

4. Import and Export Quotas as a Policy Tool

4.1 Basics of import/export quotas

- ✧ Definition
- ✧ Types
- ✧ Objectives (import)
- ✧ Economic and political issues to consider
 - ◆ WTO rules on use of quotas
 - ◆ Economic logic of WTO principles
 - ◆ Political administration

4.2 Graphical analysis: import and export quotas

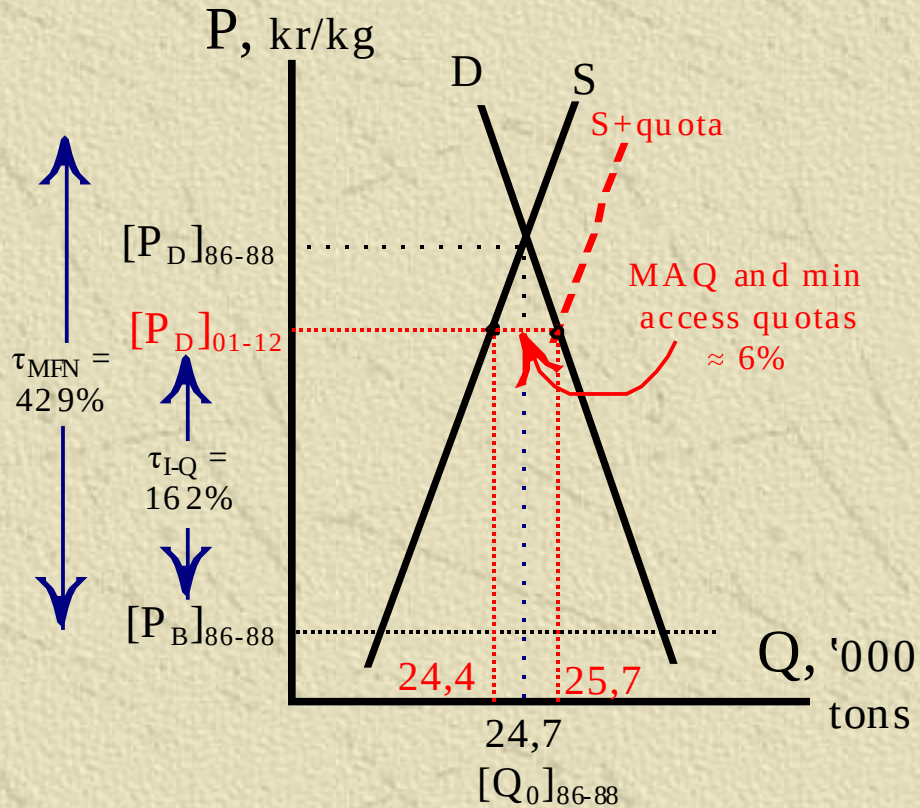
Import and Export Quotas as a Policy Tool

✧ Norway's use of import quotas: lamb/sheep meat market

Period	Domestic mkt		Trade sector		
	Prodn	Cons	Trade status	M share of C	X share of Q
1988-94	24 700	24 450	Net X	1.3%	2.3%
1995-00	24 880	24 990	Autarky	1.7%	1.3%
2001-12	24 410	25 750	Net M	5.2%	1.0%
Use of quotas, 2001-12			Actual imports, 2001-12		
Partner	Vol	Tariff	Partner	Import vol	Quota
Iceland	600	kr/kg 2.4	Iceland	392	share of
SACU	206	0.0	SACU	125	C = 3.9%
WTO	206	162%	WTO	163	Actual
Use of tariffs			import		
Lowered tariff		< 162%	Other	883	share of
Bound rate		429%	Total	1 563	C = 6.1%

🍷 Simplified representation of the lamb/sheep meat market

- Assume all imports enter under a quota (preferential and WTO)
- Actual $[P_{Dom}]_{01-12} < [P_{Dom}]_{I-Q}$ as tariffs were routinely reduced below in-quota rate



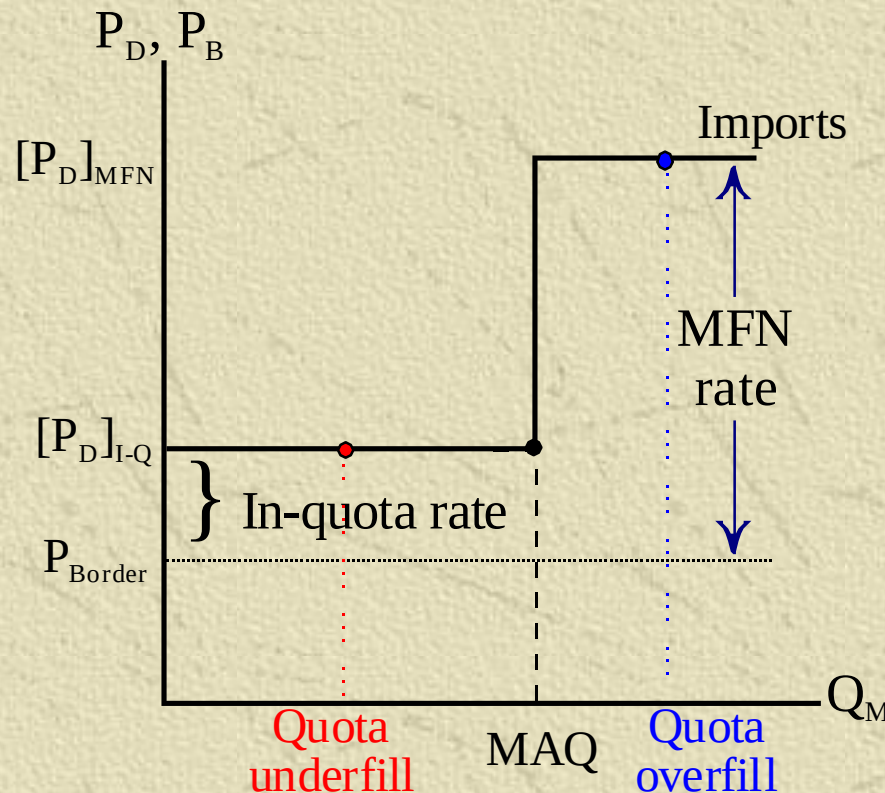
Partner	Quota, tons	Imports tons
Iceland	600	392
SACU	206	125
WTO	206	163
Other	-	883
Total		1 563

