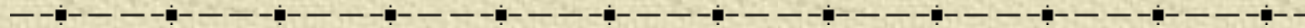


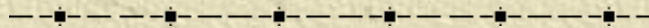
Module 2.

WTO Principles and Rules on Trade in Goods: Analysis of Market Access Restrictions



ECN330

Analyzing Regional Economic Integration and
Multilateral Trade Liberalization



2023

Liberalization under multilateral system, continued

The GATT and GATT rounds

Round	Period/ parties	Coverage	Outcome
Geneva	1947 / 23	Tariff cuts item-by-item	26% cuts; 15000 concessions
Annecy	1949 / 33	Tariff cuts item-by-item	3% cuts; concessions on 5 000 lines; 9 accessions
Torquay	1950 /34	Tariff cuts item-by-item	4%; 8 700 concessions; 4 accessions
Geneva	1956 / 22	Tariff cuts item-by-item	3%; cut on existing commitment
Dillon Round	1960-61 / 45	Rebalancing due to the creation of the EEC	4%; 4 400 concessions
Kennedy Round	1963-67/ 48	Formula for tariff cuts; AD & customs valuation	35% avg cuts; 33 000 lines bound; agree on NTBs
Tokyo Round	1973-79 / 99	Tariff cuts and broad NTB negotiations	33% cuts that led to 6% ceiling on OECD manufactures imports; agreement across NTBs
Uruguay Round	1986-94 / 103 begin 117 end	Formula cuts and item-by-item cuts; NTBs, ag, services IP, disputes	33% cuts; ag, textiles, services subject to rules; rules apply to all members

Multilateral Trading System of the WTO

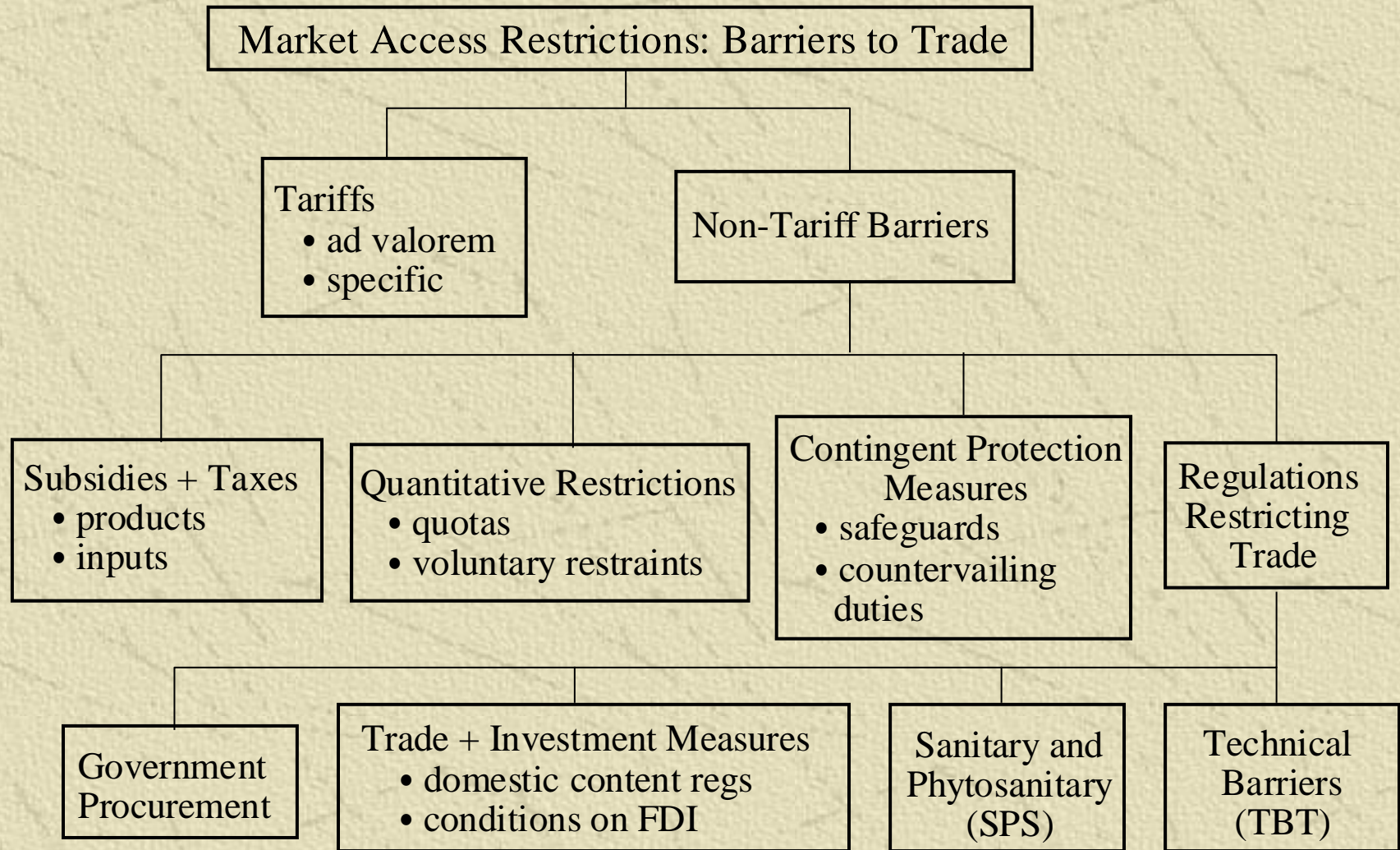
What is the WTO?

Structure	Goods	Services	Intellectual property	Trade disputes
Basic Principles	GATT	GATS	TRIPS	Dispute settlement
Additional details	Agreements and Annexes			How does the WTO address international mobility of L and K?
Specific sectors or issues	Agriculture Investment SPS + TBT	Air transport Telecom Financial		
Market access commitments	Schedule of Commitments			
Country-specific requirements	Listing of tariffs, quotas and subsidy levels	Listing of limitations on market access national treat		

1. Trade in Goods - MA Restrictions - Imports

1.1 GATT: rules and disciplines on MA restrictions

✦ Types of measures: tariffs, quotas, equivalent measures



MA Restrictions: Trade in Goods, continued . . .

1.2 General obligations and trade disciplines on imports

- ✦ Most favoured nation (MFN)

- ✦ National treatment

- ✦ Predictability

- ✦ Transparency

- ✦ Reciprocity

- ✦ Safeguards and exemptions

2. The Economics of MA Restrictions

2.1 Economic meaning of non-discrimination

✦ MFN consistency: *ad valorem* vs specific tariffs

- ◆ Home imports whole chicken from two trading partners
- ◆ Border price of the goods differ slightly
- ◆ Policy objective: to support/protect local producers
- ◆ Policy options: 20% *ad valorem* or 10kr/kg specific tariff

Meat from:	Border price, P_B	P-ratio P_{DK}/P_{SW}	Tariff of 20%	P-ratio	Tariff of 10 kr/kg	P-ratio
Denmark	30 kr/kg	0.75	36 kr/kg	0.75	40 kr/kg	0.80
Sweden	40 kr/kg		48 kr/kg		50 kr/kg	

Economics of MA Restrictions, continued . . .

- ✦ National treatment consistency: *ad valorem* vs specific excise tax (a domestic reg with equivalent MA effect)
 - ◆ Home produces a like good to an import that is subject to an excise tax
 - ◆ The excise tax, based on health grounds, is set at collecting 50 kr/litre, or 50% on the price of the domestic product.

Aquavit:	P_{Dom} , kr/litre	P-ratio P_{DK}/P_L	Tax of 50%	P-ratio	Tax of 50 kr/lt	P-ratio
Danish	90 kr/lt	0.900	135 kr/lt	0.900	140 kr/lt	0.933
Local	100 kr/lt		150 kr/lt		150 kr/lt	

MA restrictions: Trade in Goods, continued . . .

2.2 Rules on use of MA restrictions

✦ Objectives of MA restrictions

- ◆ 1. Protect domestic producers by limiting imports
- ◆ 2. Support domestic prices
- ◆ 3. Maintain level of production; self-sufficiency level
- ◆ 4. Discourage/distort consumption
- ◆ 5. Collect revenue
- ◆ 6. Improve BOT
- ◆ 7. Policy response to another country's trade policy
- ◆ 8. Policy response to non-competitive firm behavior
- ◆ 9. Improve TOT or SW
- ◆ 10. Achieve some other social policy objective

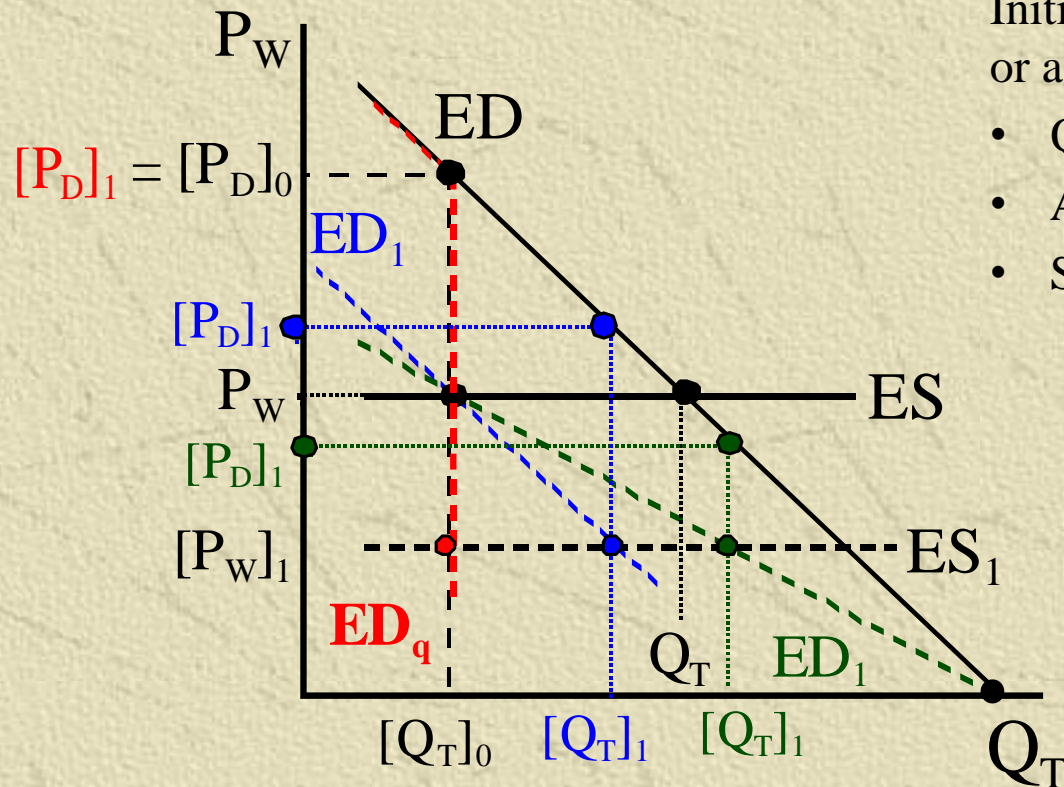
Economics of MA Restrictions, continued . . .

