The Dracula Effect: Voter Information and Trade Policy

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Munich, 30 April 2019



MAGAZINE

Lobbyists rake in cash but can't kill Trump tariffs

The uncertainty surrounding Trump's administration has provided new avenues for Beltway lobby shops to fill their coffers. But they are struggling to sway White House decisions.

By MARIANNE LEVINE and THEODORIC MEYER | 06/05/2018 05:04 AM EDT



Rather than drain the swamp, the uncertainty surrounding the Trump administration has provided new avenues for Beltway lobby shops that dominate K Street.



Big U.S. companies are turning to K Street to help them win relief from President Donald Trump's waves of tariffs — but all that cash isn't buying them much so far.

The Puzzling Popularity of Protectionism

- Trade barriers: inefficient transfer to special interests
 - Natural explanation: lobbying (Grossman and Helpman 1994)
- But why is protectionism so damn popular with voters?
 - Not just Trump: Democrats' campaign rhetoric too
 - Direct evidence from opinion polls (Mayda and Rodrik 2005)
- One reason: capture by *especially interested* voters
 - Who pays attention to trade policy for a sector?
 - Producers systematically more than consumers

A Ray of Hope

Bhagwati (1988)

I am somewhat optimistic that the mere act of recognizing [protectionism] will help trigger a corrective response. In these matters, we can count on assistance from what I call the Dracula Effect: exposing evil to sunlight helps to destroy it.

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Theoretical Contribution

- Office-seeking politicians propose trade policy to voters
- Endogenous heterogeneity in voter information
 - Producers seek to learn proposals to forecast prices
 - Onsumers have no such incentives to acquire information
- \Rightarrow Pareto-inefficient mercantilist bias
 - Everyone votes as a producer, not as a consumer
 - Protection for all sectors is inefficient but vote-winning
- \Rightarrow Distortive barriers decline with public information
 - Consumers catch up with producers

Empirical Contribution

- Theory predicts a Dracula Effect across industries
- Test for cross-section of US non-tariff barriers in 1999
 - Hard enough to measure cross-section, no panel exists
- Exogenous variation in media coverage of different sectors
 - Newsworthy events in the industry: accidents
 - Time-varying media pressure (Eisensee and Strömberg 2007)
- \Rightarrow Sectors whose accidents happen in "slow news" days in 1998 then have lower non-tariff barriers in 1999

Related Literature

- Voters as determinants of trade policy
 - Theory (Mayer 1984; Yang 1995; Grossman and Helpman 2005, 2018)
 - Empirics (Dutt and Mitra 2002; Fredriksson, Mathscke and Minier 2011; Conconi, Facchini and Zanardi 2014; Feigenbaum and Hall 2015; Ma and McLaren 2018)
 - Secondary policy issues more broadly (List and Sturm 2006)
- Impact of voter information and media coverage
 - On public goods provision (Strömberg 2004; Majumdar, Mani and Mukand 2004; Eisensee and Strömberg 2007; Gavazza and Lizzeri 2009; Snyder and Strömberg 2010; Glaeser and Ponzetto 2014; Boffa, Piolatto and Ponzetto 2016)
 - On voting behavior (Glaeser, Ponzetto and Shapiro 2005; DellaVigna and Kaplan 2007; Enikolopov et al. 2011; Gentzkow et al. 2011; Chiang and Knight 2011; Adena et al. 2015)

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Consumption Preferences

- Homogeneous preferences
- Quasilinear utility function

$$u\left(\mathbf{c}
ight)=c_{0}+\sum_{g=1}^{G}u_{g}\left(c_{g}
ight)$$

 \Rightarrow Additively separable indirect utility function

$$v\left(y,\mathbf{p}
ight)=y+\sum_{g=1}^{G}s_{g}\left(p_{g}
ight)$$

• Consumer surplus $s_g (p_g)$, consumption $c_g = -s'_g (p_g)$

Production Technology

- Constant returns to scale, perfect competition
- Numeraire produced with labor alone
 - Nominal wage fixed to unity
- Other goods produced with labor + sector-specific factors
 - Aggregate reward of each specific factor: $\Pi_g (p_g)$
- Heterogeneous endowments
 - (1) Amount ℓ^i of labor
 - 2 Share κ_g^i of sector-specific factor
- Specific human capital: undiversified, undiversifiable
 - Share $lpha_g$ of the population have $\kappa^i_g > 0 \Rightarrow \kappa^i_h = 0 orall h
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International Trade

