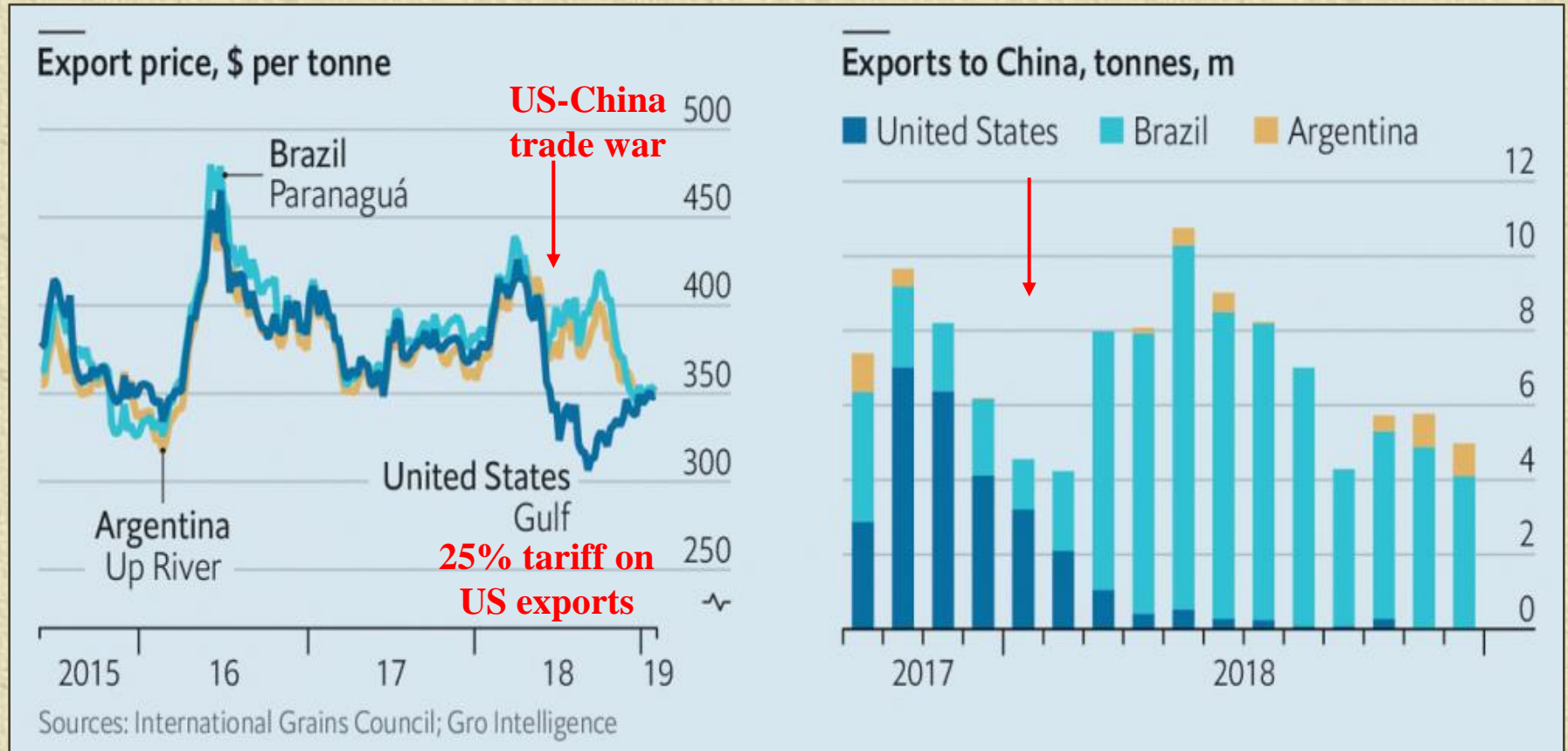


Exercise 3. Real-world application of tariff

- ◆ Import tariff: large country case in soybean mkt



2017: China accounted for 60% of US soybean exports

2018: US planted big crop in response to high demand and poor crop in Argentina; US bumper crop as China applies tariff

Source: *Economist*, “Soyabeans: Soy sources”, 23 Feb 2019, p. 73.

