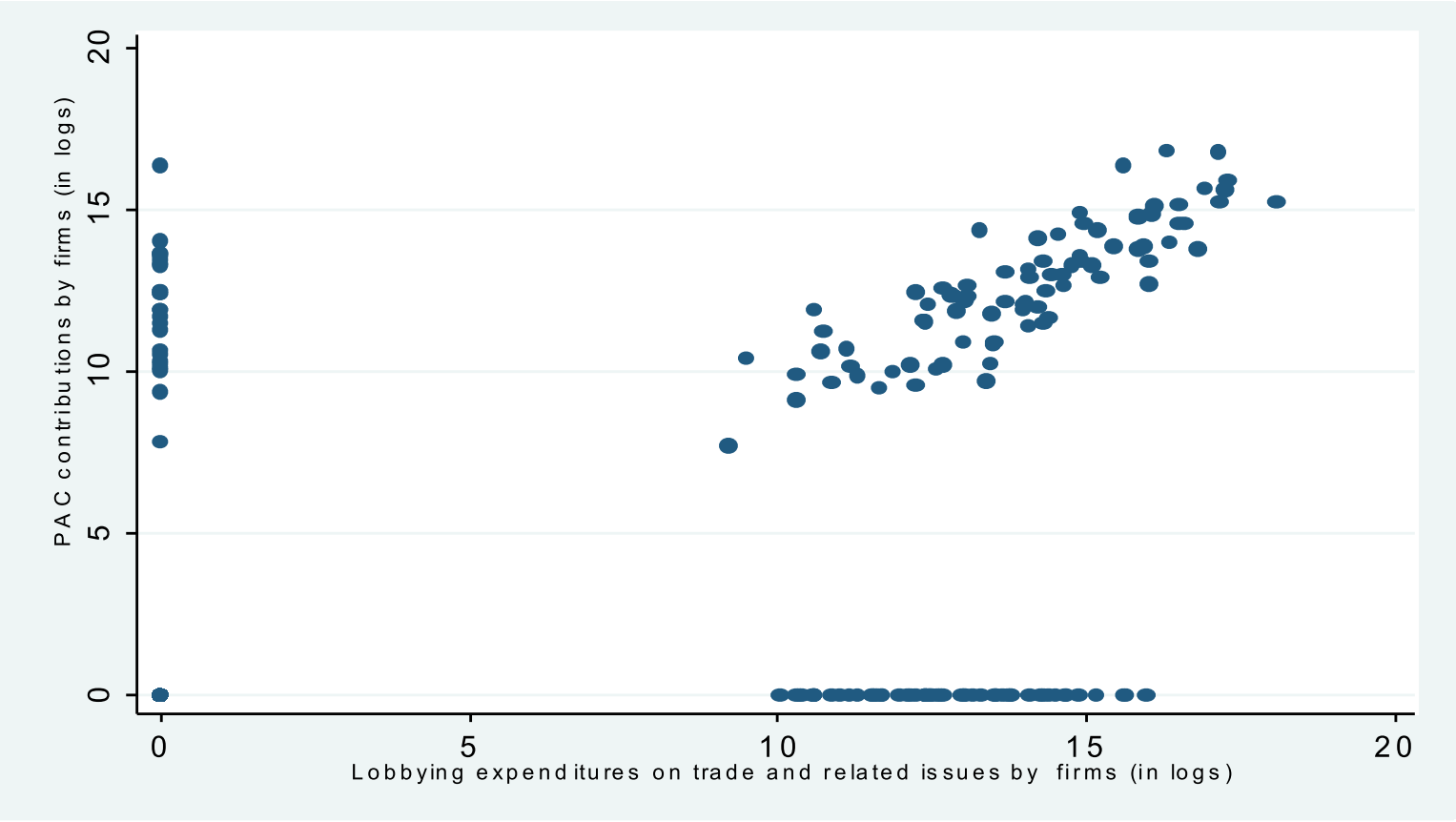


Table 1. Summary Statistics

Variable	Observations	Mean	Std. Dev.	Min	Max
Dummy=1 if the suspension is granted	1,408	0.79	0.41	0	1
Dummy=1 if the bill has an opponent	1,408	0.17	0.37	0	1
Number of opponents	1,408	0.30	0.81	0	6
Dummy=1 if the bill has an organized opponent	1,408	0.06	0.24	0	1
Number of organized opponents	1,408	0.07	0.30	0	3
Dummy=1 if the bill has an organized proponent	1,408	0.68	0.47	0	1
Pre-exemption tariff rate	1,408	0.07	0.05	0	1.32
Number of potential opponents	1,408	11.20	9.06	0	69
Number of bills sponsored by the Congressman	1408	22.06	17.61	1	62
Estimated tariff revenue loss (in US dollars)	1,408	377,679	1,156,643	0	20,306,000
Dummy=1 if the bill is an extension	1,408	0.23	0.42	0	1
Dummy=1 if the bill is presented both in House and Senate	1,408	0.14	0.35	0	1
Lobbying expenditures by opponent on trade/related issues	1,408	28,450	207,034	0	3,808,159
Effective lobbying expenditures by opponent	1,408	0.30	1.47	0	18.55
Lobbying expenditures by proponent on trade/related issues	1,408	329,345	506,438	0	6,075,000
Effective lobbying expenditures by proponent	1,408	2.88	2.24	0	7.41