Note: the difference between Q_D and Q_S is net imports (dom supply less X vol)

Import and Export Quotas as a Policy Tool

◆ Norway's use of tariff rate quotas (TRQs) in agriculture (WTO quota)

- Market access quota (MAQ) volume
- In-quota tariff rate (τ_{I-Q})
- Most favored nation (MFN) tariff rate (τ_{MFN} , bound rate)



$$[P_D]_{MFN} = P_B + \tau_{MFN}$$

$$[P_D]_{I-Q} = P_B + \tau_{I-Q}$$

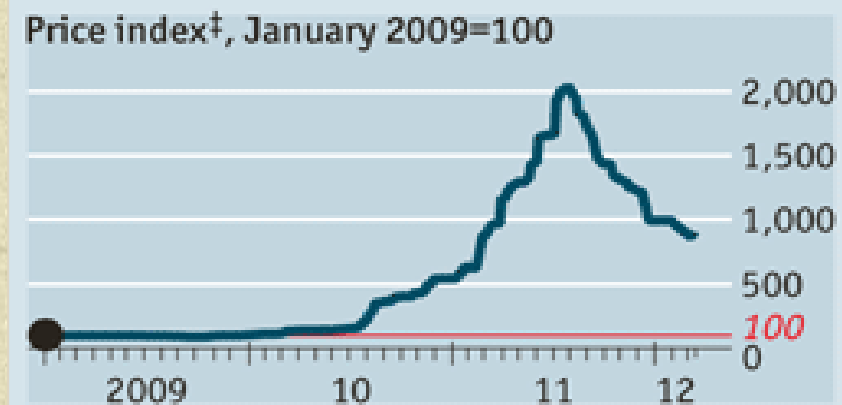
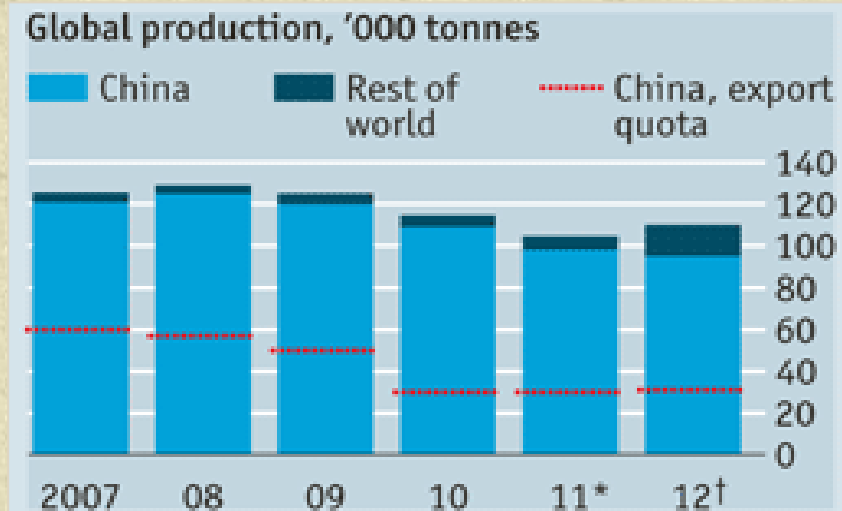
Import and Export Quotas as a Policy Tool

✧ Export quota: case of rare earths

- ✧ Key manufacturing input
- ✧ China global supplier/exporter
- ✧ Export quota to address
 - Environmental concerns
 - ↑ value added