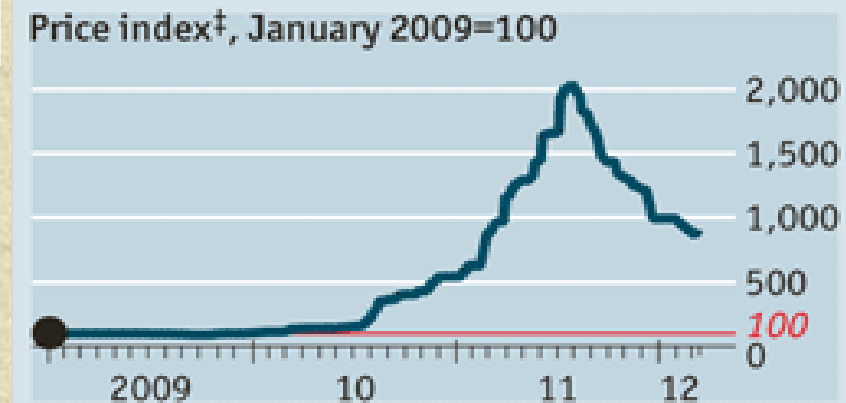
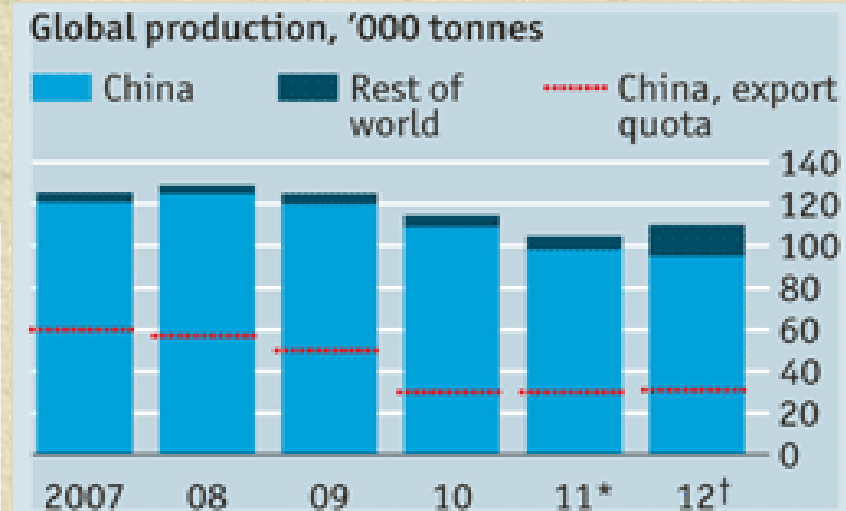
Import/Export Quotas as a Policy Tool, ... continued

Export quota: case of rare earth elements

- Background
 - ◆ Key manufacturing input
 - ◆ China global supplier/exporter

Background information	
Share of world Q, 2000-10	97%
Share of reserves	50%
Avg export vol, 2000-09	47 000 – 50 145 tons
Export quota, 2010	30 000 tons

- What is the policy objective?
 - ◆ Address environmental concern
 - ◆ Benefit at expense of others

