

# PubPol/Econ 541

Class 12

## **Export Policies**

by

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# Paper #1 Feedback

- Rent is not deadweight loss
- Why consumer cost per job saved
- Discussion different for policy already in place than for a prospective one
- Partial equilibrium and other markets:
  - Not that they don't exist or don't matter
  - Just that their prices are held fixed
- Don't round off in midst of calculations
- Why different answers using class formula

# Outline

- Export policies
- How common are they
- Economic analysis
- Empirics of export restrictions
- Recent uses

# Export policies

- Types of export policies
  - Bans
  - Taxes
  - Subsidies

# Export policies

- Reasons for export policies
  - Bans
    - To keep products away from other countries
    - To lower prices to consumers
  - Taxes
    - To raise revenue
    - To lower prices to consumers
  - Subsidies (see later, and not GATT-legal)
    - To support domestic producers

# Outline

- Export policies
- **How common are they**
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# How common are export taxes

- See Laborde et al.
- Note first why they've been neglected:
  - Countries mostly want to export more, not less
- Export taxes are used by about 1/3 of WTO members
- Average was 0.48 per cent in 2007

# How common are export taxes

- Export taxes are concentrated on
  - Raw agricultural products
  - Minerals
  - Processed oilseeds
  - Aluminum and iron
  - Timber.
  - Energy products (esp. Russia natural gas)



TABLE 3  
Average Export Taxes (Per Cent), by Sector

<i>Code Sector GTAP7</i>	<i>Sector</i>	<i>Trade-weighted Export Tax</i>
GAS	Gas	24.1
FRS	Forestry	8.9
VOL	Vegetable oils and fats	5.7
OIL	Oil	3.9
CMT	Bovine meat products	2.3
OSD	Oilseeds	2.0
P_C	Petroleum, coal products	1.8
OCR	Crops n.e.c.	1.7
GRO	Cereal grains n.e.c.	1.3
WHT	Wheat	1.3
OMN	Minerals n.e.c.	0.8
LUM	Wood products	0.5
NFM	Metals n.e.c.	0.3
CTL	Bovine cattle, sheep and goats, horses	0.3
PFB	Plant-based fibres	0.2
PDR	Paddy rice	0.2
LEA	Leather products	0.2
WOL	Wool, silk-worm cocoons	0.2
COA	Coal	0.2
V_F	Vegetables, fruit, nuts	0.1

Note:

(i) n.e.c., not elsewhere classified.

Source: Authors' computation.

TABLE 4  
Average Export Taxes (Per Cent), Top 20 Countries

<i>Code</i>	<i>Country GTAP7</i>	<i>Country</i>	<i>Trade-weighted Export Tax</i>
RUS		Russian Federation	23.1
ARG		Argentina	9.1
XWF		Rest of Western Africa	4.3
XNF		Rest of North Africa	3.8
BLR		Belarus	2.0
XSU		Rest of former Soviet Union	1.9
XOC		Rest of Oceania	1.6
XCF		Rest of Central Africa	1.3
IDN		Indonesia	1.0
BOL		Bolivia	1.0
LAO		Lao People's Democratic Republic	0.8
XSC		Rest of South African Customs Union	0.7
AUS		Australia	0.6
IND		India	0.5
UGA		Uganda	0.5
ZAF		South Africa	0.4
MOZ		Mozambique	0.4
NOR		Norway	0.4
MAR		Morocco	0.4
MYS		Malaysia	0.3

Source: Authors' computation.

# Pause for Discussion

# Questions

- What are some of the motives for export taxes mentioned by Laborde et al.?

