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Liberalization or Protection: Indian Experience in Application of Trade Remedies

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Literature review

- Narayanan (2006); Baruah (2007); Feinberg (2010): descriptive analysis of present state and future prospects of applying AD in India; and factors influencing the AD behavior in India.
- Bown &Tovar (2008, 2011): reveal the dependence between significant tariff cuts over the 1990s and applying AD protection in the early 2000s (based on the econometric analysis of Indian industries).
- Results: "… no evidence of a link between 1990s tariff cuts and subsequent resort to antidumping by India's dominant sectoral user of antidumping – the industrial chemicals sector…."
- Viegelahn & Vandenbussche (2010): estimate the effects of AD protection on the market power of Indian import-competing firms.
- Results: "domestic import-competing firms benefits to a large extent from AD protection, but significant increase of market power due to AD protection is likely to lower the degree of competition in the industry, hereby adversely affecting consumers".

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Research gap

- While not a large literature, there have been studies examining the trade impacts of antidumping and safeguard actions in India.

- Morkre &Kelly (1994); Galloway et al. (1999), Prusa (2001): USA experience; Vandenbussche, Konings & Springael (1999): EU case; Niels (2003): Mexican case
- Vandenbussche &Zanardi (2010); Ganguli (2008): just AD measures in India

Research objective

- We examine the trade impacts of anti-dumping and safeguard actions in India.

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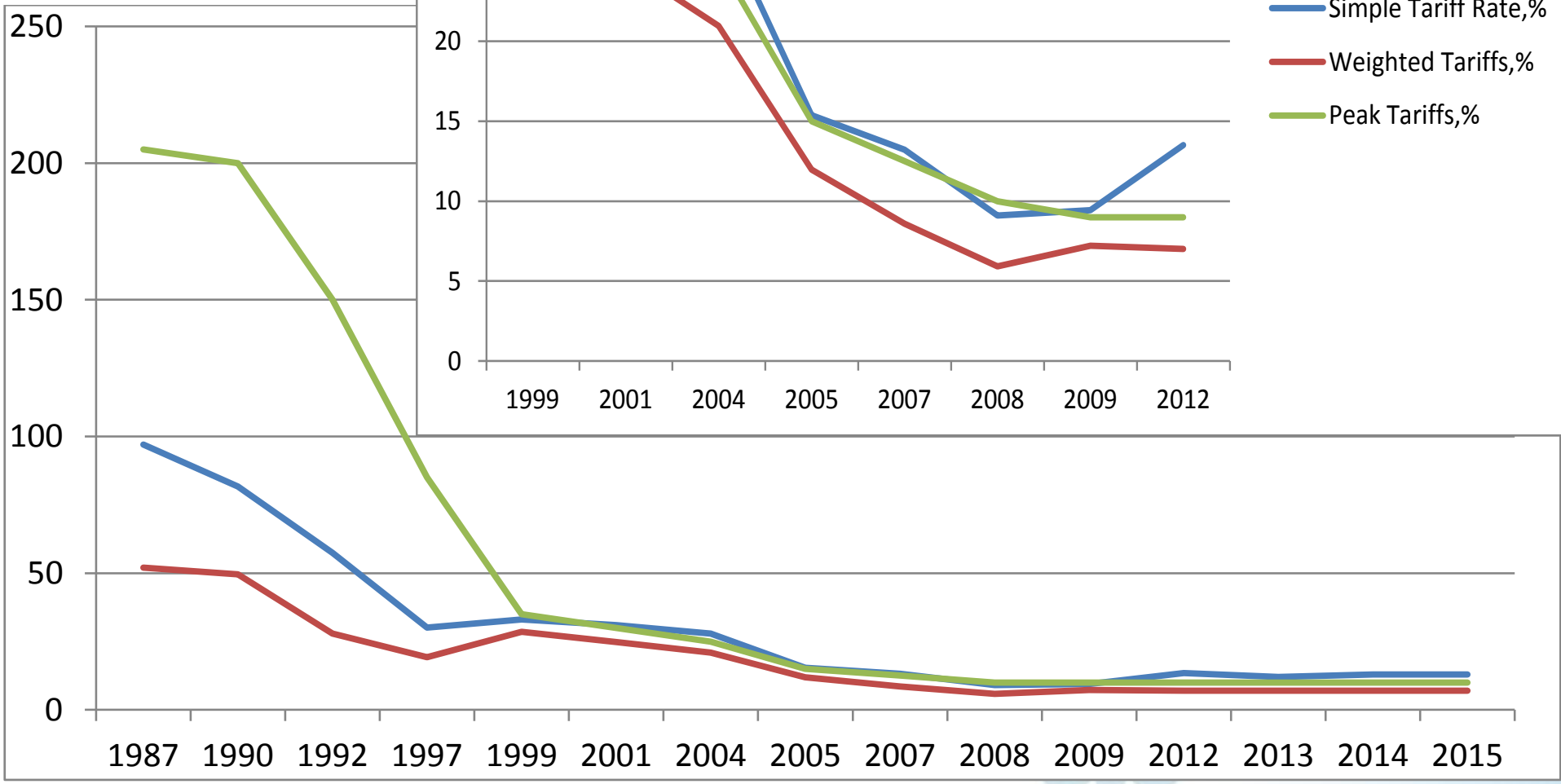
Tariff Rates in India (1987-2015)