Table 2a: Success Rates of Suspension Bills

	Number of Bills	Success Rate
Opponents		
Total number of bills	1408	79%
Bills with Opponents	236	23%
Organized	83	11%
Unorganized	153	29%
Organized (including PAC)	104	16%
Unorganized (including PAC)	132	27%
Bills without Opponents	1172	90%
Proponents		
Total number of bills	1408	79%
Organized	951	80%
Unorganized	457	75%
Organized (including PAC)	1057	81%
Unorganized (including PAC)	351	72%

Notes. Success rate of a bill in each cell is measured by the number of bills passed as a proportion of the total number of bills in that cell. Organized refers to bills with a proponent or opponent firm that makes positive lobbying expenditures on trade or related issues. Organized (including PAC) refers to bills with a proponent or opponent firm that makes positive lobbying expenditures on trade or related issues or makes PAC contributions.

Table 2b-- Suspensions and Lobbying -- Simple Correlations

Dependent variable: Dummy=1 if the suspension is granted

	[1]	[2]	[3]
Dummy=1 if the bill has an opponent	-0.674***		
	[0.029]		
Dummy=1 if the bill has an organized opponent		-0.719***	
		[0.036]	
Dummy=1 if the bill has an organized proponent			0.052**
			[0.024]
Number of observations	1408	1408	1408
R-squared	0.376	0.170	0.003

Standard errors denoted in parentheses are robust to heteroskedasticity. ***, ** and * represent statistical significance at 1, 5 and 10 percent respectively.

The Model: key assumptions

- Government's desired trade policy depends on benefit to the proponent and harm to opponents, which are private information.
- Firms can send messages and spend money (i.e., lobby).
- Sending a message may be costly.
- Lobbying requires a minimum expenditure (GH, 2001)

Payoffs

- Actors: Government, Proponent firm, N potential opponent firms.
- Proponent gain from suspension $\pi \in [\underline{\pi}, \bar{\pi}]$
- Potential opponent loss from suspension $\lambda_i \in [0, \bar{\lambda}]$
- Government gain from suspension

$$G = \gamma + \alpha\pi - \beta\sum_{i=1}^{N} \lambda_i - \varepsilon$$

- Distributions

$$\pi \sim F_\pi \qquad \lambda_i \sim F_\lambda \qquad \varepsilon \sim U[-\delta, \delta]$$

Timing

- Each firm learns its type.
- Each potential opponent sends a message, $m_i \in \{0, 1\}$.
  - If $m_i = 1$, opponent incurs cost ω .
- Each firm chooses a level of lobbying expenditure: l_P, l_i
  - Assume fixed costs: l_{Pf}, l_{Of}
- After observing messages and lobbying expenditures, the government updates beliefs, learns ε, and decides to grant or reject the suspension.
- The probability of a successful suspension, given beliefs, is

$$\Pr[suspension] = \frac{1}{2} + \frac{\gamma}{2\delta} + \frac{\alpha}{2\delta}\tilde{\pi} - \frac{\beta}{2\delta}\sum_{i=1}^{N}\tilde{\lambda}_i$$

Properties of Equilibrium

- Each opponent voices opposition if its loss exceeds a threshold.

$$m_i(\lambda_i) = \begin{cases} 1 & if\ \lambda_i \geq \lambda^O \\ 0 & if\ \lambda_i < \lambda^O \end{cases}$$

- Sufficiently large gains or losses induce firms to engage in lobbying and precisely reveal their types.

$$l_P(\pi) = \begin{cases} r_P(\pi) & if\ \pi \geq \pi^L \\ 0 & if\ \pi < \pi^L \end{cases}$$

$$l_i(\lambda_i) = \begin{cases} r_i(\lambda_i) & if\ \lambda_i \geq \lambda^L \\ 0 & if\ \lambda_i < \lambda^L \end{cases}$$

where all $r(\cdot)$ are strictly increasing and

$$r_P(\pi^L) = l_{Pf},\ r_i(\lambda^L) = l_{Of},\ \pi^L > 0,\ \lambda^L > \lambda^O$$

Properties of Equilibrium (cont.)