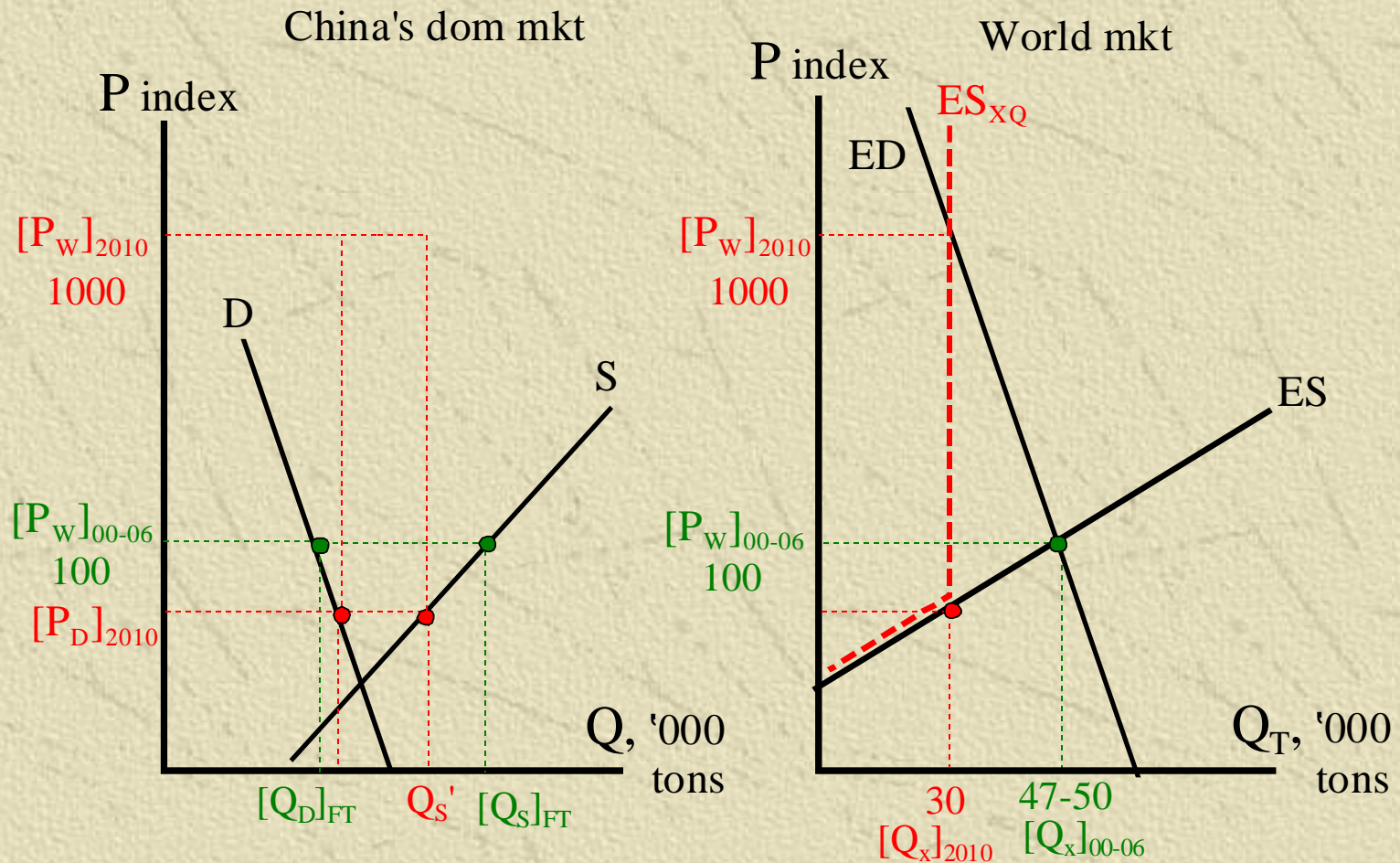


Sources: China's Ministry of Commerce; IMCOA; Kaiser Research Online

*Estimate †Forecast
‡Composite of ten minerals

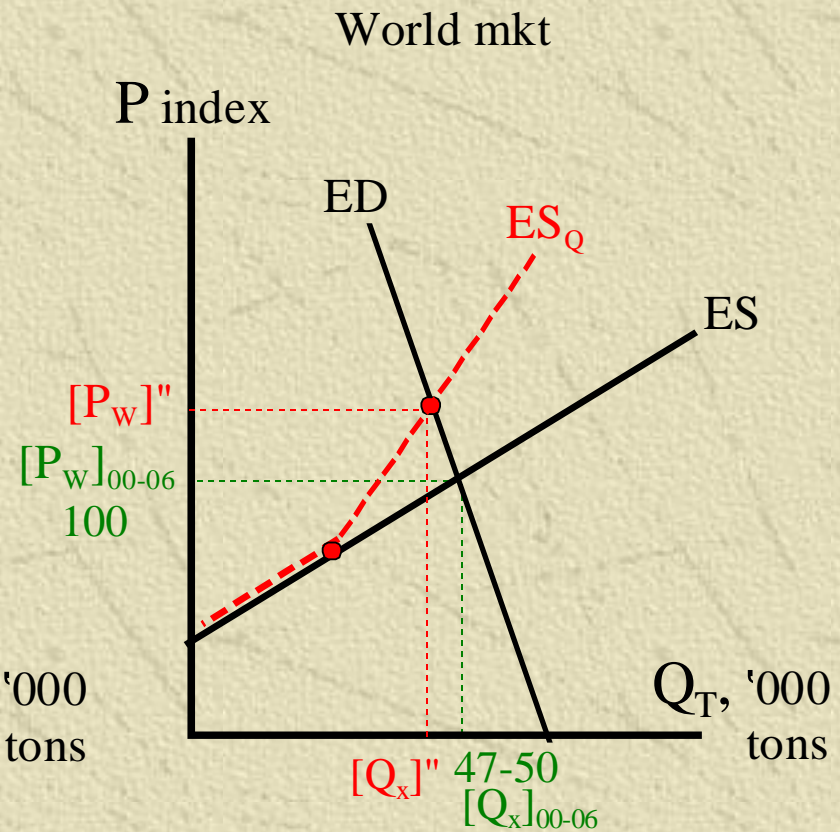
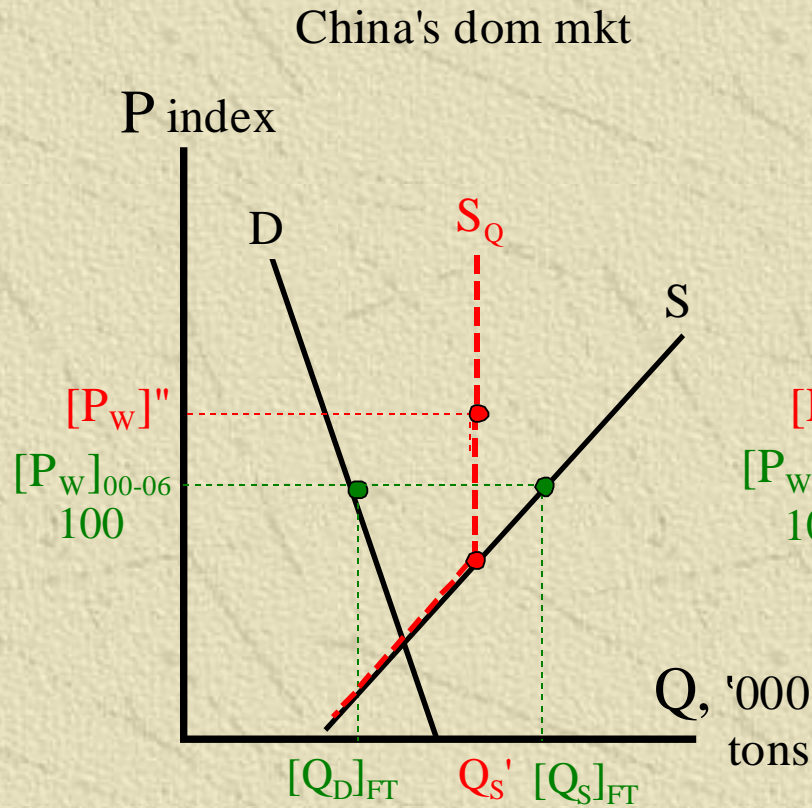
Import/Export Quotas as a Policy Tool, ... continued

- ◆ Is an export quota an appropriate tool to meet an environmental objective?



