



**Policy Advocacy for Trade Protection  
An Empirical Investigation of Indian Manufacturing**

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# Motivation and Aim

- Why **Policy Advocacy** for trade protection?
- Studies on policy advocacy in trade have been scarce for developing countries.
- **'Lobbying'** has been controversial. Much ambiguity on the distinction between lobbying as a means of seeking influence within the laws of a given country and bribery.
- Lack of sufficient and complete data.
- Focus on **Lobbying for Trade Policy**: Preliminary insights into choice of lobbying, determinants of lobbying, effects on trade protection. Direct measures of Lobbying effectiveness.

**AIM:** To provide an analysis of lobbying for trade policy influence by providing estimates on the effects of lobbying on trade protection in India.

# Aid for Trade (AfT) & Policy Advocacy

- **AfT enhances the trade performance of recipient countries:** 1% increase in aid directed toward trade policy and regulatory reform (amounting to about US\$11.7 million more such aid) could generate an increase in global trade of about US\$818 million. (**Wilson et. al 2009, World Bank**).
- **Policy Advocacy:** Mainstream trade policy into the national development strategies along with private sector development.
- **Aft support for Advocacy:** By providing technical assistance to developing countries in domestic interactions and corresponding input to international trade negotiations.

# Outline

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|--------------------------------|--|
| <b>1. Preparation Stage</b>    | Background, Contribution,<br>Literature Review           |
| <b>2. Implementation Stage</b> | Data, Methodology  |
| <b>3. Preliminary Results</b>  | Findings   |
| <b>4. Conclusions</b>          | Policy Implications, AfT<br>Challenges, Further Research |

# 1. Preparation stage

## Background: Advocacy & Lobbying in Trade Policy

- Advocacy in trade policy is a special form of persuasive activity undertaken by industry groups to influence government policy-making affecting international trade. Range of activities. (**International Trade Centre, ITC Report 2002**).
  
- Lobbying in political economy is understood in more general terms as putting forth political contributions or to organize politically to influence policymakers (**Grossman and Helpman 1994**).
  
- Deriving from the context in policy and from political economy, lobbying can be defined under advocacy as:
  - **‘Activities as specialized form of strategic influence on decision-makers’**
  
- **Why Lobby?** The economic rent from protection (**Olson, 1965**).
- **Lobbying success:** Depends on their ability to organise and lobby for protection (**Baldwin, 1984**).



# Background: Lobbying in India



- **Early 90s**

Advocacy on the margin.

- **Post 1997: Dual approach.**

Collective level: organised industry associations  
CII, FICCI, Assocham. (**Kochanek 1996;**  
**Narlikar, Amrita 2006**);

Individual level: discrete lobbying to achieve  
particular benefits (**Sagar & Madan 2009**).

- **Lobbying Outcomes in Trade Policy**

- Movements in tariffs uniform until 1997.

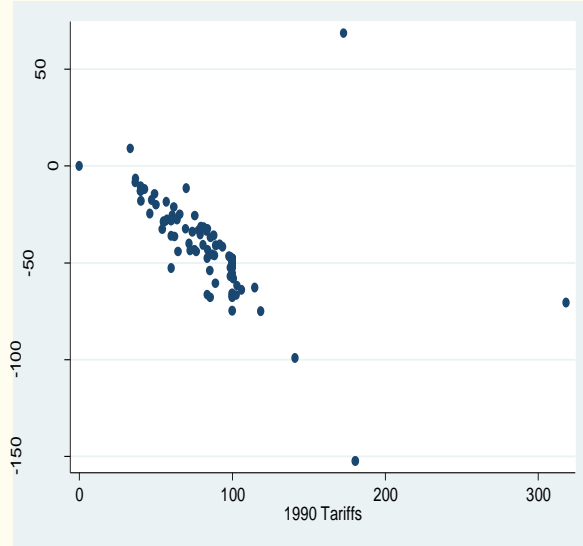
- Changes post 1997.

- Cross-sectional variation related to economic  
and political factors.

