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Technical Annex

WTO Constraints on U.S. and EU Domestic Support in Agriculture: The October 2005 Proposals

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This document is the technical annex to the full paper "WTO Constraints on U.S. and EU Domestic Support in Agriculture: The October 2005 Proposals" which is available separately.

This technical annex has two parts. Part A estimates 2014 current support and constraints for the USA and the EU (the data are summarized in table A1). Part B analyzes the effectiveness of the 2014 constraints.

Part A: Estimating 2014 Current Support and Constraints for the USA and the EU

Value-of-production projections for the USA are based on USDA (2005b, table 29, adjusted for continuity with notified data), and for the EU they are based on EC (2005a, table 3.1.5), adjusted for continuity with notified data and 10 percent assumed nominal growth between 2000-02 and 2014. The data for U.S. 2014 support come mainly from projections made in 2005 (USDA, 2005a), and data for EU support draw on EC (2005b). The U.S. baseline assumes that the 2002 Farm Bill will continue to apply. Because market prices of crops are projected to be significantly higher in 2014 than in recent years, the AMS payments are projected to be nil or very low. The 2014 current total AMS is therefore as low as \$6.5 billion, most of which consists of market price support for dairy (\$5.2 billion) and sugar (\$1.2 billion). Because the AMSs for products other than dairy and sugar are so small and apply to products that account for so little of the whole sector's value of production, it makes very little difference in the results whether they are above or below future *de minimis* thresholds of 1 or 2.5 or 5 percent of future value of production. The

baseline projects countercyclical payments (CCPs) of less than \$1 billion in 2014. I assume that a combination of the criteria for blue payments and corresponding changes to the present CCP will allow the 2014 payments to be classified as blue.

The point estimates of the U.S. baseline projection do not account for the possibility of market prices falling below that estimate, in which case the continued 2002 Farm Bill provisions would trigger significant payments. Values of production would also be different, resulting in different *de minimis* allowances. This analysis does not evaluate these situations (see, e.g., Westhoff, Brown and Hart, 2005 for such analysis). The USA may create room for over \$5 billion in additional AMS payments in 2014 by removing measured market price support for dairy by eliminating the support price for milk. Reform of the sugar policy has also been mentioned.

The projections for the EU-15 are based on how the 2001/02 notification may change under full implementation of the reforms decided in 1999, 2003, 2004 and 2005. The EU has reduced intervention prices for some products and eliminated them for some and may report market price support for only very few products in 2014: cereals (excluding rye and oats), rice, skimmed milk powder and butter. The eligible production quantities in market price support for 2014 are assumed to be the same as the 2012 projected quantities (EC, 2005b). Blue payments are estimated to be €3.7 billion (10 percent of the sum of blue and green payments). The EU's 2004 notification will be for the EU-25, and the 2014 notification is expected to be for a still larger EU. However, the 2003 and later reforms, along with the rules governing support in the new member states, mean that relatively little of the support in these states will be of the AMS type.

Not knowing future values of production makes the 2014 constraints uncertain, since the future *de minimis* allowances, which are part of the MUC, are determined by the 2014 values of production. Also, instead of looking at only one projection of 2014 payments, a set of projections based on probability distributions of yields could have been used (Hart and Babcock, 2005, and Westhoff, Brown and Hart, 2005). Uncertainty also attaches to future policy decisions, such as a replacement of measured market price support with non-AMS payments for sugar and dairy (USA) and for fruit, vegetables and wine (EU). This could make the projected 2014 current total AMS much smaller than the amounts used in this analysis and would change the conclusions about the new constraints being binding or not.

