

Module 3.

WTO Rules and Commitments on Trade in Goods: Compliance on Subsidies and Agricultural Support

ECN 330

Analyzing Economic Integration and
Multilateral Trade Liberalization

4. Agreement on Agriculture: Support and Subsidies

4.1. International agricultural trade before WTO

- ✖ Exception to multilateral rules
- ✖ Subsidies not clearly defined

4.2. New rules and definitions

- ✖ Market access (MA)
- ✖ Domestic support (DS)
- ✖ Export subsidies (ES)

Glossary of abbreviations

- | | |
|--------------------------------------|--|
| ✖ AD – anti-dumping | ✖ NSW – net social welfare |
| ✖ AMS – aggregate measure of support | ✖ NTC – non-trade concern |
| ✖ ACS – change in consumer surplus | ✖ P_D – domestic price |
| ✖ CSE – consumer subsidy equivalent | ✖ P_W – world price |
| ✖ CVD – countervailing duty | ✖ P-S – price support |
| ✖ CVM – countervailing measures | ✖ PS – producer surplus |
| ✖ D – demand | ✖ ΔPS – change in producer surplus |
| ✖ AD – change in demand | ✖ PSE – producer subsidy equivalent |
| ✖ DS – domestic support | ✖ Q – quantity |
| ✖ DWL – dead-weight loss | ✖ Q_D – quantity demanded |
| ✖ ED – excess demand, import demand | ✖ Q_M – quantity imported |
| ✖ AED – change in excess demand | ✖ Q_S – quantity supplied |
| ✖ ES – excess supply; export subsidy | ✖ Q_T – quantity traded |
| ✖ AES – change in excess supply | ✖ Q_X – quantity exported |
| ✖ Eqbm – equilibrium | ✖ S – supply |
| ✖ GDP – gross domestic product | ✖ ΔS – change in supply |
| ✖ I-S – income support | ✖ S&D – special and differential |
| ✖ MA – market access | ✖ τ – tax, tariff |

Agricultural Support and Subsidies, continued . . .

4.3. DS rules and commitments: green box measures

- ✖ Green box subsidies defined
 - ♦ Economic rationale
 - ♦ Exempt from reduction commitments

✖ Commitments specified in Supporting table DS:1

- ♦ Examples of green box measures
- ♦ Country-specific commitments and comparisons

DS: measures exempt from the reduction commitment, green box				
Type of measure as defined in criteria in Annex 2	Country-specific commitments			
	US	EU	Norway	
"General services", total - Research and development - Pest and disease control - Marketing and promotion - Training services - Extension and advisory - Inspection - Infrastructure	9,214	5,636	4,217	
"Public stockholding for food security"	0	18	716	
"Domestic food aid"	33,916	243	0	
"Decoupled income support"	4,100	166		
"Income insurance and safety-net programs"	0	11		
"Payments for relief from natural disasters"	1,421	399	28	
"Structural adjustment assistance"	1,730	6,249	1,554	
"Environmental programs"	291	5,519	364	
"Regional assistance programs"	0	2,420	1,555	

Source: WTO; values in million \$US, 2001; million €, 2001/02; 1,000 NOK

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Agriculture support and subsidies, continued ...				
Green box expenditures by category, US\$ million				
Are green box measures "minimally" or non-distorting?				
Green box category	Share of green box support	Why are the measures green box?		
		Welfare improving?	Neutral in Q, C?	Non-trade distorting?
General services, all types	40%	↑ SW thru ↑ productivity; ↑ Q commercially; can ↑ or ↓ trade		
Public stockholding and domestic food aid	35%	↑ SW - keeps P _D within a band; ↑ risk; ↑ C is non-discriminating		
Direct payments, incl. income support	23%	Encourages structural reforms; ↑ (↓) Q of efficient (inefficient)		

Source: www.wto.org; G/AG/NG/S/2, 2000

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Agriculture support and subsidies, continued ...	
4.4. DS rules and commitments: amber box measures	
Amber box subsidies defined	
♦ Economic rationale	
♦ Measures subject to reduction commitments	
Commitments specified in Supporting tables DS:5-9	
♦ Product-specific support: price and coupled income	
♦ Product-specific equivalent support	
♦ Non-product-specific support	