- ✦ Tariffs vs quotas: consistency of WTO rules with theory
- ✦ Tariff-quota equivalence: economic, trade and welfare
- ✦ Cases of tariff-quota non-equivalence
 - ◆ Dynamic context
 - ◆ Risk and uncertainty
 - ◆ Heterogeneous goods
 - ◆ Imperfect competition

Economics of MA Restrictions, continued . . .

- Dynamic non-equivalence *ad valorem* / specific tariff and quota: Δ ES relative to ED over time
 - ◆ Scenario 1. Importer has a long-run comparative disadvantage: \uparrow ES r.t. ED
 - ◆ Scenario 2. Net exporters' advantage decreases, \downarrow ES r.t. ED

Dynamic context illustrated for a small country under scenario 1



Initial policy options are to apply a quota or ad valorem or specific tariff equivalent.

- Quota volume of $[Q_T]_0$
- Ad valorem tax of $[P_W] \cdot (1 + \tau_0) = [P_D]_0$
- Specific tax of $[P_W] + \tau_0 = [P_D]_0$

The dynamic context shows \uparrow ES given that one of the policies was applied (quota in red, ad valorem tariff in green, and specific in blue). How do the economic, trade and welfare implications differ once ES shifts?

Dynamic context has implication for risk and uncertainty

Economics of MA Restrictions, continued . . .

2.3 GATT Article XX: trade regs, gen'al exceptions

- ✦ Measures not applied arbitrarily or unjustifiably to discriminate or to restrict trade
- ✦ Agreement does not prevent regs that:
 - ◆ Protect public morals
 - ◆ Protect human, animal or plant life or health
 - ◆ Restrict import or export of gold or silver
 - ◆ Comply with enforcement of customs, monopolies, protection of intellectual properties, etc.
 - ◆ Address products of prison labor
 - ◆ Protect national treasures (artistic, historical or archaeological)
 - ◆ Conserve exhaustible natural resources
 - ◆ Comply with inter-governmental commodity agreements

3. Market Access Commitments in Goods

3.1 MA under the WTO

- ✦ MA rules/disciplines apply same to all (exceptions)
- ✦ Commitments are country specific

	Rules and disciplines on goods
Basic principles	GATT
Additional details	Agreements and Annexes
Specific sectors or issues	Agreement on Agriculture Safeguard Measures Agreement on SPS + TBT, etc
Market access commitments	Schedule of Commitments
Country-specific requirements	MA commitments in schedules: Industrial goods: tariffs Agricultural goods: tariffs + quotas

MA Commitments in Goods, continued . . .

3.2 UR-GATT: MA schedule of commitments

✦ Industrial goods

- ◆ Tariff cuts: 40% by DCs, 1995-2000 ($\downarrow \tau_{\text{Avg}}$ from 6.3 to 3.8%)
- ◆ Bindings: raised to 99% on all lines in DCs; 73% in LDCs

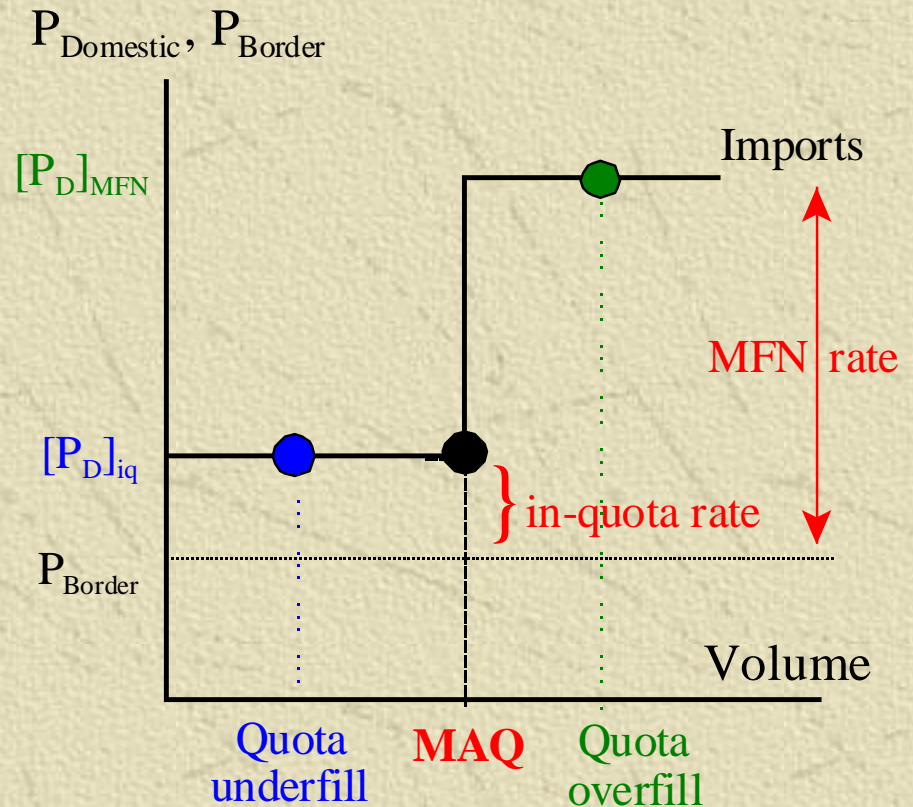
✦ Agricultural goods

- ◆ Bindings, base yr 1986-88
- ◆ Tariff cuts, on avg:
 - DCs: 36%; min cut of 15%; over 5 yrs, 1995-2000
 - LDCs: 24% min cut of 10% over 10 yrs, 1995-2005
 - Least developed bindings without cuts
- ◆ Tariffication and tariff-rate quotas (TRQs)

MA Commitments in Goods, continued . . .

✦ Mechanics of a TRQ: two-step tariff and quota

- ✦ Minimum MA: \uparrow import of 4% of mkt in base period to 7%
- ✦ Instruments scheduled as commitments
 - MAQ: quota volume
 - τ_{IQ} : rate lower than bound rate
 - τ_{MFN} : tariff ceiling



MA Commitments in Goods, continued . . .

✦ MA schedule of commitments, agriculture – Norway

Harmonized system (HS code)		MFN rate of duty (tariff)				SSG	INR
		Base rate 1986-88		Bound rate, current			
Code	Product description	kr/kg	%	kr/kg	%		
02.01	Meat of bovine animals (i.e., beef), fresh or chilled						
.10	whole/half carcasses	37.97	405	32.28	344	SSG	-
.20	other cuts with bone-in	74.12	405	66.40	344	SSG	-
MA schedule of commitments, agriculture – Albania, chapter 2							
02.01	Meat of bovine animals, fresh or chilled						
.10	whole/half carcasses				10	-	AU KYG
.20	other cuts with bone-in				10	-	PO EC

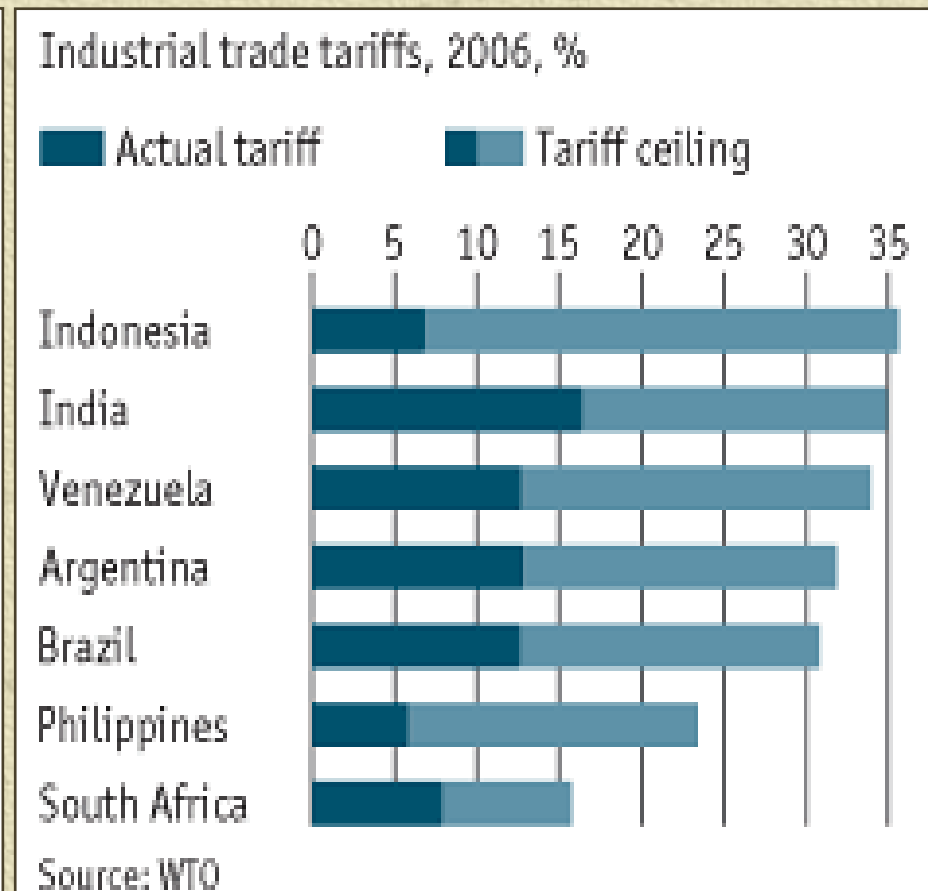
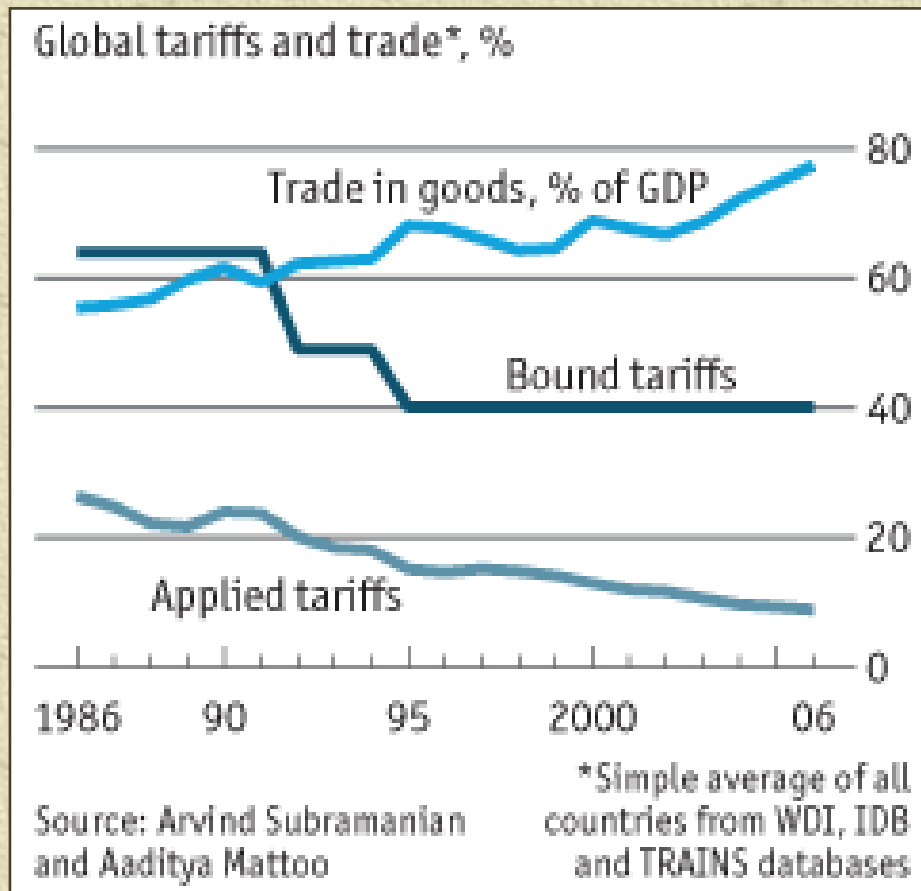
Source: www.wto.org

Norway took the min MFN rate cut of 15% on meat

MA Commitments in Goods, continued . . .