 Table A1
 Basic Data for Estimating Components and Commitments

	USA (US\$ billion)		EU-15 (€	EU-15 (€ billion)	
	- U	Value of production (VO	P)		
average 2000-02	192.2	see technical annex	244.8	see technical annex	
projection 2014	260.3	see technical annex	269.3	see technical annex	
		sed on estimated 2000-02		rmitted <i>de minimis</i> ")	
5% of 2000-02 VOP	9.6		12.2		
D e	minimis a	allowances based on proje	ected 201	4 VOP	
5% of 2014 VOP	13.0		13.5		
2.5% of 2014 VOP	6.5		6.7		
1.0% of 2014 VOP	2.6		2.7		
Blue box entitleme	nt fixed 2	007-14 (based on VOP in	assumed	base period 2000-02)	
5% of 2000-02 VOP	9.6	(0.000.00.00.00.00.00.00.00.00.00.00.00.	12.2		
	Ectim	ated "existing blue box pa	vmonts"		
2001-03	0	ateu existing blue box pa	23.2	payments 2001-03 (note)	
2001 00	1 -		20.2	paymente 2001 de (note)	
Total AMS: base	total AMS	S, end total AMS commitm	ents, 201	4 current total AMS	
2000 onwards	19.1	Final bound total AMS	67.2	Final bound total AMS	
U.S. proposal	7.6	cut by 60%	11.4	cut by 83%	
EU proposal	7.6	cut by 60%	20.1	cut by 70%	
G-20 proposal	5.7	cut by 70%	13.4	cut by 80%	
2014 current tot. AMS	6.5	see technical annex	19.4	see technical annex	
	0	verall support: calculate l	าลรค		
Final bound tot. AMS	19.1	Torum support: sursulute :	67.2		
Blue box component	9.6	5% VOP 2000-02	23.2	paymts 2001-03 (note)	
PS de min. allowance	9.6	5% VOP 2000-02	12.2	5% VOP 2000-02	
NPS de min. allowance	9.6	5% VOP 2000-02	12.2	5% VOP 2000-02	
Base overall	47.9	sum above components	114.8	sum above components	
	0	·		·	
II C proposal	22.5	erall support: end commit cut by 53%	28.7	out by 75%	
U.S. proposal	+	•		cut by 75%	
EU proposal	19.2	cut by 60%	34.4	cut by 70%	
G-20 proposal	12.0	cut by 75%	23.0	cut by 80%	
	Overa	all support: calculate 2014	current		
2014 current total AMS	6.5	see technical annex	17.5	see technical annex	
2014 blue payments	0.5	see technical annex	3.7	see technical annex	
2014 PS de min. AMS	0	see technical annex	0.2	see technical annex	
2014 NPS de min. AMS	3.0	see technical annex	0.6	see technical annex	
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Note: Since EU payments of the type notified as blue were larger in 2001-03 than in 2000-02, assume the EU's "recent representative period" of the 2004 Framework is 2001-03.

Part B: Analyzing the Effectiveness of the 2014 Constraints

The projections of values of production for 2014 in the USA and the EU make it possible to derive the constraints that would result from the three October 2005 proposals. This enables us to assess whether the constraints would actually constrain projected 2014 AMS support and overall support, and to identify which constraints would be binding and non-binding.

A variable called something like "current overall support" will be needed in the future to parallel the current total AMS in the present Agreement on Agriculture, i.e., measure current support against the commitment. For both the USA and the EU the projected current overall support in 2014 is less than half of the estimated current overall support in 2004 (from \$20.8 billion to \$10.0 billion in the USA and from €52.5 billion to €22.0 billion in the EU).

MUC vs. Sum of Allowed AMS Components

For the USA, the maximum usable components (MUC) under the U.S., EU and G-20 proposals would be lower than the sum of allowed AMS components by amounts ranging from \$1.3 billion to \$4.8 billion. For example, under the EU proposal, the MUC of \$11.5 billion is \$1.3 billion less than the \$12.8 billion sum of allowed AMS components (figure 2). Maximizing AMS support within the applicable constraints may be a future objective. Babcock and Hart (2005) and Sumner (2003) discuss how the USA may manage support to stay within limits instead of reducing support. The MUC would be the relevant constraint, not the sum of allowed AMS components. The fact that the MUC is in the order of 10-15 percent smaller than the sum of allowed AMS components would need to be built into future policy designs. For the EU, the MUC is lower than the sum of allowed AMS components by 14 percent (U.S. proposal), 5 percent (EU proposal) and 20 percent (G-20 proposal) (figure 3). Such differences may be significant in the context of an assumed objective of providing as much support as possible within applicable constraints.

Overall Support

Adding the cap on blue to either the sum of allowed AMS components or the MUC yields one of the constraints that will apply to the sum of blue and AMS support in 2014. The interesting comparison is between (1) the blue cap + MUC, and (2) the overall commitment. The overall commitment constrains the current overall support. This sum of all current non-green support components (sum of 2014 current blue and all 2014 current AMS components) is not allowed to exceed the 2014 overall commitment.

The U.S. proposal results in an overall commitment of \$22.5 billion for the USA. Assume that the USA actually does provide AMS support equal to \$20.7 billion, i.e., the sum of allowed AMS components (in fact, this is not allowed under the de minimis rules, as explained above in defining MUC). Add to this the blue cap of \$4.8 billion, which is assumed to be fully used. The result is \$25.5 billion (figure 2). This sum is larger than the \$22.5 billion overall commitment and would not, even if allowed, be a binding constraint on overall support.