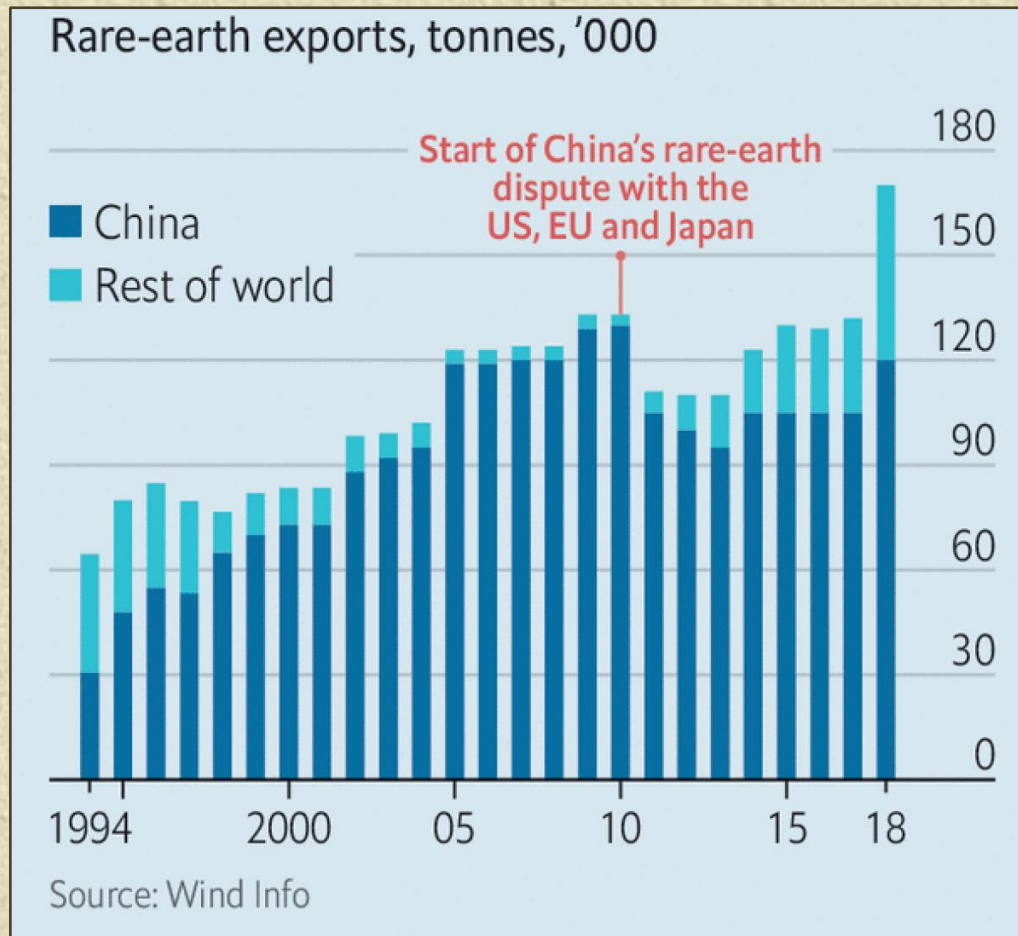
Import/Export Quotas as a Policy Tool, ... continued

- ◆ Is a production quota an appropriate tool to meet an environmental objective?



Import/Export Quotas as a Policy Tool, ... continued

◆ Aftermath of the policy and trade dispute



2010: WTO case found that China's policy was not for protecting environment, but to control raw materials for dominance in value added: turning oxides into metals and metals into products.

Concern with China's dominance of rare earths has led to increased mining in the rest of the world.

5. Export Taxes as a Policy Tool

5.1 Basics of an export tax

- ✦ Definition by type
- ✦ Objectives and economics
- ✦ Economic and political issues
 - ◆ WTO rules on exports more weakly enforced than imports
 - ◆ Economic: logic of WTO principles; efficiency
 - ◆ Political: Who taxes exports? Why should WTO care?

5.2 Graphical analysis: economic, trade and welfare

- ✦ Case of Argentina, 2005-08
- ✦ Case of Mozambique, 2001
- ✦ Case of global export taxes, 2007 price spike

Export Taxes as a Policy Tool

✦ Case of Argentina (soybeans, beef)

◆ Export taxes: overall; soybeans

- 2005 overall ag export taxes
 - ◆ 80% of all X earnings
 - ◆ 6% of total revenue – for soy, 23.5% of soy revenue
- 2008: soy tax ↑ to 40%
 - ↑ 95% when $P_W > \$600/\text{ton}$
- 2023: 33% tax on soy

◆ Beef, 2005-06

- 15% tax; near-ban if P_W ↑ too much
- Trading in ag futures stopped
- Farmers strike/block roads
- Domestic P (slaughterhouse):
 - ◆ ↓ P_D to farmers by 30%
 - ◆ ↓ P_D to consumers by 7.5%

In 2006, President reversed policy allowing export volume to ↑ to 65% of 2005 level: ↑ P_D → ↑ X