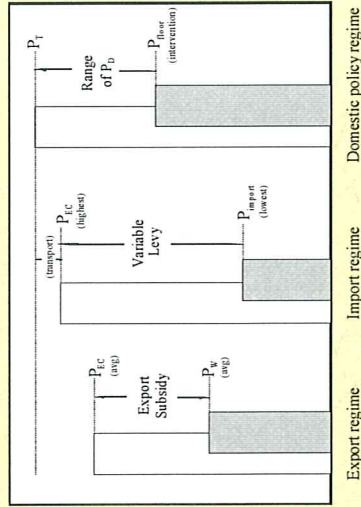
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Agriculture support and subsidies, continued ...			
Background on agricultural policies			
US: case of a net ag-exporter		EU: case of a net ag-exporter	
Period	Policies + DS programs	Policies + DS programs	Period
Pre-1970s	P-supports with: - tariffs or thru VETs - set-aside programs Loan rate program	P-support + high tariffs - intervention stocks - variable levies - production quotas	CAP under the EC-6 thru EC-9
1970s thru 1995	P-supports Loan rate program Y-supports (blue box)		
1995-2001 WTO commitments	P-support w/ tariff/TRQ Loan rate Y-support (green box)	P-support w/ tariff/TRQ - ↓ amber as % AMS Y-support (blue box) - set-aside required	1995-2001 WTO commitments

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Agriculture support and subsidies, continued ...

✱ Background on CAP, case of wheat, 1986-89



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Agriculture support and subsidies, continued ...

Product	Measure type	Applied admin price	External reference price	Eligible prodn	Fees/levies	Total mkt price support
US, 2001/02:	P-support under prodn quotas	\$/ton	\$/ton	mln ton	\$ mln	\$ mln
Dairy		218.26	159.83	76.726		4483.2
Sugar		374.79	230.82	7.167		1031.7
Peanuts		672.41	413.16	1.198		310.6
Total, all						\$5,822.6
EU, 2001/02:	Price supports	€/ton	€/ton	mln ton	€ mln	€ mln
Milk powder		2,055.2	684.7	1,000		1,370.5
Sugar		631.9	193.8	14,145	476.8	5,720.1
Butter		3,282.0	943.3	1,900		4,443.5
Beef		3,013.0	1,729.8	7,566		9,708.7
Total, all						€27,518.8

Source: www.wto.org; notification does, country specific, G/AG/N/USA/51 and G/AG/N/EEC/51

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Agriculture support and subsidies, continued ...

Product	Measure type	Eligible prodn	Price-related payments	Other non-price payments	Fees/levies	Total direct payments
US, 2001-2	Loan deficiency payments; marketing loan gain/ payment in corn/cotton	mln ton	\$ mln	\$ mln	\$ mln	\$ mln
Barley				16.0		16.0
Corn				1,193.4		1,193.4
Cotton				2,723.0		2,723.0
Total, all						\$8,434.7
EU, 2001-2	Direct aid in sugar and bananas; prodn aid in milk; premium payment for tobacco	€/ton	€/ton	mln ton	€ mln	€ mln
Milk				317.2		317.2
Sugar				212.2		212.2
Bananas				212.3		212.3
Tobacco				951.6		951.6
Total, all						€2,404.9

Source: www.wto.org; notification does, country specific, G/AG/N/USA/51 and G/AG/N/EEC/51

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Agriculture support and subsidies, continued ...

Product	Measure type(s)	Applied admin price	Eligible prodn	Equivalent measure of support	Fees/levies	Value of equivalent support
US, 2001-02:	n/a	\$/ton	mln ton	\$ mln	\$ mln	\$ mln
None.						0.0
EU, 2001-02:	Aid for storage, distilling in wine; guide price in cotton; price support for process	€/ton	mln ton	€ mln	€ mln	€ mln
Wine						891.6
Cotton						575.1
Apples		568	1,584.4	575.1		2,059.5
Table grapes		546	8,653.3	2,059.5		216.7
Tomatoes		1,126	2,264.3	216.7		1,944.2
Tomatoes for process		88.05	6,524.2	1,944.2		366.9
Total, all						€9,183.9

Source: www.wto.org; notification does, country specific, G/AG/N/USA/51 and G/AG/N/EEC/51
note: n/a is not applicable; Table DS 7 is combination of Tables DS5 and DS6.

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Agriculture support and subsidies, continued . . .