However, the blue cap + MUC is only \$22.2 billion, i.e., less than the \$22.5 billion overall commitment. The blue cap + MUC is therefore the binding constraint, and the overall commitment is non-binding. Turning to the EU and G-20 proposals as applied to the USA, the

respective overall commitments for the USA (\$19.2 and \$12.0 billion) are smaller than the blue cap + MUC (figure 2). The overall commitment is therefore, under both the EU and the G-20 proposals, the binding constraint on U.S. non-green support.

For the EU, the overall commitment (€28.7 billion) is also under the U.S. proposal larger than the blue cap + MUC (€27.6 billion; figure 3). The overall commitment is thus a non-binding constraint also for the EU. The blue cap + MUC is the binding constraint. For the EU, the difference between the two constraints (€1.1 billion) is larger than for the USA. Both the EU proposal and the G-20 proposal impose an overall commitment on the EU that is low enough to effectively constrain the EU sum of blue and AMS support to less than the blue cap + MUC. The overall commitment for the EU under all three proposals is larger than the €22.0 billion projected as 2014 current overall support (figure 3). Thus, for the EU, the overall commitment constrains not what the EU is projected to provide in distorting support but only its ability to reverse the policy reforms currently being implemented.

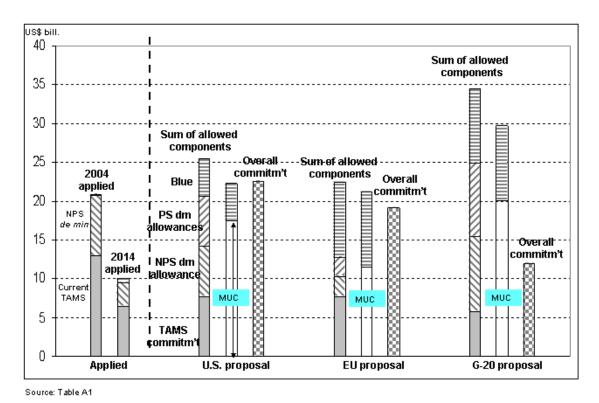
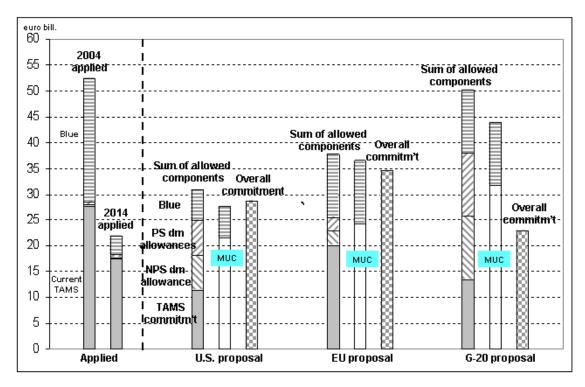


Figure 2 USA Components and Constraints



Source: Table A1

Figure 3 EU Components and Constraints

De Minimis Reductions under the G-20 Proposal

De minimis under the G-20 proposal requires a separate discussion. The G-20 proposal is here interpreted to mean that de minimis AMSs can be exempted from current total AMS only to the extent that they can be accommodated within the overall commitment. The de minimis AMS allowances shown under the G-20 proposal in figures 2 and 3 are the initial ones resulting from applying 5 percent to the 2000-02 values of production. However, the overall commitments of \$12.0 billion (USA) and €23.0 billion (EU) are much smaller than the sums of blue caps and MUC, which are \$29.7 billion (USA) and €44.0 billion (EU). This shows that the de minimis allowances initially included in MUC are much too large. In fact, the overall commitment for both the USA and the EU is so much smaller than the sum of the blue cap and MUC that the G-20 proposal implies a de minimis percentage of zero, i.e., no de minimis allowance.

Eliminating the *de minimis* allowances leaves only the total AMS commitment in MUC, which reduces the sum of the blue cap and MUC significantly. For the USA, the sum of the blue cap and the total AMS commitment is \$15.3 billion. The G-20 overall commitment of \$12.0 billion is lower than even this amount, which means that the USA will not be able to fully use the sum of its cap on blue and its total AMS commitment. The amount of "unusable room" (\$3.3 billion) can be within the cap on blue, within the total AMS commitment, or a combination of the two. For the EU the "unusable room" between the overall commitment (\in 23.0 billion) and the sum of the cap on blue and the total AMS commitment (\in 25.6 billion) is \in 2.6 billion.