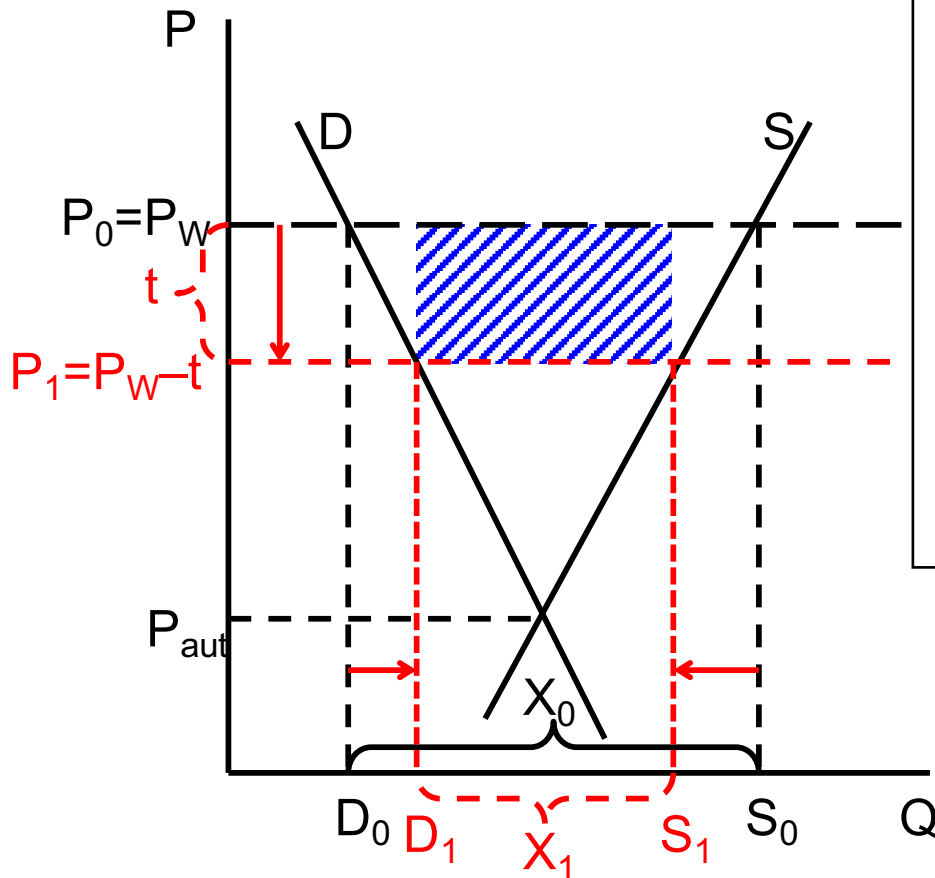
# Outline

- Export policies
- How common are they
- **Economic analysis**
- Empirics of export restrictions
- Recent uses

# Economic Analysis

- Use the same tools and assumptions as for tariffs
- Export tax causes domestic price to be below the world price by the amount of the tax (if country still exports)
- Why? If suppliers continue to sell both at home and for export,
  - They must get the same at home as for export
  - And that is the world price minus the tax