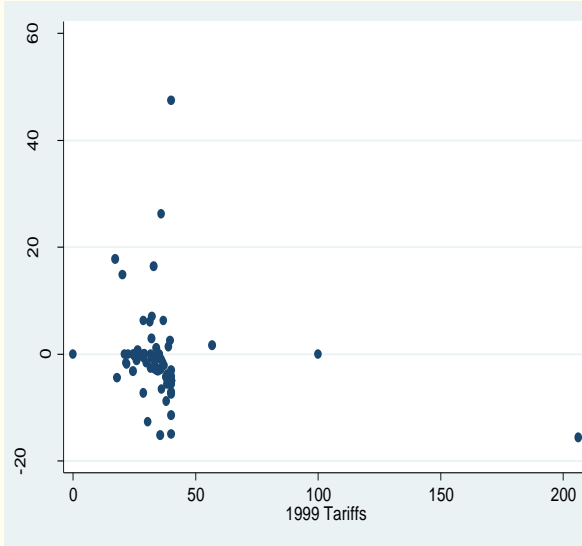
- NTBs variation across sectors

# MFN Protection & NTBs across NIC 4-digit sectors

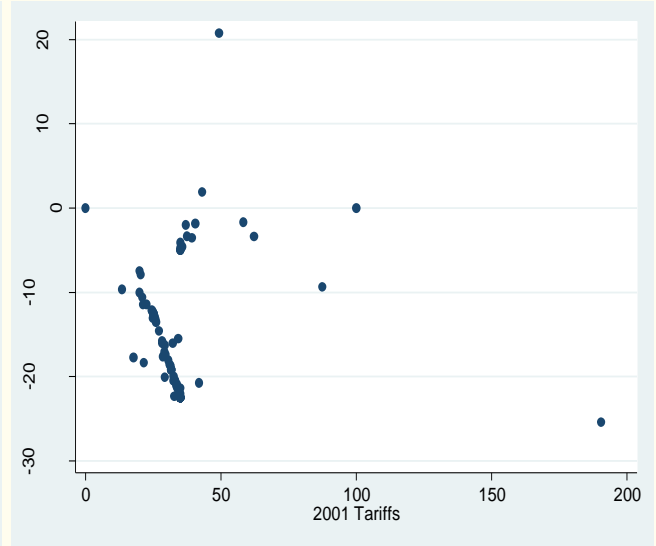
1990 Tariffs and Tariff Changes 1990-1996



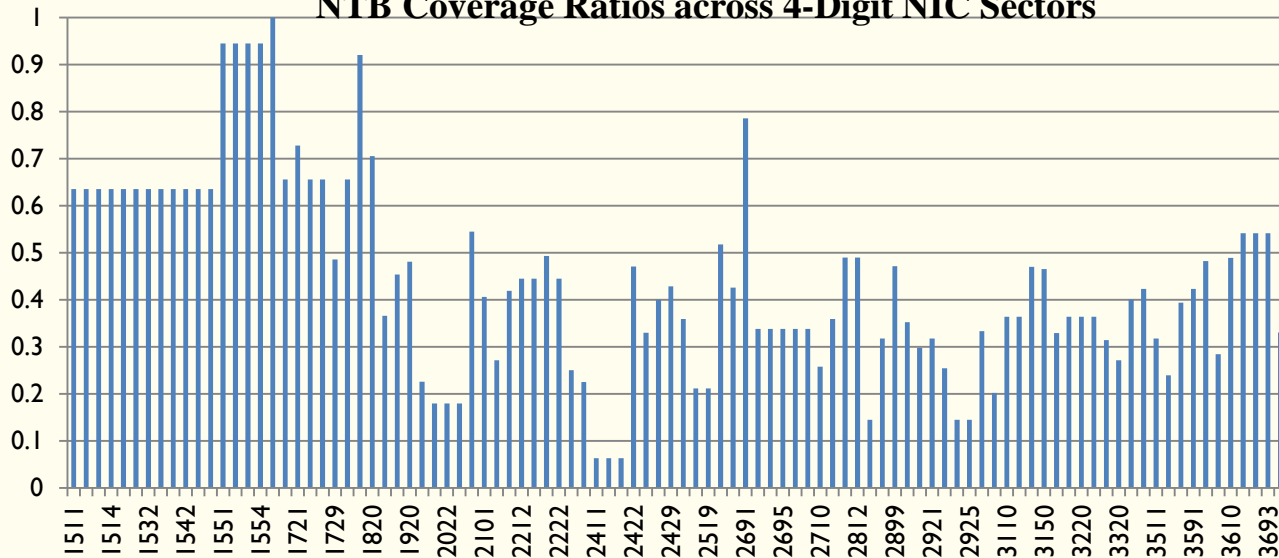
1999 Tariffs and Tariff Changes 1999-2001



