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NGO campaigns and firm-level imports

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NGOs and trade

Advocacy NGOs pressure firms and governements to obtain preservation of "resources":

- environment
- workforce: health, rights
- consumers: health

Expected impact: change in the production process of firms (abroad)

 \Rightarrow Change in costs should affect firm import decision

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Different campaigns, different impact

Different effects according to type of campaign:

- 1 Characteristics of product pic1 pic2 \Rightarrow sales
- 2 Production process of final product [∞] ⇒ imports of final product
- **3** Production process of input $pic \Rightarrow pinports of pinput$
- **4** Other (corruption ...) $\mathbf{pic} \Rightarrow$ sales

We focus on a sector (apparel) in which (2) is the main reaction expected and possible to measure.

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Matching campaigns with firms, 1

- Imagine Braun is attacked for child labor in hairdryers in Morocco. We expect a reaction of firms that import and sell hairdryers in France
- Presumably most hairdryers are imported by Carrefour etc... and not by Braun.
- Difficult to map attacked firm with the importer.

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Matching campaigns with firms, 2

Even more involved example

- Mattel is targeted for the cardboard sourced in Indonesia, used for Barbie dolls packaging.
- Likely reaction: Chinese plant assembling doll reduces imports of cardboard from Indonesia...: no way to see this in micro Customs data.

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Matching campaigns with firms, 3

Last problem

- Sigwatch has information about name and main activity of targeted firm.
- Difficult to get exhaustive information about product being targeted.
- Ex: Nestle (palm oil). Decrease in imports of palm oil from Nestle expected. However Nestle is classified as food and beverages company

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Empirical strategy

Therefore two strategies:

- Focus on an industry where the attacked brands are the importers (French Customs data)
- Drop firm info and use info on the product / country attacked (Bilateral sectoral trade data)

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Literature

- Effect of campaigns: Harrison and Scorse (2010, working conditions), Bartley and Child (2011 sales, stock prices), Murdie and Davis (2012b human rights), Hendel and Lach (2016 boycott)
- 2 Effect of standards: Fontagne et al (2015, firm exports)...
- Trade costs and imports: Tintelnot (2016), Gopinath and Neiman (2013), Bas and Strauss-Kahn (2015),

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Our contribution

- First use of a systematic dataset on activists
- ... to analyse the impact of campaigns on firm sourcing strategy

Two empirical investigations:

- Bilateral trade sector-month level (Comtrade)
- Firm-level imports with focus on Rana Plaza event (French Customs data)

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New data from Sigwatch

Multinationals fearing to be targeted by NGOs...

- ... creates 'NGOs tracking'
 - NGO-level campaigns
 - target firm, sector, issue
 - 2010-2014, by day
 - 2960 NGOs , 6088 firms
 - exhaustive on sectors and countries
 - country of NGO, firm, action

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Patterns of NGO campaigns: sectors

	Industry (ISIC Rev. 3.1)	# of Firms	# of NGOs	% of Campaigns	Avg NC/firm/year
0100	Agriculture	291	400	3.1	4
0500	Fishing	59	91	.67	3.9
1300	Mining of metal ores	447	615	7.22	5.4
1500	Mf of food products and beverages	836	551	9.73	4
1600	Mf of tobacco products	15	47	.36	4.5
2100	Mf of paper and paper products	178	192	1.98	3.9
2400	Mf of chemicals	52	386	3.11	17.1
2423	Mf of pharma., medicinals and botanical products	145	312	2.54	5.2
2424	Mf of soap, detergents, perfumes	180	189	1.94	3.6
2500	Mf of plastic products	13	100	.57	17.5
2900	Mf of machinery and equipment	71	134	1.11	4.9
3400	Mf of motor vehicles	77	154	.91	3.3
3700	Recycling	52	74	.24	2
4000	Extraction, manuf and distrib of all energies	1155	1577	32.53	8.1
4100	Water collection, purification and distribution	44	62	.27	2.3
4500	Construction	329	519	3.4	3.8
5200	Retail trade except motor vehicles	58	73	.76	4.5
5210	Non-specialized retail trade in stores	339	413	5.14	4.3
5232	Retail of textiles, clothing, footwear goods	385	237	4.76	4.3
5500	Hotels and restaurants	19	152	1.17	10.7
6000	Land transport	81	172	.82	3.1
6200	Air transport	96	117	.91	2.6
6300	Auxiliary transport activities	30	31	.15	2.5
6500	Finance and insurance	538	547	10.37	5.3
7200	Computer and related activities (not manuf)	314	331	4.25	4
7400	Other business activities	69	120	.43	2.4
9200	Recreation, Media, cultural, sporting activities	215	227	1.55	2.7

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Example of NGO campaigns

"In the U.S. and Europe, International Labor Rights Forum and Clean Clothes Campaign published 'Still Waiting', a report on the alleged failure of international fashion brands to pay compensation to the victims of the Rana Plaza factory collapse and the Tazreen factory fire in Bangladesh (Auchan, Camaieu, Mango...)"