- Small open economy
 - Exogenous international prices p^{*}_g
 - Endogenous domestic prices pg
- Single policy instrument: trade taxes/subsidies

$$t_g = rac{p_g - p_g^*}{p_g^*}$$

• Uniform lump-sum rebate

$$r = \frac{1}{N} \sum_{g=1}^{G} \left(p_g - p_g^* \right) m_g$$

given net imports m_g

Timing and Information

- Parties L and R observe international prices p*
 - Realizations p^{*}_g independent across sectors
- **②** Parties choose binding policy proposals \mathbf{p}^L and \mathbf{p}^R
 - Simultaneous, non-cooperative, *imperfectly observed* choices
- So Each voter exogenously learns (p_g^*, p_g^L, p_g^R) with probability θ_g
 - With probability $1 \theta_g$ he retains prior beliefs about the sector
 - Arrival of information independent across sectors and voters
- Oters can invest in acquiring information they haven't received
 - Effort cost ε per extra sector whose $\left(p_g^*, p_g^L, p_g^R\right)$ a voter learns
- Specific-factor owners hire labor
- The election is held and all voters costlessly cast their ballots
- The winning party $W \in \{L, R\}$ implements \mathbf{p}^W
 - \blacktriangleright All consumers observe \mathbf{p}^W and choose their consumption basket

Market Outcomes

- Producers' interim price expectations $\bar{p}_{g}^{i} = \mathbb{E}_{i}\left(p_{g}^{W}\right)$ predetermine
 - Individual labor intensity $\Lambda_g \left(\bar{p}_g^i \right) = \bar{p}_g^i \Pi_g' \left(\bar{p}_g^i \right) \Pi_g \left(\bar{p}_g^i \right)$
 - Individual productivity $\Pi'_{g} \left(\bar{p}^{i}_{g} \right)$
 - Aggregate output $q_g = \int \kappa^i_g \Pi'_g \left(ar{p}^i_g
 ight) di$
- Ex post market clearing determines
 - $\blacktriangleright \text{ Individual profit rate } \pi_g\left(p_g^W, \bar{p}_g^i\right) = p_g^W \Pi_g'\left(\bar{p}_g^i\right) \Lambda_g\left(\bar{p}_g^i\right)$
 - Net aggregate imports $m_g\left(p_g^W, q_g
 ight) = \mathit{Nc}_g\left(p_g^W
 ight) q_g$

 \Rightarrow Policy preferences are summarized by the value function

$$V^{i}\left(\mathbf{p}\right) = \ell^{i} + \sum_{g=1}^{G} \left[\kappa_{g}^{i} \pi_{g}\left(p_{g}, \bar{p}_{g}^{i}\right) + \frac{1}{N}\left(p_{g} - p_{g}^{*}\right) m_{g}\left(p_{g}, q_{g}\right) + s_{g}\left(p_{g}\right) \right]$$

Electoral Competition

- Two purely office-seeking parties L and R
- A measure-N continuum of voters
- Probabilistic voting preferences
 - Intensive margin of political support
- Voter *i* votes for party *R* if and only if

$$\mathbb{E}_{i}\left[V^{i}\left(\mathbf{p}^{R}\right)-V^{i}\left(\mathbf{p}^{L}\right)\right]\geq\Psi+\psi^{i}$$

Policy-dependent real income Vⁱ (p)
 Preference for fixed party/candidate characteristics

- \star Aggregate preference shifter Ψ
- \star Idiosyncratic preference shifter $\psi^i \sim U\left[-ar{\psi},ar{\psi}
 ight]$

Equilibrium: Information Acquisition

- Interior symmetric equilibrium
 - ▶ Rational expectations $p_g^L = p_g^R = p_g$ for all unobserved sectors
- Small but positive cost of information acquisition $\varepsilon \in (0, \overline{\epsilon}]$
- Agents invest in learning about goods they produce
 - Information is a productive investment for producers
 - Profits strictly increasing in accuracy of price forecast
- Agents don't invest in learning about goods they consume
 - Information is mere consumption for the public (Graber 1984)
 - Rational voter paradox: no value of informed voting

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Equilibrium: Policy Formation

Social welfare

$$W = L + \sum_{g=1}^{G} \left[\pi_g \left(p_g, \bar{p}_g \right) + \left(p_g - p_g^* \right) m_g \left(p_g, q_g \right) + N s_g \left(p_g \right) \right]$$