Economist, “Farming in Argentina: Biting the Hand that Feeds” 26 Oct 2006; and “Argentina: Deadlock”, 31 May 2008, p. 60

Export Taxes as a Policy Tool

✦ Case of Mozambique's cashew nut sector

◆ Background

- 1960s: ½ of world crop production and domestic nut processing
- 1977-92: civil war left sector in ruins
- 1990s: World Bank has gov't cut export tax and remove controls
- 2001: X ban on nuts during harvest; 18-22% X tax; 0% if processed

◆ Result:

- Some smuggling: $P_W > P_D$, $P_D \downarrow$ hurts producers, helps processors
- $\downarrow Q_S$, \downarrow quality, \downarrow investment in new trees
- Gov't hurts 1.3m smallholders to \uparrow 17 000 jobs in 16 processing plants

Tax is intended for survival of sector: 50% of share of value not 24%.

Problem: India is world's biggest consumer/processor. In 2019, India \uparrow tariff to 70% on processed nuts

Source: *Economist*, "Mozambique's nutcrackers: Cashews and cash", 14 Sep 2019, p. 35.

Mozambican cashews, share of supermarket price (\$15/kg) by stage of production*, 2015, %

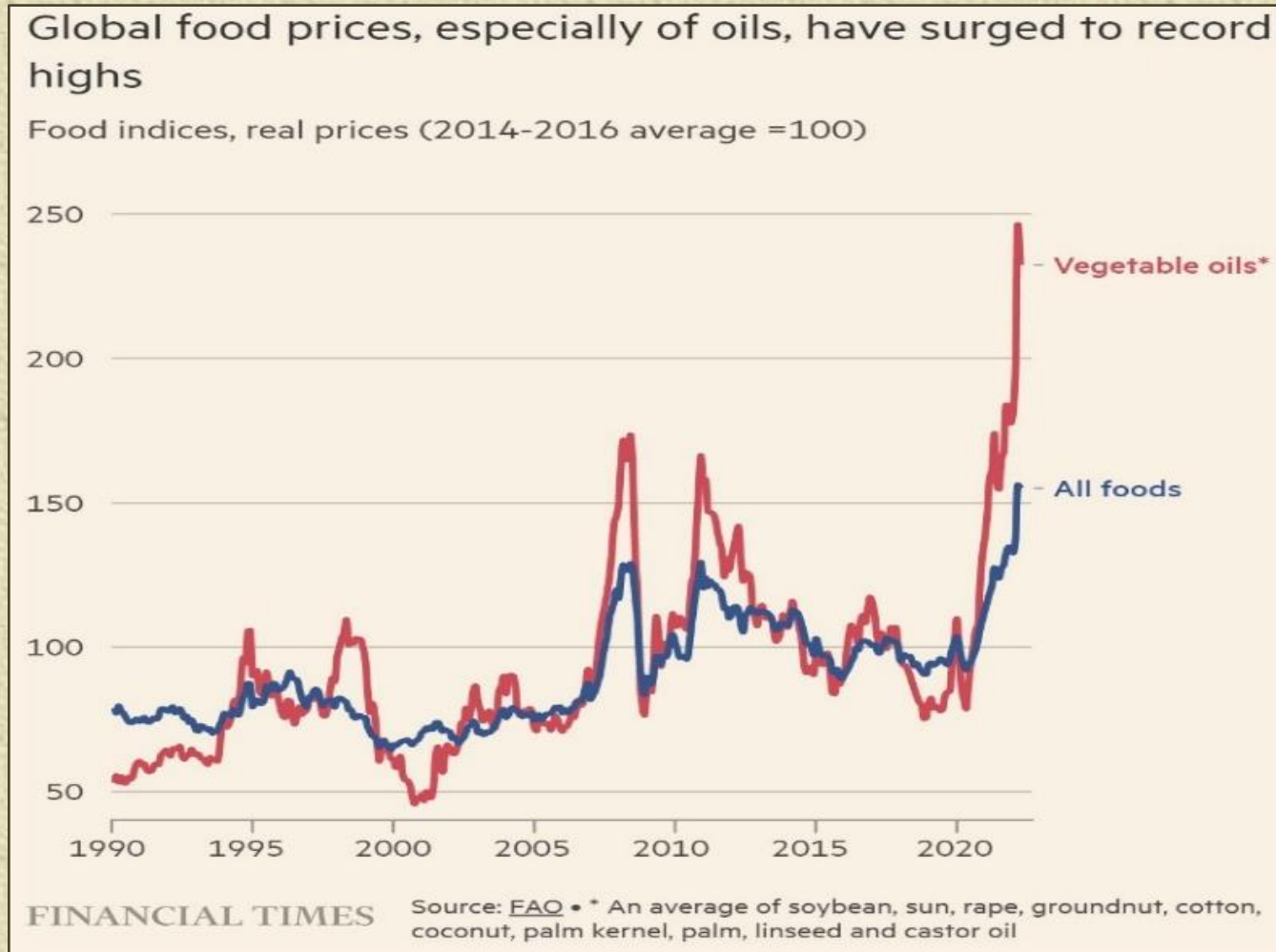


Source: Technoserve

*Figures do not add up due to rounding

Export Taxes as a Policy Tool

- ◆ Commodity P-shocks: 2007, 2011-13 and 2021-22



2007: panicked by rising food prices 30+ gov'ts from Ukraine to China, introduced export restrictions on farm produce, cutting supply on world markets. Rice was worst hit – only 4% of total crop is traded globally. On news of the ban prices tripled.