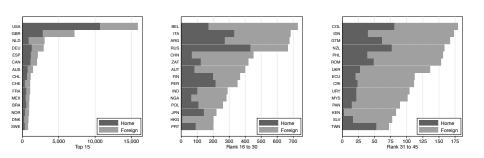
- Firm country = FRA
- Action country = BGD
- NGO name = ILRF
- NGO country = USA
- Sector = Clothing

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NGOs

Figure: Number of outward campaigns per country



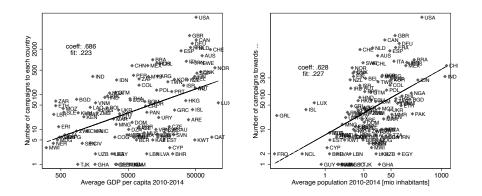
Top US: Sierra Club, RAN, FoE US, Greenpeace **Top French:** FoE France, Greenpeace France, Peuples Solidaires, Attac

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Target countries

Figure: Number of inward campaigns, GDP and population

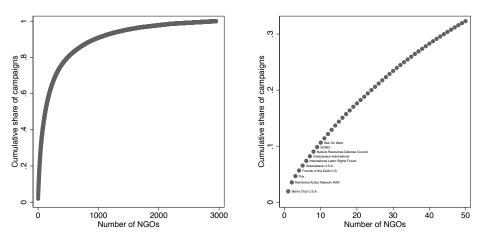


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Patterns of NGO campaigns

• Cumulative share of campaigns by individual NGOs

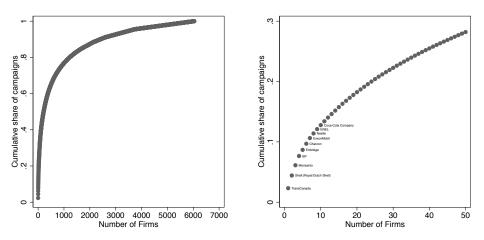


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Targets firms

· Cumulative share of campaigns by individual firms



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Expected impact on trade flows

1 Firm sourcing decision

Tintelnot (2016, QJE): microfounded gravity equation for imports of firm f from country j:

$$\mathsf{imports}_{fj} = \frac{c_j^{-\theta}}{\sum_{h \in H_f} c_h^{-\theta}} v_f \tag{1}$$

- c_j is the production cost in j
- v_f is total imports of firm f
- 1 Consumer demand for firm f's products

$$\nu_{f} = \frac{a_{f}^{\sigma-1} p_{f}^{1-\sigma}}{\sum_{f} a_{f}^{\sigma-1} p_{f}^{1-\sigma}} Y$$
(2)

- a_f is perceived quality of f's products
- *p_f* is the price of the product bundle sold by firm *f*

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Activist campaigns ...

Without improvement of the production process,

- \searrow perceived quality a_f
- decrease in demand v_f

With firm investment in production process,

- \nearrow in sourcing price (variable cost)
- aim is to restore perceived quality and recover lost demand v_f

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Illustration of a firm-level reaction to a large shock

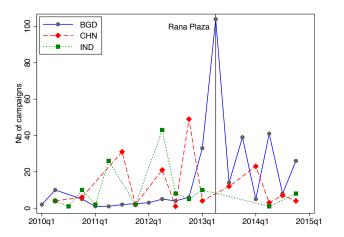
- Rana Plaza collapse, April 2013, Bangladesh, killing more than 1000 workers
- Clothing factories selling to foreign firms
- Exogenous shock leading to numerous campaigns

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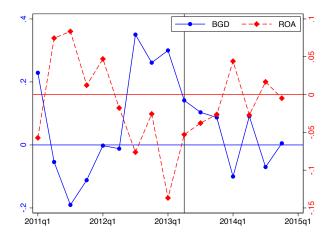
Country-level