Producer welfare

$$W_{g} = L_{g} + \pi_{g} \left(p_{g}, \bar{p}_{g} \right) + \alpha_{g} \sum_{h=1}^{G} \left[\left(p_{h} - p_{h}^{*} \right) m_{h} \left(p_{h}, q_{h} \right) + N s_{h} \left(p_{h} \right) \right]$$

• Political optimality condition for policy proposal p_{g}

$$(1-\theta_g)\frac{\partial W_g}{\partial p_g} + \theta_g\frac{\partial W}{\partial p_g} = 0$$

- Knowledge = power
- Pareto inefficiency

Distortive Redistribution

Deadweight loss from distorting competitive prices

$$rac{\partial W}{\partial p_g} = \left(p_g - p_g^*
ight) rac{\partial m_g}{\partial p_g}$$

- Free trade is welfare maximizing for a small open economy
- Redistribution to specific-factor owners

$$\frac{\partial W_g}{\partial p_g} = \left(1 - \alpha_g\right) q_g + \alpha_g \left(p_g - p_g^*\right) \frac{\partial m_g}{\partial p_g}$$

- All the benefits from price support
- Share α_g of the associated consumption and tax costs

The Structure of Protection and the Dracula Effect

• Equilibrium trade taxes and subsidies for sector g

$$t_{g} = \frac{\left(1 - \alpha_{g}\right)\left(1 - \theta_{g}\right)}{\alpha_{g} + \left(1 - \alpha_{g}\right)\theta_{g}} \frac{1}{e_{g}z_{g}}$$

▶ Net import demand elasticity $e_g \equiv -(\partial m_g / \partial p_g) / (m_g / p_g)$

- Import penetration $z_g \equiv p_g^* m_g / p_g q_g$
- Universal mercantilist bias: $t_g > 0$
- 2 Dracula effect: $\partial t_g / \partial \theta_g < 0$
 - Historical evidence from women's suffrage (Hall, Kao and Nelson 1998)
- Standard, empirically supported additional determinants
 - Size breeds moderation: $\partial p_g / \partial \alpha_g < 0$
 - ▶ Ramsey-rule structure: $\partial p_g / \partial e_g < 0$, $\partial p_g / \partial z_g < 0$

Identification Strategy

- Exogenous variation in public information (Eisensee and Strömberg 2007)
- Something newsworthy happens in an industry
 - Deadly industrial accidents from OSHA reports
 - Not purposely timed (Durante and Zhuravskaya 2018)
- It gets reported only if nothing more newsworthy happens
 - Daily measure of overall news pressure
 - Median length of top three segments in nightly news broadcasts
 - Identification assumption: unobserved determinants of trade policy
 - may be correlated with the frequency of industrial accidents
 but not with the synchronicity of accidents and big news items

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Trade Barriers and Newsworthy Events



Trade Barriers and Newsworthy Events by News Pressure



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Empirical Specification

• Log-linearization around the cross-sector mean

$$t_g = \exp\left(\beta_0 + \beta_1 \ln \theta_g + \beta_2 \ln \alpha_g + \beta_3 \ln z_g + \beta_4 \ln e_g\right) + \varepsilon_g$$

- Proxy for specific-factor ownership α_g with industry employment n_g
- Proxy for voter information $heta_g$ with accidents i_{gt} imes news pressure m_t

$$\begin{aligned} t_g &= \\ \exp\left(\gamma_0 + \gamma_1 \sum_t i_{gt} + \gamma_2 \sum_t i_{gt} m_t + \gamma_3 \ln n_g + \gamma_4 \ln z_g + \gamma_5 \ln e_g\right) \\ &+ \varepsilon_g \end{aligned}$$

- Key testable prediction: $\gamma_2 > 0$
 - \blacktriangleright Less distinctive, less identified: $\gamma_3 <$ 0, $\gamma_4 <$ 0, $\gamma_5 <$ 0
- Poisson pseudo-ML estimator (Santos Silva and Tenreyro 2006)
 - Robust to log-linear OLS with ad-hoc fix to $t_g = 0$

Standard Data

- State-of-the-art protection data (Kee, Nicita, and Olarreaga 2008, 2009)
- Ad-valorem equivalent of non-tariff barriers t_g
 - Pure cross-section of US industries in 1999
- Stimates of import demand elasticity eg
 - US-specific when possible, or else average of all rich countries
 - Import penetration z_g and employment n_g from US Census
 - 389 manufacturing industries in 85 industry groups