Supporting Table DS:9, Non-product-specific AMS

Program type(s)	Non-product-specific budgetary outlays	Other non-product-specific support	Fees/levies	Total non-product-specific support
US: 2001-02	\$ mln	\$ mln	\$ mln	\$ mln
Water subsidy		300.0		300.0
Grazing, livestock	83.692		18.3	65.4
Insurance	2,958.074		1,187.7	1,770.4
Credit programs	48.806			48.8
Marketing assist	4,639.822			4,639.8
Total, all types	3,741			\$6,828.2
EU: 2001-02	€ mln	€ mln	€ mln	€ mln
Insurance	278.4			278.4
Interest rate concessions	295.1			295.1
Total, all types				€573.5

Source: www.wto.org; notification docs, country specific, G/AGN/USA/51 and G/AGN/EEC/51

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Agriculture support and subsidies, continued . . .

Supporting Table DS:3, Direct payments – exempt direct payments

Measure type	Name and description of measure with reference to criteria in Article 6:5	Value of measure
US, 2001-02	None. Program eliminated after 1995	\$ 0.0
EU, 2001-02		€ mln
	Payments based on fixed area and yields	
	Per ha compensatory payments, maize	1,613.6
	Per ha compensatory payments, cereals	10,717.9
	Set-aside compensation, cereals	1,893.3
	Per ha compensatory payments, oilseeds	1,846.2
	Payments based on 85% or less of the base level of production	
	None.	0.0
	Livestock payments made on a fixed number of head	
	Payments to producers of suckler cows	1,959.2
	Special premium, beef and veal	1,748.4
	Total blue box exempt payments, all products	€23,725.9

Source: www.wto.org; notification docs, country specific, G/AGN/USA/51 and G/AGN/EEC/51

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Agriculture support and subsidies, continued . . .

4.5 DS rules and commitments: blue box measures

✱ Blue box subsidies defined

- ♦ Direct payments
- ♦ Economic rationale
- ♦ Measures exempt from reduction commitments

✱ Commitments specified in Supplementary table DS:3 (country-specific comparisons of blue box use)

Payments based on:

- ♦ Fixed area and yields
- ♦ 85% or less of the base level of production
- ♦ Fixed number of head of livestock

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Agriculture support and subsidies, continued . . .

✱ Comparing amber and blue box support at $[P_{D,ab}]$

- ♦ Support equal to $[P_{D,ab}] - [P_{D,bb}]$ – blue box
 - $[P_{D,ab}] - [P_{D,bb}]$ – income support paid through budget
 - $[P_{D,bb}] - P_w$ – price support paid by consumers
- ♦ Production-limiting through a quota at $[Q_s]_{bb}$

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Agriculture support and subsidies, continued . . .			
Comparing support measure under the amber and blue boxes			
Policy alternatives	Description of a policy scenario supporting producers at $[P_{D,lab}]$		
Amber box	A price support is set at a rate of $\{[P_{D,lab}] - P_w\}$ per unit requires tariff protection, τ , such that $\tau_{ab} \geq \{[P_{D,lab}] - P_w\}$. This features both income and price support. Income support is $\{[P_{D,lab}] - [P_{D,bb}]\}$ per unit in exchange for reduced production. A price support is set at $\{[P_{D,bb}] - P_w\}$ per unit, requiring a lower tariff, $\tau_{bb} \geq \{[P_{D,bb}] - P_w\}$. This is a smaller consumption tax.		
Blue box			
Economic factors	Amber box	Blue box	Interpretation
Price	$[P_{D,lab}]$	$[P_{D,bb}]$	Amber box has more P-support
Prodn	$[Q_{S,lab}]$	$[Q_{S,bb}]$	Blue box requires $\downarrow Q_S$
Consume	$[Q_{D,lab}]$	$[Q_{D,bb}]$	P-support is a consumer tax
Trade	$[Q_{M,lab}]$	$[Q_{M,bb}]$	Amber box is more distorting
Trade policy	$[\tau]_{lab}$	$[\tau]_{bb}$	Amber box requires higher τ

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Agriculture support and subsidies, continued . . .						
Supporting Table DS:4, Calculation of the current total AMS, 2001						
Selected products affected	Type of AMS		Production value		AMS	
	Product-specific	Equivalent	Total	5%	De min	Current total AMS
US commitments: \$ million						
Beef	0.00		29,293.24	1,464.66	0.00	0.00
Corn	1,269.66		18,888.39	944.42		1,269.66
Cotton	2,810.11		3,789.20	189.46		2,810.11
Dairy	4,483.33		24,893.99	1,244.70		4,483.33
Soybeans	3,610.04		12,605.72	630.29		3,610.04
Sugar	1,060.96		2,028.35	101.42		1,060.96
Wheat	189.39		5,440.22	272.01	189.39	0.00
Total, all	14,627.63	0.00	198,502.75	9,925.14	214.58	\$14,413.06
Non-product-specific		6,828.15			6,828.15	0.00
Total AMS					\$7,042.73	\$14,413.06
Source: www.wto.org; notification does, country specific, G/AGN/USA/51 and G/AGN/EEC/51						