Number of campaigns





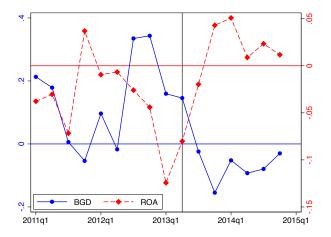
Firm-level imports in reaction to Rana Plaza shock



Annual change in quarterly import share from BGD and Rest of Asia for the largest French importer of garment



Firm-level imports in reaction to Rana Plaza shock



Annual change in monthly import share from BGD and ROA for the top10 French importers of garment
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Firm-level imports in reaction to Rana Plaza shock

Firm-level DID

dshare imports_{*fit*} = β_0 BGD+ β_1 BGD×PostRana+ ν_f + η_t + ϵ_{fjt} (3)

- BGD dummy controls for the pre-shock level of imports from BGD (wrt control group)
- $\mathsf{BGD} \times \mathsf{PostRana} = 1$ for BGD after the collapse of building

Caution: theory predict substitution ...

Country-level

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Firm-level imports in reaction to Rana Plaza shock (1)

Firms	Top10	Top10	Top10	All	All
Countries	BGD vs. ROA	BGD vs. Asian c.	BGD vs. all c.	BGD vs. Asian c.	BGD vs. all c.
	(1)	(2)	(3)	(4)	(5)
	dsh	dsh	dsh	dsh	dsh
BGDPostPlaza	-0.219 ^a	-0.233 ^b	-0.172	-0.086ª	-0.062ª
	(0.051)	(0.102)	(0.140)	(0.019)	(0.021)
BGD	0.247 ^a				
	(0.034)				
Constant	-0.021	0.067ª	-0.053 ^a	0.016 ^a	-0.013 ^a
	(0.015)	(0.022)	(0.015)	(0.002)	(0.001)
Observations	480	872	3456	92769	314579
R^2	0.168	0.048	0.066	0.090	0.034
rmse	0.271	0.593	0.846	0.725	0.817
Fixed effects	firm year	firm year ctry	firm year ctry	firm year ctry	firm year ctry

Standard errors in parentheses

^c p<0.1, ^b p<0.05, ^a p<0.01

ROA = Rest of Asia (PAK, IND, IND, THL, VNM, CHN

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Country-level

Summary of results

- Growth rate of imports decreases by 22 to 23 pct points for top importers when restricting control group to other Asian countries
- Average growth rate in ROA sample is 5.3%
- Average growth rate of imports from BGD before shock is 19.6%
- Heterogeneity of campaign effect:
 - **1** Larger effect of campaigns on top exporters $(\times 2.5)$
 - 2 Within Asian suppliers, approximately same reaction
 - **3** Larger substitution effect for proximate countries

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Country-level

Firm-level imports in reaction to Rana Plaza shock (2)

Very similar when identifying only in the time dimension (firm-country fixed effects)

Firms	Top10	Top10	Top10	All	All
Countries	BGD vs. ROA	BGD vs. Asian c.	BGD vs. all c.	BGD vs. Asian c.	BGD vs. all c.
	(1)	(2)	(3)	(4)	(5)
	dsh	dsh	dsh	dsh	dsh
BGDPostPlaza	-0.240ª	-0.258 ^b	-0.154	-0.120 ^a	-0.085 ^a
	(0.050)	(0.104)	(0.136)	(0.021)	(0.023)
Constant	0.064 ^a	0.069 ^a	-0.053 ^a	0.018 ^a	-0.012 ^a
	(0.014)	(0.020)	(0.014)	(0.002)	(0.001)
Observations	480	872	3456	92769	314579
R^2	0.288	0.280	0.222	0.186	0.202
rmse	0.258	0.537	0.805	0.707	0.786
Fixed effects	yr fm-c	yr fm-c	yr fm-c	yr fm-c	yr fm-c

Standard errors in parentheses

^c p<0.1, ^b p<0.05, ^a p<0.01

ROA = Rest of Asia (PAK, IND, IND, THL, VNM, CHN

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Firm-level imports in reaction to campaigns

Replication of RanaPLaza exercice using cumulative Sigwatch data as shocks in the apparel industry