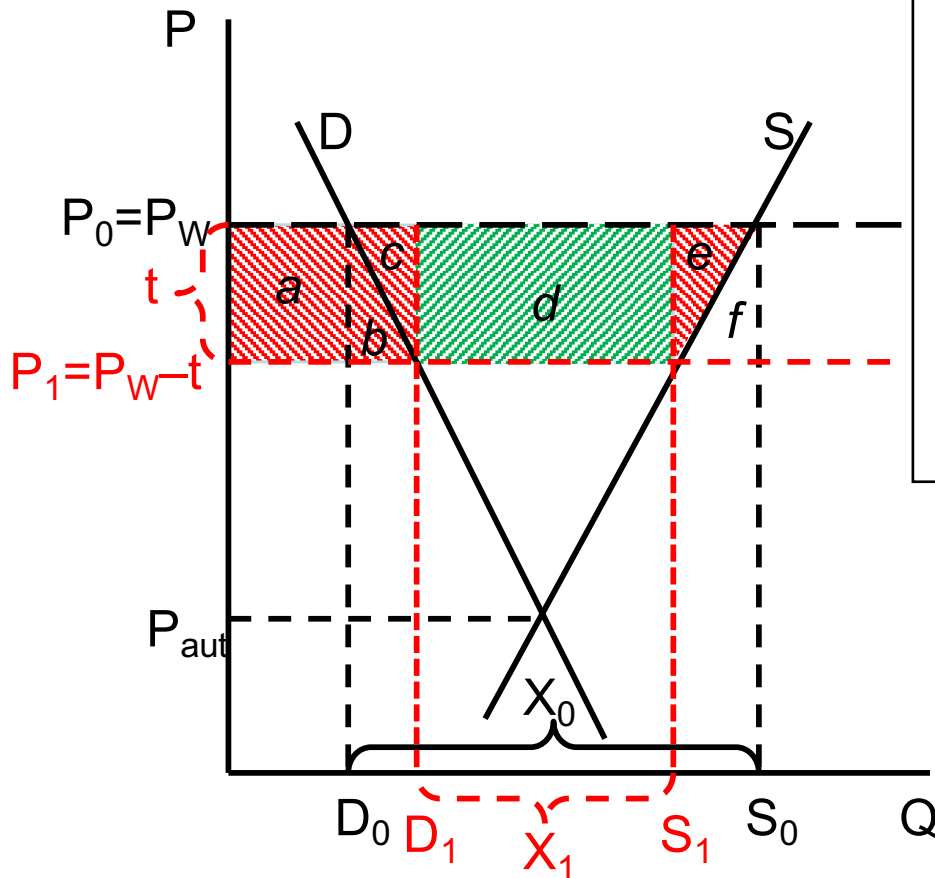
# Small country export tax



- Effects of an export tax, starting from free trade
  - Price falls
  - Quantity demanded rises
  - Quantity supplied falls
  - Quantity of exports falls
  - Tax revenue rises from zero

Specific Export Tax  $t$

# Small country export tax



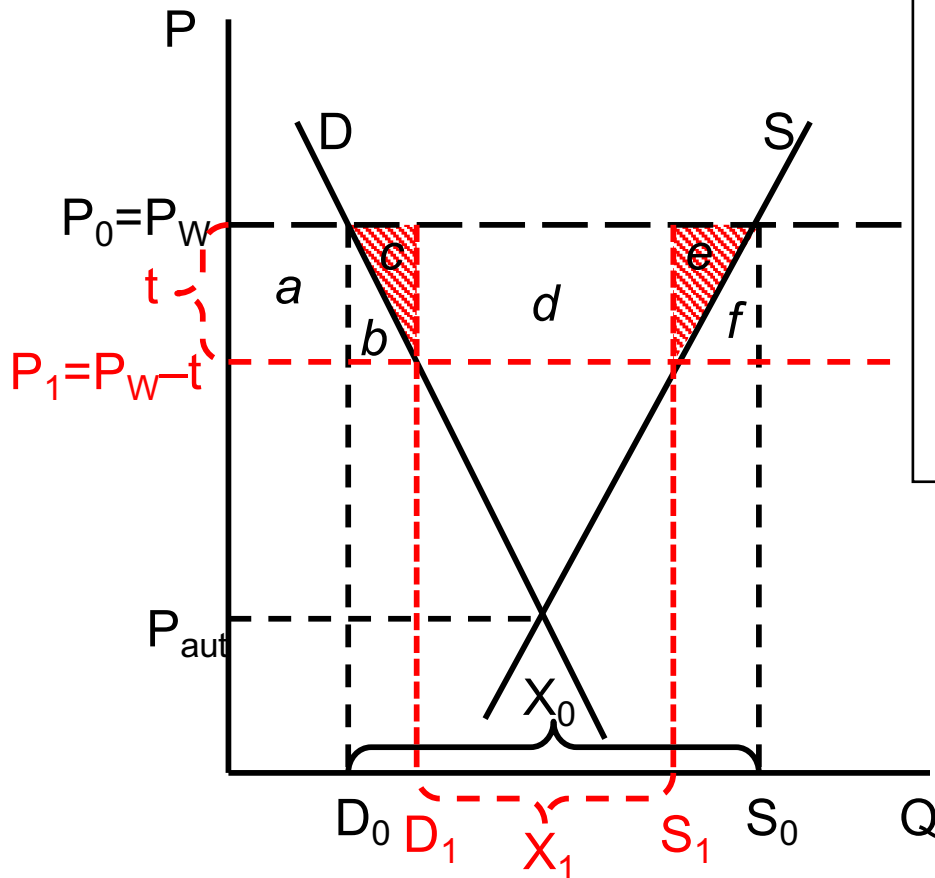
- Welfare effects of an export tax, starting from free trade
  - Suppliers lose  $-(a+b+c+d+e)$
  - Demanders gain  $-(a+b)$
  - Government gains  $+d$
  - Country loses  $-(c+e)$