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Anti-Dumping and Safeguard Initiations and Measures in the World

Anti-Dumping Initiations	Anti-Dumping Measures	Safeguard Initiations	Safeguard Measures
India (740)	**India (534)**	**India (39)**	**India (19)**
USA (527)	USA (345)	Indonesia (26)	Indonesia (16)
EU(468)	EU (298)	Turkey (21)	Turkey (14)
Brazil (369)	Argentina (228)	Jordan (17)	Jordan (9)
Argentina (316)	Brazil (197)	Chili (15)	Chili (8)
…	…	…	…
Russia (38)	*Russia (28)*	*Russia (4)*	*Russia (3)*
WORLD (4757)	**WORLD (3058)**	**WORLD (297)**	**WORLD (147)**

Source: WTO Statistics on Antidumping and Safeguard Measures (date 15.09.2015)

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Research design basis

- Malhotra N., Malhotra S. Liberalization and protection: antidumping duties in the Indian pharmaceutical industry. // Journal of Economic Policy Reform, June 2008
- Main objective was to test whether AD duties in the Indian pharmaceutical industry restrict imports from countries specifically named in a petition and if so, whether imports are diverted to countries that are not named

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Data specification

- Period of the data: annually from 1995 to 2013
- Import in dollars (source of the data UN Comtrade, access August 2015)
- Antidumping measures, amount of taken measures (source of the data WTO, access August 2015)
- Countervailing measures, amount of taken measures (source of the data WTO, access August 2015)
- Safeguard measures, amount of taken measures (source of the data WTO, access August 2015)