3.3 Assessing MA compliance: MA, liberalization, reform

✦ Bindings and applied tariffs



Economist, “Beyond Doha”, Special report on world economy, 11 Oct 2008, p. 30

Economist, 28 Jun 2007

MA Commitments in Goods, continued . . .

✦ MA profile: tariffs, by type, bindings, TRQs, SSGs

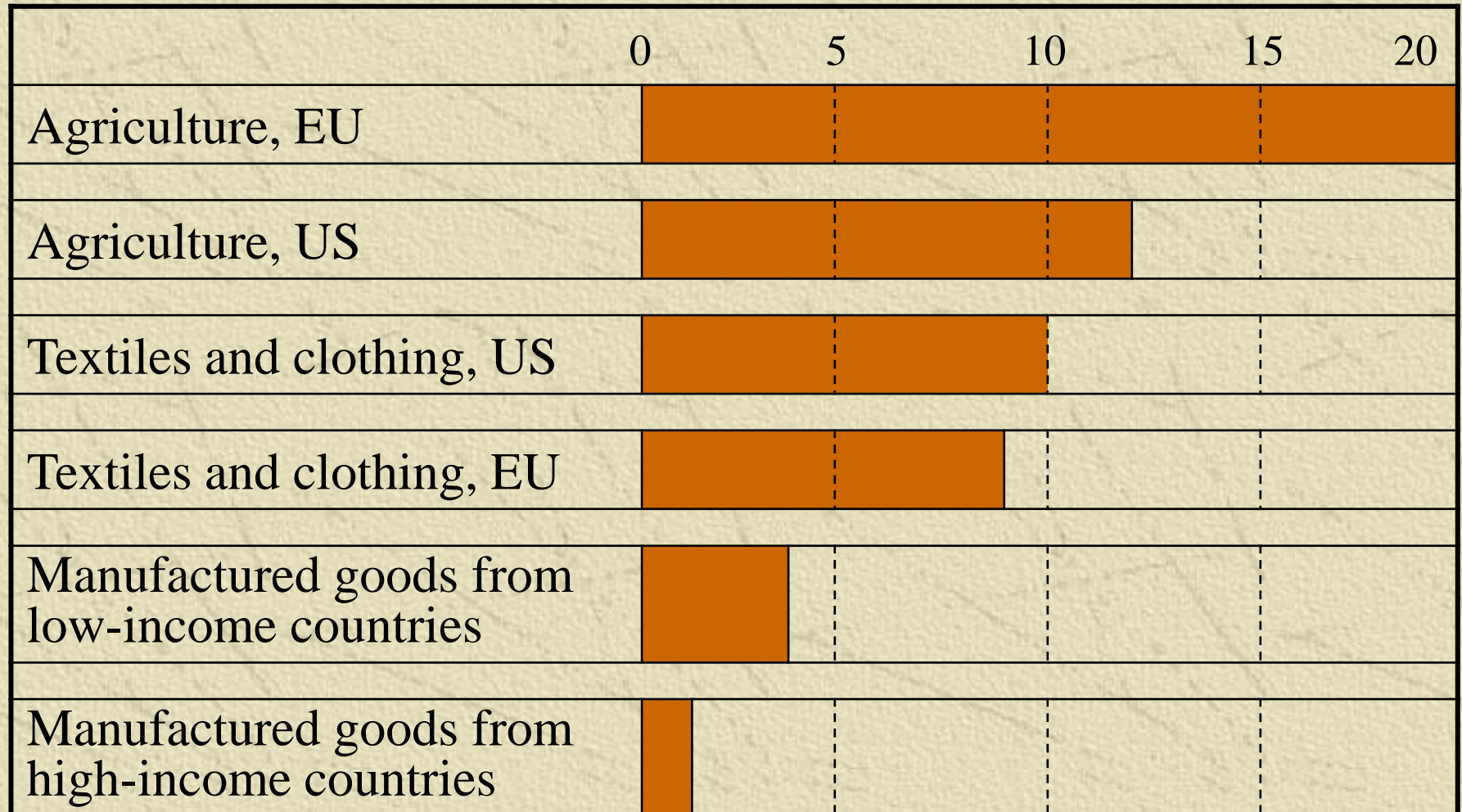
Selected DCs 2019		Tariff regime, %			Non-AV, %		Bindings, %		TRQs lines, %	SSGs lines, %
		Total	Ag	Non-ag	Ag	Non-ag	All goods	Non-ag		
US	Final bound, avg	3.4	4.9	3.2	41.3	3.2	100.0	100.0	5.9	3.0
	MFN applied, avg	3.3	4.7	3.1	42.0	3.1				
	Trade weighted avg	2.3	4.6	2.2						
Japan	Final bound, avg	4.7	19.1	2.5	15.1	1.7	99.7	99.6	6.2	5.4
	MFN applied, avg	4.3	15.5	2.5	13.2	2.0				
	Trade weighted avg	2.3	14.3	1.2						
EU	Final bound, avg	5.1	12.7	3.9	31.7	0.6	100.0	100.0	13.5	23.0
	MFN applied, avg	5.1	11.4	4.2	32.3	0.5				
	Trade weighted avg	3.0	9.2	2.6						
Switzer	Final bound, avg	8.0	47.6	1.9	78.0	78.9	99.7	99.7	20.5	36.4
	MFN applied, avg	6.0	32.4	1.7	69.7	75.7				
	Trade weighted avg	2.0	26.6	0.8						
Norway	Final bound, avg	20.2	133.6	3.0	66.7	2.3	100.0	100.0	31.0	48.2
	MFN applied, avg	6.0	40.4	0.4	43.3	0.1				
	Trade weighted avg	3.0	30.6	0.4						

Source: WTO, tariff profile data, 2021. Notes: AV - ad valorem; TRQ - tariff-rate quota; SSG - safeguard

Compliance	Liberal	Restrictive	Most restrictive
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MA Commitments in Goods, continued . . .

◆ Avg tariffs in high-income countries

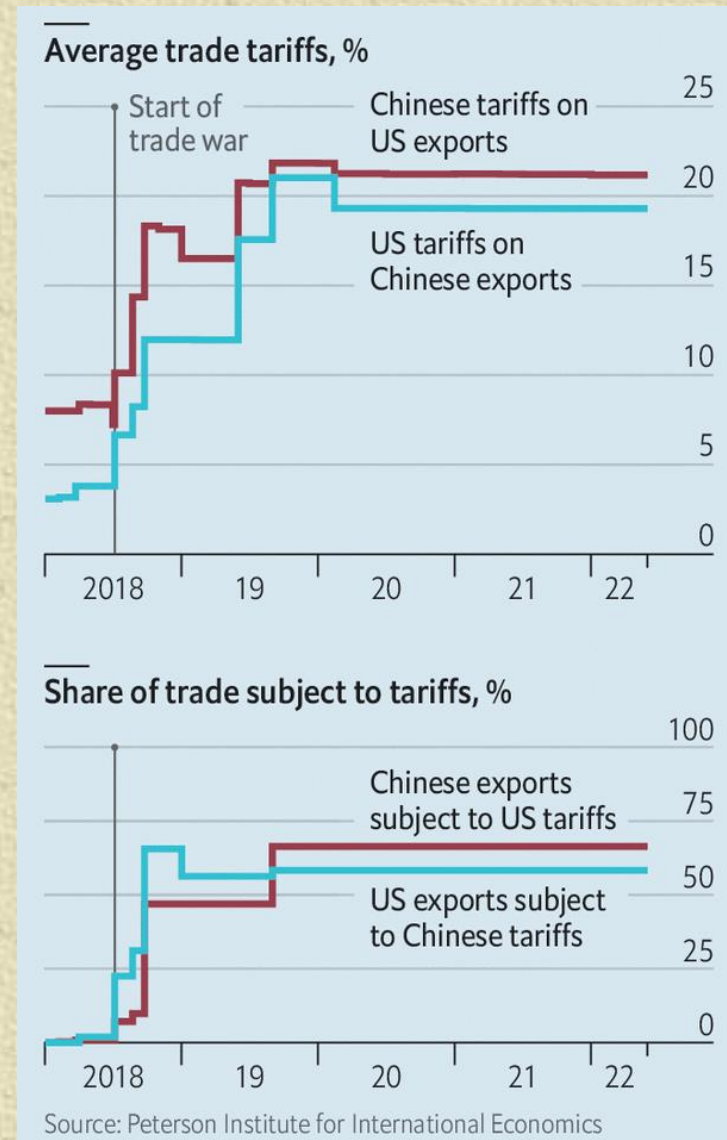


MA Commitments in Goods, continued . . .

◆ US-China tit-for-tat tariff war

- Outside dispute settlement process
- Return to power politics

Is this “decoupling” or just trade diversion?



Economist, “Sino-American rivalry: Tougher than tariffs”, 9 Jul 2022, p. 66-7.

MA Commitments in Goods, continued . . .

- ◆ Distribution of tariff rates, by line, % of total lines, developed countries, 2019

	Tariff rates	Agricultural tariff lines, %					Non-agricultural lines			
		Duty-Free	1-9%	10-24%	25-99%	100%+	Duty-Free	1-9%	10-24%	25%+
Nor	Bound	28	22	2	5	43	52	38	10	0
	Applied	52	5	10	19	12	96	0	4	0
Switz	Bound	22	33	10	22	14	21	76	3	0
	Applied	30	35	11	14	10	24	73	2	0
EU	Bound	32	28	25	13	1	29	63	8	0
	Applied	32	29	25	11	1	28	64	8	0
Japan	Bound	34	35	18	8	4	56	41	2	0
	Applied	36	34	18	8	3	56	41	2	0
US	Bound	30	57	8	2	1	49	43	7	1
	Applied	31	58	8	2	1	49	43	7	1

MA Commitments in Goods, continued . . .