*“Dead Weight Loss”*

## Specific Export Tax $t$



# Small country export tax

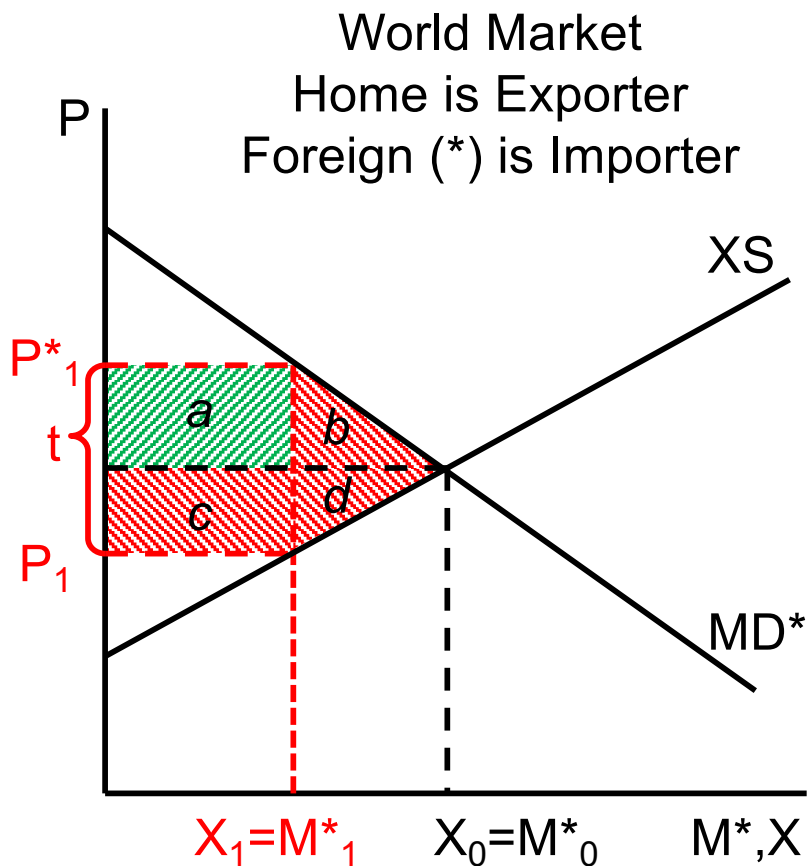


- Welfare effects of an export tax, starting from free trade
  - Suppliers lose  $-(a+b+c+d+e)$
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  - Country loses  $-(c+e)$

*“Dead Weight Loss” =*

## Specific Export Tax $t$

# Large country, World Market



Welfare effects of a large-country tariff, starting from free trade

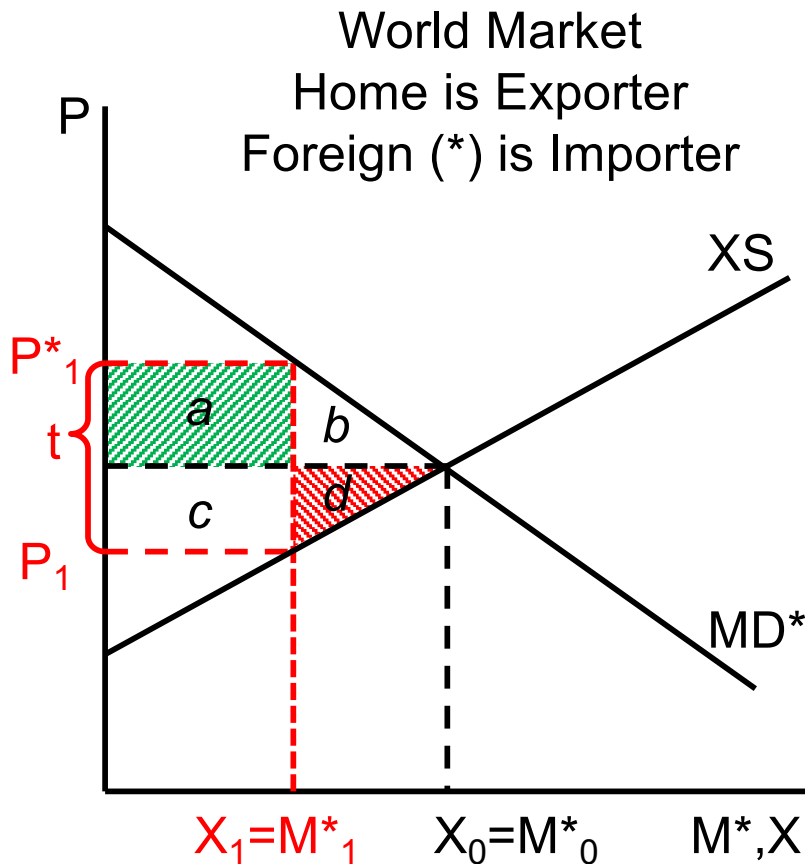
- Home:
 

