

CAP Reform and the WTO: Potential Impacts on EU Agriculture

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Abstract

In 2003 an agreement was finalized to instigate arguably the most significant reform of the European Union's (EU) Common Agricultural Policy (CAP) since its inception. In the Luxembourg Agreement many of the direct payments that have been linked to production are decoupled and instead provided in the form of a land-based payment. The reforms did not include any significant changes to either EU border support or the ability of the EU to utilize export subsidies that have been widely criticized by other nations. Even though the reforms do not directly address trade in agricultural products it is argued that World Trade Organization (WTO) concerns played a significant role in the designs of the reforms. In this paper an analysis of the Luxembourg reforms and the European proposal for agriculture under the WTO is presented. The results are used as the basis for a discussion of the interaction of the WTO and CAP reform and the implications for the agricultural sector in the EU.

Key words: CAP reform, WTO, decoupling, policy analysis.

The Luxembourg reform is the latest in a series of significant changes to the EU's Common Agricultural Policy (CAP) made over the last 12 years. The changes have been primarily motivated by budgetary concerns, in particular they have sought to address the problem of growing commodity surpluses that arose from open-ended price support. In 1992 the MacSharry reforms transferred some of the support to agriculture from supporting prices to direct payments. In addition to internal EU budgetary pressures, the Uruguay GATT round also played a role in the shape of the final reform agreement. The imposition of export subsidy limits was expected to further hinder the ability of the EU to dispose of surpluses. The payments that were introduced as part of this reform were argued to be partially decoupled, providing the EU with some flexibility regarding restrictions on domestic support.

In Agenda 2000 the MacSharry policy reforms were deepened, with further cuts in intervention prices and increases in compensatory payments. In a move that surprised many, further significant reforms were proposed in 2002. There were many forces motivating these reforms: the ambitions of outgoing EU Commissioner Franz Fischler, the impending enlargement of the EU, and the Doha Round WTO negotiations. The EU¹ submitted its proposal on modalities in January 2003 (European Commission, 2003a), prior to the final agreement on CAP reform. Inevitably, links were made between the modalities proposal and the ongoing reform process, but the Commission denied that the modalities paper was inconsistent with the CAP agreed in Agenda 2000 (Agra Europe, 2002). The proposal argued for the blue box to be retained, and if that were to be the outcome of the negotiations the EU's compensation payments could have been retained in their Agenda 2000 form.

Under the Luxembourg Agreement a single farm payment (SFP) is introduced. Most of the current EU direct payments become part of the SFP and are paid to those holding land with a payment entitlement. The result of these changes is a significant decoupling of payments from production, although there is still a strong link with farming due to the restrictions that accompany the payments. As part of the process of reaching an agreement, significant variation in implementation of the SFP across countries was allowed, but even if countries choose to implement the minimum degree of decoupling

¹ The countries of the EU are referred to as the European Communities within the WTO, but here EU is used for all references to that group of countries.

the EU will be able to shift a large amount of WTO blue box payments into the green box.

This paper presents the simulation results from a model of the EU-15's agricultural sector under the CAP reforms and incorporating the EU modalities proposal.² The EU modalities paper specifies figures for the reductions in tariffs, export subsidy expenditures and the AMS that facilitate their analysis, albeit under a number of simplifying assumptions. This paper also includes a discussion of the US-EU joint initiative paper (European Commission/Office of the United States Trade Representative, 2003), and the "Derbez Text" (World Trade Organization, 2003) floated at Cancún. The model used for this analysis is the FAPRI GOLD (grains, oilseeds, livestock and dairy) model of the EU-15. The model has been developed under the auspices of the FAPRI-Ireland Project, a US and Irish research collaboration.³

The baseline scenario presented contains the CAP pre-Luxembourg reform. Given the fact that under the new measures countries have a variety of options as to how to implement the SFP, it was decided to analyze two scenarios, both of which incorporate the EU's WTO proposal but which make different assumptions regarding the implementation of the reforms. In the first scenario, called MAX, the maximum amount of decoupling is carried out with all 15 countries choosing to fully implement the SFP at the earliest opportunity. In the second scenario, called MIN, some payments are paid in

² The results presented here are for the EU-15 and therefore do not incorporate the recent enlargement.