- ◆ Distribution of tariff rates, by line, % of total lines, developing countries, 2019

		Agricultural tariff lines					Non-agricultural lines			
		Duty-Free	1-9%	10-24%	25-99%	100%+	Duty-Free	1-9%	10-24%	25%+
Mexico	Bound	-	4	12	78	6	0	1	2	97
	Applied	22	30	40	7	0	53	22	25	0
Arg-Bra	Bound	0 / 3	4 / 0	8 / 8	88 / 89	0	0 / 1	0 / 1	21 / 26	78 / 73
	Applied	7	65	27	1	0	6	29	55	14
China	Bound	6	33	52	9	0	7	66	26	1
	Applied	7	44	42	7	0	7	86	6	0
India	Bound	0	1	2	63	34	3	1	16	50
	Applied	3	1	4	89	2	2	62	28	7
Nigeria	Bound	0	0	0	0	100	0	0	7	0
	Applied	0	46	42	12	0	2	62	36	2

note: India has 30% of non-ag lines unbound; Nigeria bound only 7% of non-ag lines

MA Commitments in Goods, continued . . .

◆ Norway's tariff schedule and imports, 2019

Product categories by HS-description	Bound rates, %			MFN applied rate			Imports, %	
	Avg	Duty -free lines	Max	Avg	Duty- free lines	Max	Share, total	Duty- free
Animal products	344	8.8	556	127	13.3	556	0.2	3.1
Dairy	323	0.0	453	123	0.0	443	0.2	0.0
Fruits, vegetables	85	19.2	606	19	63.5	249	2.0	68.2
Cereals	230	10.8	549	41	20.9	427	2.1	8.1
Oilseed, fats & oils	91	27.9	363	23	45.3	245	1.1	42.7
Sugar & confection.	80	23.1	369	15	38.7	92	0.2	43.4
Beverage & tobacco	37	54.7	424	16	85.2	285	1.6	88.5
Cotton	0	100	0	0	100	0	0.0	100.0
Fish & products	3	97.2	344	0	99.4	236	1.5	78.4
Minerals & metals	1	78.8	12	0	100	0	15.7	100.0
Petroleum	0	100	0	0	100	0	4.5	100.0
Chemicals	3	58.5	7	0	100	0	11.6	100.0

MA Commitments in Goods, continued . . .

Product categories by HS-description	Bound rates			MFN applied rate			Imports, %	
	Avg, %	Duty -free lines	Max %	Avg, %	Duty- free lines	Max %	Share, total lines	Duty- free
Wood, paper, etc.	0	72.0	5	0	100	0	5.8	100.0
Textiles	7	15.9	14	0	95.6	11	1.6	88.5
Clothing	11	0.0	14	8	16.5	11	2.8	4.7
Leather, footwear, etc	3	57.4	10	0	100	0	1.9	100.0
Non-electrical mach.	3	30.9	6	0	100	0	13.4	100.0
Electrical machinery	2	58.2	14	0	100	0	9.3	100.0
Transport equipment	3	33.2	10	0	100	0	15.8	100.0
Manufactures, other	2	49.8	10	0	100	0	6.8	100.0
Sub-total, duty-free							84.8	100.0

Source: WTO, tariff profile, 2019 data, accessed 2021

For the product categories listed here, 85% of all imported goods entered duty-free, but taxed goods could have been subjected to prohibitively high rates (e.g., agricultural lines).

MA Commitments in Goods, continued . . .

3.4 MA issues in agriculture

✦ High rates of protection/support continue

Country groupings by rate of nominal protection coefficient, P_D/P_B							
Group 1	NPC	Group 2	NPC	Group 3	NPC	Group 4	NPC
Australia	1.00	US	1.07	EU	1.25	Japan	2.19
New Zea	1.02	Mexico	1.08	Turkey	1.30	Norway	2.23
		Canada	1.13			Switzer	2.31
						Korea	2.57
						Iceland	2.69
Price support as a % of total support (rough indicator of MA)							
Australia	0%	US	20%	EU	44%	Japan	91%
New Zea	74%	Mexico	43%	Turkey	77%	Norway	43%
		Canada	45%			Switzer	52%
						Korea	92%
						Iceland	50%

Source: OECD estimates

MA Commitments in Goods, continued . . .

✦ Incidence of mega tariffs on ag products, 2019

Product at HS-2-digit level	Countries with mega tariffs		Country using rate to strictly limit imports ¹		Country using rate to prohibit imports ²		Range of applied rates by OECD, %
	Total	OECD	Total	OECD	Total	OECD	
Animal prod	59	10	6	5	24	10	75 – 556
Dairy	49	12	11	8	19	11	45 – 902
Fruit/vegeta	52	11	0	0	23	11	132 – 1000+
Grains	63	10	1	0	28	9	45 – 800
Oilseeds	53	11	1	0	15	9	45 – 630
Sugar & con.	52	9	5	1	21	9	55 – 243
Bever & tob	79	9	21	0	53	9	75 – 350

Source: WTO, tariff profile data, 2019, accessed 2021; EU counted as 1 OECD member (36 in total)

¹ Did not apply mega rate, but avg applied rate was $\geq 50\%$ of the avg mega-bound rate.

² Did not apply mega rate, but avg max. applied rate was $\geq 50\%$ of mega rate or min of 60%.

MA Commitments in Goods, continued . . .

✦ Tariff escalation: avg bound rate (%) on ag goods

Member	Unprocessed ag products	Processed ag products
Australia	1	6
Brazil	34	36
Canada	2	6
EU	4	11
India	97	139
Japan	4	15
Mexico	32	50
New Zealand	2	10
US	4	5

India is the world's biggest consumer and processor of cashew nuts. In 2019, India ↑ applied τ on processed nuts to 70%. For countries trying to ↑ value added from processing (Mozambique), this is a problem.

Source: WTO, ERAD, *Special Studies 6, MA: Unfinished Business*, 2001

MA Commitments in Goods, continued . . .

✦ TRQ application by member country, 2004

◆ Countries negotiating right to TRQs

	Developed		Emerging		Developing	
	Country	No.	Country	No.	Country	No.
Selected members	Norway	232	Poland	109	Colombia	67
	Iceland	90	Bulgaria	73	Venezuela	61
	EU-15	87	Korea	67	S. Africa	53
	US	54	Czech	24	Barbados	36
Sub-totals	10 members	549	16 members	492	17 members	384
Total	43 members with right to apply TRQs on 1,425 lines					

Source: www.wto.org, *Agricultural Negotiations: Backgrounder*, 2004

Note: Since this 2004 study, there have been 16 additional members, mostly developing countries and emerging economies.

MA Commitments in Goods, continued . . .

◆ Principle methods of TRQ application, 1995-2000

Administration method	Nor	EU	US	Kor	Total	Nor	EU	US	Total
	Number of TRQs					Avg fill rates, %			
Tariffs	213				660	66			71
1 st come/serve		21	32		147		71	53	56
Licenses	1	59		21	324	39	68		59
Auctioning	10			6	83	18			30
Historical	8	6		17	92	85	95		91
State trader				10	20				81
Producer groups				3	17				74
Total, all lines	232	87	54	67	1425	64	70	58	63

Source: WTO secretariat, WTO document, TN/AG/S/5, Mar 2002

MA Commitments in Goods, continued . . .

- ◆ TRQ application by ag product category, 1995-2000

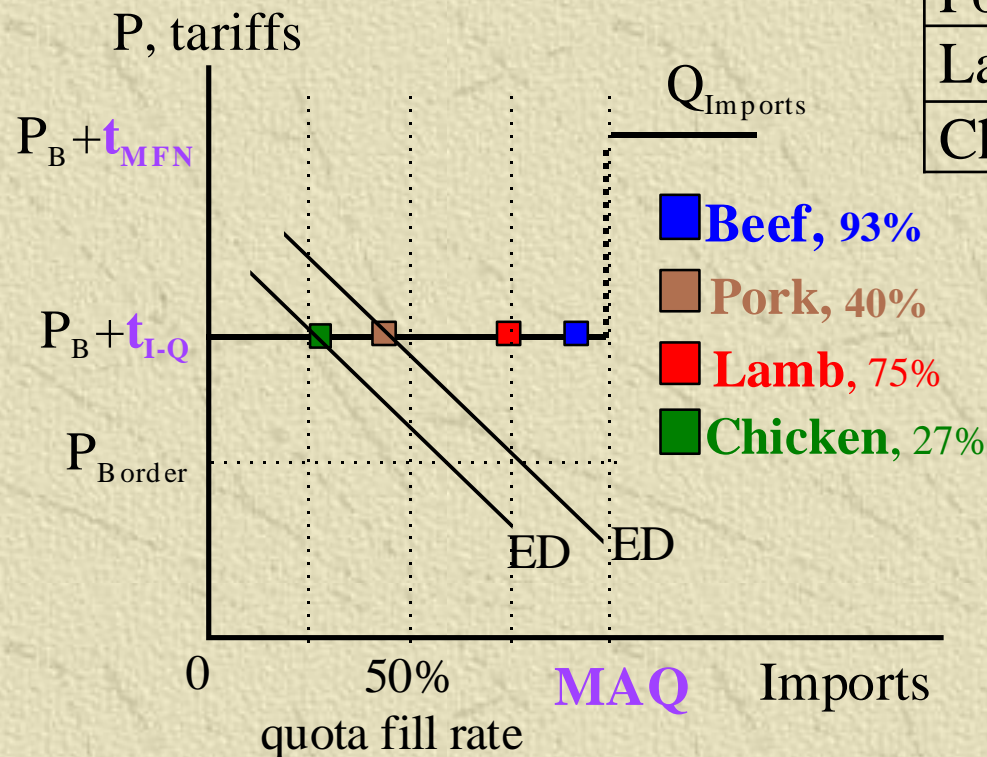
Member Products	Nor	EU	US	Pol	Total	Nor	EU	US	Total
	Number of TRQs					Avg fill rates, %			
Cereals	37	15	1	12	226	49	62		63
Sugar + products	2	3	6	2	59	90	100	80	69
Meat + products	32	28	1	14	258	59	71		56
Dairy	14	12	24	8	183	59	89	65	64
Fruit + vegetable	116	25	5	37	370	74	64	44	69
Beverages	1	1	-	5	35				46
Agriculture fibre	-	-	7	3	20			16	45
All products	232	87	54	109	1425	64	70	50	63

Source: WTO document, TN/AG/S/5, Mar 2002

MA Commitments in Goods, continued . . .

- TRQ performance: Norway's meat markets, 2001-09

	MAQ tons	Fill rate, %	Tariff rates, %	
			τ_{I-Q}	τ_{MFN}
Beef	1,084	93	139	344
Pork	1,381	40	137	363
Lamb	206	75	162	429
Chicken	221	27	109	290



MA Commitments in Goods, continued . . .