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Agriculture support and subsidies, continued . . .			
4.6 Aggregate measure of support (AMS)			
✖	Computing current total AMS		
♦	Sum over all types of amber box domestic support		
♦	Subtract value that qualifies as <i>de minimis</i> support		
♦	Total is AMS		
✖	AMS, reduction commitments, bound vs applied rates		
♦	Comparison of bound and applied rates		
♦	Support as a % of farm income and GDP		
♦	Composition of support and negotiating strategy		

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Agriculture support and subsidies, continued . . .						
Supporting Table DS:4, Calculation of the current total AMS, 2001						
Selected products affected	Type of AMS		Production value		AMS	
	Product-specific	Equivalent	Total	5%	De min	Current total AMS
EU commitments, € million						
Wheat	1,236.6		8,984	449.2		1,236.6
Grains	8.2		23,429	1,171.5	8.2	0.0
Barley	1,640.4		4,963	248.2		1,640.4
Sugar, white	5,732.1		8,938	446.9		5,732.1
Milk	212.2		40,134	2,006.7	212.2	0.0
Beef	9,708.7		20,671	485.4		9,708.7
Apples		2,059.5	4,334	216.7		2,059.5
Total, all	29,934.9	9,183.9	246,418	12,320.9	289.8	
Non-product-specific		573.5			573.5	0.0
Total AMS					863.3	39,281.3
Source: www.wto.org; notification does, country specific, G/AGN/USA/51 and G/AGN/EEC/51						

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Agriculture support and subsidies, continued ...

Table DS.1: Total AMS commitments (excludes green and blue boxes)							
Base AMS, annual AMS reduction commitments and final levels							
1986-88	1995	1996	1997	1998	1999	2000	2001
US AMS commitments, \$ million							
23,879	23,083	22,287	21,491	20,695	19,899	19,103	19,103
-	6,214	5,898	6,238	10,392	16,862	16,803	14,413
EU-15 AMS commitments, € million							
83,949	78,672	76,369	74,067	71,765	69,463	67,159	67,159
-	50,026	51,009	50,194	46,683	47,886	43,654	39,281
Norway, AMS commitments, million kr							
14,311	13,834	13,357	12,880	12,403	11,926	11,449	11,449
-	9,786	10,529	10,526	10,889	10,787	10,293	10,700

Source: www.wto.org; entire DS document series of G/AGN/USA; G/AGN/EEC, and G/AGN/NOR

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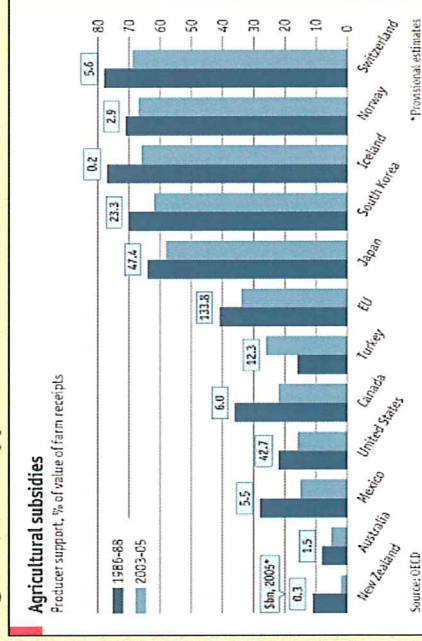
Agriculture support and subsidies, continued ...

Composition of support (as % of DS), 1995-98					
Member	Green	Blue	S&D	De minimis	Amber
Net agricultural exporters, developed countries					
Australia	89			0	11
New Zealand	100			0	0
US	84	4		2	10
Canada	52			30	17
Net agricultural importers, developed countries					
EU	22	23		1	54
Norway	18	34			48
Japan	46			1	53
Iceland	17	3			80
LDCs					
South Africa	50			12	38
Venezuela	53		8	0	39

Source: www.wto.org; background paper by secretariat, G/AGN/G/S/2, April 2000

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Agricultural support and subsidies, continued ...