³ See <http://www.tnet.teagasc.ie/fapri/> for more details of FAPRI-Ireland, and to access its publications.

their current form throughout the projections and the SFP is introduced on the latest allowable date.

The GOLD Model

The EU GOLD model is a dynamic partial equilibrium model of the agricultural sector in the fashion of the suite of models that FAPRI has used for many years in the analysis of agricultural policy both for the US and globally (Hanrahan (2001)). The model is designed to incorporate all the important biological and economic relationships inherent to the sector as well as focus on the detailed representation of agricultural policy in the EU. For example, production of beef depends not only on the price of beef and inputs, but also on the number of dairy cows and the payments that are made to beef animals in the EU.

The model includes the main commodities that are supported in the EU. A simplified representation of the model's coverage is presented in Figure 1. The prices of cereals and oilseeds appear as input costs in the production of meats. Meat and dairy production determines the volume of cereals and oilseed products consumed as feed. The model used in this analysis is of the EU-15, and splits the EU into France, Germany, Italy, Ireland, the United Kingdom, and a rest-of-EU block.

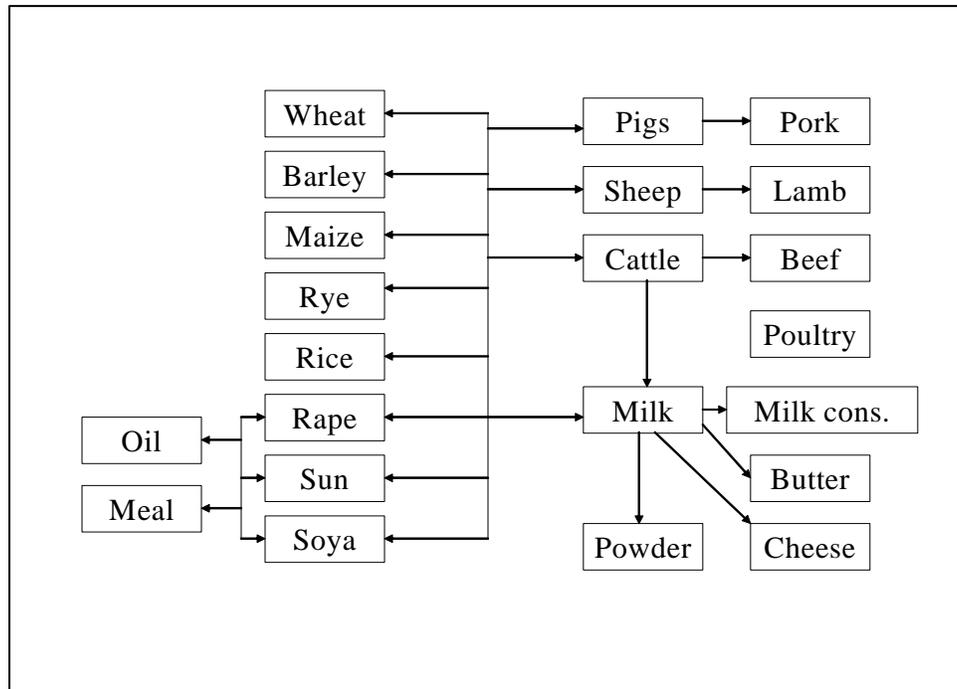


Figure 1: Commodity coverage and linkages in the GOLD model.

The data for the model comes mainly from EUROSTAT (New Cronos) and the USDA (P,S and D). The model is arranged as a system of single equations for the production, demand, and trade for each of the commodities. Most of the equations of the system have not been estimated, with the behavioral parameters taken from the literature or imposed on the basis of analyst judgment. The model is continuously updated on the basis of policy developments or in response to feedback from the variety of analyses that have been undertaken using it.

The model solves for a lead price (usually the French price) to clear the market for each of the commodities. Trade for the EU is subject to the constraints of either the agreements made under the Uruguay Round Agreement on Agriculture (URAA) or scenario

assumptions. In this analysis a reduced form of the FAPRI global system is used to simulate the response of the rest of the world to the changes in trade from the EU.