Data on Industrial Accidents and News Pressure

OSHA Fatality and Catastrophe Investigation Summaries

- Searchable reports of all fatal industrial accidents
- Report the date and industry of each accident
- ⇒ Database of fatal accidents in manufacturing in 1998
- Daily news pressure (Eisensee and Strömberg 2007)
 - ABC, CBS, NBC and CNN nightly news programming
 - Median time spent on the top three news segments
- Validation: search for articles in US newspapers on Factiva
 - Our searches find very few articles: surely a subset of news
 - We validate patterns but we lack power for a proper first stage

Timing of Media Coverage



Accidents and Newspaper Articles



Summary Statistics

	Obs	Mean	Std. Dev.	Min	Max
A. By 4-digit NAICS industry group					
Non-tariff barriers (Kee, Nicita and Olarreaga 2009), simple average	85	0.113	0.202	0.000	1.288
Log (Employment)	85	4.904	0.885	2.715	6.757
Log (Import penetration)	85	-1.906	1.175	-5.244	1.326
Log (Import demand elasticity)	85	0.499	0.558	-0.528	2.316
Number of fatal accidents in the industry	85	3.506	4.286	0.000	23.00
Fatal accidents in the industry × News pressure on the next day	85	27.53	35.55	0.000	199.4
B. By 6-digit NAICS industry					
Non-tariff barriers (Kee, Nicita and Olarreaga 2009), simple average	389	0.105	0.245	0.000	2.077
Log (Employment)	389	3.047	1.037	-0.105	6.312
Log (Import penetration)	389	-1.899	1.656	-9.755	3.152
Log (Import demand elasticity)	389	0.394	0.801	-3.422	3.801
Number of fatal accidents in the industry	389	0.645	1.772	0.000	23.00
Fatal accidents in the industry × News pressure on the next day	389	5.047	14.53	0.000	199.4

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The Dracula Effect

Non-tariff barriers, industrial accidents and daily news pressure. Poisson specification.

VARIABLES	Non-tariff	barriers, 199	9 (Kee, Nici	ta and Olarr	eaga 2009)
Number of fatal accidents in the industry 1998	0.049	-0 532***	-0 785***	0.371	0 320
ramber of fatal decidents in the industry, 1990	10 2601	10 2061	10 2861	10 3511	10 3191
Fatal accidents in the industry x News pressure on the same day 1998	-0.008	[0.200]	[0.200]	[0.551]	[0.517]
r atal accidents in the industry × News pressure on the same day, 1996	[0.034]				
Fatal accidents in the industry x News pressure on the peyt day 1998	[0.054]	0.061***			
Tatal accidents in the industry × News pressure on the next day, 1996		10 0231			
Fatal accidents in the industry x News pressure 2 days later 1998		[0.025]	0.092***		
r and accidents in the industry write to pressure 2 days hadi, 1990			[0 033]		
Fatal accidents in the industry x News pressure 3 days later 1998			[0.055]	-0.050	
r atal accidents in the industry × riews pressure 5 days fater, 1996				10 0461	
Fatal accidents in the industry × News pressure 4 days later 1998				[0.040]	-0.043
r atal accidents in the industry × ricews pressure + days fater, 1996					10 0461
Log (Employment)	-0.051	-0.070	-0.075	-0.068	-0.119
Log (Linployment)	[0 205]	[0 199]	10 1971	10 2111	[0 212]
Log (Import penetration)	-0.400*	-0.420*	-0.366*	-0.390*	-0.439*
Eog (Import periculation)	[0.230]	10.2311	10 1951	10 2111	10 2501
Log (Import demand elasticity)	0.582	0.680	0.722*	0.537	0.680
Log (Import demand clasticity)	[0.437]	10 4551	10 4261	[0.358]	10 4571
	[0.157]	[0.155]	[0.120]	[0.550]	[0.157]
Observations	85	85	85	85	85
Effect of accidents at 25th percentile of news pressure	-0.003	-0.157**	-0.215**	0.062	0.053
Effect of accidents at median news pressure	-0.012	-0.087	-0.107*	0.004	0.006
Effect of accidents at 75th percentile of news pressure	-0.026	0.014	0.047	-0.080	-0.065
Robust standard errors in bracket. *** p<0.01, ** p<0.05, * p<0.1		< □		■ ► 	