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Agriculture support and subsidies, continued ...

Comparing support estimates, 2001 (mln local currency units)					
Category	US	EU	Norway		
Amber box (1)	\$14,413	€39,281	kr 10,700		
Blue box (2)	0	23,726	7,330		
Sub-total (3)	14,413	63,007	18,030		
Green box	50,672	20,661	4,316		
Total, all boxes	65,085	83,668	22,346		
Value of prodn (4)	\$189,520	€246,418	kr 17,656		
PSE: (1)/(4)	8%	16%	61%		
PSE: (3)/(4)	8%	26%	102%		

Agriculture support and subsidies, continued . . .

✧ Current status

- ◆ Base period 1995-2000
- ◆ Total trade-distorting support: bound AMS + 10% value of production + higher of 5% prodn value or of blue box value

Draft modalities as of 2007			
Overall total trade-distorting domestic support		Final bound total AMS (amber box)	
Range of value of AMS	Proposed % cuts	Range of value of AMS	Proposed % cuts
> \$60 bln	75	> \$40 bln	70%
\$10-60 bln	66	\$15-40 bln	60%
< \$10 bln	50	< \$15 bln	45%

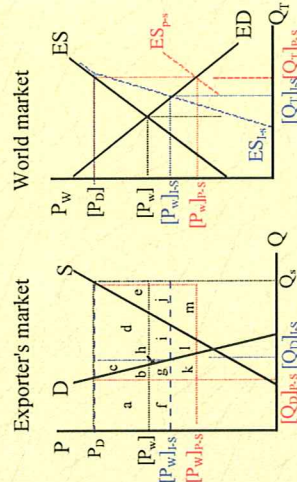
Source: WTO document, Jul 2007

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Agriculture support and subsidies, continued . . .

4.7 Economics focus: price versus income support

- ✧ Economic rationale for differences in amber and blue box
- ✧ Trade and welfare effects, for equivalent support, net exporter



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Agriculture support and subsidies, continued . . .

✧ Summary of results, DS measures by a net exporter

Domestic support programs by a net exporter:		Price support	><	Income support
Least-trade distorting:				
Effect on trade volume	$[Q_{T P,S}]$	$[Q_{T P,S}]$	>	$[Q_{T I,S}]$
Effect on world price	$P_w - [P_{w P,S}]$	$P_w - [P_{w I,S}]$	>	$P_w - [P_{w I,S}]$
Economic effect on domestic market:				
Effect on domestic price	P_p	P_p	≠	$[P_{w I,S}]$
Effect on production	Q_s	Q_s	=	Q_s
Effect on consumption	$[Q_{D P,S}]$	$[Q_{D P,S}]$	>	$[Q_{D I,S}]$

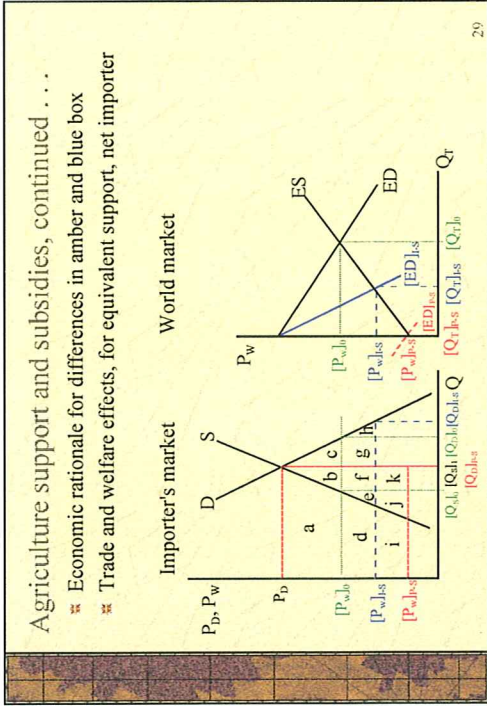
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Agriculture support and subsidies, continued . . .