Financial Times, “Export bans and protectionist policies worsen disruption in food markets”, 11 May 2022, p. 8.

Economist, “Of Froth and Fundamentals”, 11 Oct 2008. 9

6. Trade Subsidies as a Policy Tool

6.1 WTO definition of a subsidy / export subsidy

6.2 Basics of *trade* subsidies

✦ Types: ad valorem or specific

- ✦ Import subsidy not common – food aid instead
- ✦ Export subsidy require rules on their use

✦ Objectives

✦ Economics and political issues

6.3 Modeling: partial eqlbm analysis

Trade Subsidies as a Policy Tool

- ✦ Alternative programs to facilitate or promote exports
 - ✦ Mkt and product promotion
 - ✦ Special economic zones (SEZs)
 - Tax-free imported inputs
 - Reduced tax on profit
 - Other subsidies



Economist, “Special economic zones: Political priority, economic gamble”, 4 Apr 2015, p. 59-60

Trade Subsidies as a Policy Tool

◆ Shanghai SEZ: Shift to services from manufacturing



Six sectors opening for investment in the SFTZ

Industry	Sub-sector
Financial	Banking
	Health insurance
	Leasing
Shipping	Ocean shipping and management
Commercial	Value-added telecom services
	Sales and service of game machines
Professional	Legal services
	Credit investigations
	Travel agencies
	Investment management
	Construction services
Cultural	Entertainment venues
Social	Educational and vocational training
	Medical services

Source: HSBC

In China, services ↑ to 62% of GDP in 2013 (in Hong Kong it is 90%); Officials are experimenting with deeper reforms in services within a tightly-sealed zone.

Trade Subsidies as a Policy Tool

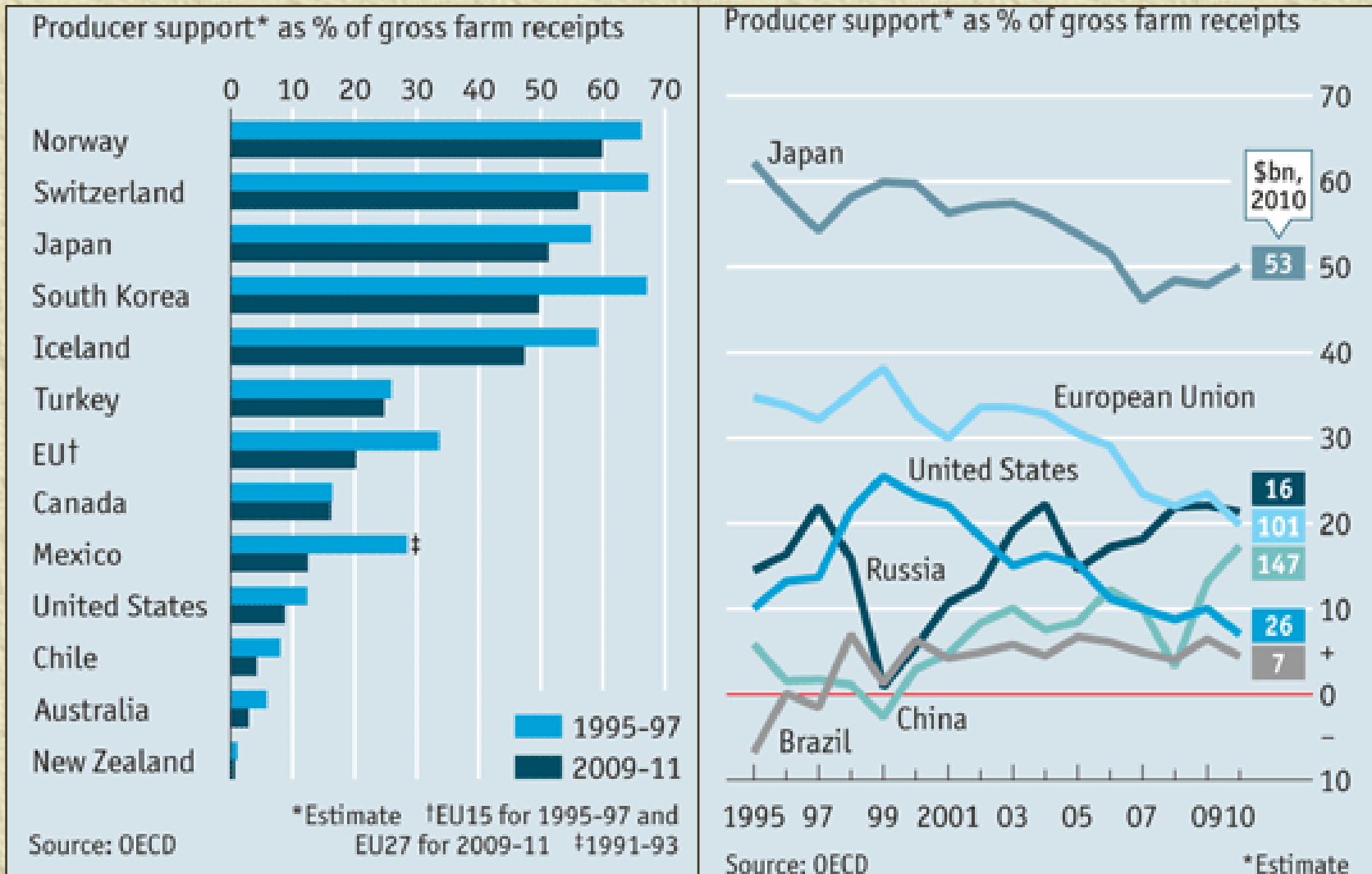
6.4 WTO rules on subsidies (prohibited for manu goods)