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Robustness Checks

Estimation details

- By 6-digit industries instead of 4-digit industry groups Table
- OLS regression for $\ln (0.01 + t_g)$ Table
- Elasticity on the LHS: $\ln(0.01 + t_g) \ln e_g$ PPML OLS
- 2 Placebo estimates for future accidents 2000 2001
- Iternative measures of trade barriers
 - Import-weighted, restrictiveness indices Table
 - Not for (WTO bound) tariffs alone Table

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Conclusions

- Electioneering trade barriers from endogenous voter information
 - Everyone learns and votes as a producer, not a consumer
- Greater public information leads to lower trade barriers
 - In theory and empirically across US manufacturing industries
- New take on inefficient redistribution
 - Only price distortion gets noticed by producers
 - While it remains opaque to consumers (Magee, Brock and Young 1989)
- New take on lobbying strategy
 - Manage members' information: blackmail, not bribery
 - A complement, not a substitute to lobbying theories
- One of the second se

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Appendix

Detailed Industries

VARIABLES	Non-tariff	barriers, 199	9 (Kee, Nic	ita and Olarr	eaga 2009)
Number of fatal accidents in the industry, 1998	0.433	-0.625*	-0.471	0.384	-0.044
	[0.487]	[0.353]	[0.298]	[0.495]	[0.382]
Fatal accidents in the industry × News pressure on the same day, 1998	-0.060				
	[0.062]				
Fatal accidents in the industry × News pressure on the next day, 1998		0.071*			
		[0.042]			
Fatal accidents in the industry × News pressure 2 days later, 1998			0.053		
			[0.036]		
Fatal accidents in the industry × News pressure 3 days later, 1998				-0.055	
				[0.065]	
Fatal accidents in the industry × News pressure 4 days later, 1998					0.000
					[0.046]
Log (Employment)	-0.066	-0.062	-0.061	-0.074	-0.068
	[0.141]	[0.139]	[0.139]	[0.139]	[0.139]
Log (Import penetration)	-0.126*	-0.121*	-0.120*	-0.124*	-0.122*
	[0.071]	[0.072]	[0.070]	[0.071]	[0.071]
Log (Import demand elasticity)	-0.285*	-0.280*	-0.289*	-0.278*	-0.285*
	[0.160]	[0.154]	[0.156]	[0.158]	[0.158]
Observations	389	389	389	389	389
Effect of accidents at 25th percentile of news pressure	0.063	-0.186*	-0.145*	0.044	-0.043
Effect of accidents at median news pressure	-0.007	-0.103	-0.083	-0.021	-0.043
Effect of accidents at 75th percentile of news pressure	-0.107	0.015	0.005	-0.113	-0.042

Non-tariff barriers, industrial accidents and daily news pressure. 6-digit industries, Poisson.

Robust standard errors in brackets. Standard errors are clustered by 4-digit industry groups. *** p<0.01, ** p<0.05, * p<0.1



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Appendix

OLS Regression

Non-tariff barriers, industrial accidents and daily news pressure. OLS specification.

VARIABLES	Log (0.01	I+NTB), 199	9 (Kee, Nicit	a and Olarre	eaga 2009)
Number of fatal accidents in the industry, 1998	-0.312	-0.651***	-0.672***	-0.021	-0.087
	[0.263]	[0.201]	[0.203]	[0.283]	[0.252]
Fatal accidents in the industry × News pressure on the same day, 1998	0.038				
	[0.032]				
Fatal accidents in the industry × News pressure on the next day, 1998		0.078***			
		[0.025]			
Fatal accidents in the industry × News pressure 2 days later, 1998			0.082***		
			[0.025]		
Fatal accidents in the industry × News pressure 3 days later, 1998				0.001	
				[0.035]	
Fatal accidents in the industry × News pressure 4 days later, 1998					0.010
					[0.032]
Log (Employment)	-0.044	-0.025	0.012	-0.037	-0.025
	[0.210]	[0.202]	[0.205]	[0.210]	[0.210]
Log (Import penetration)	-0.005	-0.014	0.010	-0.010	-0.003
	[0.181]	[0.178]	[0.171]	[0.177]	[0.184]
Log (Import demand elasticity)	-0.212	-0.235	-0.187	-0.188	-0.168
	[0.343]	[0.336]	[0.330]	[0.342]	[0.355]
Observations	85	85	85	85	85
Effect of accidents at 25th percentile of news pressure	-0.080	-0.169***	-0.167***	-0.012	-0.027
Effect of accidents at median news pressure	-0.036	-0.078*	-0.071*	-0.011	-0.016
Effect of accidents at 75th percentile of news pressure	0.026	0.052	0.065	-0.008	-0.000
R-squared	0.016	0.079	0.079	0.006	0.007
Robust standard errors in brackets. *** p<0.01. ** p<0.05. * p<0.1					

Measurement Error in Elasticity Estimates: PPML

Non-tariff barriers, industrial accidents and daily news pressure. Poisson specification.