✧ Welfare effects of price and income support by a net exporter

MA limitation	DS: Amber price support	DS: Blue income support
ΔCS	$\tau = [P_p] - [P_{w P,S}] - (a+b)$	$\tau = 0$
Economic interpretation	Consumer pays P-support, i.e., a tax; CSE = $- \{P_p - [P_{w P,S}]\} \cdot [Q_{D P,S}] - (a)$	Consumer subsidy; CSE = $\{P_w - [P_{w I,S}]\} \cdot [Q_{D I,S}] = (f+g+h)$
ΔPS	$+ (a+b+c+d)$	$+ (a+b+c+d)$
Economic interpretation	Producer subsidy; PSE = $\{P_p - P_w\} \cdot Q_s = + (a+b+c+d+e)$; in the case of blue box support it is paid entirely by tax payers	Producer subsidy; PSE = $\{P_p - P_w\} \cdot Q_s = + (a+b+c+d+e)$; in the case of blue box support it is paid entirely by tax payers
ΔG	$- (b+c+d+e+g+h+i+j+k+l+m)$	$- (a+b+c+d+e+f+g+h+i+j)$
Economic interpretation	The entire outlay is an export subsidy; $(g+h+i+j+k+l+m)$ is an international transfer	$(a+b+c+f+g+h)$ is income support; $(b+c+d+e+g+h+i+j)$ is an export subsidy with initial transfer = $(d+e+i+j)$
ΔNSW	$- (b+e) - (g+h+i+j+k+l+m)$	$- (e) - (i+j)$

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Agriculture support and subsidies, continued . . .

- Welfare effects of price and income support by a net importer

MA limitation	DS: Amber, price support	DS: Blue, income support
ΔCS	$\tau = [P_D] - [P_W]_{p,s}$	$\tau = 0$
Economic interpretation	Consumer pays P-support, i.e., a tax; $CSE = -\{P_D - [P_W]_{p,s}\} \cdot [Q_D]_{p,s} = -(a+b)$	Consumer subsidy where $(g+h)$ is part of international transfer; $CSE = \{P_W - [P_W]_{p,s}\} \cdot [Q_D]_{p,s} = (d+e+f+g)$
ΔPS	$+(a)$	$+(a)$
Economic interpretation	Producer subsidy; $PSE = \{P_D - P_W\} \cdot Q_S = + (a+b)$; in the case of the blue box support it is paid entirely by tax payers	
ΔG	0	$-(a+b+d+e+f)$
Economic interpretation	No imports; price support is paid entirely by consumers in higher food prices	The entire $(a+b+d+e+f)$ is a budgetary outlay covered by tax payers
ΔNSW	$-(b+c)$	$-(b) + (g+h)$

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Agriculture support and subsidies, continued . . .

- Summary of results, DS measures by a net importer

Domestic support programs by a net importer:	Price support	Income support
Least trade distorting:		
Effect on volume imported	$[Q_M]_{p,s} = 0$	$<$
Effect on world price	$P_W - [P_W]_{p,s}$	$>$
Economic effect on domestic market:		
Effect on domestic price	P_D	$>$
Effect on production	$[Q_S]_1$	$=$
Effect on consumption	$[Q_D]_{p,s}$	$<$

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Agriculture support and subsidies, continued . . .

4.8 Concluding comments on DS

- Types of income support
 - Decoupled – green box
 - Production-limiting support – blue box
 - Coupled income support – amber box
- Do the *real* effects of these measures differ as the theory supposes?
 - In the short run . . .
 - In the long run . . .

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5. Agreement on Agriculture: Export Subsidies

5.1 Legal, economic and political issues related to ES

- ✖ Legal definition
 - ♦ Elements and specificity (credit and promotion programs)
 - ♦ Competition issues (STEs)
- ✖ Economic considerations
 - ♦ Additivity
 - ♦ Costs relative to benefits
 - ♦ Welfare and spillover effects
- ✖ Political administration
 - ♦ Cost of program and graduation
 - ♦ Implementation of other policy measures

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Export Subsidies, continued ...

Table ES:1; Budgetary outlays and reduction commitments							
Export subsidy bound value and budgetary outlays							Sum '95-00
	1995	1996	1997	1998	1999	2000	2001
US ES commitments, \$ million							
Bound	1,168.2	1,053.4	938.7	819.9	709.1	594.4	5,283.7
Outlay	25.6	121.5	112.2	146.7	80.2	15.3	501.5
EU-15 ES commitments, € million							
Bound	11,750.9	10,832.8	10,030.0	9,169.2	8,308.3	7,448.4	7,547.4
Outlay	4,884.9	5,565.0	4,361.3	5,336.2	5,613.7	2,763.2	2,573.1
Norway, ES commitments, million kr							
Bound	954.3	862.4	769.9	677.8	585.3	493.2	4,342.9
Outlay	527.4	505.3	723.7	549.7	1,587.2	393.2	302.4
Source: www.wto.org; entire ES document series of G/AGN/USA/, G/AGN/EEC; and G/AGN/NOR							

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Export Subsidies, continued ...