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

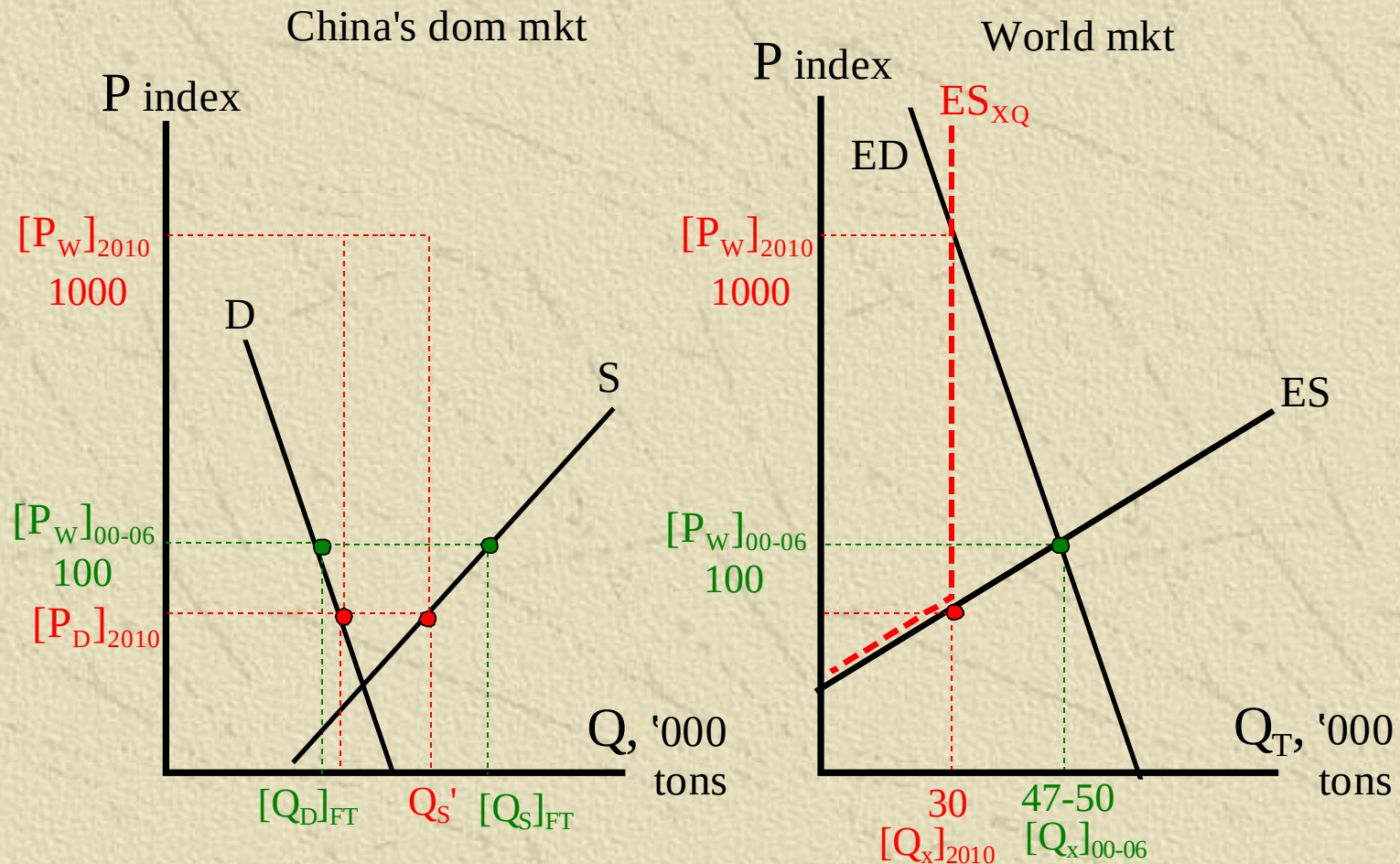


Sources: China's Ministry of Commerce; IMCOA; Kaiser Research Online

*Estimate †Forecast
‡Composite of ten minerals

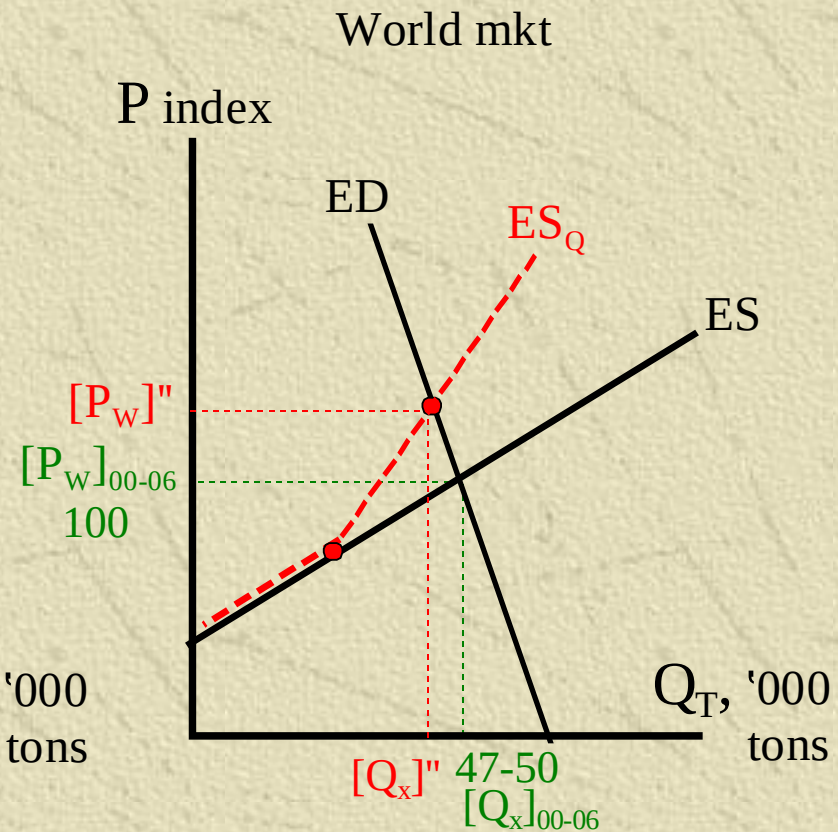
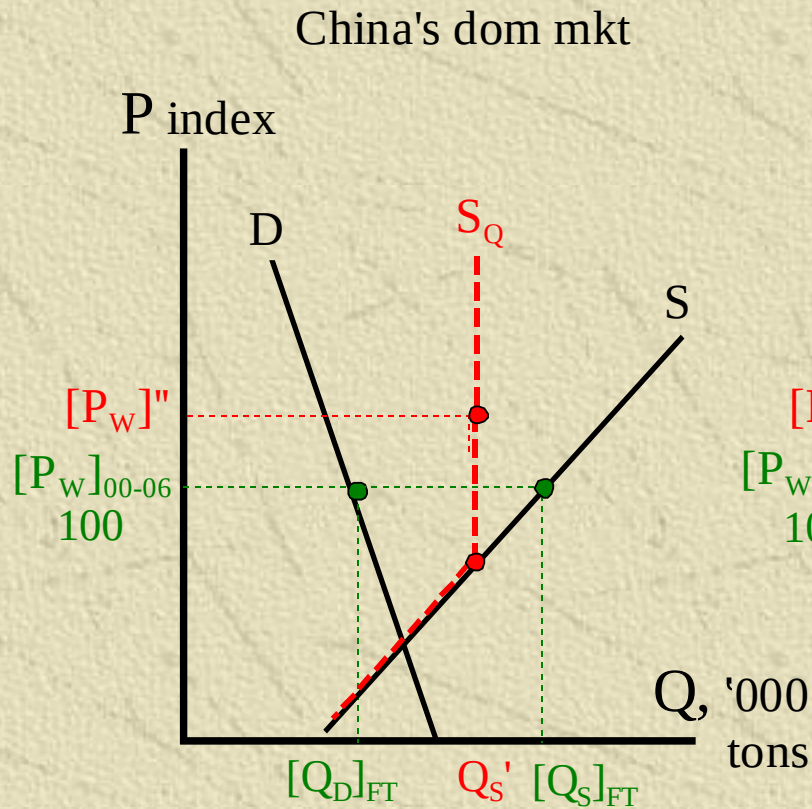
Import and Export Quotas as a Policy Tool