- TRQ case study (quantities in '000 tons) - Norway
 - MAQ volumes amount to about 1% of consumption
 - Beef: net exporter to net importer
 - Pork: net exporter to autarky
 - Lamb: autarky to small net importer
 - Chicken: small net importer to autarky

000 tons	Base yr 1986-88 prodn	Min access		Production		Consumption	
		4%	7%	'85-94	'01-09	'85-94	'01-09
Beef	78.2	3.1	5.5	80.0	85.9	78.5	92.6
Pork	85.8	3.4	6.0	87.6	113.9	85.6	114.1
Lamb	25.6	1.0	1.8	24.9	24.7	24.8	25.9
Chicken	16.6	0.7	1.2	18.9	54.5	19.5	54.2

Source: www.wto.org; UN, FAO trade and production statistics, SSB

MA Commitments in Goods, continued . . .

◆ Cost of imported frozen meat under TRQ lines, 2001-09

	Beef, bone- less	Pork		Lamb/sheep			Chicken
		Car- cass	Other cuts	Car- cass	Bone- in	Bone- less	Whole uncut
Average c.i.f. price at border, NOK/kg							
P _B , avg	40.96	13.31	26.56	28.07	52.66	54.78	19.89
Selected	32.58	-	-	36.01	-	-	-
Border measures, NOK/kg							
Preferences	0.00	-	-	2.40	-	-	-
In-quota τ	44.80	9.28	64.96	12.23	32.10	28.97	9.68
Quota fee	21.70	0.50	-	6.37	6.37	6.37	0.68
Cost of imported meat, inclusive of border measures, NOK/kg							
Under MAQ	107.46	23.09	91.52	46.67	91.13	90.12	30.25
Domestic price, avg (carcass or whole chicken, except retail cuts), NOK/kg							
P _D , avg	100.66	27.19	78.99	48.67	82.69	82.69	30.39

4. Rules on Export Restrictions and Economics

4.1 GATT rules and disciplines on export restrictions

- ✦ Application of disciplines
- ✦ Examples of restrictions

4.2 Export restrictions

- ✦ Types
- ✦ Objectives

4.3 Economics of export restrictions

- ✦ WTO consistency
- ✦ Equivalent and non-equivalence
- ✦ Why should WTO care about export restrictions?

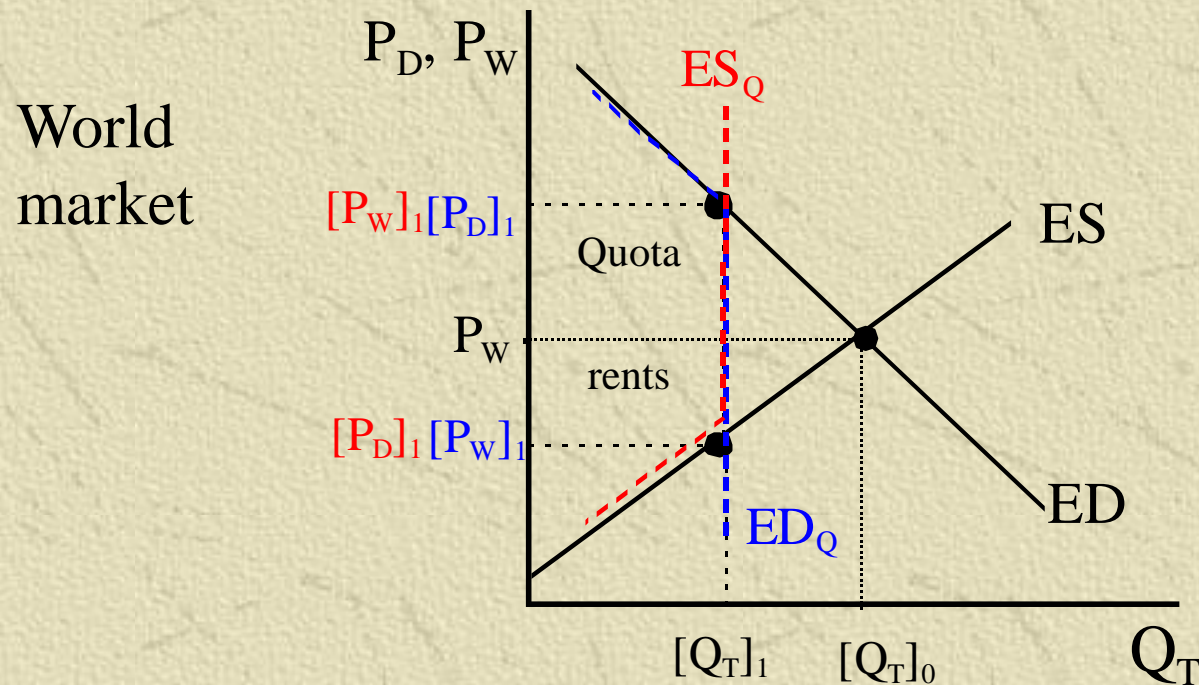
Economics of Export Restrictions, continued . . .

4.4 Symmetry of export and import quotas

✦ Motivation and objectives

✦ Quotas in practice

- ◆ Voluntary export restraints (VERs)
- ◆ Orderly marketing arrangements (OMAs)



5. WTO Plurilateral Gov't Procurement Agreement

5.1 “Localization restrictions”

Buy local, use local, rules to define origin

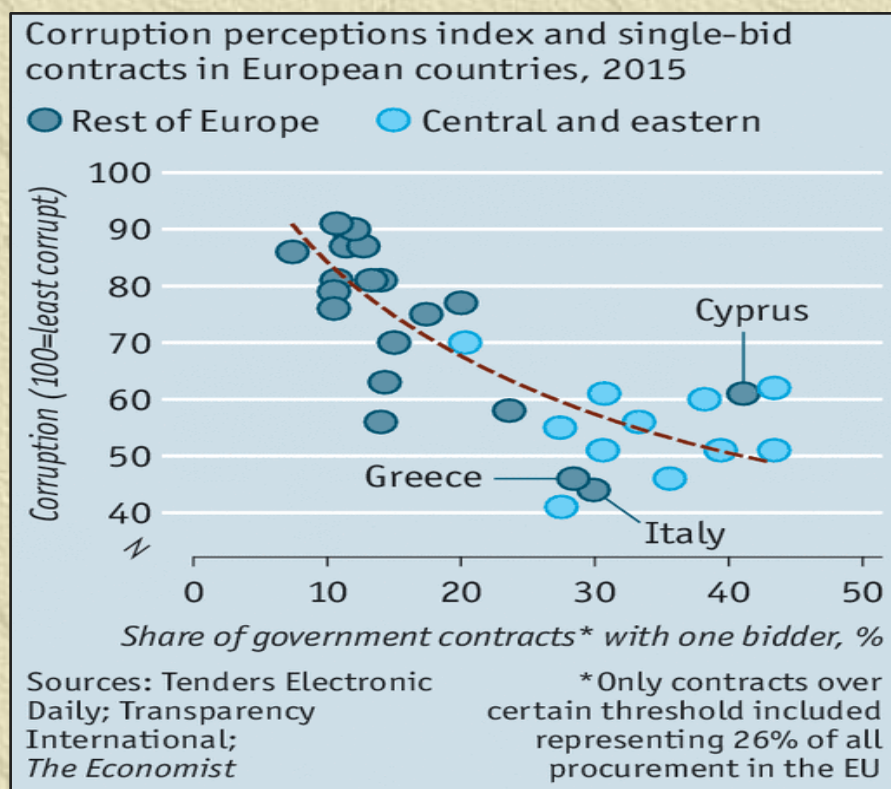
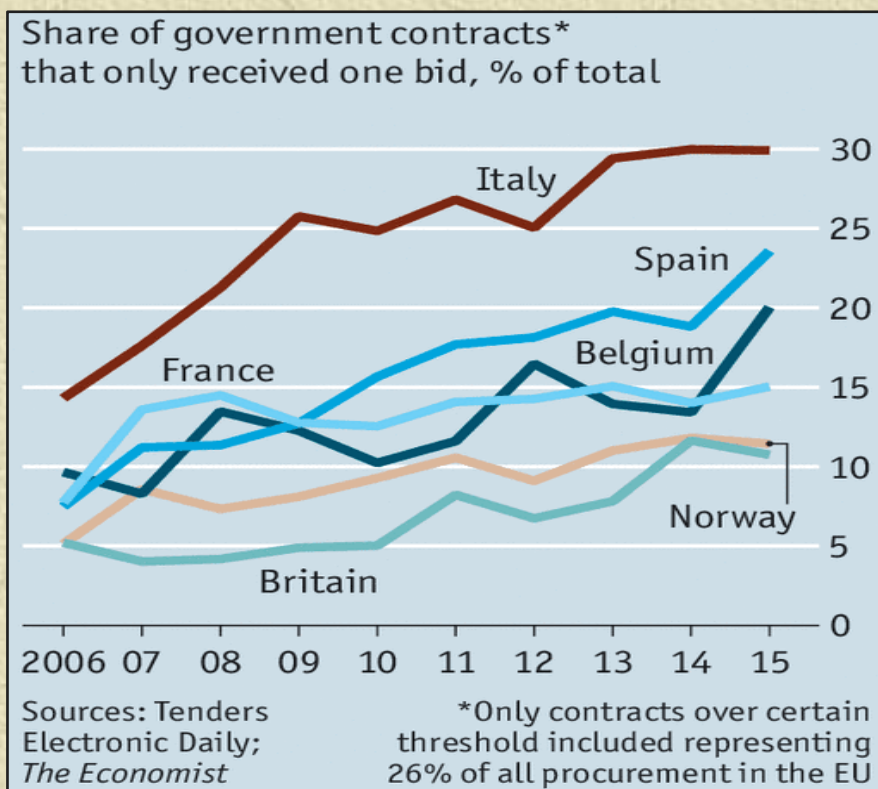
- ✦ Soft vs hard approach on private/public behavior
- ✦ Justification

5.2 Gov't procurement: purchases of goods/services

- ✦ Rules on open bidding processes and contracts
- ✦ Based on WTO principles
- ✦ Implication