- ### 5.2 Multilateral rules under the Agreement on Agriculture
- ✖ Rights to use ES were negotiated and bound
 - ✖ Bound rates defined on a volume and value basis
 - ✖ Reduction commitments were required
 - ✖ Doha negotiation: phase out all ES
- ### 5.3 ES commitments in table ES:1
- ✖ Commitments and compliance
 - ✖ Usage by country, by product
 - ✖ Country comparisons

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Export Subsidies, continued ...

Countries negotiating the right to use export subsidies						
	Developed		Emerging Mkts		Developing	
	Country	No. of lines	Country	No. of lines	Country	No. of lines
Selected members	EU-15	20	Bulgaria	44	Venezuela	72
	US	13	Poland	17	S Africa	62
	Norway	11	Slovakia	17	Turkey	44
	Canada	11	Czech Rep	16	Colombia	18
	Switzerland	5	Hungary	16	Brazil	16
Sub-totals	8 members	68	10 members	183	7 members	177
Total	25 members		negotiated right to use ES on 428 product lines			

Source: www.wto.org; *Agriculture – Negotiations Background*, Dec 2004

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Export Subsidies, continued . . .

Summary of export subsidy usage	
Countries having negotiated the right to apply export subsidies	Application of export subsidies
Latin America (7), S. Africa, New Zealand, Australia, Cyprus, Bulgaria, Iceland, Switzerland	Export subsidies were not applied to a significant extent or not at all
Canada, Czech Republic	Applied on dairy
Romania	Applied on cereals
US	Applied on dairy, poultry
Hungary, Poland, Slovakia	Applied on 3-4 items
EU-15, Norway	Applied on nearly all line items negotiated

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Export Subsidies, continued . . .

Export subsidy usage by volume, 1995-00	
Product category	% of the export subsidy used by all countries
Wheat and wheat flour	32
Grain	45
Sugar	33
Cheese	74
Other milk products	86
Beef, pork, poultry	62
Fruit and vegetables	27
Cotton	0

Source: www.wto.org, TN/AG/S/8

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Export Subsidies, continued . . .

Export subsidized agricultural products, by category					
	Grain	Dairy	Meat	F+V	Total
S. America (3)	7			3	106
Bulgaria, Turkey	6	7	11	42	88
S. Africa	5	4		5	62
EU-15	3	4	4		20
EU-new (5)	6		5	14	75
Norway				4	11
US	3	4	3		13
Total, number	38	46	50	121	428
Total, %	9	11	12	28	

Source: www.wto.org; background paper by secretariat, TN/AG/S/8, April 2002

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Export Subsidies, continued . . .

Export subsidy volume usage, 1995-00, selected products					
Selected products	EU-15		US		Norway
	95-00 avg %	Bound vol	95-00 avg %	Bound vol	95-00 avg %
Wheat, mill tons	69	14.4	0	14.5	-
Grain, mill tons	93	18.4	0	1.6	-
Sugar, mill tons	85	12.7	-	-	-
Cheese, 000 tons	88	321	96	3.0	100
Other milk, 000 tons	99	958	195	0.0	-
Beef, 000 tons	86	822	0	17.6	91
Pork, 000 tons	83	444	0	0.4	70
Chicken, 000 tons	99	286	17	28.0	0
Sheep, 000 tons	-	-	-	-	58
					0.7

Source: www.wto.org

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Export Subsidies, continued . . .

Export subsidy use by member, by volume commitments	Simple averages with and without zero-use notifications, %							
	1995	1996	1997	1998	1999	2000	2001	95-01
US:								
all 13 lines	21	10	27	28	77	19	15	28
no zero-use lines	35	50	70	73	199	80	100	87
EU:								
all 20 lines	62	81	74	77	91	62	53	71
no zero-use lines	65	85	82	91	107	74	63	81
Norway:								
all 11 lines	50	25	51	41	119	35	29	50
no zero-use lines	69	45	94	82	171	59	49	81