Private sector (S&D) loses	$-(c+d)$
Government gains	$+(a+c)$
<hr/>	
Country may gain or lose:	$+a-d$
- Foreign
 

Private sector (S&D) loses	$-(a+b)$
<hr/>	
- World loses  $-(b+d)$

"Dead Weight Loss" =

# Large country, World Market



Thus large country, again, will gain from export tax if  $a > d$

- What is area  $a$ ?
  - The portion of the tax paid by foreign importers, who pay a higher price
  - A transfer from foreign demanders to the home government
  - The result, again, of improving the home country's

“terms of trade”

“Terms of Trade”  $\equiv$  Relative price of exports  $= P^X/P^M$

# Pause for Discussion

# Questions (not asked before)

- Explain why an export tax pushes down the price at home.
- Explain why an export tax pushes up the price abroad.
- Who are hurt and who are helped by an export tax?

# Outline

- Export policies
- How common are they
- Economic analysis
- **Empirics of export restrictions**
- Recent uses

# Empirics

- Laborde et al.
  - Use computer model of trade to quantify the effects of removing export taxes that existed in 2007
  - (CGE Model = Computable General Equilibrium Model)

# Empirics

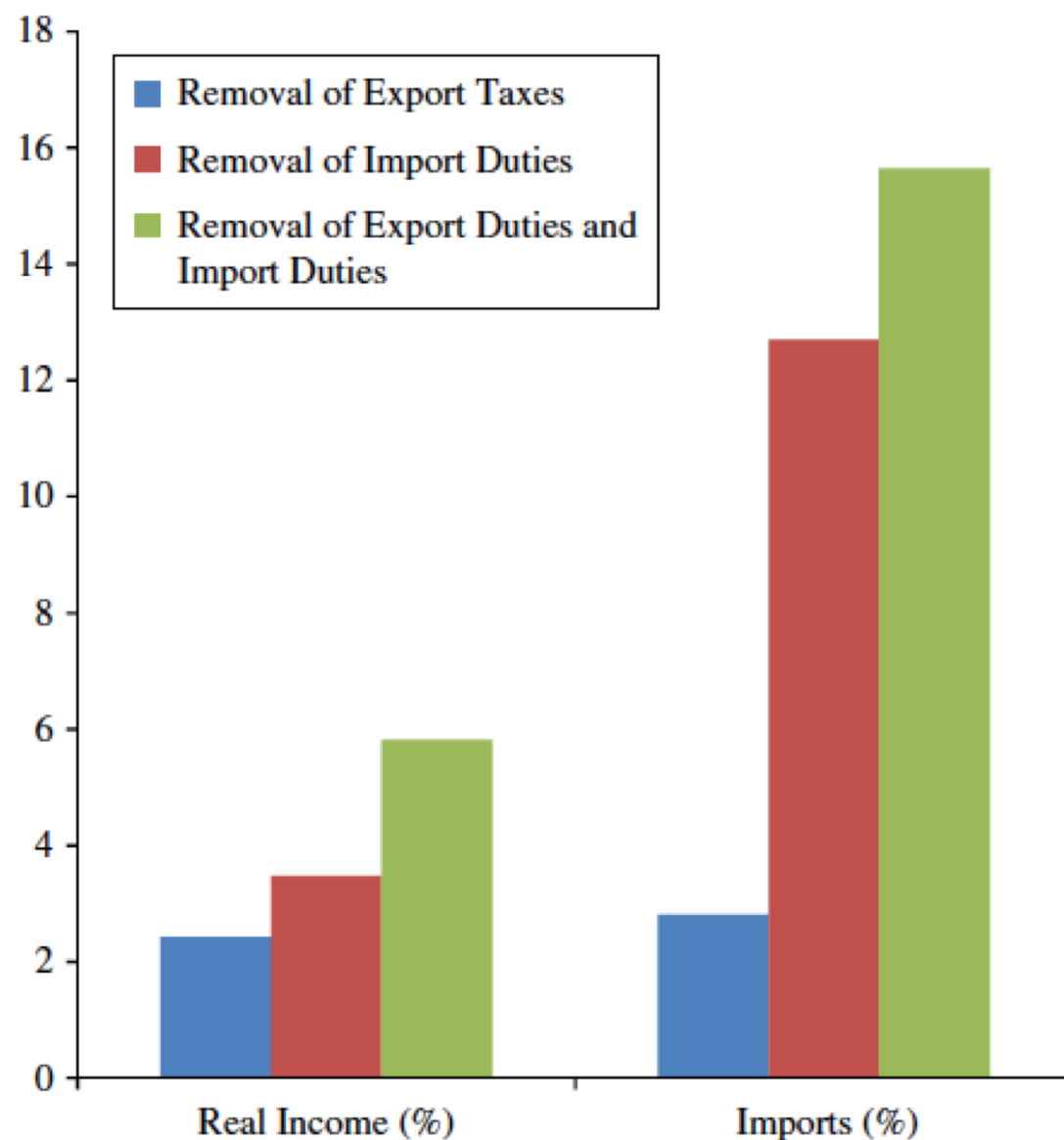
- Findings: Export tax removal causes
  - an overall gain of 0.24 per cent in world real income
    - +1.6 per cent in oil-exporting countries,
    - +0.2 per cent in developed countries and
    - +0.1 per cent in other developing countries.
  - boosts world trade volumes by 2.8 per cent
  - reduces the world price of these products.