- ✦ Ag export subsidies commitment: bound value and volume, base yr 1986-90
 - ◆ DCs: 36% cut in value, 21% cut in volume over 1995-2000
 - ◆ LDCs: 24% cut in value, 14% cut in volume over 10 yrs
 - ◆ 2020: export subsidies no longer allowed

- ✦ Ag support (domestic support): bound value on aggregate measure of support (AMS), base yr 1986-88
 - ◆ AMS is total ag support that is not trade subsidy
 - ◆ DCs: AMS cut 20% over 1995-2000
 - ◆ LDCs: AMS cut 13% over 10 yrs

Trade Subsidies as a Policy Tool

✦ Ag (domestic) support by biggest, in \$bn, 2010



Trade Subsidies as a Policy Tool

✦ India's sugar (cane) subsidy: domestic vs trade subsidy

◆ Background

- 2018: India became biggest producer
- 2019: record output ($Q_S = 33\text{m tons}$; $Q_D = 26\text{m}$)
 - ◆ Cumulative sugar stockpile: a record 14.5m tons
 - ◆ P_W at lowest in 10 years
- 35-50m farmers on 1-2 hectare plots (7.5% of rural pop of 2 big states)
- Sugar mills employ 600 000 people

◆ Policy

- P_D of cane is a “state-advised price” guaranteeing min P to farmers
- Gov't also sets a min P for mills - consumers / users pay high price
- Aug 2019: mills were paid bonus of 15¢/kg for export (\$877m in total)

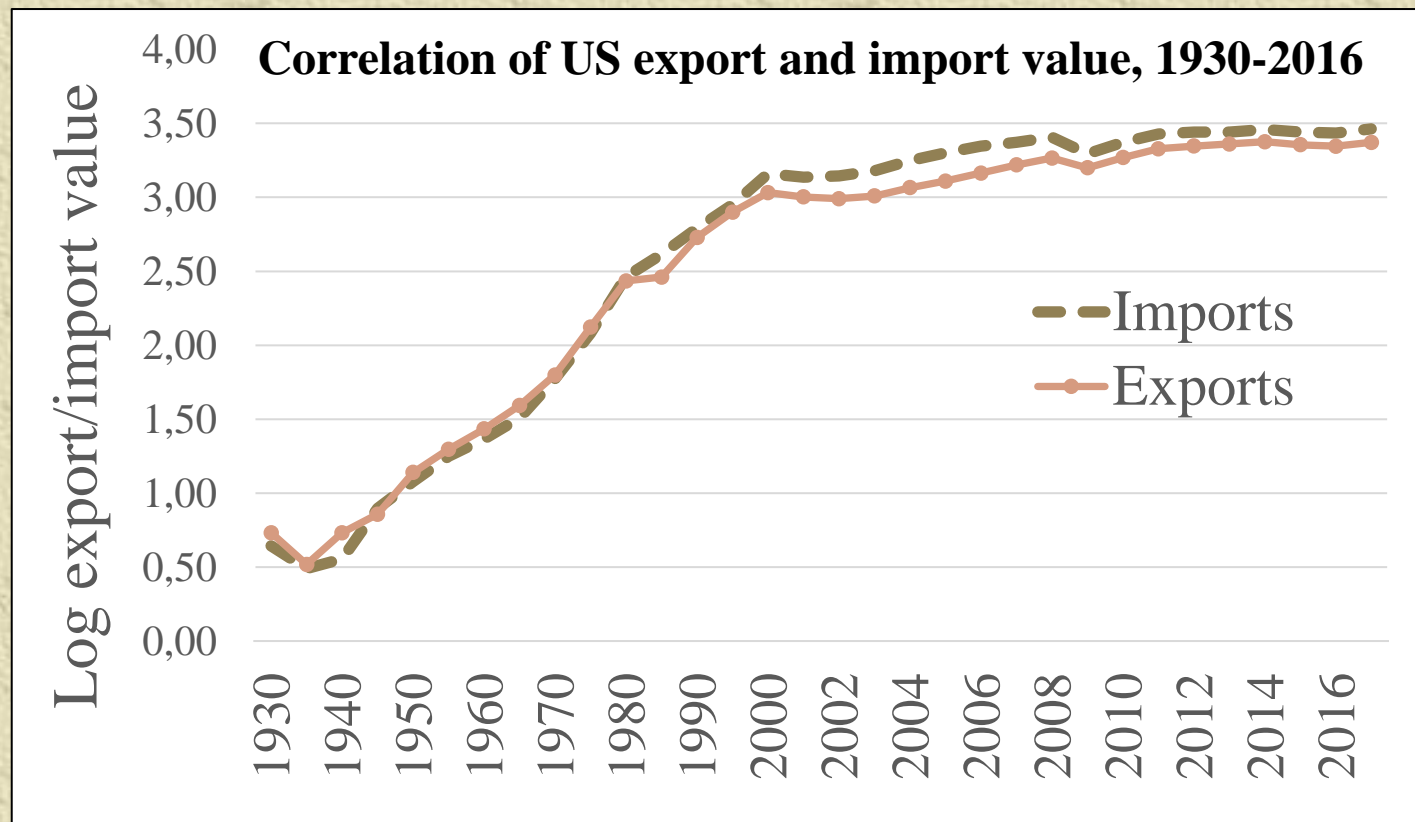
◆ Brazil, Australia and Guatemala file WTO complaint