- The government's posterior beliefs are:

$$\tilde{\pi} = \begin{cases} \pi & if\ l_P = r_P(\pi) \\ \Pi & if\ l_P = 0 \end{cases} \quad \longleftarrow \quad \Pi \equiv \int_{\underline{\pi}}^{\pi^L} z f_\pi(z) / [F_\pi(\pi^L) - F_\pi(\underline{\pi})] dz$$

$$\tilde{\lambda}_i = \begin{cases} \lambda_i & if\ l_i = r_i(\lambda_i) \\ \Lambda & if\ m_i = 1, l_i = 0 \\ \Omega & if\ m_i = 0, l_i = 0 \end{cases} \quad \begin{array}{l} \longleftarrow \quad \Lambda \equiv \int_{\lambda^O}^{\lambda^L} z f_\lambda(z) / [F_\lambda(\lambda^L) - F_\lambda(\lambda^O)] dz \\ \longleftarrow \quad \Omega \equiv \int_{0}^{\lambda^O} z f_\lambda(z) / F_\lambda(\lambda^O) dz \end{array}$$

Main result

$$\Pr(suspension) \approx \frac{1}{2} + \frac{\gamma}{2\delta} + \frac{\alpha\Pi}{2\delta} - \frac{\beta N\Omega}{2\delta}$$

Baseline suspension probability

Verbal opposition

$$-\frac{\beta(\Lambda-\Omega)}{2\delta}\sum_{i=1}^{N} m_i$$

Opponent lobbying

$$-\frac{\beta\left(\lambda^{L}-\Lambda\right)}{2\delta}\sum_{i=1}^{N}\left[1+\ln(l_i)-\ln(l_{Of})\right]I_{[l_i>0]}$$

Proponent lobbying

$$+\frac{\alpha\left(\pi^{L}-\Pi\right)}{2\delta}\left[1+\ln(l_P)-\ln(l_{Pf})\right]I_{[l_P>0]}$$

Results illustrated

Figure 2: Proponent Lobbying and the Probability of Suspension

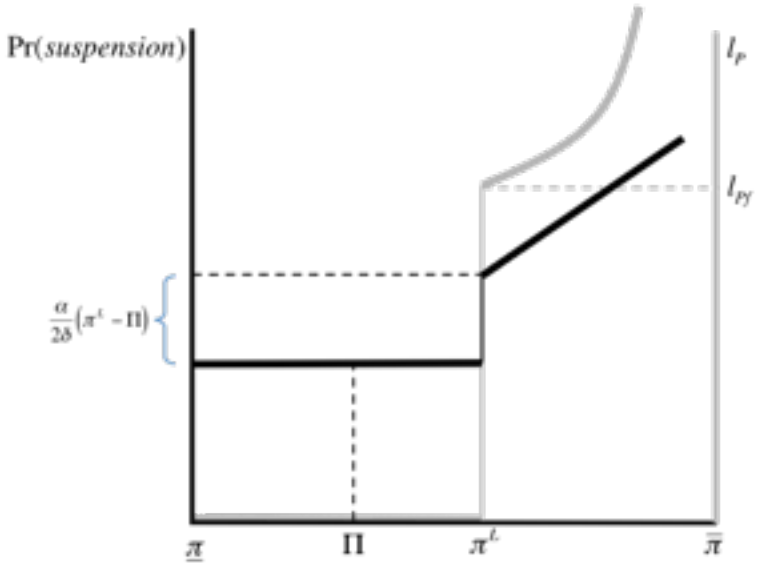
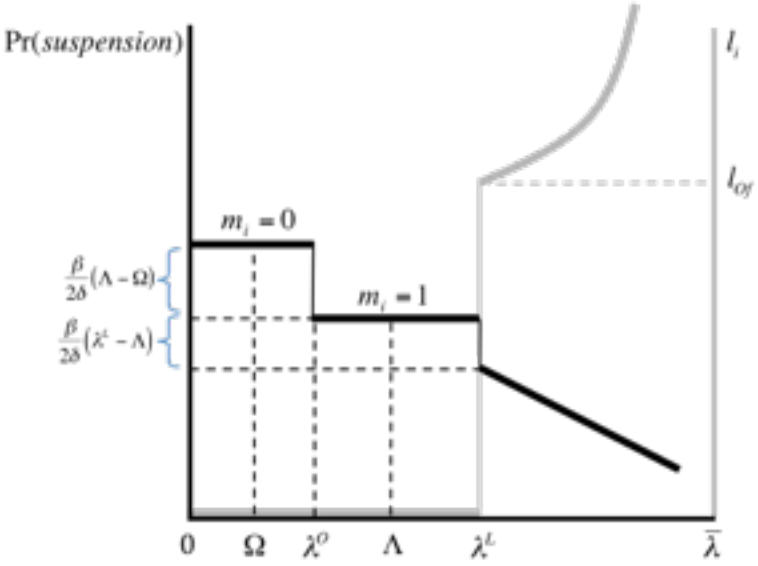


Figure 3: Opponent Lobbying and the Probability of Suspension



Summary of key predictions of the model

- Effective lobbying expenditures by the proponent firm raise the probability of securing a tariff suspension.
- Effective lobbying expenditures by opponent firms reduce the probability of securing a tariff suspension.
- Verbal opposition itself, even without opponent spending, reduces the probability of suspension.