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



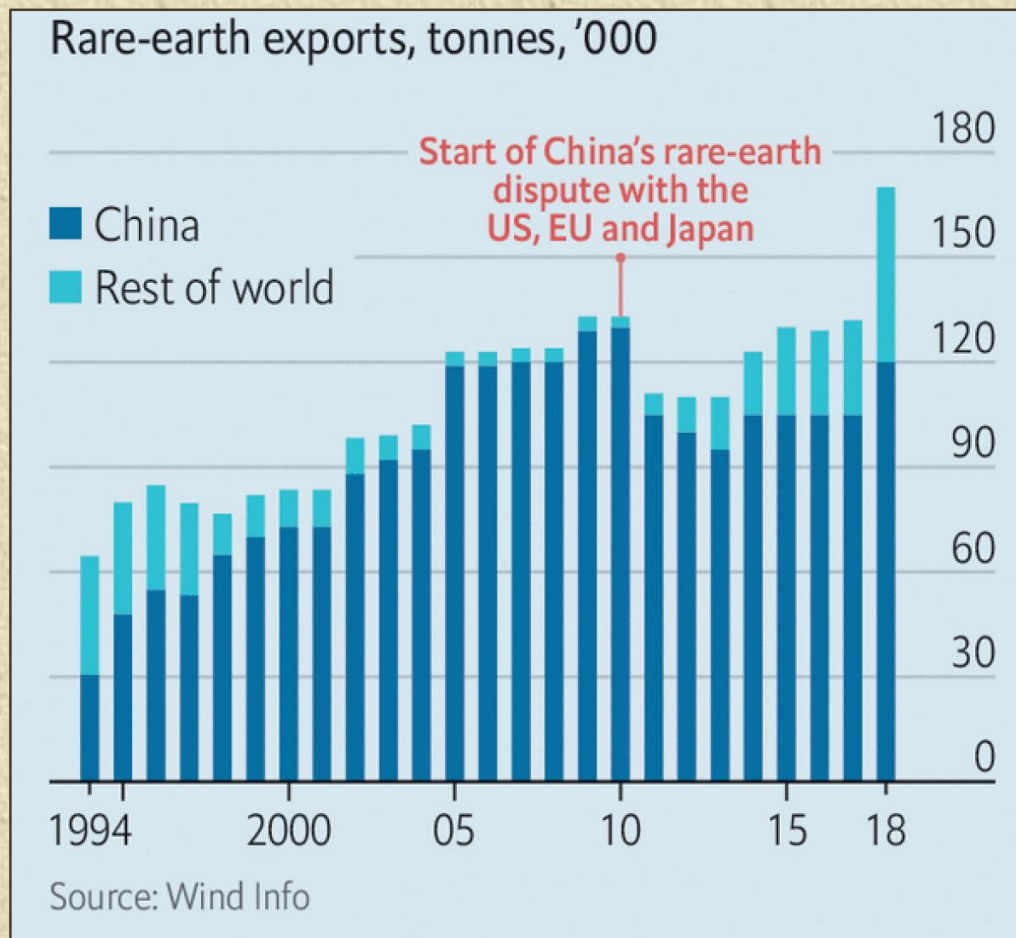
Import and Export Quotas as a Policy Tool

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



Import and Export Quotas as a Policy Tool

◆ 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 applied
 - ◆ Economic logic of WTO principles
 - ◆ Political issues: why should WTO members 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)

✧ 2005:

- Ag products account for 80% of foreign-exchange earnings
- Export taxes account for 6% of total gov't revenue
- Tax on soy exports account for 23.5% of soybean revenues
- Tripling of export tax on beef to 15%, then a near-total ban on export

✧ Mar 2008 – introduced a new sliding scale of export tax

- Soybeans: rate ↑ to 40% from 27% in 2007
- When $P > \$600/\text{ton}$, the gov't took 95% of proceeds thereafter

Source: 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

◆ Result:

- Trading in ag futures brought to a halt
- Farmers responded with strikes and roadblocks
- Slaughterhouse cut P_D to farmers by 30%
- Butchers/super mkts cut P_D consumers by only 7.5%

In 2006, President backtracked to allow X volume to $\uparrow$ to 65% of 2005 level

$\uparrow P_D \rightarrow \uparrow Q_S, X$



Source: *Economist*, "Farming in Argentina: Biting the Hand that Feeds" 26 Oct 2006