WTO Gov't Procurement Agreement, continued

✦ Problem of weak enforcement of procurement process



5.3 Boycotts and sanctions: “don’t buy foreign” programs

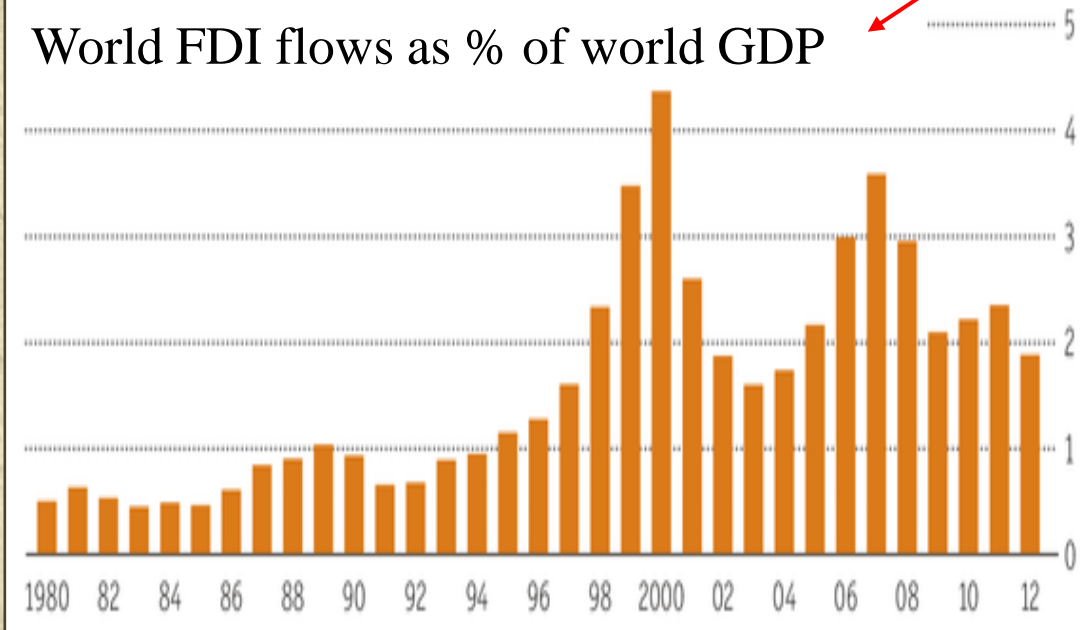
6. Trade-Related Investment Measures (TRIMs)

6.1 Background on treatment of foreign investment

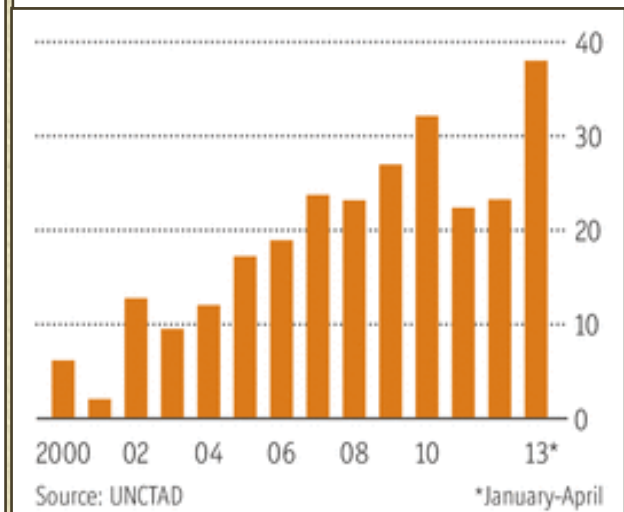
- ✦ Incoherence of rules on investment
- ✦ Theory: trade-investment relation
- ✦ Trends in investment

TRIMs involve only restrictions that affect FDI in production of goods

World FDI flows as % of world GDP



New investment policies: % of total that are restrictive



TRIMs, continued . . .

6.2 TRIMs: relationship of FDI and trade

✦ Distortions of investment and trade

◆ Attracting FDI

- *Economist*, "China: The white peril", 1 Apr 2006, p. 51

"Chinese enterprises have long complained bitterly about *tax privileges enjoyed by foreign investors* who have to pay income *tax at only 15% compared with a 33% rate for domestic firms.*"

◆ Restricting FDI – conditions on foreign investors

✦ Types of measures

✦ Which rules/disciplines are violated?

TRIMs, continued . . .

6.3 Modeling a TRIM: dom reg with a MA effect

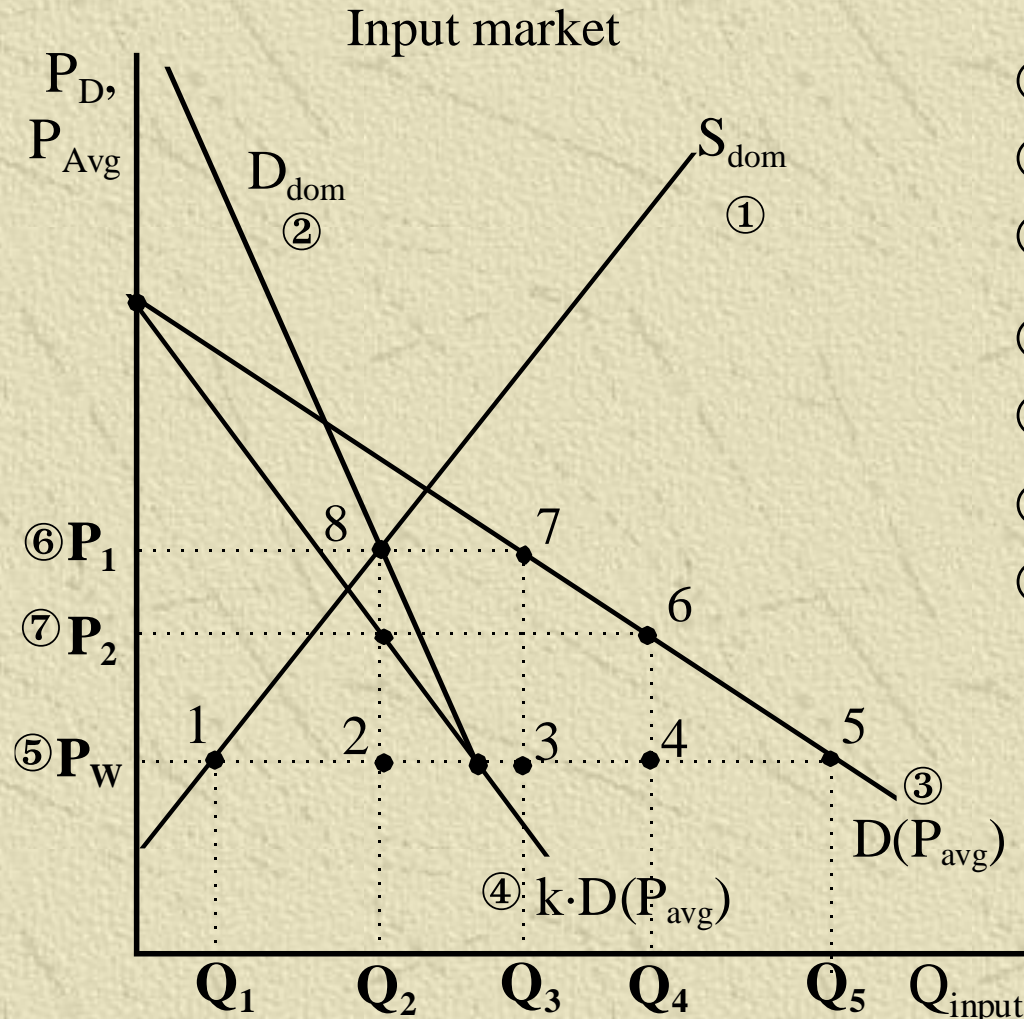
- ✦ Local content requirement as part of foreign investment
 - ◆ FDI is conditional on some proportion of local raw material or input used (e.g., $k = 60\%$)
 - ◆ A local content req is a proportional quota on input usage
 - ◆ Foreign raw material or inputs are cheaper than the local and could also be subject to trade restrictions
 - ◆ Local content is not allowed under TRIMs

- ✦ Trade equivalent of a local content req on imported inputs for the production of a good

TRIMs, continued . . .

✦ Model specification: local content requirement

◆ For same level of production of an input, Q_2



- ① S_{Dom} : supply as usual
- ② D_{Dom} : D for local input at P_{Dom}
- ③ $D(P_{avg})$: D as function of P_{Avg}
- ④ $k \cdot D(P_{Avg})$: binding constraint
- ⑤ P_W : price on foreign input
- ⑥ $P_D = P_1$ on dom input
- ⑦ $P_{Avg} = k \cdot P_D + (1-k) \cdot P_W = P_2$

TRIMs, continued . . .

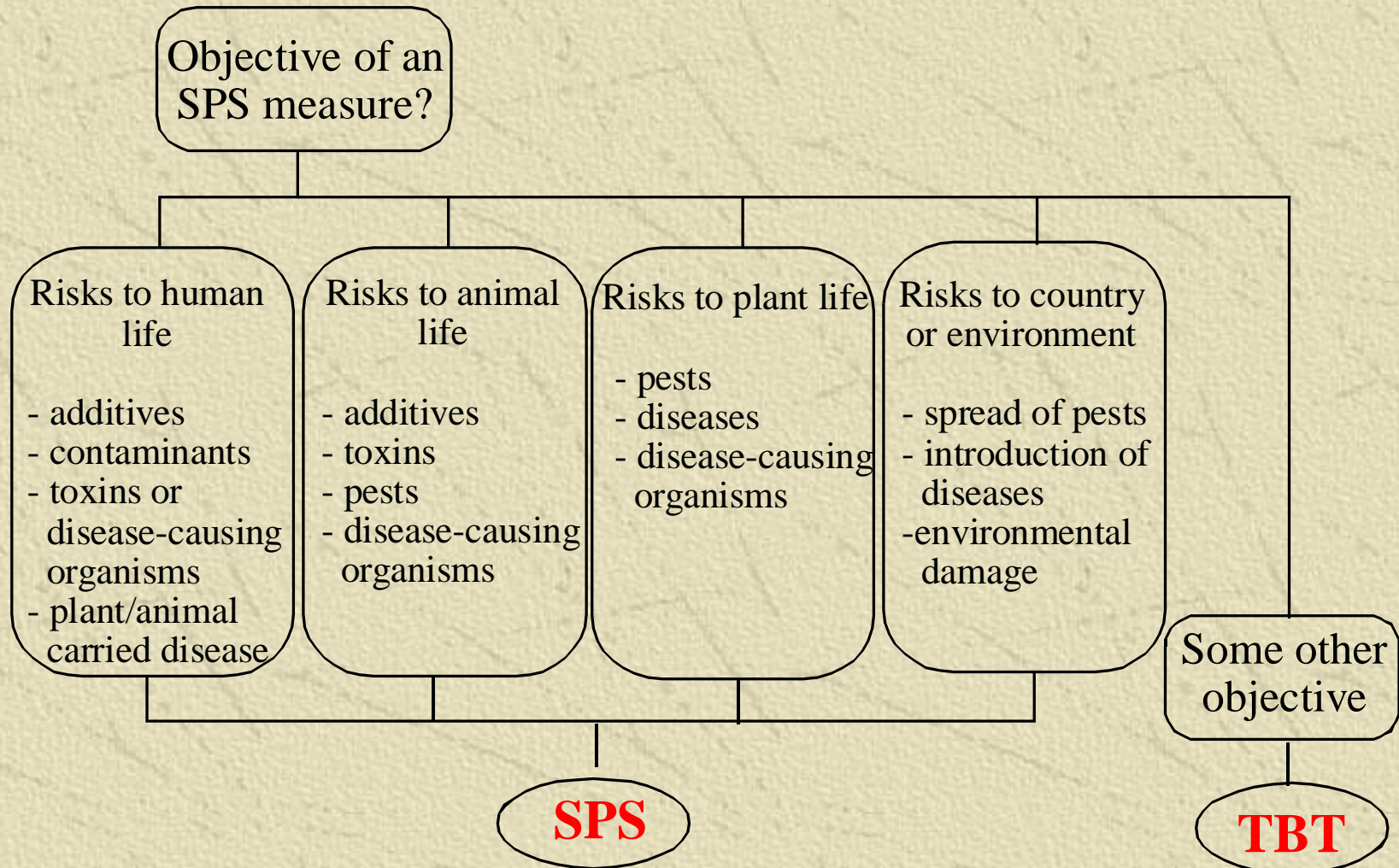
- ◆ Economic, trade and welfare implications