2007 Tariffs and Tariff Changes 2001-2007



## NTB Coverage Ratios across 4-Digit NIC Sectors



# Contribution

- Combines India's **All India Survey of Industries (ASI)** data with **World Bank Enterprise Survey (WBES)** data to study lobbying in trade policy.
- Analysis of lobbying in trade and trade protection over time.
- Stylized facts on lobbying for trade policy influence in India.
- **By Industry** (4 –digit NIC 1998/ISIC Rev. 3) and **firm-level** disaggregation (2286 firms).
- Firm-level **determinants** of lobbying Membership.
- **Choice** of Lobbying: Associations & Direct Lobbying.



# Literature Review on Lobbying in Trade Policy

- **Grossman and Helpman (1994):** Each lobbying group presents the government with a contribution schedule  $C_i$ , and the government chooses the policy to maximize its objective function with weight 'a' on welfare.

$$G = \sum C_i + a.W$$

- **Bombardini and Trebbi (2012):** The choice of lobbying is now endogenous such that firms decide to lobby individually (aggregate amount 'l' spent by individual firms) or through a trade association (amount 'L'). Government's objective function includes 'V' aggregate welfare, 'τ' and 'θ' show tradeoff between lobbying services and aggregate welfare.

$$G = V(t_1, t_2, \dots, t_n, T) + \frac{1}{\tau} .L + \frac{1}{\theta} .l$$

- **Bombardini (2008):** Controls for within sector variation of firm lobbying behaviour using participation shares in terms of political contributions calculated as the share of total industry output produced by firms above a threshold minimum value of contribution.

## 2. Implementation stage

# DATA

## 2 Data Sources

### WBES

- Year 2005
- 2286 Manufacturing firms
- 22 Sectors

### ASI Industry data & Tariffs

- 1990-2007 (10 yrs)
- NIC 4-digit (ISIC Rev. 3)
- Mappings
- 98 Sectors

### Sectors matched

- NIC with ISIC
- Product Descriptions

→	Industry	Number of Firms	% of Total Firms
	Garments	275	12.03
	Textiles	222	9.71
	Drugs & Pharma	165	7.22
	Electronics inc. Consumer Durables	100	4.37
	Electrical Appliances inc. white goods	155	6.78
	Machine tools inc. Machinery & parts	195	8.53
	Auto Components	218	9.54
	Leather & leather products	74	3.24
	Sugar	4	0.17
	Food Processing	155	6.78
	Plastics & plastics products	122	5.34
	Rubber & rubber products	38	1.66
	Paper & paper products	24	1.05
	Structural metals and metal products	303	13.25
	Paints and varnishes	20	0.87
	Cosmetics and toiletries	13	0.57
	Other chemicals	112	4.9
	Mining	3	0.13
	Mineral processing	32	1.4
	Marine food processing	14	0.61
	Agro processing	26	1.14
	Wood and furniture	16	0.7
	<b>Total</b>	<b>2,286</b>	<b>100</b>



# MEASURES OF LOBBYING

## I. FIRMS

<u>Variable</u>	<u>Value</u>	<u>Description</u>
LOBBY MEMBERSHIP	Yes=1 No=0	Is your firm a member of a Producer or Trade Association? (CII, FICCI)
DIRECT LOBBYING ACTIVITY	%	In a typical week over the last year, what % of Senior Management's time was spent on Govt. Requirements? (Taxes, Customs, Regulations, Licensing & Registration)