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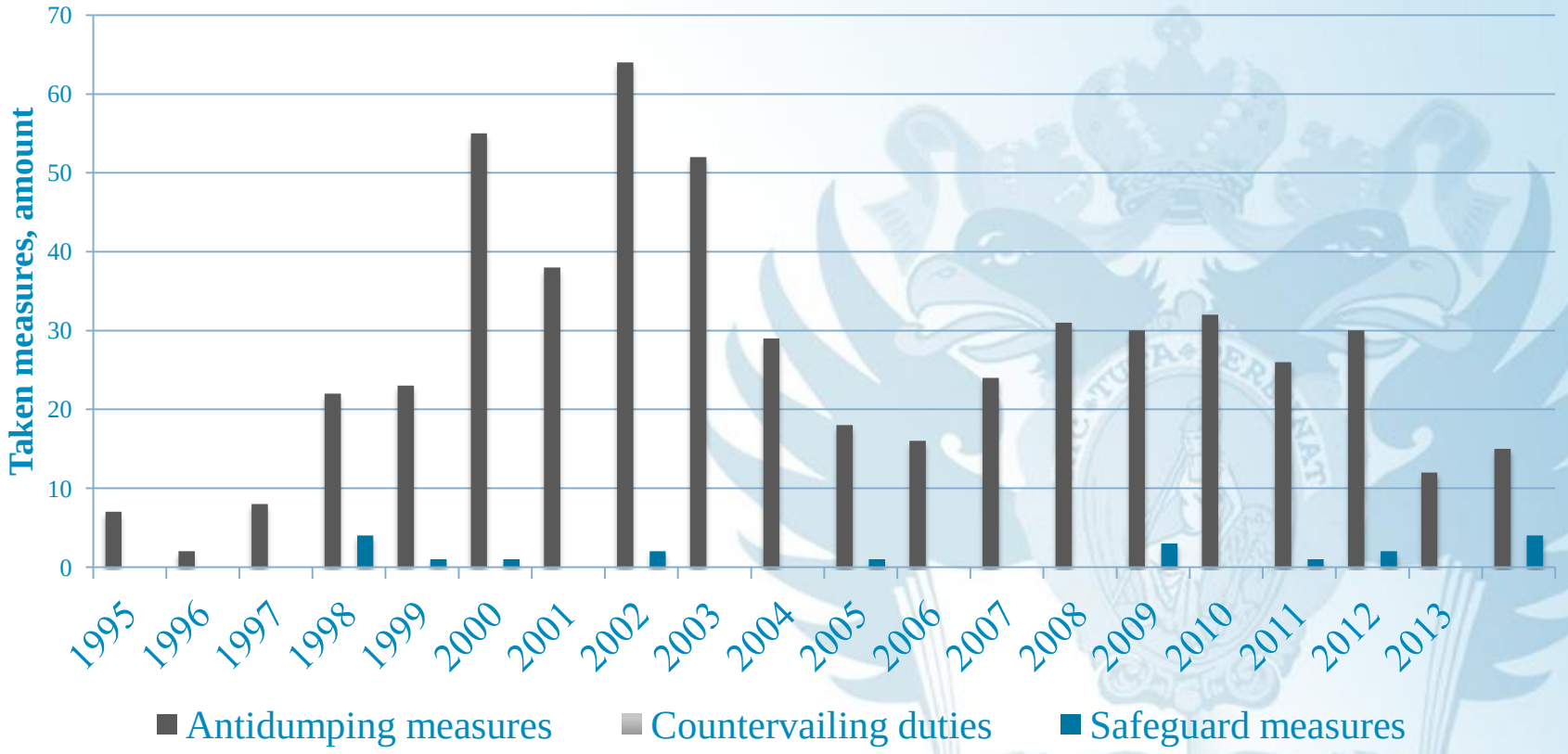
Data visualization



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General model specification

$$\ln(Import)_i = const + \beta_{1i} \cdot \ln(Import)_{i-1} + \beta_{2i} \cdot trend_i + \beta_{3i} \cdot AD_i + \beta_{4i} \cdot SGM_i + \varepsilon_i$$

$Import_i$ - Indian import in period i;

$trend_i$ - trend variable;

AD_i - amount of taken antidumping measures;

SGM_i - amount of safeguard measures taken.

Estimation procedure

- $\ln(Import)_i$ is trend-stationary variable, so we can use OLS to estimate equations
- Estimation was in SPSS package performed

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General model estimation

Model Summary				
Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	,994[a]	,989	,987	,12254
a. Predictors: (Constant), Antidumping, SGM, LN(Import)(-1), Trend				

ANOVA[a]						
Model		Sum of Squares	df	Mean Square	F	Sig.
1	Regression	25,345	4	6,336	421,992	,000[b]
	Residual	,285	19	,015		
	Total	25,631	23			
a. Dependent Variable: LN(import)						
b. Predictors: (Constant), Antidumping, SGM, LN(Import)(-1), Trend						