Empirical Specifications

1. Counts: number of opponents, number of organized opponents and organized proponent dummy.

$$\Pr(suspension)_{i,t} = a + \beta_0 N_{i,t}^{opp} + \beta_1 N_{i,t}^{org,opp} + \beta_2 D_{i,t}^{org,prop} + \beta_3 Z_{i,t} + \eta_s + \nu_t + \epsilon_{i,t}$$

2. Levels: number of opponents, sum of effective lobbying expenditures of opponents and effective lobbying expenditure of proponent. Effective lobbying expenditures depend on the fixed cost of lobbying proxied by the minimum lobbying expenditures observed in the data.

$$\Pr(suspension)_{i,t} = a + \theta_0 N_{i,t}^{opp} + \theta_1 SL_{i,t}^{opp} + \theta_2 L_{i,t}^{prop} + \theta_3 Z_{i,t} + \eta_s + \nu_t + \epsilon_{i,t}$$

Regressions include Industry and Congress fixed effects, and various controls.

Table 3-- Suspensions and Lobbying -- Ordinary Least Squares

Dependent variable: Dummy=1 if the suspension is granted

	[1]	[2]	[3]	[4]
Number of opponents	-0.179***	-0.180***	-0.199***	-0.200***
	[0.031]	[0.030]	[0.030]	[0.030]
Number of organized opponents	-0.246***	-0.250***		
	[0.072]	[0.073]		
Dummy=1 if the bill has an organized proponent	0.028	0.012		
	[0.021]	[0.022]		
Effective lobbying expenditures by opponent			-0.037**	-0.037**
			[0.015]	[0.015]
Effective lobbying expenditures by proponent			0.011**	0.009*
			[0.004]	[0.004]
Number of contacted firms (in logs)	0.017	0.022	0.022	0.026
	[0.018]	[0.018]	[0.018]	[0.018]
Pre-exemption tariff rate	0.214	0.237	0.196	0.219
	[0.136]	[0.146]	[0.132]	[0.137]
Number of bills sponsored by the Congressman (in logs)	-0.007	-0.007	-0.008	-0.009
	[0.010]	[0.010]	[0.010]	[0.010]
Estimated tariff revenue loss (in logs)		-0.002		-0.003
		[0.005]		[0.005]
Dummy=1 if the bill is an extension		0.075***		0.074***
		[0.020]		[0.020]
Dummy=1 if the bill is presented both in House and Senate		0.060**		0.056*
		[0.030]		[0.030]
Dummy=1 if sponsor belongs to the House Ways and Means or Senate Finance Committees in the current or past three Congresses		0.038		0.029
		[0.025]		[0.025]
Dummy=1 if sponsor belongs to the Democratic Party		0.021		0.023
		[0.060]		[0.061]
Dummy=1 if Congress=107	0.160***	0.171***	0.163***	0.176***
	[0.039]	[0.040]	[0.039]	[0.040]
Dummy=1 if Congress=108	0.004	0.063	0.010	0.064
	[0.059]	[0.072]	[0.059]	[0.071]
Dummy=1 if Congress=109	0.119***	0.125***	0.117***	0.121***
	[0.029]	[0.034]	[0.029]	[0.034]
Number of observations	1408	1408	1408	1408
R-squared	0.31	0.32	0.30	0.31

Standard errors denoted in parentheses are robust to heteroskedasticity. ***, ** and * represent statistical significance at 1, 5 and 10 percent respectively. Effective lobbying expenditures=1+Log (lobbying expenditures)-minimum Log (lobbying expenditures). All regressions include industry and Congress fixed effects. Columns [2] and [4] also include the interactions between Congress fixed effects and party of the sponsor.

Endogeneity issues

- If the ex-ante expected probability of passage of the bill is high, potential opponent firms may not oppose or spend in lobbying
  - because they expect a small impact of opposition/organized opposition.
  - because they may not want to incur the cost of opposition, e.g. the possibility of upsetting a proponent which might itself be an opponent in some other tariff bill in which the upstream firm is a proponent.
  - In this case we would be overestimating the (negative) impact of opposition and opponent lobbying.

- Potential opponent firms may be more inclined to oppose the bill and invest in lobbying expenditures when they fear that the suspension is more likely to be granted.
  - In this case our estimates would be biased towards zero.

Instrumental variables strategy
Number of opponents

Instruments meant to capture exogenous cost of opposition (ω).

- Instrument 1: Dependency of potential opponents on proponent
  - The number of contacted firms on the bill in question that are also currently proponents on other bills.
  - Opponents are likely to be cooperative when they have something to lose in the current period.
  - The higher this number, the smaller the probability of opposition
- Instrument 2: The number of potential opponent firms that have expressed opposition in past (or current) Congresses.
  - Higher number implies more chances of opposition.
- Instrument 3: Number of potential opponents contacted in the past.
  - Higher number implies lower number of opponents
- Instruments unlikely to be correlated with unobserved probability of suspension (exclusion).