Firms	Top10	Top10	Top10	All	All
Countries	BGD vs. ROA	BGD vs. Asian c.	BGD vs. all c.	BGD vs. Asian c.	BGD vs. all c.
	(1)	(2)	(3)	(4)	(5)
	dsh	dsh	dsh	dsh	dsh
ncsq_i_j_cum	-0.071 ^c	-0.143 ^a	-0.070	-0.039 ^a	0.013 ^b
	(0.040)	(0.050)	(0.054)	(0.009)	(0.005)
Constant	0.172 ^b	0.135ª	-0.038 ^b	0.046 ^a	-0.019 ^a
	(0.069)	(0.036)	(0.019)	(0.008)	(0.003)
Observations	320	872	3456	92769	314579
R^2	0.299	0.282	0.222	0.186	0.202
rmse	0.266	0.536	0.805	0.707	0.786
Fixed effects	yr fm-c				

Standard errors in parentheses

^c p<0.1, ^b p<0.05, ^a p<0.01

ROA = Rest of Asia (PAK, IND, IND, THL, VNM, CHN)

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Country-level

Country-level bilateral trade estimations

- Comtrade data: bilateral flow by year, month for all goods, 2010-2014
- LHS: annual change in monthly imports value from each supplier
- RHS: Nb of campaigns targeting coutry *i* for misbehavior in country *j*, by sector and month
- Structural Gravity: MR terms controled by destination-sector-time and origin-sector-time FE
- We add country-pair/sector FE to identify the effect of campaigns in the time dimension

 $\Delta_{12} \ln imports_{ijst} = \gamma + \gamma_0 NC_{ijs,t-1} + FE_{ist} + FE_{jst} + FE_{ijs} + \epsilon_{ijst}$ (4)

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Estimation issues

Exogeneity of campaigns: Are campaigns linked to unobservables that also cause trade ?

- anything that makes a country-sector a particularly good target or source for a given month is captured by the MR terms FE (events...)
- We also control for bilateral FE: remaining potential problems are bilateral-time: omitted factors that co-vary with campaigns in the time dimension inside a country-pair + influence trade
- Reverse causality is obvious candidate: NGO target surge in exports to their consumers = positive correlation between trade and campaigns
- goes against us + lags

Country-level

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Country-level

Country-level results

Table: Baseline Regressions

Explained variable	Growth of import value by country <i>i</i> from country <i>j</i>					
			sector <i>s</i> (r	month $t - t - $	12)	
Import flows		All	monthly flo	ws (<i>i-j-s</i>)		Positive
		Δ Ln	(1+import))	Midpoint	Δ
	1	2	3	4	5	6
Nb denunciations on action of	-0.027 ^a	-0.021 ^b	-0.017 ^b	-0.013 ^c	-0.004 ^c	-0.034 ^b
country <i>i</i> 's firms in country <i>j</i>	(0.006)	(0.008)	(0.008)	(0.008)	(0.002)	(0.014)
Observations	37,751,616 6,740,68					6,740,684
R^2	0.099	0.126	0.171	0.327	0.117	0.637
rmse	2.556	2.543	2.497	2.282	0.631	2.752
Fixed effects	it jt ij	it jt ijs	ist jst ijs	ist jst ijs ijt	ist jst ijs	ist jst ijs

Robust standard errors in parentheses. Denunciations variable is lagged by one month

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Country-level results

Explained variable	Δ Ln (1+ import value by country <i>i</i> from country <i>j</i>)				
	sector <i>s</i> (month t - t-12)				
Nb denunciations on actions in	1	2	3		
Month t-1	-0.017 ^b	-0.017 ^b	-0.017 ^b		
	(0.008)	(0.008)	(0.008)		
Month t-2		-0.005	-0.005		
		(0.008)	(0.009)		
Month t-3		0.005	0.005		
		(0.008)	(0.009)		
Month t-4		-0.000	-0.001		
		(0.009)	(0.009)		
Month t-5			0.007		
			(0.009)		
Month t-6			-0.001		
			(0.009)		
Observations	37,751,616				
R^2	0.171	0.171	0.171		
rmse	2.497	2.497	2.497		
Fixed effects		ist jst ijs			

Table: Full trade flows with lags

Dataset includes all monthly flows (including zero flows) by country *i*-country *j*- sector *s* triad.