Coefficients[a]						
Model		Unstandardized Coefficients		Standardized Coefficients	t	Sig.
		B	Std. Error	Beta		
1	(Constant)	6,624	2,800		2,365	,029
	LN(Import)(-1)	,694	,128	,664	5,401	,000
	Trend	,058	,020	,386	2,820	,011
	SGM	-,050	,026	-,051	-1,908	,072
	Antidumping	-,004	,002	-,066	-1,573	,132
a. Dependent Variable: LN(import)						

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SGM model specification

$$\ln(Import)_i = const + \beta_{1i} \cdot \ln(Import)_{i-1} + \beta_{2i} \cdot trend_i + \beta_{3i} \cdot SGM_i + \varepsilon_i$$

$Import_i$ - Indian import in period i;

$trend_i$ - trend variable;

SGM_i - amount of safeguard measures taken.

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SGM model estimation

Model Summary				
Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	,994[a]	,987	,986	,12697
a. Predictors: (Constant), SGM, Trend, LN(Import)(-1)				

ANOVA[a]						
Model		Sum of Squares	df	Mean Square	F	Sig.
1	Regression	25,308	3	8,436	523,257	,000[b]
	Residual	,322	20	,016		
	Total	25,631	23			
a. Dependent Variable: LN(import)						
b. Predictors: (Constant), SGM, Trend, LN(Import)(-1)						

Coefficients[a]						
Model		Unstandardized Coefficients		Standardized Coefficients	t	Sig.
		B	Std. Error	Beta		
1	(Constant)	**3,783**	2,218		1,706	,104
	LN(Import)(-1)	**,826**	,101	,790	8,174	,000
	Trend	**,034**	,014	,228	2,365	,028
	SGM	**-,063**	,025	-,065	-2,478	,022
a. Dependent Variable: LN(import)						

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AD model specification

$$\ln(Import)_i = const + \beta_{1i} \cdot \ln(Import)_{i-1} + \beta_{2i} \cdot trend_i + \beta_{3i} \cdot AD_i + \varepsilon_i$$

$Import_i$ - Indian import in period i;

$trend_i$ - trend variable;

AD_i - amount of taken antidumping measures.

AD model estimation

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Model Summary				
Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	,993[a]	,987	,985	,13038

a. Predictors: (Constant), Antidumping, LN(Import)(-1), Trend

ANOVA[a]						
Model		Sum of Squares	df	Mean Square	F	Sig.
1	Regression	25,291	3	8,430	495,957	,000[b]
	Residual	,340	20	,017		
	Total	25,631	23			

a. Dependent Variable: LN(import)

b. Predictors: (Constant), Antidumping, LN(Import)(-1), Trend

Coefficients[a]						
Model		Unstandardized Coefficients		Standardized Coefficients	t	Sig.
		B	Std. Error	Beta		
1	(Constant)	**7,942**	2,887		2,751	,012
	LN(Import)(-1)	**,634**	,133	,606	4,783	,000
	Trend	**,066**	,021	,442	3,107	,006
	Antidumping	**-,005**	,002	-,092	-2,190	,041

a. Dependent Variable: LN(import)

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Further research steps

- To conduct analysis for Indian industries which are the most frequent users of AD and SF measures
- To expand research results for other countries in order to perform recommendations for Russia
- To collect the data for other countries and assess panel data model

Conclusions

- Since 1990 The Indian economy has undergone a number of important policy changes:
- cutting tariff levels; deregulation price controls; license elimination.
- At the same time India became the most frequent user of AD and SF measures.
- If on the one hand it can be said that there is no strong evidence between applying AD and SF policy and trade liberalization (Bown, Tovar) such analysis based on comparative industry analysis ;
- On the other hand, we find economically and statistically significant effects of applying AD and SF measures on Indian import.
- Our research shows us that each margin AD measure decreases import value on 0.5% and each margin SF measure decreases import value on 6.3%.
- Therefore, we can consider application of trade remedies in India as a one of restrictive instruments of trade policy which transfers the income from consumers to producers and to the government as tariff revenue. So, according the standard model of impact import tariffs on national economy we can say that AD and SF measures in India reduce national welfare.

THANK YOU!

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