Export Taxes as a Policy Tool

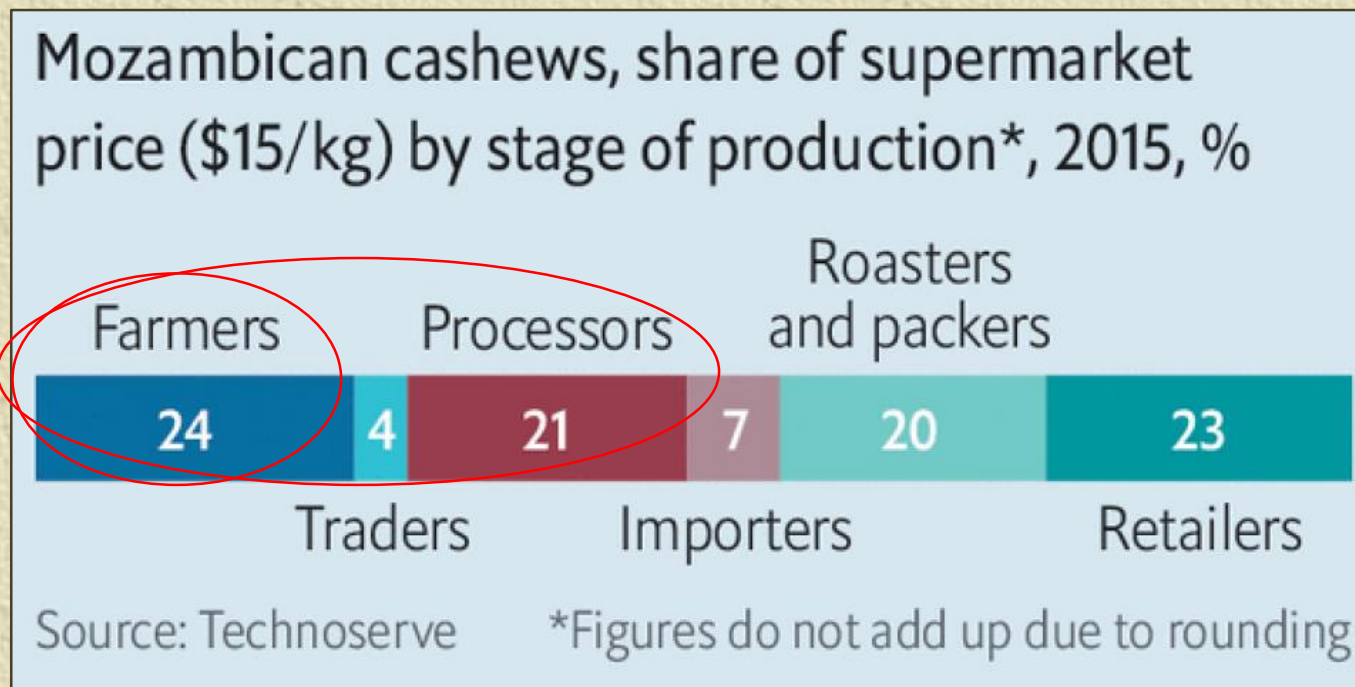
✧ Case of Mozambique

- ✧ 1960s: Mozambique cashew nut sector
 - Produced $\frac{1}{2}$ of world cashew nut crop
 - Processed much of the crop domestically
- ✧ 1977-92: civil war leaves sector in ruins
- ✧ 1990s: knock-out punch - World Bank has gov't remove export controls and cut taxes on export of raw nuts
- ✧ 2001: re-intro export tax (18-22% on nuts; 0% on processed); ban on exports during first months of harvest
- ✧ Result:
 - Some smuggling: $P_W > P_D$
 - $P_D \downarrow$ hurts producers, helps processors
 - $\downarrow Q_S$, $\downarrow$ quality, investment in new trees
 - Classic dilemma: gov't hurts 1.3m smallholders to create 17 000 jobs in 16 processing plants

Export Taxes as a Policy Tool

◆ Counterargument

- Tax is crucial for survival of the industry (50% share of value not 24%)
- Nobody else plays fair:
 - ◆ India is world biggest consumer and processor in the world
 - ◆ 2019: India ↑ import duty on processed kernels to 70%

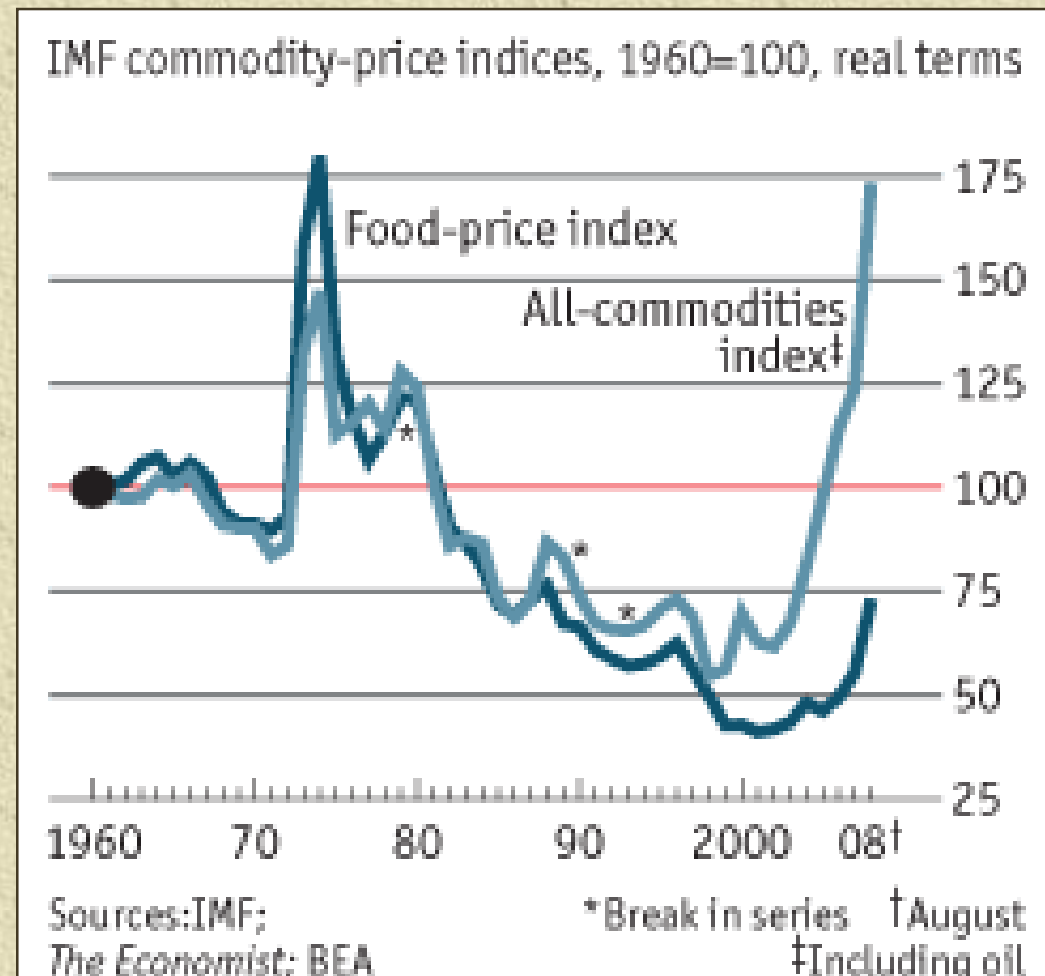


Source: *Economist*, “Mozambique’s nutcrackers: Cashews and cash”, 14 Sep 2019, p. 35.

Export Taxes as a Policy Tool

✧ Case of global food (commodities) price spike, 2007

Panicked by rising food prices in 2007, 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 ban, prices tripled within weeks.



Economist, "Of Froth and Fundamentals", 11 Oct 2008.

6. Subsidies and Trade Subsidies as a Policy Tool

6.1 WTO definition of a subsidy / export subsidy

- ✧ Criteria: gov't transfer that results in benefit
- ✧ Specificity condition: product, firm, industry

6.2 Basics of trade subsidies

- ✧ Types: ad valorem or specific
 - ◆ Import subsidy not common – food aid
 - ◆ Export subsidy require rules on their use
- ✧ Objectives and economics
- ✧ Economics and political issues