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Summary of results

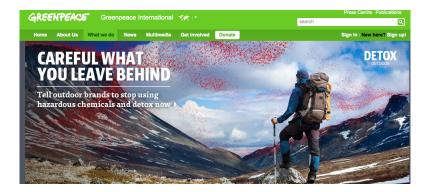
- One more campaign decreases the import growth rate by 1.3% in most demanding specification
- Average import growth rate in the sample is 6%
- Effects seems to be short-lived : only the t-1 shock appears significant
- Effect is stronger at the intensive margin (on positive flows)

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Conclusion

- Our preliminary investigations suggest substantial reaction of importers to campaigns from NGOs
- Effect seems to be heterogeneous: (i) large vs small firms (ii) substitution stronger with proximate countries
- Future work:
 - 1 match firm-level attacks with firm-level flows
 - 2 compare to effect of tariffs
 - 3 intensive-extensive margin
 - 4 investigate quality channel with changes in unit values



Campaign by Greenpeace against Mammut and The North Face in 2011 (back).

Nestlé formula labels Nestlé claims to market baby milk responsibly,

but look at what it does - not just what it says it does

What Nestlé says:

Nestlé takes very seriously its responsibility to ensure that our marketing practices abide by the World Health Organisation's International Code of Marketing of Breast-milk Substitutes. We have implemented extensive measures to ensure strict compliance with it."



Figure: Campaign by Greenpeace against Adidas in 2014 for using chemicals during production of footwear





- · the adidas Predator boots produced in Indonesia and
- . the Nike Mercurial boots, produced in China and sold in Germany, which had very high concentrations of PFBS (188.57 µg/m²) in the first analysis and 7.91 µg/m² in the second analysis. Quality control checks indicate that such differences in test results are a result of uneven distribution of PEC on the shoes
- the Puma evoSpeed boots (34.1 µg/m²), produced in China and sold in Germany,

The study shows findings of long chain PFC (C10 to C14) in thirteen out of 21 tested boots, partly in concentrations. higher than 1 µg/m². Some of these chemicals are SVHC (substances of very high concern) according to EU REACH

It should be noted that in Greenpeace East Asia's recent study.11 investigations have shown that concentrations of ionic PFC can vary widely not only between products but within different parts of the same product. These variations

are likely to be a characteristic of textile products treated with PEC in general, and not only the specific products. tested.12

The results show that ionic PFC are widely used in the manufacture of World Cup merchandise by adidas. Nike and Puma: in particular PEOA continues to be used despite corporate policies to eliminate its use. In addition. nearly half of the football boots (10 out of 21) and one pair of playes contained the very persistent PEC, PEBS, The majority of the environmental impacts from these chemicals will occur in the countries where the merchandise products are manufactured, which are mainly in Asia, when chemicals used in manufacturing are released into waterways. All of the football boots were manufactured in South East Asia (9 in China, 8 in Indonesia, 2 in Vietnam and 1 in Cambodia), with the exception of one pair, which was bought in Russia and manufactured in Boania.



Campaign by Greenpeace against Nestle in 2010 for using unsustainable palmoil (back).

Biotech's Assault on Balanced Journalism



Campaign by the Organic Consumer Association against Monsanto in 2013 for pressuring journalists at Reuters back.

Firm-level imports in reaction to Rana Plaza shock (3)

Firms	Top10	Top10	Top10	All	All
Countries	BGD vs. ROA	BGD vs. Asian c.	BGD vs. all c.	BGD vs. Asian c.	BGD vs. all c.
	(1)	(2)	(3)	(4)	(5)
	dsh	dsh	dsh	dsh	dsh
BGDPostPlaza	-0.129	-0.186	-0.129	-0.102 ^b	-0.084 ^c
	(0.093)	(0.193)	(0.281)	(0.041)	(0.047)
Constant	0.048 ^a	0.063ª	-0.054 ^a	0.017 ^a	-0.013 ^a
	(0.018)	(0.024)	(0.014)	(0.003)	(0.002)
Observations	480	872	3456	92769	314579
R^2	0.354	0.341	0.332	0.362	0.270
rmse	0.255	0.528	0.768	0.692	0.798
Fixed effects	fm-r, fm-c, c-yr	fm-r, fm-c, c-yr	fm-r, fm-c, c-yr	fm-r, fm-c, c-yr	fm-r, fm-c, c-yr

Standard errors in parentheses

^c p<0.1, ^b p<0.05, ^a p<0.01

ROA = Rest of Asia (PAK, IND, IND, THL, VNM, CHN