Source: www.wto.org; TN/AG/S/R and ES documents, G/AG/N/

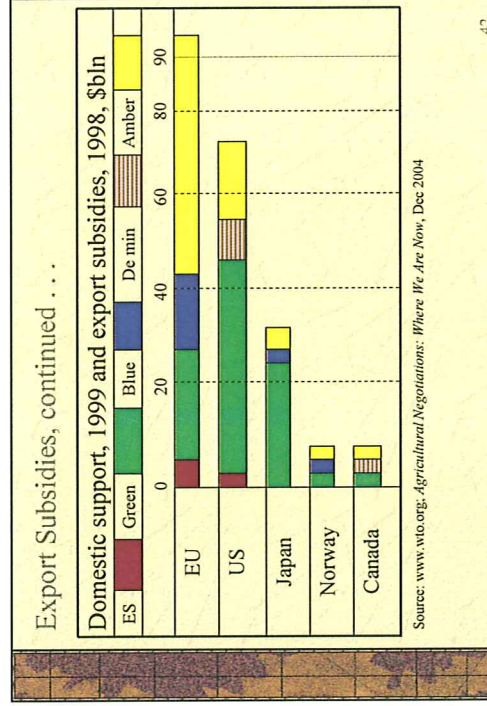
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Export Subsidies, continued . . .

5.4. Concluding comments on the ES evidence

- ✘ How do MA, DS and ES interrelate?
- ✘ If MA, DS and ES are used simultaneously, which policy is the binding constraint?
- ✘ Biggest users: net importing developed countries
- ✘ Biggest use: products that were sensitive to overproduction, i.e., internal surpluses

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6. Multifunctionality, non-trade concerns and risk

6.1 Risk and uncertainty

- ✘ Types of risk
 - ♦ To an individual or microeconomic agent
 - ♦ To society or the macroeconomy overall
- ✘ Implication of risk and uncertainty
 - ♦ Inefficiency, sub-optimal decision-making, market failure
 - ♦ Government intervention can be appropriate response

6.2 Agricultural risk/uncertainty requires a response

- ✘ DS: green, amber or blue box measures
- ✘ Trade policy: MA restrictions or use of ES
- ✘ Private sector initiatives or institutional responses

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Multifunctionality, non-trade concerns and risk

6.3 Multifunctionality in agriculture and NTCs

✘ Multifunctionality

- ♦ Agricultural production
- ♦ Link to non-economic activities that have social value

✘ Non-trade concerns

- ♦ Trade is a multilateral concern
- ♦ Social objectives are a unilateral concern

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Multifunctionality, non-trade concerns and risk

Type of risk or concern	Risk to whom or risk of what	DS programs or State-owned enterprises	MA policies, ES or state-trade exporters	Private initiatives or institutional responses
1. Destruction/deterioration of physical product	Farmer: losses in production or ↓ yields Handler: can't move volume or losses too high from storage/transport	Disaster relief; subsidize crop insurance or input subsidy	Trade policy is inappropriate as a response to correct for yield or production losses or handling problems	Private crop insurance; yield futures contracts; input suppliers
2. Farm income or agricultural prices too low	Farmer/exporter: discourages prodn and the process of specialization	Subsidize on-farm storage or insurance; state takes on storage function	Price floor, income support with a storage subsidy	Private insurance for storage/transport
3. Food price increases in poor net food importing countries	Food inaccessible to consumers or too expensive for handlers/users	Price ceiling; consumption subsidy; buffer stocks; strategic reserves	Tariffs, export subsidy, or dumping through a STE	Forward contract, futures marketing, or a marketing board
			Import subsidy to private state importing firms; export tax or restrictions	Forward contacts, futures marketing or a marketing board

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Multifunctionality, non-trade concerns and risk

Type of risk or concern	Risk to whom or risk of what	DS programs or State-owned enterprises	MA policies, ES or state-trade exporters	Private initiatives or institutional responses
4. Price and/or income instability	Macroeconomic instability from unstable development Ag sector pursues a strategy to diversify rather than specialize	Stabilize price or income through price/ income support; buffer stock; strategic reserve programme	Tariff, import controls as a means to support price; ES, export credit/promotion programmes; state commodity agreements or marketing boards	Price discovery system with merchandising strategies include forward/futures contracting, cooperatives, etc
5. Instability in production or on the market	Failure in ag credit markets Uncertainty discourages handlers Food insecurity	State rural credit or credit subsidy Storage subsidy or state-owned reserves; buffer stocks or strategic reserve	Variable levy or other import restriction; ES	Private ag lending firms; micro-credit firms; micro-credit contracting
	Market failure: insufficient public goods provided	Green box measures to target landscape, environment, etc; amber for P-support	MA restrictions to protect production levels	Market cannot supply enough public goods without regulation; if quotas used, then make tradable

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