6.3 Modeling: partial eqlbm analysis

Subsidies and Trade Subsidies as a Policy Tool

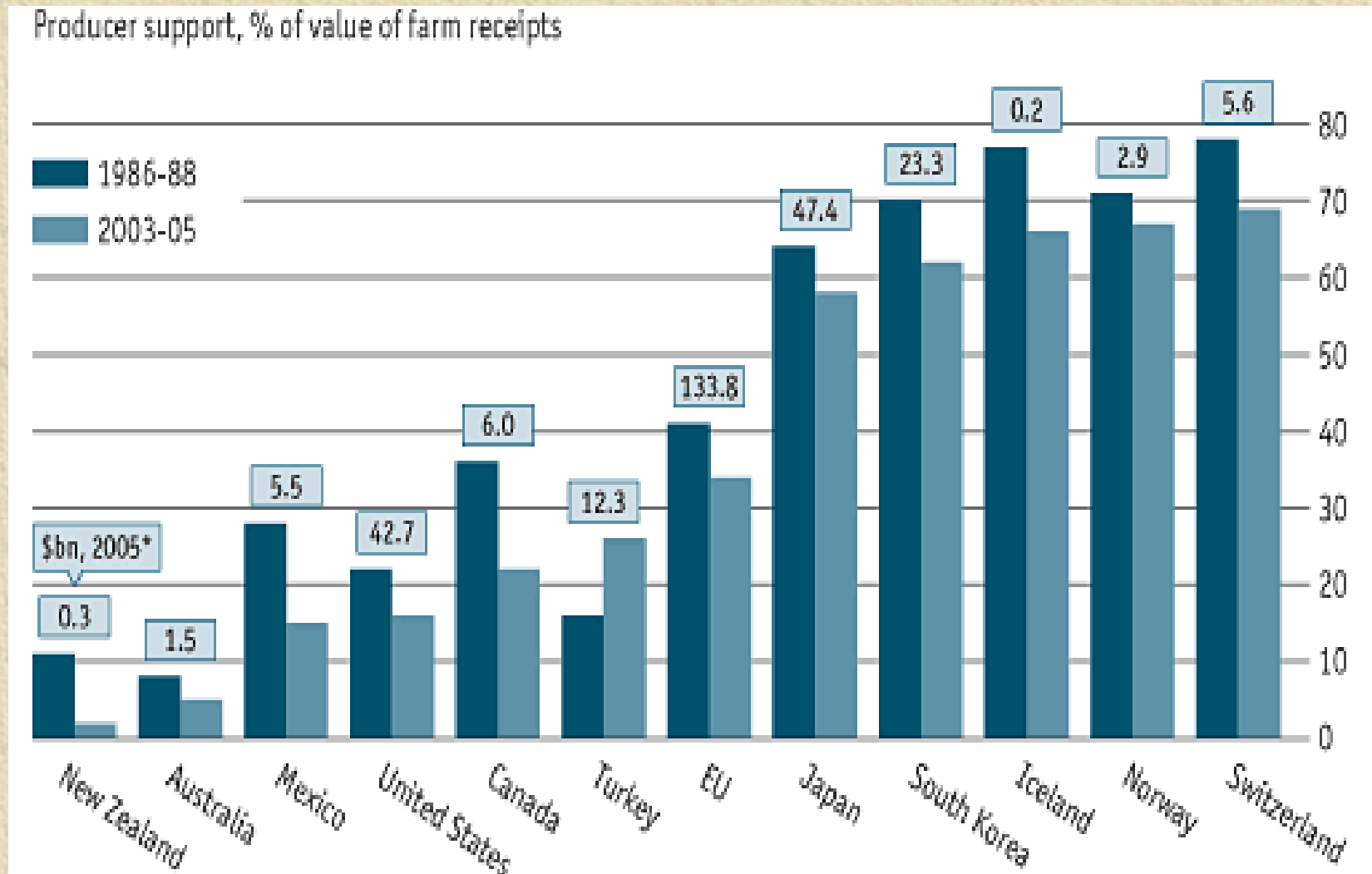
6.4 Subsidy usage and compliance

- ✦ Ag support (domestic support) commitment: bound value on aggregate measure of support (AMS), base yr 1986-88
 - ◆ DCs: AMS cut 20% over 1995-2000
 - ◆ LDCs: AMS cut 13% over 10 yrs

- ✦ 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% cuts in value, 14% cut in volume over 10 yrs

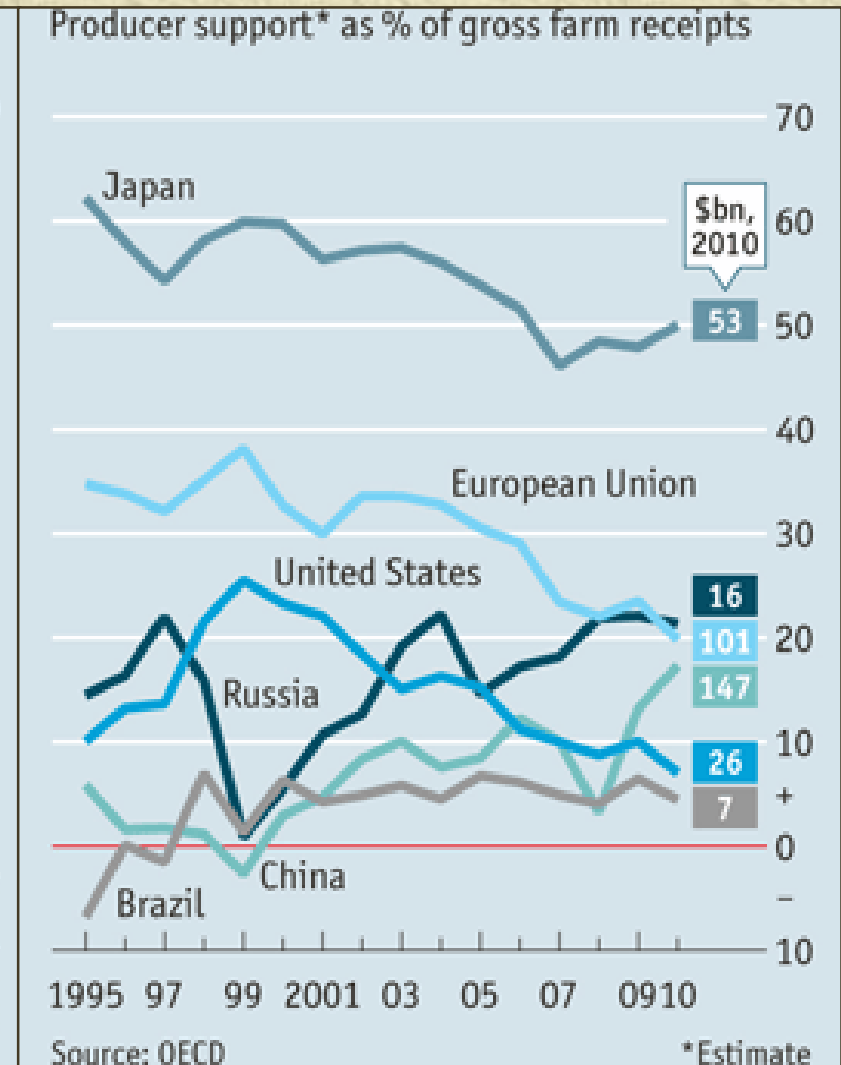
Subsidies and Trade Subsidies as a Policy Tool