- Objective targets input use not trade specifically
- Less trade distorting for Q_2 but still distorts
- Local content requirement has a tariff equivalent of $\tau = P_2 - P_W$

Input use by source	Base case, Free trade	Autarky (closed mkt)	Tariff/quota regime	Local content
Price	$P_{Avg} = P_W$	$P_{Avg} = P_D = P_1$	$P_{Avg} = P_D = P_1$	$P_{Avg} = P_2$
Total use:	Q_5	Q_2	Q_3	Q_4
Local use	Q_1	Q_2	Q_2	Q_2
Imported	$Q_5 - Q_1$	0	$Q_3 - Q_2$	$Q_4 - Q_2$
Local share	$k < 60\%$	$k = 100\%$	$k > 60\%$	$k = 60\%$
DWLs				
Production	0	$\Delta 128$	$\Delta 128$	$\Delta 128$
Consumption	0	$\Delta 537$	$\Delta 537$	$\Delta 546$

7. Agreements on SPS and TBT

7.1 Objectives of SPS



Agreements on SPS and TBT, continued . . .

✦ SPS concerns and issues for the WTO

- ✦ Free trade versus national safety requirements
- ✦ Harmonization vs mutual recognition
- ✦ Risk tolerance and assessment
- ✦ Rules-based trade and science-based evidence
 - WTO principles of non-discrimination
 - ✦ MFN (if/when relevant – regs can differ, e.g., tropical diseases)
 - ✦ National treatment: harmonization vs equivalence
 - Principles of predictability and transparency
 - ✦ Proportionality and least-trade distorting
 - ✦ Enquiry point

Agreements on SPS and TBT, continued . . .

7.2 Objectives of TBT and concerns

✦ TBT objectives

- ◆ Product safety
- ◆ Product packaging
- ◆ Product labelling
- ◆ Pharmaceutical restrictions

✦ TBT concerns for trade and issues for the WTO

- ◆ Free trade vs tech regs and nat'al sovereignty
- ◆ Conformity assessment and mandatory compliance
- ◆ Rules-based trade – WTO principles
 - MFN and NT: harmonization vs mutual recognition
 - Predictability and transparency

Agreements on SPS and TBT, continued . . .

7.3 Differentiating SPS from TBT

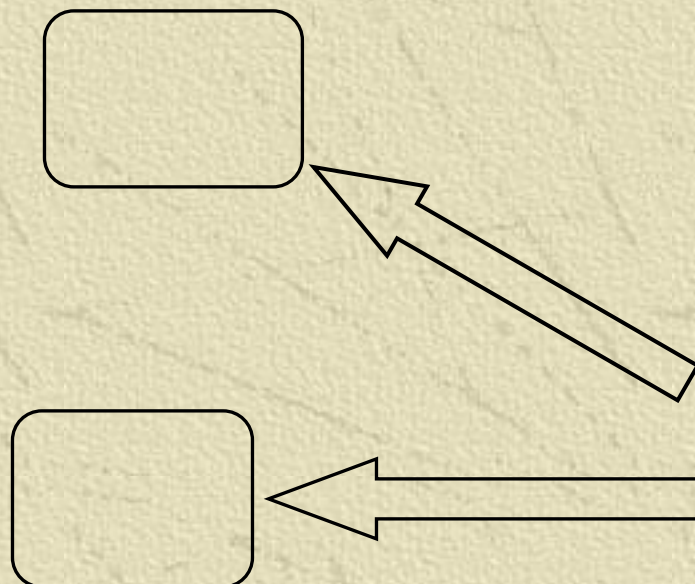
Example:
Bottled water

Description of
regulatory action

1. Specifications on the material the bottles are made of
2. Actual packaging of the water

Objectives:

1. Protection of human health;
2. Standardization of containers



Agreements on SPS and TBT, continued . . .

✦ Simple test of a regulation on:

- ✦ Labelling of food/beverages
- ✦ Toxins in food/beverages
- ✦ Plant/animal quarantine
- ✦ Processing method with food safety implications
- ✦ Packaging requirements for fresh food products
- ✦ Quality requirements for fresh food products
- ✦ Pesticide residues in food
- ✦ Labelling requirements for food safety

SPS/TBT

Agreements on SPS and TBT, continued . . .

7.4 Importance of the Agreements

✦ Trends in international trade

- ◆ ↑ Value-added product trade
- ◆ ↑ Intra-industry trade
- ◆ ↑ North-South trade
- ◆ Food and agricultural trade

✦ Challenges

- ◆ New tech and risk assessment: GMOs, hormones, organic
- ◆ Rigid harmonization: economic efficiency vs regulatory failure
- ◆ Precautionary principle vs outright protectionism
- ◆ UK, Brexit: from harmonization to nat'al stds

Agreements on SPS and TBT, continued . . .

- ✦ Trade in the absence of a multilateral agreement
 - ◆ Regulatory issues would be treated as "general exception"
 - Regs would not be applied on a rules-based manner
 - Regulatory process could be more *ad hoc* than science based
 - ◆ Burden of proof
 - Exporter would have to comply with importer's requirements
 - Exporter would be forced to prove product is safe
- ✦ SPS and TBT put premium on reliability and credibility of exporter

Agreements on SPS and TBT, continued . . .

7.5 Codex Alimentarius

✦ What is codex alimentarius?

- ✦ A joint FAO/WHO committee charged with preparing *standards, recommendations*, and guidelines to *protect consumers' health*, ensuring *fair trading* practices and *facilitating international trade*.

✦ What codex does:

- ✦ *Sets* commodity food *standards*, *defines codes of practice* covering *hygiene and food technology*, evaluates and establishes max *limits* on *pesticide residues*, and *evaluates food additives*, contaminants and veterinary drugs

✦ Participation in international meetings

- ✦ SPS + TBT *encourage* WTO members to participate fully in the *development of harmonized international standards*

Agreements on SPS and TBT, continued . . .

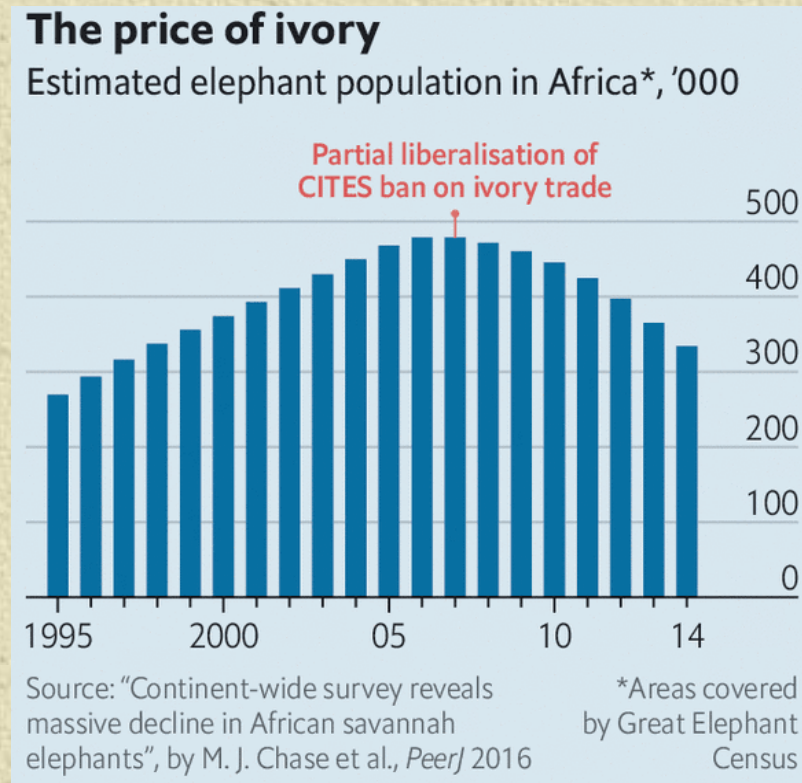
7.6 CITES – UN Convention on International Trade in Endangered Species (of Wild Fauna and Flora)

- ✦ Ensure int’al trade does not threaten the survival of plant/animal species
 - ◆ Countries adhere to its ruling voluntarily
 - ◆ CITES rules do not take the place of nat’al law
- ✦ Issue: do trade bans save wildlife or endanger it?
 - ◆ Some bans work: trade in birds
 - ◆ Some bans have not: tigers and rhinos

Agreements on SPS and TBT, continued . . .

- ◆ Tigers: captive breeding v wild population
- ◆ Elephants
 - 1989 put on Appendix I list, virtually all trade banned
 - Recovery of population
 - 2007: one-time lifting of ban
 - 2014-15: 30% ↓ numbers

Economist, “Endangered species: The elephant in the room” and “Illegal wildlife trade”, 19 Aug 2019, p. 12 and p. 45-6.



Agreements on SPS and TBT, continued . . .

7.7 An EU note on SPS+TBT regs

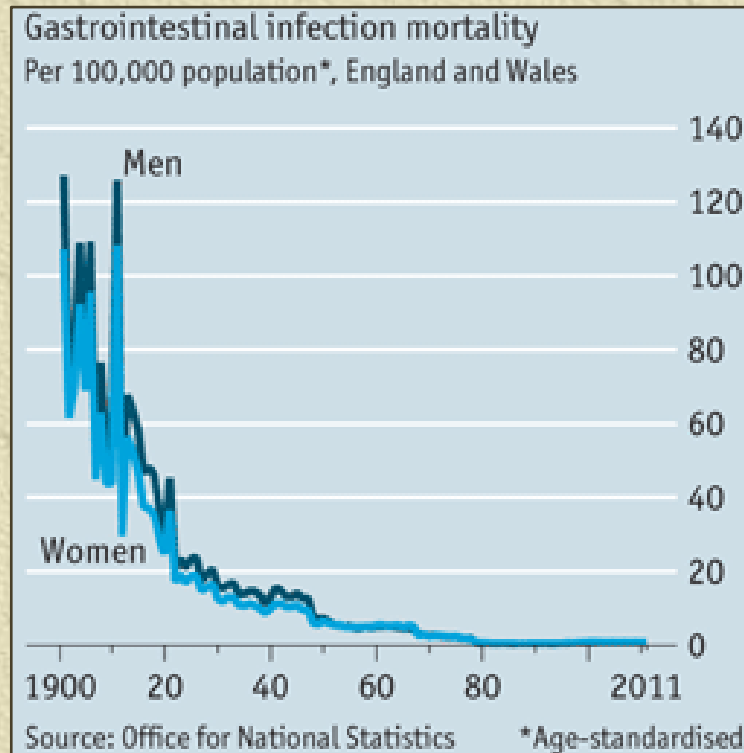
- ✦ Most of *acquis communautaire* is harmonized SPS + TBT
- ✦ EU-wide std can become *de facto* int'l std

7.8 SPS and TBT: theory and practice

- ✦ Free trade vs regs for social objectives
- ✦ Theory overestimates the benefits of trade and underestimates the costs

Agreements on SPS and TBT, continued . . .