VARIABLES	Non-tariff barriers × Import demand elasticity				
Number of fatal accidents in the industry, 1998	-0.044	-0.503***	-0.692***	-0.002	0.151
	[0.242]	[0.193]	[0.186]	[0.240]	[0.248]
Fatal accidents in the industry × News pressure on the same day, 1998	0.007				
	[0.031]				
Fatal accidents in the industry × News pressure on the next day, 1998		0.060***			
		[0.022]			
Fatal accidents in the industry × News pressure 2 days later, 1998			0.084***		
			[0.021]		
Fatal accidents in the industry × News pressure 3 days later, 1998				0.001	
				[0.030]	
Fatal accidents in the industry × News pressure 4 days later, 1998					-0.018
					[0.036]
Log (Employment)	-0.171	-0.148	-0.145	-0.172	-0.193
	[0.193]	[0.184]	[0.170]	[0.195]	[0.189]
Log (Import penetration)	-0.277	-0.278	-0.237	-0.279*	-0.290
	[0.177]	[0.172]	[0.160]	[0.170]	[0.180]
Observations	85	85	85	85	85
Effect of accidents at 25th percentile of news pressure	-0.004	-0.133*	-0.175***	0.006	0.038
Effect of accidents at median news pressure	0.004	-0.063	-0.077	0.008	0.019
Effect of accidents at 75th percentile of news pressure	0.015	0.037	0.063	0.010	-0.012
Pobust standard arrows in breakats *** n<0.01 ** n<0.05 * n<0.1					

Robust standard errors in brackets. *** p<0.01, ** p<0.05, * p<0.1



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Measurement Error in Elasticity Estimates: OLS

Non-tariff barriers, industrial accidents and daily news pressure. OLS specification.

VARIABLES	Log (0.01+NTB) - Log (Import demand elasticity)				
Number of fatal accidents in the industry, 1998	-0.347	-0.660***	-0.648***	-0.004	0.057
	[0.266]	[0.205]	[0.206]	[0.255]	[0.256]
Fatal accidents in the industry × News pressure on the same day, 1998	0.045	. ,	. ,	. ,	. ,
	[0.033]				
Fatal accidents in the industry × News pressure on the next day, 1998	. ,	0.082***			
		[0.025]			
Fatal accidents in the industry × News pressure 2 days later, 1998			0.082***		
			[0.025]		
Fatal accidents in the industry × News pressure 3 days later, 1998				0.002	
				[0.032]	
Fatal accidents in the industry × News pressure 4 days later, 1998					-0.005
					[0.033]
Log (Employment)	-0.271	-0.245	-0.223	-0.271	-0.275
	[0.193]	[0.185]	[0.184]	[0.192]	[0.191]
Log (Import penetration)	-0.131	-0.138	-0.122	-0.142	-0.144
	[0.154]	[0.150]	[0.147]	[0.150]	[0.151]
	0.5	0.5	0.5	0.5	0.5
Observations	85	85	85	85	85
Effect of accidents at 25th percentile of news pressure	-0.071	-0.155***	-0.143**	0.010	0.023
Effect of accidents at median news pressure	-0.018	-0.059	-0.047	0.013	0.017
Effect of accidents at 75th percentile of news pressure	0.056	0.077*	0.089**	0.016	0.008
R-squared	0.046	0.107	0.100	0.033	0.034

Robust standard errors in brackets. *** p<0.01, ** p<0.05, * p<0.1



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Placebo: Accidents in 2000

Placebo estimates for 2000. Non-tariff barriers, industrial accidents and daily news pressure. Poisson.