✧ Support as % of farm receipts



Subsidies and Trade Subsidies as a Policy Tool

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



Subsidies and Trade Subsidies as a Policy Tool

Table DS:1, Total AMS commitments (excludes green and blue boxes)								
Base 86-88	1995- 00	2000	2001- 05	2006	2007- 10	2008	2011	Comply
US AMS commitments, \$ million								
23 879	21 093	19 103	19 103	19 103	19 103		19 103	Bound
-	10 401	16 843	11 121	7 742	5 225		4 654	Applied
EU-15 and EU-27 AMS commitments, € million								
83 949	72 916	67 159	67 159	72 244	72 244		72 244	Bound
-	48 242	43 654	31 704	26 632	11 678		-	Applied
Norway, AMS commitments, million kr								
14 311	12 641	11 449	11 449	11 449	11 449	11 449	11 449	Bound
-	10 468	10 293	10 704	10 766	10 470	11 555	9 843	Applied
Source: www.wto.org; entire DS document series of G/AG/N/USA/; G/AG/N/EEC; and G/AG/N/NOR								

Bound value and ↓ AMS by 20% over 6 yrs

Subsidies and Trade Subsidies as a Policy Tool

✧ Export subsidy commitments: US, EU and Norway

Table ES:1; Budgetary outlays (value) and reduction commitments

Base 86-90	Sum '95-00	1995-00	2000	2001-05	2006-10	
US ES commitments, \$ million						
Bound	5 283.4	880.6	594.4	594.4	594.4	
Outlay	501.5	83.6	15.3	167.2	6.1	
EU-15 and EU-27 ES commitments, € million						
Bound	57 539	9 590	7,448.4	7 448.0	7 963.0	
Outlay	28 524	4 754	2,763.2	2 644.3	662.6	
Norway, ES commitments, million kr						
Bound	4 313.7	862.4	493.2	493.2	493.2	
Outlay	3 738.0	505.3	393.2	314.3	215.3	
Source: www.wto.org; ES notification docs of G/AG/N/USA/; G/AG/N/EEC; and G/AG/N/NOR						

Bound ceilings and ↓ value and vol by 36% and 21%, respectively, over 6 yrs

Subsidies and Trade Subsidies as a Policy Tool

✧ ES volume usage, averages over **1995-00** and **2001-10**

Selected products	EU-15 and -27		US		Norway	
	Use, avg %	Bound vol	Use, avg %	Bound vol	Use, avg %	Bound vol
Wheat, mill tons	68/26	14.4	0	14.5		-
Grain, mill tons	93/24	18.4	0	1.6		-
Sugar, mill tons	84/78	12.7		-		-
Cheese, 000 tons	88/81	321.0	96/42	3.0	100/91	16.2
Other milk, 000 ton	99/63	958.0	195/0	0.0		-
Beef, 000 tons	87/27	822.0	0	17.6	91/20	1.5
Pork, 000 tons	83/26	444.0	0	0.4	70/41	3.8
Chicken, 000 ton	99/59	286.0	17/4	28.0	0	0.0
Sheep, 000 tons		-		-	58/35	0.7

Source: own calculations based on WTO ES notification documents

Subsidies and Trade Subsidies as a Policy Tool

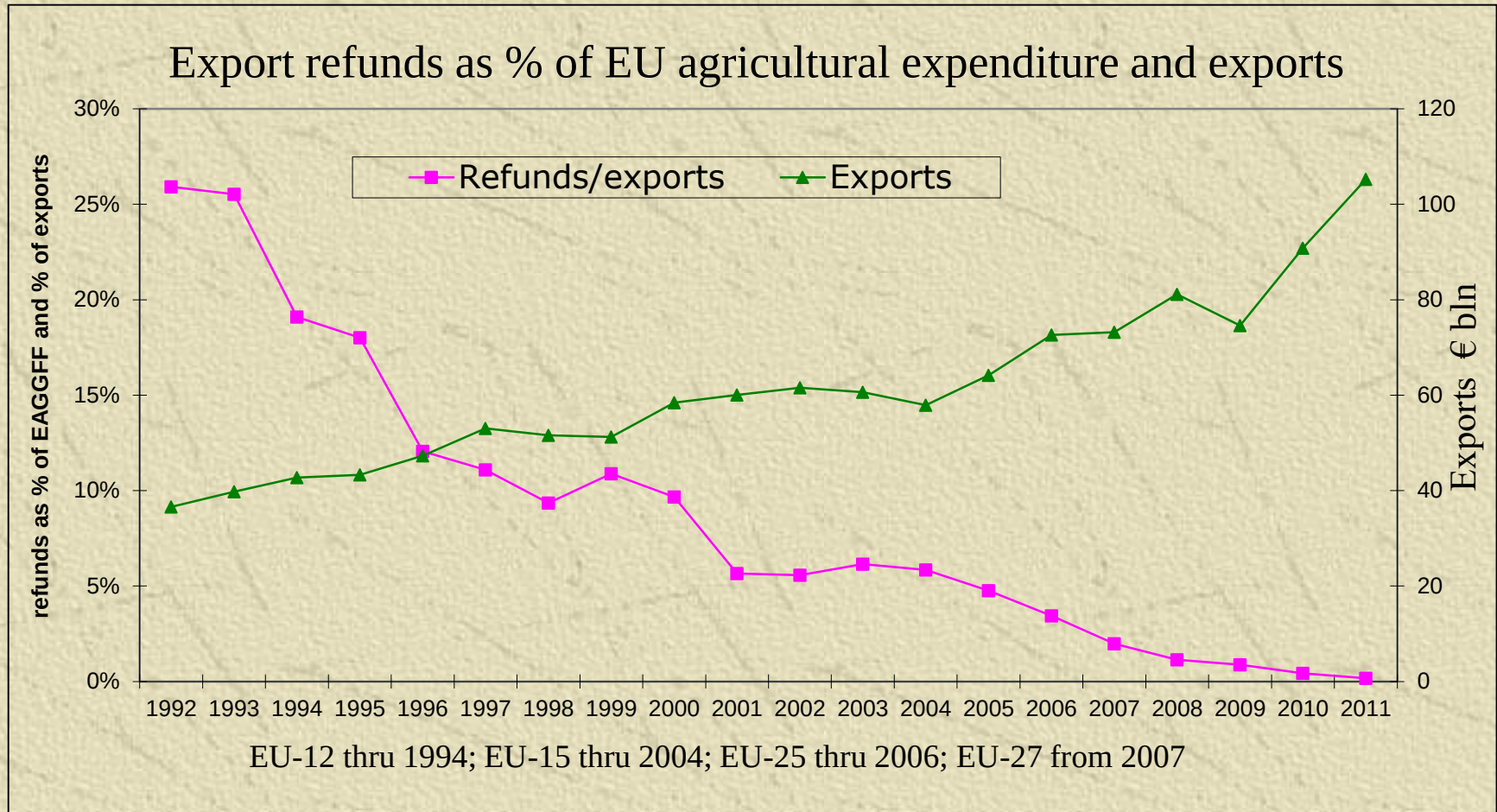
✧ TRQs vs export quotas (for export subsidy vol)