Instrument variables strategy (cont.)

Instruments based on economies of scale in lobbying.

- Organized proponent /opponent:
  - Instrument: whether the proponent lobbies for issues unrelated to the bill. The number of opponents who lobby for issues unrelated to the bill.
  - Logic: Lobbying for other issues (say, defense or banking) lowers the cost of lobbying on trade but is not likely to be directly correlated with whether a bill is passed.

- Proponent/Opponent Lobbying Expenditures

  Instrument: the number of unrelated issues lobbied for.

Table 4-- Suspensions and Lobbying --Instrumental Variables Regressions

Dependent variable: Dummy=1 if the suspension is granted

	[1]	[2]	[3]	[4]
Number of opponents	-0.178***	-0.189***	-0.168***	-0.175***
	[0.049]	[0.050]	[0.045]	[0.045]
Number of organized opponents	-0.221**	-0.207**		
	[0.096]	[0.094]		
Dummy=1 if the bill has an organized proponent	0.059**	0.048*		
	[0.028]	[0.029]		
Effective lobbying expenditures by opponent			-0.034**	-0.031*
			[0.018]	[0.017]
Effective lobbying expenditures by proponent			0.025***	0.024***
			[0.006]	[0.007]
Number of contacted firms (in logs)	0.018	0.025	0.015	0.020
	[0.020]	[0.020]	[0.020]	[0.020]
Pre-exemption tariff rate	0.218	0.230	0.224*	0.230*
	[0.138]	[0.142]	[0.136]	[0.136]
Number of bills sponsored by the Congressman (in logs)	-0.008	-0.008	-0.010	-0.010
	[0.010]	[0.010]	[0.010]	[0.010]
Estimated tariff revenue loss (in logs)		-0.003		-0.006
		[0.005]		[0.006]
Dummy=1 if the bill is an extension		0.073***		0.073***
		[0.020]		[0.020]
Dummy=1 if the bill is presented both in House and Senate		0.053*		0.049
		[0.030]		[0.030]
Dummy=1 if sponsor belongs to the House Ways and Means or Senate Finance Committees in the current or past three Congresses		0.032		0.015
		[0.025]		[0.026]
Dummy=1 if sponsor belongs to the Democratic Party		0.025		0.037
		[0.060]		[0.062]
Dummy=1 if Congress=107	0.166***	0.178***	0.182***	0.199***
	[0.040]	[0.041]	[0.041]	[0.041]
Dummy=1 if Congress=108	0.004	0.054	0.026	0.067
	[0.058]	[0.070]	[0.058]	[0.069]
Dummy=1 if Congress=109	0.122***	0.124***	0.130***	0.126***
	[0.030]	[0.034]	[0.030]	[0.034]
Number of observations	1408	1408	1408	1408
R-squared	0.227	0.238	0.212	0.223

Table 5-- Suspensions and Lobbying --First Stage Instrumental Variables Regressions