VARIABLES	Non-tariff	barriers, 199	9 (Kee, Nici	ita and Olarr	eaga 2009)
	0.400	0.000	0.010	0.000*	0.400
Number of fatal accidents in the industry, 2000	0.488	-0.292	-0.010	0.382*	0.409
	[0.362]	[0.279]	[0.233]	[0.218]	[0.333]
Fatal accidents in the industry × News pressure on the same day, 2000	-0.064				
	[0.044]				
Fatal accidents in the industry × News pressure on the next day, 2000		0.032			
		[0.033]			
Fatal accidents in the industry × News pressure 2 days later, 2000			-0.002		
			[0.029]		
Fatal accidents in the industry × News pressure 3 days later, 2000				-0.050*	
·····				[0.027]	
Fatal accidents in the industry x. News pressure 4 days later. 2000				[]	-0.054
r aar deerdenis in die industry is riews pressure r days later, 2000					10.0411
Log (Employment)	-0.085	0.026	-0.024	-0.099	-0.018
Eog (Employment)	10 2101	10.2201	10 2081	10 2211	10 2111
• • • · · · · · ·	[0.219]	[0.220]	0.2001	[0.221]	[0.211]
Log (Import penetration)	-0.405*	-0.394*	-0.391*	-0.366*	-0.3/0*
	[0.211]	[0.219]	[0.217]	[0.203]	[0.198]
Log (Import demand elasticity)	-0.669	-0.525	-0.571	-0.666	-0.549
	[0.447]	[0.446]	[0.439]	[0.447]	[0.380]
Observations	85	85	85	85	85
Effect of accidents at 25th percentile of news pressure	0.073	-0.086	-0.026	0.055	0.055
Effect of accidents at median news pressure	0.009	-0.054	-0.028	0.005	0.000
Effect of accidents at 75th percentile of news pressure	-0.108	0.004	-0.032	-0.087	-0.100

Robust standard errors in brackets *** nc0 01 ** nc0 05 * nc0 1



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Placebo: Accidents in 2001

Placebo estimates for 2001. Non-tariff barriers, industrial accidents and daily news pressure. Poisson

	Non-tariff	barriers, 199	9 (Kee, Nic	ita and Olarro	eaga 2009)
Number of fatal accidents in the industry, 2001	0.410	0.219	-0.119	0.129	-0.001
	[0.292]	[0.316]	[0.265]	[0.326]	[0.247]
Fatal accidents in the industry \times News pressure on the same day, 2001	-0.060				
	[0.037]				
Fatal accidents in the industry × News pressure on the next day, 2001		-0.038			
		[0.041]			
Fatal accidents in the industry × News pressure 2 days later, 2001			0.005		
			[0.033]		
Fatal accidents in the industry × News pressure 3 days later, 2001				-0.026	
				[0.042]	
Fatal accidents in the industry × News pressure 4 days later, 2001					-0.010
					[0.032]
Log (Employment)	0.095	0.099	0.053	0.020	0.034
	[0.204]	[0.234]	[0.210]	[0.214]	[0.214]
Log (Import penetration)	-0.427**	-0.400**	-0.426*	-0.454**	-0.444*
	[0.218]	[0.186]	[0.247]	[0.226]	[0.232]
Log (Import demand elasticity)	-0.442	-0.371	-0.508	-0.559	-0.534
	[0.418]	[0.358]	[0.461]	[0.439]	[0.442]
Observations	85	85	85	85	85
Effect of accidents at 25th percentile of news pressure	0.027	-0.020	-0.087	-0.040	-0.064
Effect of accidents at median news pressure	-0.054	-0.070	-0.081	-0.072	-0.076
Effect of accidents at 75th percentile of news pressure	-0.175**	-0.146	-0.071	-0.122	-0.095

Robust standard errors in brackets *** nc0 01 ** nc0 05 * nc0 1



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Alternative Measures of Non-Tariff Barriers