Norway's usage of import and export quota, meats						
	Import quota under the tariff-rate quota			Export quota (for export subsidy, bound volume)		
	Volume	Fill rates, %		Volume	Fill rates, %	
		1995-2000	2001-11		1995-2000	2001-2011
Beef	1 084	49	93	1 497	91	20
Pork	1 381	68	33	3 791	70	41
	983	56	68			
Lamb/sheep	206	78	78	681	58	35
Chicken	221	4	25	22	0	0
	145	0	0			

Source: WTO notification documents; own calculations

Subsidies and Trade Subsidies as a Policy Tool

✪ EU's use of export subsidies



European Commission, Directorate-General for Agriculture, Head of WTO Unit,
“Agriculture in EU's trade policy”, presentation at SLF, Oslo, 20 May 2014.

Subsidies and Trade Subsidies as a Policy Tool

✧ Alternatives to export subsidies to facilitate or promote programs

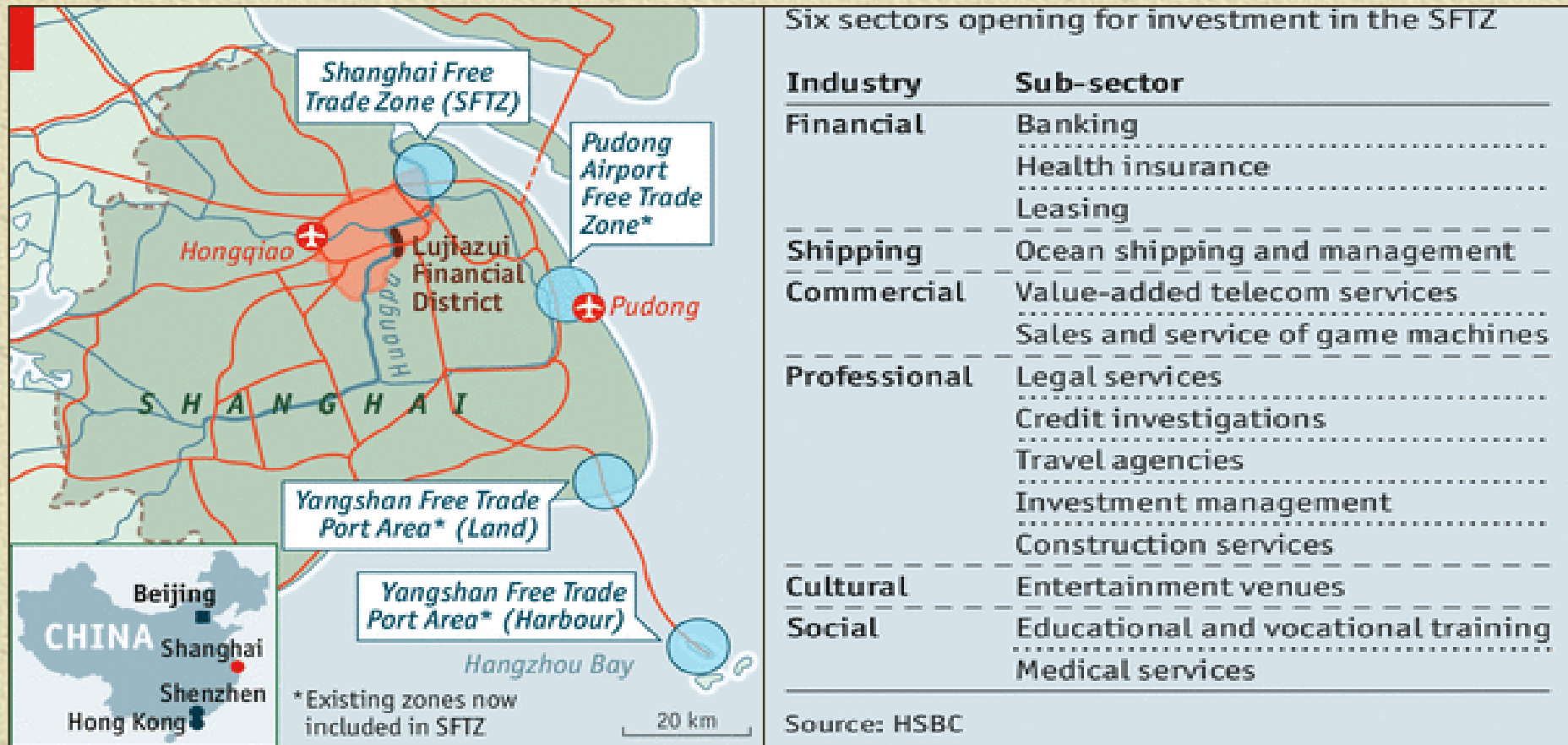
- ✧ Mkt and product promotion
- ✧ Special economic zones



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

Subsidies and Trade Subsidies as a Policy Tool

◆ Shanghai SEZ: Shift to services from manufacturing



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.