Dependent variable: →	[1a] Number of opponents	[1b] Number of organized opponents	[1c] Dummy=1 if the bill has an organized proponent	[2a] Number of opponents	[2b] Number of organized opponents	[2c] Dummy=1 if the bill has an organized proponent	[3a] Number of opponents	[3b] Effective lobbying expenditures by opponent	[3c] Effective lobbying expenditures by proponent	[4a] Number of opponents	[4b] Effective lobbying expenditures by opponent	[4c] Effective lobbying expenditures by proponent
Number of contacted firms that are also currently proponents	-0.251***	0.011	-0.005	-0.257***	0.008	-0.005	-0.263***	0.022	0.203**	-0.271***	0.011	0.167*
	[0.034]	[0.008]	[0.017]	[0.035]	[0.008]	[0.017]	[0.037]	[0.041]	[0.092]	[0.038]	[0.042]	[0.090]
Number of potential opponents that have been contacted in the past	-0.036***	-0.002	0.002	-0.034***	-0.001	0.002	-0.035***	-0.002	0.050***	-0.033***	0.002	0.057***
	[0.006]	[0.002]	[0.003]	[0.006]	[0.002]	[0.003]	[0.006]	[0.007]	[0.015]	[0.006]	[0.007]	[0.015]
Number of contacted firms that have expressed opposition in current or past Congresses	0.236***	0.007	-0.007	0.227***	0.006	-0.012	0.256***	0.055	-0.388***	0.251***	0.053	-0.400***
	[0.029]	[0.008]	[0.013]	[0.029]	[0.008]	[0.013]	[0.030]	[0.038]	[0.060]	[0.029]	[0.038]	[0.058]
Number of opponents which lobby on other issues	0.846***	0.673***	-0.031	0.829***	0.672***	-0.033						
	[0.174]	[0.110]	[0.029]	[0.173]	[0.112]	[0.029]						
Dummy=1 if the bill has a proponent which lobbies on other issues	0.018	0.028***	0.724***	-0.015	0.022**	0.721***						
	[0.033]	[0.009]	[0.020]	[0.037]	[0.009]	[0.020]						
Number of other issues for which the opponent lobbies							0.083***	0.463***	-0.130***	0.082***	0.460***	-0.131***
							[0.026]	[0.049]	[0.025]	[0.025]	[0.050]	[0.026]
Number of other issues for which the proponent lobbies							0.010**	0.008	0.254***	0.008	0.006	0.247***
							[0.005]	[0.008]	[0.015]	[0.006]	[0.008]	[0.016]
Number of contacted firms (in logs)	0.439***	0.010	0.013	0.444***	0.009	0.023	0.422***	-0.064	-0.179*	0.428***	-0.064	-0.130
	[0.055]	[0.009]	[0.015]	[0.054]	[0.009]	[0.016]	[0.056]	[0.042]	[0.092]	[0.055]	[0.044]	[0.094]
Pre-exemption tariff rate	-0.417	0.319	-1.047***	-0.295	0.328	-0.976***	-0.402	1.917*	-0.564	-0.319	1.984*	-0.020
	[0.269]	[0.202]	[0.157]	[0.285]	[0.211]	[0.161]	[0.284]	[1.131]	[0.589]	[0.307]	[1.183]	[0.708]
Number of bills sponsored by the Congressman (in logs)	-0.005	0.007	0.020**	-0.007	0.009*	0.011	-0.007	0.006	0.078*	-0.009	0.011	0.049
	[0.017]	[0.005]	[0.009]	[0.018]	[0.005]	[0.009]	[0.017]	[0.022]	[0.047]	[0.018]	[0.023]	[0.050]
Estimated tariff revenue loss (in logs)				0.009	-0.002	-0.007				0.012	0.017	0.067***
				[0.009]	[0.002]	[0.005]				[0.010]	[0.012]	[0.025]
Dummy=1 if the bill is an extension				-0.080***	-0.013	0.059***				-0.090***	-0.051	0.269***
				[0.030]	[0.008]	[0.021]				[0.032]	[0.038]	[0.100]
Dummy=1 if the bill is presented both in House and Senate				-0.013	0.024*	0.099***				-0.003	0.132*	0.196
				[0.050]	[0.014]	[0.026]				[0.050]	[0.071]	[0.125]
Dummy=1 if sponsor belongs to the House Ways and Means or Senate Finance Committees in the current or past three Congresses				0.095*	0.036**	-0.033*				0.074	0.111*	0.173
				[0.050]	[0.014]	[0.018]				[0.051]	[0.059]	[0.110]
Dummy=1 if sponsor belongs to the Democratic Party				0.007	0.037	0.001				0.020	0.092	-0.485**
				[0.080]	[0.024]	[0.049]				[0.073]	[0.125]	[0.243]
Dummy=1 if Congress=107	0.037	0.008	-0.084**	0.011	0.017	-0.085**	-0.009	-0.088	-1.621***	-0.017	-0.060	-1.889***
	[0.059]	[0.014]	[0.033]	[0.060]	[0.017]	[0.038]	[0.064]	[0.076]	[0.169]	[0.065]	[0.077]	[0.181]
Dummy=1 if Congress=108	-0.118	0.029	-0.050	0.015	0.051	0.024	-0.082	0.241**	-0.782***	0.025	0.297*	-0.905***
	[0.076]	[0.022]	[0.033]	[0.111]	[0.033]	[0.027]	[0.081]	[0.122]	[0.212]	[0.119]	[0.164]	[0.270]
Dummy=1 if Congress=109	0.011	0.011	0.010	0.081	0.028	0.040	0.039	0.067	-0.108	0.113*	0.155*	0.010
	[0.057]	[0.018]	[0.026]	[0.070]	[0.022]	[0.029]	[0.055]	[0.070]	[0.138]	[0.067]	[0.081]	[0.153]
Number of observations	1408	1408	1408	1408	1408	1408	1408	1408	1408	1408	1408	1408
R-squared	0.457	0.685	0.589	0.466	0.689	0.607	0.414	0.74	0.534	0.422	0.743	0.558

Standard errors denoted in parentheses are robust to heteroskedasticity. ***, ** and * represent statistical significance at 1, 5 and 10 percent respectively. All regressions include industry and Congress fixed effects. Columns [2a]-[2c] and [4a]-[4c] also include interactions between the Congress fixed effects and party of the sponsor.

Robustness

- Results are robust to broader measures of organization:
  - Lobbying includes both lobbying and PAC spending at the firm-level.
  - Firm is organized if it lobbies in past or future Congress

- Dataset merged with firm-level information from Compustat, and introduce additional firm-level controls like employment.
  - Effect of verbal opposition is unchanged after controlling for firm-level employment.