Panel A. OTRI of non-tariff barriers	Non-tariff barriers, 1999 (Kee, Nicita and Olarreaga 2009)				
Number of fatal accidents in the industry, 1998	-0.202	-0.602***	-0.853***	0.301	0.030
	[0.242]	[0.187]	[0.305]	[0.436]	[0.296]
Fatal accidents in the industry × News pressure on the same day, 1998	0.023				
	[0.029]				
Fatal accidents in the industry × News pressure on the next day, 1998		0.069***			
		[0.020]			
Fatal accidents in the industry × News pressure 2 days later, 1998			0.101***		
			[0.035]		
Fatal accidents in the industry × News pressure 3 days later, 1998				-0.040	
				[0.058]	
Fatal accidents in the industry × News pressure 4 days later, 1998					-0.005
					[0.039]
Panel B. TRI of non-tariff barriers					
Number of fatal accidents in the industry, 1998	-0.233	-0.528***	-0.713***	0.128	-0.059
	[0.189]	[0.156]	[0.206]	[0.298]	[0.195]
Fatal accidents in the industry × News pressure on the same day, 1998	0.028				
	[0.021]				
Fatal accidents in the industry × News pressure on the next day, 1998		0.062***			
T		[0.017]	0.005444		
Fatal accidents in the industry × News pressure 2 days later, 1998			0.085***		
T			[0.024]	0.017	
Fatal accidents in the industry × News pressure 3 days later, 1998				-0.017	
Estal accidents in the industry of New Account 4 days later 1008				[0.0.58]	0.007
Patal accidents in the industry x News pressure 4 days later, 1998					0.007
Panel C. Import unighted average of non-teriff herrier					[0.025]
Number of fatal accidents in the industry 1008	-0.143	-0.512**	-0 794***	0.162	0.005
runder of futur accidents in the matsury, 1990	10 1081	10 2121	10 2281	10.2721	10,1001
Fatal accidents in the industry y News pressure on the same day. 1008	0.023	[0.215]	[0.2.58]	[0.272]	[0.190]
r and accidents in the industry writews pressure on the same day, 1996	10.0231				
Fatal accidents in the industry y News pressure on the next day 1008	[0.02.7]	0.065***			
I and accidents in the industry writews pressure on the next day, 1996		10 0231			
Fatal accidents in the industry x News pressure 2 days later 1998		[0.020]	0.099***		
· · · · · · · · · · · · · · · · · · ·			10.0281		
Fatal accidents in the industry x. News pressure 3 days later. 1998			[0.020]	-0.015	
· · · · · · · · · · · · · · · · · · ·				[0.035]	
Fatal accidents in the industry × News pressure 4 days later, 1998				[01026]	0.005
· · · · · · · · · · · · · · · · · · ·					[0.025]

Robust standard errors in brackets. *** p<0.01, ** p<0.05, * p<0.1



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Tariffs and Non-Tariff Barriers

Panel A. Full protection (Tariffs + Non-tariff barriers)	Trade Pro	tection, 1999	(Kee, Nicit	a and Olarre	aga 2009)
Number of fatal accidents in the industry, 1998	-0.099	-0.478***	-0.544**	0.290	0.232
	[0.203]	[0.158]	[0.221]	[0.292]	[0.256]
Fatal accidents in the industry × News pressure on the same day, 1998	0.008				
	[86.71]				
Fatal accidents in the industry × News pressure on the next day, 1998		0.053***			
		[0.018]			
Fatal accidents in the industry × News pressure 2 days later, 1998			0.063**		
			[0.026]		
Fatal accidents in the industry × News pressure 3 days later, 1998				-0.041	
				[0.038]	
Fatal accidents in the industry × News pressure 4 days later, 1998					-0.033
					[0.035]
Log (Employment)	-0.232	-0.242	-0.252	-0.245	-0.287
	[0.174]	[0.172]	[0.174]	[0.179]	[0.190]
Log (Import penetration)	-0.431**	-0.449***	-0.417***	-0.434***	-0.468**
	[0.177]	[0.174]	[0.158]	[0.166]	[0.194]
Log (Import demand elasticity)	-0.502	-0.583*	-0.579*	-0.449*	-0.565
	[0.329]	[0.348]	[0.340]	[0.270]	[0.354]
Panel B. Tariffs	Tarit	fs, 1999 (Ke	e, Nicita and	l Olarreaga 2	2009)
Number of fatal accidents in the industry, 1998	-0.409	-0.183	0.099	0.039	-0.035
	[0.362]	[0.235]	[0.207]	[0.190]	[0.231]
Fatal accidents in the industry × News pressure on the same day, 1998	0.045				
	[0.042]				
Fatal accidents in the industry × News pressure on the next day, 1998		0.017			
		[0.027]			
Fatal accidents in the industry × News pressure 2 days later, 1998			-0.018		
			[0.025]		
Fatal accidents in the industry × News pressure 3 days later, 1998				-0.010	
				[0.023]	
Fatal accidents in the industry × News pressure 4 days later, 1998					-0.001
					[0.029]
Log (Employment)	-0.706***	-0.739***	-0.740***	-0.744 ***	-0.745***
	[0.211]	[0.238]	[0.236]	[0.239]	[0.256]
Log (Import penetration)	-0.476^{***}	-0.508***	-0.510 ***	-0.509***	-0.507 ***
	[0.157]	[0.174]	[0.176]	[0.176]	[0.186]
Log (Import demand elasticity)	-0.402	-0.414	-0.372	-0.375	-0.388

Robust standard errors in brackets. *** p<0.01, ** p<0.05, * p<0.1



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