# Empirics

- Findings
  - The largest winner is the CIS block (whose real income increases by 3.5 per cent)
  - Other oil exporters are negatively hit
  - Importing countries can benefit
  - May cause deindustrialization
  - Despite their much smaller size, export taxes effects on real incomes are more than half those of import taxes

FIGURE 6  
Comparing Elimination of Tariff Export Restrictions and Import Restrictions



Note:

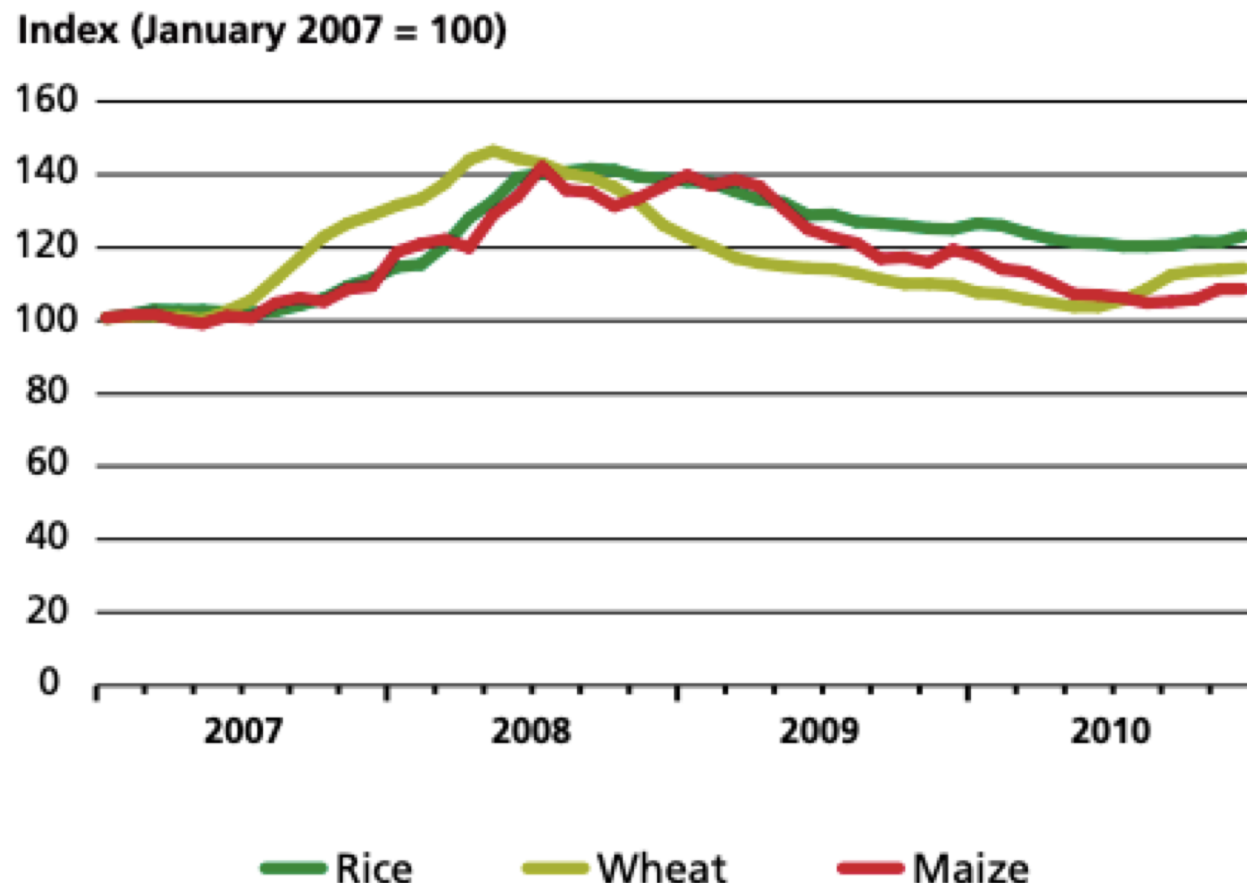
(i) Three scenarios are displayed in this graph: the complete elimination of export taxes by all countries in the world, the complete elimination of import duties by all countries in the world and the combination of both scenarios.