## II. NIC INDUSTRY:

- **Political Organization (Cadot et. al 2007)**
- **% Direct Lobbying**
- **% Lobby Membership**
- **Direct Lobbying Fraction  $\frac{(\% \text{ Time in Direct Lobbying})}{(\% \text{ Lobby Membership})}$**



# Industry Effects

- **Grossman and Helpman (1994):** Exogenous Lobbying

$$\frac{t_{it}}{1 + t_{it}} \cdot e_i = \rho \cdot \frac{X_{it}}{M_{it}} + \delta \cdot I_i \cdot \frac{X_{it}}{M_{it}} + \varepsilon_{it} \quad [1]$$

$$\rho = \frac{-\alpha_L}{[a + \alpha_L]} \quad \delta = \frac{1}{[a + \alpha_L]} \quad \mathbf{i=Industry}$$

- **Bombardini (2012), Grossman and Helpman (1994):** Effect of mode of lobbying on protection: Assumption that all sectors engage in some form of lobbying.

$$\frac{t_{it}}{1 + t_{it}} \cdot e_i = \beta_0 + \beta_1 \cdot \frac{X_{it}}{M_{it}} + \beta_2 \cdot \text{SUBST}_i + \beta_3 \cdot \text{CONC}_i + \beta_4 \cdot \text{LOBBYING FRACTION}_i + \varepsilon_{it} \quad [2]$$

# Firm-Level Heterogeneity

**Determinants** of the likelihood of a firm being a member of a Lobby association:  
**[3]**

$$P(\text{LOBBY MEMBERSHIP}_i=1) = \varphi (\beta_1 \cdot \text{ESTAB.} + \beta_2 \cdot \text{DIRECT LOBBY} + \beta_3 \cdot \text{FOREIGN} + \beta_4 \cdot \text{FIRM SIZE} + \pi \cdot V_i)$$

**i = Firm**

**Market structure:** Number of Establishments (ESTAB.), Firm size (Large, Small, Medium Firm Dummy), Foreign Ownership (FOREIGN),

**Lobbying Effects:** DIRECT LOBBYING.

**Controls:** Presence in Capital City (CAPITAL), Exporter Dummy (EXPORTER), Numbers of competitors of the firm (COMPET.), Sector concentration (CONC.), Geographic Concentration (GEOG.)



# 3. Preliminary Results

## By Industry

**TABLE I: Estimates for [I] using 1990-2007 data for India**

Dependent Variable (t/1+t).e	2SLS (I)	LIML (II)
Inverse Import Penetration (X/M)	- 0.00068*** (.00019)	-0.00226* (0.0010)
(X/M) * Political Organization	0.00061** (.00021)	0.00218* (0.0011)
A	1649.05	453.55
$\alpha$ L	1.115	1.045
N	876	876
First-Stage F-Statistics	21.56	21.56
Sector FE	Yes	Yes

Instruments for (X/M) include Factor Shares following Trefler (1993).

5% maximal IV relative bias: 16.85, 10% maximal LIML size: 5.44 (Stock & Yogo, 2004)

\*p<0.05; \*\* p<0.01; \*\*\* p<0.001

**TABLE 2: 2SLS & 3SLS Industry Estimates for [2] using 1990-2007 data**

Variable	I (2SLS)	II (2SLS)	III (3SLS)
<b>X/M</b>	<b>-0.00097*** (0.0003)</b>	<b>-0.00097*** (0.0003)</b>	<b>-0.0014 (0.0002)</b>
<b>DIRECT LOBBYING (% time)</b>	<b>0.092*** (0.019)</b>	<b>-</b>	<b>-</b>
<b>DIRECT LOBBY FRACTION (% time as % Membership)</b>	<b>-</b>	<b>1.275*** (0.014)</b>	<b>1.282*** (0.012)</b>
<b>HIGH SIGMA</b>	<b>0.082*** (0.005)</b>	<b>0.320*** (0.003)</b>	<b>0.320*** (0.003)</b>
<b>MEDIUM SIGMA</b>	<b>-0.243*** (0.018)</b>	<b>2.546*** (0.039)</b>	<b>2.556*** (0.033)</b>
<b>CONCENTRATION</b>	<b>0.165*** (0.015)</b>	<b>1.860*** (0.027)</b>	<b>1.867*** (0.022)</b>
<b>SECTOR FIXED EFFECTS</b>	<b>Yes</b>	<b>Yes</b>	<b>Yes</b>
<b>N</b>	<b>876</b>	<b>876</b>	<b>876</b>
<b>Adjusted R-Square</b>	<b>0.998</b>	<b>0.998</b>	<b>0.996</b>