◆ Food safety: UK mortality rates



Economist, “Food safety: After the horse has been bolted”, 16 Feb 2013, p. 52-3

Miami Herald

“Florida declares farming emergency to deal with Asian fruit flies”, 15 Sep 2015

FINANCIAL TIMES

“Volkswagen emission test cheating rocks Europe’s car manufacturers”, 22 Sep 2015

Norwegian Institute of Public Health

“AstraZeneca vaccine put on hold in the coronavirus immunization program”, 15 Apr 2021

The Economist

“German beer laws: A half-millennium of regulated brewing leaves a hangover”, 23 Apr 2016



“New rules on labelling of spirits – so what is vodka exactly?”, 14 Jun 2007

©CBS NEWS

“US tuna brands accused of making false ‘dolphin safe’ claims”, 16 May 2019

Agreements on SPS and TBT, continued . . .

Limitations of theory (assumptions):	Practical matters and trade issues	
	Need for SPS/TBT regs	Regs and trade issues
Price signals are accurate	Asymmetric information; P-signals not correct; mkt will not prevent fraud	Should regs approximate or harmonize a standard? Do regs mutually recognize or make production equivalent?
Homogeneous good	Even perceived product differences imply differentiated products	Can a regulation be used to differentiate products?
Same risks or ignored	Science and scientific understanding of risk is limited; risks can differ	How a reg assess high risk, low probability events? What is the appropriate response?
Identical production functions	Do production differences (processing, harvesting) require regulation?	Should a reg approximate or harmonize production method, or seek to mutually recognize or make it equivalent?
No externalities	Cases of market failure require intervention (regs or some other policy)	Must a reg aimed at correcting for market failures be harmonized multilaterally?

Agreements on SPS and TBT, continued . . .

7.9 Trade disputes involving SPS and TBT

✦ Case 1. US/Can – EC and hormones in beef

- ◆ Members can fulfil their WTO commitments by basing their national regulations on international standards. Standards are based on voluntary participation, but members must justify any deviance from international standards.
- ◆ Codex approved standards for hormones used by the US and Canada in meat production, but the EU voted against the standards when they were being approved by Codex.
- ◆ In 1996, the US and Canada requested consultations with the EC on its measures to prohibit or restrict imports of meat and meat products under a council directive "Prohibiting the Use in Livestock Farming of Substances Having a Hormonal Action".
- ◆ The measure is an absolute ban on imports of meat and meat products from cattle treated with any of six specific hormones for growth promotion purposes (no hormones whatsoever are tolerated in EC meat production).

Agreements on SPS and TBT, continued . . .

Hormone case continued:

- ◆ Countries must conduct risk assessments to document why regulations that are more stringent than international standards are necessary to achieve specific objectives.
- ◆ An important consideration is that the EU regulations are not based on the voluntary Codex standards, opposed by the EU.

Additional market info:

- The EU has a TRQ on meat at 11,500 tons which accounts for a negligible portion of total EU beef consumption.
- The in-quota tariff is only 20%, but the out-of-quota rate is prohibitively high (i.e., makes foreign meat uncompetitive on EU market).
- The TRQ on high quality beef has been nearly filled by Argentina, Australia, Brazil, New Zealand and Uruguay
- The US and Canada have high beef production and export capacity.

Agreements on SPS and TBT, continued . . .

Hormones in beef, continued:

Dispute resolution:

- ◆ First, is this dispute about a SPS measure, a TBT measure, or both? Explain.
- ◆ How does the fact that the EU never approved the Codex standard matter?
- ◆ Second, how would the case be resolved? Explain.

Agreements on SPS and TBT, continued . . .

✦ Case 2. EU-Peruvian sardine dispute

- ◆ EU regulation stating that only the species *Sardina pilchardus* was permitted to be marketed as a "sardine" in the EU. This ruling implies that "sardines" can not be marketed in combination with an additional name, in the way Peru had done for their sardine species *Sardinops sagax*, which they call "Peruvian sardines".
- ◆ The Peruvian product was denied access to the EU market.
- ◆ The Codex standard for sardines and sardine-like species states that only the species *Sardina pilchardus* can be sold under the name of "sardines". However, the standard also lists species which are defined as sardine-like fish. These can be sold with additional labels, based on either country of origin (e.g., Peruvian sardines), geographical origin (e.g., Pacific sardines) or as species name (e.g., Norwegian "Brisling Sardines").

Agreements on SPS and TBT, continued . . .

Sardine case, continued

- ◆ The three main arguments used by the EU to justify the ban were that: (1) the Codex standard was not relevant in this case, (2) the Codex standard enables countries to choose if they want to allow the use of additional names or not, and (3) the marketing of Peruvian sardines was confusing for European consumers. Thus, the consumer considerations were a legitimate reason for stronger requirements for sardine labelling.

Dispute resolution:

- ◆ First, is this dispute about a SPS measure, a TBT measure, or both? Explain.
- ◆ Second, how would the case be resolved? Explain.

Agreements on SPS and TBT, continued . . .

✦ Case 3. US-Malaysia shrimp dispute

- ◆ Sea turtles are considered threatened or endangered either directly (exploited for their meat, shells, eggs) or indirectly (incidental capture in fisheries, destruction of habitat, pollution of the oceans).
- ◆ The 1973 UN Convention on International Trade in Endangered Species of Wild Fauna and Flora (CITES) recognizes all seven species of marine turtles as threatened with extinction.
- ◆ The US Endangered Species Act (ESA) of 1973 put sea turtles on their list. In 1987, ESA regulations required that all US shrimp trawlers use turtle excluder devices (TEDs) or tow-time restrictions in areas where there was a significant mortality of sea turtles associated with shrimp harvesting.
- ◆ TEDs are considered an effective way to exclude by-catch (accidental turtle catch) during shrimp trawling. In 1990 the regulations required the use of TEDs at all times in all areas where shrimp trawling interacts significantly with sea turtles

Agreements on SPS and TBT, continued . . .

US-Malaysia shrimp dispute, continued

- ◆ US regulations state that harvested shrimp which adversely affects certain species of sea turtles protected under US law may not be imported into the US, unless: (a) the harvesting country has a regulatory program (comparable to that of the US) governing the incidental taking of sea turtles in the course of harvesting, and that the average rate is comparable; or (b) that the fishing environment of the harvesting country does not pose a threat of incidental taking of sea turtles in the course of such harvesting.
- ◆ All shipments of shrimp/shrimp products into the US must be accompanied by a declaration attesting that the shrimp /shrimp product in question has been harvested either under conditions that do not adversely affect sea turtles, or harvested in waters under the jurisdiction of a certified nation.
- ◆ Shrimp or products harvested in conditions that do not affect sea turtles include: (a) aquaculture facilities; (b) shrimp harvested using TEDs; (c) shrimp harvesting that does not involve fishing nets or devices by vessels that do not require TEDs; (d) shrimps harvested in areas where sea turtles do not occur or under conditions that do not threaten sea turtles.
- ◆ US regulations effectively serve as an embargo on shrimp and products on "all shrimp and products harvested in the wild by citizens or vessels of nations which have not been certified".

Agreements on SPS and TBT, continued . . .

US-Malaysia Shrimp, continued

- ◆ US law determines which foreign countries can be certified. However, US regulations also allow harvesting nations to certify on the basis of having adopted a TEDs program. Certification occurs under the following conditions: (a) TEDs are used at all times in conditions where there is a likelihood of threat. TEDs must be comparable in effectiveness to those used in the US, and (b) a credible enforcement effort that includes monitoring for compliance.

Dispute resolution:

- ◆ First, is this dispute about a SPS measure, a TBT measure, or both? Explain.
- ◆ Second, how would the case be resolved? Explain.

Agreements on SPS and TBT, continued . . .

✦ Summary and concluding comments

◆ Regs play important role in facilitating trade

◆ Importance of SPS and TBT Agreements

- Large share of dom regs are related to SPS or TBT
- Different regulatory approaches to risk or market failure are the source of trade disputes

◆ Importance of int'al standards

- Cases where regs exceed int'al standards
- Trade is not a "race to the bottom"

8. Doha and Bali Negotiations on MA

✦ Doha modalities

- ◆ Manufacturing tariffs by formula
- ◆ Agricultural tariffs

Developed countries (DCs)		Developing countries**	
Tariff range	Required cut	Tariff range	Required cut
$0 < \tau \leq 20\%$	50%	$0 < \tau \leq 30\%$	2/3 of the cut of DCs
$0 < \tau \leq 50\%$	57%	$0 < \tau \leq 80\%$	
$0 < \tau \leq 75\%$	64%	$0 < \tau \leq 130\%$	
$\tau \geq 75\%^*$	75%	$\tau \geq 130\%$	

Min overall avg cut of 54% for all members

* For Norway, max cut would imply $\downarrow \tau_{\text{MFN}}$ on beef to 86%

** Excludes small, vulnerable countries

- ◆ Sensitive product designation: 4-6% of ag lines – smaller cut

✦ Doha / Bali: stricter on TRQs; $\downarrow \tau$ escalation

9. Concluding comments on MA

9.1 Theoretical consistency of the WTO rules

✦ Binding, base rates and tariff cuts

- ◆ High % of bindings on ag and non-ag (developed)
- ◆ Base rates on sensitive products set high, esp. on ag goods
- ◆ Non-ad valorem bindings still exist

✦ Tariffication and TRQs

- ◆ Quota volume too small, in-quota rate too high
- ◆ Filling quota was not required; fill rates low

✦ Doha would have changed little

Concluding comments on MA, continued . . .

9.2 Implications for developing countries

- ✦ Scope of trade policy for domestic objectives
 - ◆ Tax collection
 - ◆ Balance of trade, payments
- ✦ Sensitive ag goods delay reform in developed countries
- ✦ MA constrained more by SPS/TBT than trade policy
- ✦ Mixed evidence on preferential MA benefits