Source: MIRAGE simulations.

# Empirics

- Beckman et al.
  - Reports effect of export taxes in agriculture, 2006-2008
  - “In times of high or volatile prices, they are generally applied to guarantee domestic food supply and lower domestic prices.”
  - Results from both a partial equilibrium model and a CGE model

## Domestic prices for rice, wheat and maize increased substantially during the crisis



*Note:* The graph shows average inflation-adjusted trends in domestic prices for rice, wheat and maize across countries from January 2007 to December 2010. The domestic price is set equal to 100 in January 2007 for all countries, and the index value for subsequent months is equal to the average index value across all countries. The domestic price indices for rice, wheat and maize include 42, 27 and 34 countries, respectively, and include all countries for which data were available at the time of writing.  
*Source of raw data:* FAO Global Information and Early Warning System.

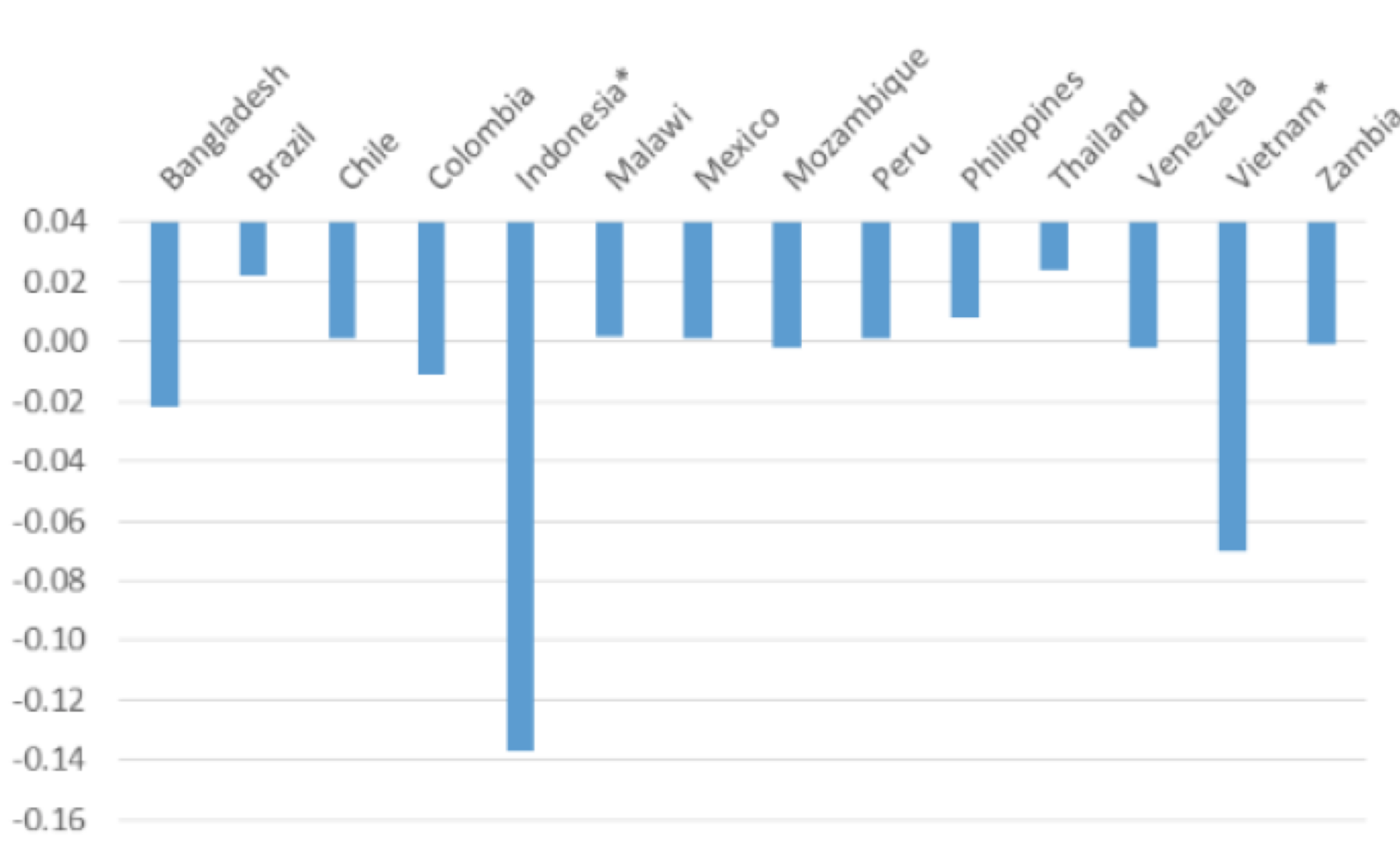
# Empirics

- Effects of export taxes:
  - lowers domestic prices.
  - increase in international prices
    - if exporter is large or if many exporters tax
  - negative impacts on welfare
  - countries that implemented these policies tended to weather the food price crisis the best.
  - countries that are dependent on food imports were not as insulated

SECTOR		EXPORT TAXES	
		Evidence of price effects	Dynamic pattern <sup>a</sup>
4	Dairy prod; birds' eggs; natural honey; edible products of animal origin, NES	yes	in t
7	Edible vegetables and certain roots and tubers	yes	in t
12	Oil seeds, oleaginous fruits; grains, seeds, fruit; ind or med plants; fodder	yes	in t+1
15	Animal/vegetable fats & oils & their cleavage products; edible fats; waxes	yes	in t , reinf in t+1
17	Sugars and sugar confectionery	yes	in t
21	Miscellaneous edible preparations	yes	in t
22	Beverages, spirits and vinegar	yes	in t
23	Residues & waste from the food industry; prepared animal fodder	yes	in t

*Source:* GMM estimations. In this column, 'in t' means the impacts occurred in the time period t that the tax is imposed; 'in t + 1' means the impact occurs in the next period; 'reinf in t + 1' means the impact occurs in t but is even higher in t + 1.