Table 6 -- Suspensions and Lobbying --Broad Measure of Organization I (including campaign contributions by Political Action Committees)

Dependent variable: Dummy=1 if the suspension is granted

	OLS				IV			
	[1]	[2]	[3]	[4]	[5]	[6]	[7]	[8]
Number of opponents	-0.171***	-0.171***	-0.189***	-0.188***	-0.149**	-0.161***	-0.153***	-0.157***
	[0.034]	[0.033]	[0.033]	[0.033]	[0.059]	[0.059]	[0.050]	[0.050]
Number of organized opponents (makes lobbying expenditures or PAC contributions)	-0.189***	-0.196***			-0.236**	-0.221**		
	[0.056]	[0.058]			[0.101]	[0.099]		
Dummy=1 if the bill has an organized proponent (makes lobbying expenditures or PAC contributions)	0.026	0.002			0.075**	0.061*		
	[0.023]	[0.025]			[0.035]	[0.038]		
Effective lobbying expenditures and PAC contributions by opponent			-0.027**	-0.028**			-0.028**	-0.027*
			[0.011]	[0.011]			[0.015]	[0.015]
Effective lobbying expenditures and PAC contributions by proponent			0.009**	0.006			0.025***	0.025***
			[0.004]	[0.004]			[0.006]	[0.007]
Number of contacted firms (in logs)	0.020	0.025	0.022	0.026	0.016	0.022	0.014	0.018
	[0.018]	[0.018]	[0.018]	[0.019]	[0.020]	[0.021]	[0.021]	[0.021]
Pre-exemption tariff rate	0.259*	0.280*	0.248*	0.271*	0.321**	0.321**	0.310**	0.313**
	[0.141]	[0.154]	[0.136]	[0.146]	[0.157]	[0.161]	[0.142]	[0.143]
Number of bills sponsored by the Congressman (in logs)	-0.005	-0.005	-0.008	-0.009	-0.006	-0.006	-0.010	-0.010
	[0.010]	[0.010]	[0.010]	[0.010]	[0.010]	[0.010]	[0.010]	[0.010]
Estimated tariff revenue loss (in logs)		-0.003		-0.004		-0.004		-0.007
		[0.006]		[0.006]		[0.005]		[0.006]
Additional controls	No	Yes	No	Yes	No	Yes	No	Yes
Number of observations	1408	1408	1405	1405	1408	1408	1405	1405
R-squared	0.30	0.31	0.30	0.31	0.22	0.23	0.21	0.22
First-stage F (opponent)					25.31	25.69	19.68	19.81
First-stage F (organized opponent)					16.93	15.82		
First-stage F (organized proponent)					152.47	152.41		
First-stage F (opponent lobbying expenditures)							26.65	25.48
First-stage F (proponent lobbying expenditures)							66.33	67.08
Hansen's J statistic (p value)					0.91	0.89	0.85	0.73

Standard errors denoted in parentheses are robust to heteroskedasticity. ***, ** and * represent statistical significance at 1, 5 and 10 percent respectively. Effective lobbying expenditures=1+Log (lobbying expenditures)-minimum Log (lobbying expenditures). The number of opponents; number of organized opponents; dummy for organized proponent; and the effective lobbying expendituresof opponents and proponents, are treated as endogenous. All regressions include industry and Congress fixed effects. Columns [2], [4], [6] and [8] also include interactions between the Congress fixed effects and party of the sponsor. The additional controls are the same as Table 4. All instruments are identical to Table 4.

Table 7-- Suspensions and Lobbying --Broad Measure of Organization II (inlcuding lobbying in past and future Congresses)