- $\downarrow P_W$
- Displace exports

Trade policy analysis: concluding comments

6.5 Lerner symmetry: empirical evidence

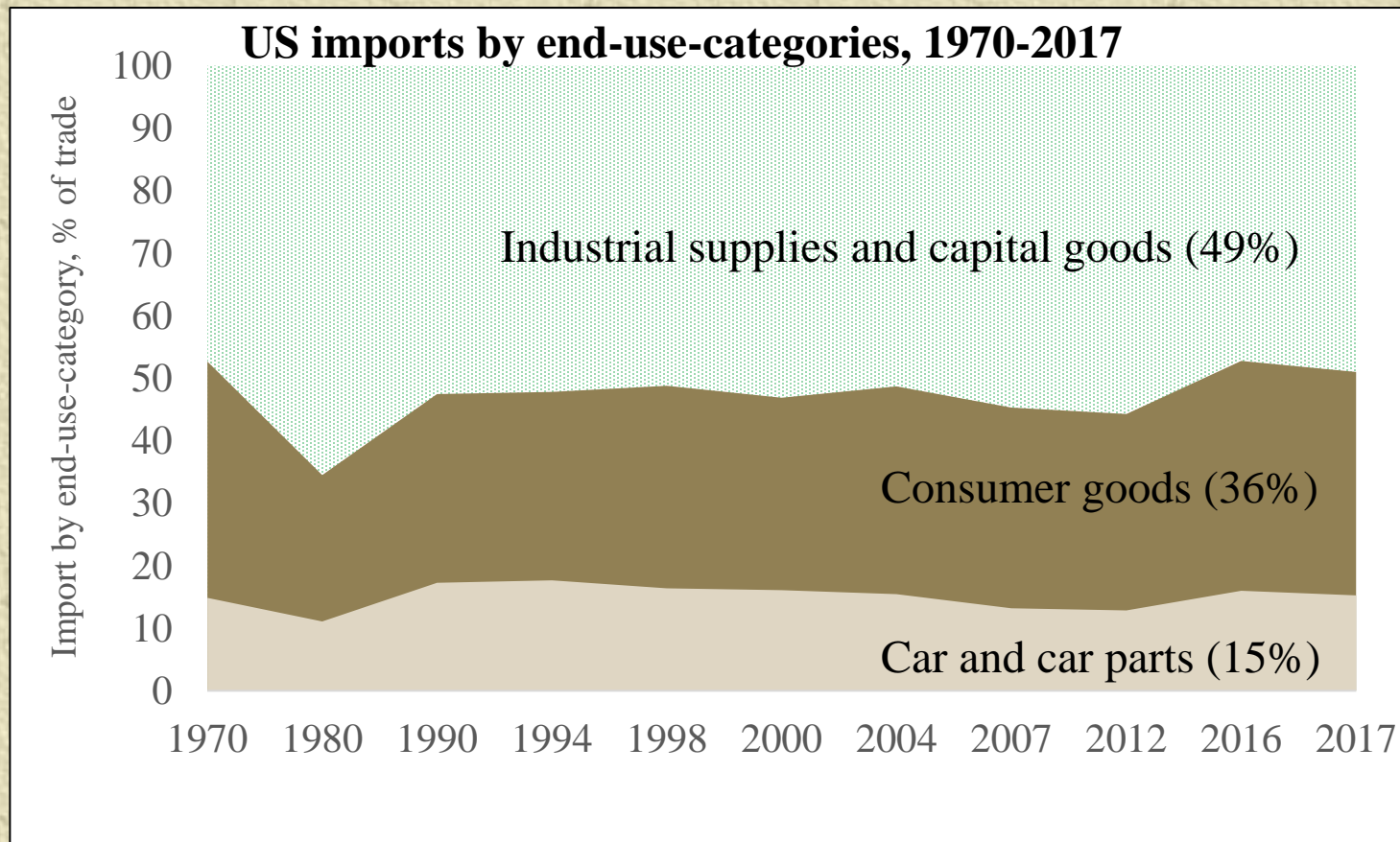
✦ Taxing imports is taxing exports



Source: US Census Bureau, <https://www.census.gov/foreign-trade/statistics/historical/gands.pdf>, accessed Sep 2018.

Trade policy analysis: concluding comments

✦ Businesses are consumers too



Data source: US Dept. of Commerce, *Survey of Current Business*, Mar issues year after date.