\*p<0.05; \*\* p<0.01; \*\*\* p<0.001

Instruments for (X/M) in (I) & (II) include Factor Shares following Treffer (1993).  
 Instrument for Direct Lobbying Fraction in (III): Geographical Concentration

# By Firm

## Table 3: Probit Estimations [3] on LOBBY MEMBERSHIP in 2005

P (LOBBY MEMBERSHIP)	I		II		III		IV		V	
	dF/dx	S. Err.	dF/dx	S. Err.	dF/dx	S. Err.	dF/dx	S. Err.	dF/dx	S. Err.
ESTABLISHMENTS (NO.)	0.037*	0.017	0.038*	0.017	0.0463*	0.019	0.046*	0.019	0.052**	0.019
FOREIGN OWNERSHIP	0.157**	0.034	0.159**	0.034	0.167*	0.040	0.170**	0.040	0.178**	0.035
DIRECT LOBBYING (%)	0.095***	0.018	0.096***	0.018	0.121***	0.020	0.121***	0.020	0.110***	0.02
LARGE FIRMS	-0.114	0.073			-0.224***	0.051	-0.142	0.084	-	-
SMALL FIRMS	-0.095	0.056			-0.165***	0.026	-0.104	0.061	-	-
MEDIUM FIRMS	0.059	0.056	0.133***	0.020		-	0.075	0.060	0.143***	0.022
<i>Controls</i>										
EXPORTER DUMMY					-0.067	0.033	-0.068	0.033	-0.059	0.034
GOVERNMENT OWNERSHIP					-0.135	0.116	-0.141	0.117	-0.187	0.120
CAPITAL DUMMY					0.033	0.030	0.032	0.030	0.013	0.032
COMPETITORS. (NO.)					0.007	0.017	0.008	0.017	0.012	0.017
SECTOR CONCENTRATION					0.036	0.022	0.036	0.022	0.013	0.019
GEOG. CONCENTRATION									-1.784***	0.249
obs. P	0.769		0.769		0.759		0.758		0.759	
pred. P (At x-bar)	0.781		0.781		0.775		0.776		0.779	

Reporting marginal effects dF/dx is for discrete change from 0 to 1

\*p<0.05; \*\* p<0.01; \*\*\* p<0.001



## 4. Conclusions

### Preliminary Conclusions and Policy Recommendations

- **Lobbying membership in manufacturing industry** has a positive impact on trade protection such that politically organized sectors receive higher trade protection.
- **Accounting for Firm Heterogeneity:** Direct Lobbying has positive effect on protection in industry. Effect is higher for % individual lobbying as % of lobbying membership. Higher effect when we instrument for direct lobby fraction.
- **Firm-level Lobbying membership** is positively related to number of establishments, foreign ownership, geographical concentration and firm size for medium sized firms. Firms who lobby direct are also more likely to be members of lobby association.
- Different sectors show different **propensities to lobby:** Lobby Effectiveness

**Aid for Trade (AfT):** Enhance trade capacity of developing countries by addressing constraints in trade policy that affect participation in international trade negotiations.



# Further Research

- **Survey:** Focus on Trade Policy specific lobbying. WBES includes trade and industrial lobbying. (Early 2014).
- Introduce **Time variation in Lobbying** (combine Cadot et. 2007).
- Direct measures of **Lobby Effectiveness**.
- Test for various trade protection **instruments**/trade policy outcomes: NTBs, Preferential trade.
- **Robustness Checks**.
- Account for further within sector **heterogeneity** in lobbying using other firm characteristics.
- **Lobby Cost** framework for lobby choice.

# THANK YOU