**Figure 2** Percent change in poverty when export taxes are removed



*Source:* CGE results.

*Note:* The countries with an asterisk are those that had export taxes removed in the CGE scenario.

*Authors' note:* The findings and conclusions in this column have not been formally disseminated by the US Department of Agriculture and should not be construed to represent any agency determination or policy.

# Pause for Discussion



# Questions on Laborde et al., “Economic Effects of Export Taxes”

- In 2006, what sector had the most export taxes?
- What are some of the main effects of removing export taxes?
- What are some of the limitations of this analysis?

# Questions on Beckman et al., “Export taxes on agricultural ...”

- What was the main reason for export taxes examined here?
- Does Figure 2 show poverty falling in all the countries?

# Outline

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- **Recent uses**

# Recent Uses

- India: Onions
- Mozambique: Cashews
- Indonesia and others: Sand
- Vietnam: Fraudulent exports
- Ghana & Ivory Coast: Cocoa

# Pause for Discussion

# Questions on Gettleman, India: Onions

- Why did India ban export of onions?
- What effects did the ban have?
- News from March 2020 says that onion exports would resume March 15. What would you guess prompted the change?

# QUESTIONS ON ECONOMIST, Mozambique: Cashews

- Why had Mozambique removed its export tax in the 1990s?
- Who is helped and who hurt by the export tax?
- What happened to the quality of the nuts?
- Are other countries' policies mentioned?

# Questions on Bruce-Lockhart, Indonesia and others: Sand

- Why is the demand for sand so high?
- What harm is done in mining sand?
- Why are export bans hard to enforce?



# Questions on Uyen, Vietnam: Fraudulent exports

- What does this have to do with the US trade war with China?
- What is the evidence that there are fraudulent exports?
- What indicator does Trump seem to be most concerned with in terms of US trade with Viet Nam?

# Questions on Ryan, Ghana & Ivory Coast: Cocoa

- Why might these countries be successful in forming a cartel?
- If the cartel raises prices, why won't countries other than these simply take away their customers?
- What is “shrinkflation”?