Dependent variable: Dummy=1 if the suspension is granted

	OLS				IV			
	[1]	[2]	[3]	[4]	[5]	[6]	[7]	[8]
Number of opponents	-0.176***	-0.176***	-0.201***	-0.201***	-0.184***	-0.198***	-0.161***	-0.167***
	[0.030]	[0.030]	[0.031]	[0.030]	[0.051]	[0.051]	[0.046]	[0.046]
Number of organized opponent in current, past or future Congresses	-0.238***	-0.246***			-0.218**	-0.206**		
	[0.071]	[0.071]			[0.094]	[0.091]		
Dummy=1 if the bill has an organized proponent in current, past or future Congresses	0.010	-0.009			0.019	-0.000		
	[0.022]	[0.023]			[0.026]	[0.028]		
Effective lobbying expenditures by opponent in current, past and future Congresses			-0.035**	-0.037**			-0.042**	-0.041**
			[0.017]	[0.016]			[0.020]	[0.020]
Effective lobbying expenditures by proponent in current, past and future Congresses			0.011**	0.008*			0.030***	0.030***
			[0.005]	[0.005]			[0.007]	[0.008]
Number of contacted firms (in logs)	0.018	0.022	0.023	0.027	0.020	0.028	0.013	0.018
	[0.018]	[0.018]	[0.018]	[0.018]	[0.020]	[0.020]	[0.020]	[0.020]
Pre-exemption tariff rate	0.229*	0.251*	0.206	0.228*	0.222	0.230	0.284**	0.291**
	[0.137]	[0.149]	[0.132]	[0.137]	[0.141]	[0.149]	[0.139]	[0.140]
Number of bills sponsored by the Congressman (in logs)	-0.004	-0.005	-0.008	-0.009	-0.005	-0.005	-0.012	-0.012
	[0.010]	[0.010]	[0.010]	[0.010]	[0.010]	[0.010]	[0.010]	[0.010]
Estimated tariff revenue loss (in logs)		-0.002		-0.003		-0.002		-0.007
		[0.005]		[0.006]		[0.005]		[0.006]
Additional controls	No	Yes	No	Yes	No	Yes	No	Yes
Number of observations	1408	1408	1408	1408	1408	1408	1408	1408
R-squared	0.31	0.32	0.30	0.31	0.23	0.24	0.20	0.22
First-stage F (opponent)					28.78	29.12	22.76	23.19
First-stage F (organized opponent)					21.71	20.65		
First-stage F (organized proponent)					803.59	729.34		
First-stage F (opponent lobbying expenditures)							50.35	49.63
First-stage F (proponent lobbying expenditures)							86.18	85.08
Hansen's J statistic (p value)					0.94	0.86	0.97	0.95

Standard errors denoted in parentheses are robust to heteroskedasticity. ***, ** and * represent statistical significance at 1, 5 and 10 percent respectively. Effective lobbying expenditures=1+Log (lobbying expenditures)-minimum Log (lobbying expenditures). The number of opponents; number of organized opponents; dummy for organized proponent; and the effective lobbying expendituresof opponents and proponents, are treated as endogenous. All regressions include industry and Congress fixed effects. aColumns [2], [4], [6] and [8] also include interactions between the Congress fixed effects and party of the sponsor. The additional controls are the same as Table 4. The instruments are the same as in Tables 4 and 6, except those for organization and effective lobbying expenditures, which are redefined to include past, current and future Congresses.

Structural Parameters

- Immediate conclusions:
  - Verbal opposition conveys more information than opponent organization.

$$\frac{\Lambda - \Omega}{\lambda^L - \Lambda} = \frac{\theta_0}{\theta_1} = 5.65$$

  - Verbal opposition is more effective than proponent organization, implying either information difference or government bias.

$$\frac{\beta\,(\Lambda - \Omega)}{\alpha(\pi^L - \Pi)} = \frac{-\theta_0}{\theta_2} = 7.3$$

  - Proponent's lobbying threshold is higher than opponent's.

$$\pi^L = \frac{l_{Pf}}{\theta_2} = \$416,700$$

$$\lambda^L = \frac{l_{Of}}{-\theta_1} = \$215,100$$

More structural parameters

Assume: uniform priors over the intervals $[\underline{\pi}, \pi^L)$, $[0, \lambda^O)$, $[\lambda^O, \lambda^L)$	
Threshold for voicing opposition:	$\lambda^O = \$177,000$
Implied cost of opposition:	$\omega = \$30,970$
'Information content' of voicing opposition:	$\Lambda - \Omega = \$107,520$
Assume: $\underline{\pi} = min\left[\Omega N + TR\right] \approx \$207,000$	
'Information content' of proponent organization:	$\pi^L - \Pi = \$104,850$
Government Bias:	$\frac{\beta}{\alpha} = \frac{-\theta_0}{\theta_2}\frac{(\pi^L - \Pi)}{(\Lambda - \Omega)} = 7.1$

Open questions

- Source of the government bias?
  - Proponents are probably larger, more capital intensive and more likely to be foreign-owned.
  - Media characterizations: David vs Goliath, offshoring US jobs.
  - Welfare arguments: foreign ownership, labor intensity of opponents.
- Source of the cost of opposition?
  - Possibly due to tacit agreements between proponents and opponents.

Example: assume all contacted firms have the same probability of becoming a proponent and that a bill will certainly be opposed if its proponent voiced opposition in the past, then

$$\omega = Pr(proponent)E(\pi)\left[Pr(suspension) - Pr(suspension|opposition)\right] = \$31,130$$

Conclusions

- Model predicts both money and messages affect trade policy.
- Predictions borne out by data on tariff suspensions and firm-level lobbying expenditures.
- Messages appear to be more influential than money spent,
  - Opponent messages are more informative than opponent lobbying.
  - Opponent messages are equally informative as proponent lobbying, suggesting government bias.
- First to study the political economy of trade policy at the firm level and to provide systematic empirical evidence on the impact of firm messages on policy.