The model focuses on the incorporation of policy instruments and their impact on the decision to produce. Direct payments are incorporated differently in the different sectors. Arable area aid payments under Agenda 2000 policy have been more decoupled than payments on animals, given that they are not crop specific and in many cases producers have the option to set aside land voluntarily. In this model the arable area aid payment plays more of a role in the determination of overall crop area than the share of land allocated to each crop. Payments that are made in the cattle and sheep sectors have been made on a per head basis so in the model those payments determine animal numbers directly. Since the milk quota determines output in the dairy sector throughout the projection period, the payments that are introduced are assumed to have no impact on production.

Central to the scenario analysis is how the introduction of the SFP is modeled. If the SFP is truly fully decoupled, it should be incorporated in the model simply by setting payment rates to zero and including just the payments that are directly linked to production decisions. There are a number of reasons why the SFP should not be considered to be fully decoupled. Cross compliance criteria require farmers to “maintain land in good agricultural condition.” Even lump sum payments may influence the production decision depending on producers’ attitude to risk (Hennessey, 1998). Furthermore, production may be undertaken if there is a perception that there might be future policy changes that

again tie benefits to production (Josling, 2003). Therefore, in the model the SFP payments are assumed to be partially decoupled – one euro of SFP is assumed to have the same impact on production as 0.3 euro of coupled payments.

The model uses exogenous macroeconomic data and price projections from the FAPRI global modeling system to generate a baseline, or current policy scenario. The baseline is then used as a benchmark against which to compare policy simulations. It is important to remember that the baseline does not constitute a forecast but a projection under a certain set of assumptions. In this analysis the GOLD baseline generated in spring 2003 was used. While there have been changes in currency and commodity markets in the interim, we feel that the overall results of our analysis in terms of the impact of the Luxembourg reform and the WTO modalities proposal and the conclusions drawn from it remain robust.

The Impact of CAP Reform

When the Mid-Term Review (MTR) was published in 2002 (European Commission, 2002) it proposed that most of the direct payments should be converted to a single payment linked to land and not to the production of a single commodity. The proposal faced much resistance from countries that argued it was too soon to instigate such changes (e.g., Ireland) or those opposed to the contents of the reform package (e.g., France and Spain) for fear of the impact on their agricultural sectors. Nonetheless, the proposed legislation that emerged, referred to as the “Long-Term Perspective” (LTP)

document (European Commission, 2003b), kept the proposal largely intact. The GOLD model was used to analyze both the MTR and the LTP in Binfield and Westhoff (2003) and Binfield et al. (2003) respectively.

Given the widespread resistance to the changes it was inevitable that the final agreement would result in a political compromise. The final agreement (Council of the European Union, 2003) allowed the “re-coupling” of some of the payments through a variety of options. Either 25 percent of the arable area aid payment or 40 percent of the durum wheat payment can be paid in its existing form. Some livestock payments can be maintained at their present level. In addition, the SFP entitlement can be calculated on a historic basis, or allocated regionally, or a combination of both. The combination of the re-coupling options and the ability to determine the payment in a number of ways complicates analysis, and constitutes a significant renationalisation of agricultural policy in the EU.

The Scenarios Analyzed

Given the complexity of the choices that could be made under the reforms, and the fact that at the time of the analysis many countries had not submitted their intentions regarding SFP implementation, it was decided to run two scenarios. In the MAX scenario, we assume that the SFP is introduced at the earliest possible date, and the maximum amount of payments are transferred into the SFP. Under this scenario, therefore, the payments are the most decoupled from production. Under the MIN

scenario, the SFP is introduced at the latest possible date, and countries avail of all of the re-coupling options available to them. In the baseline, the Agenda 2000 CAP is maintained for the projection period.⁴

In both the MAX and MIN scenarios the other changes that were made to the CAP are incorporated. Intervention is abolished for rye and the intervention price for rice is halved. The 15 percent intervention price reduction for butter scheduled under Agenda 2000 is increased to 25 percent and is brought forward, along with the skimmed milk powder (SMP) intervention price reductions. Dairy quota increases planned under Agenda 2000 are delayed by a year.

In both scenarios, an attempt is made to incorporate the proposals regarding the WTO made in the EU submission on modalities. The choice of implementation in the model is complicated by the fact that the EU modalities proposal only suggests average rates of reduction for export subsidies and tariffs. In the scenarios these are applied uniformly across commodities, although the experience of the implementation of the URAA would suggest that in practice sensitive commodities would only be subject to the minimum reduction required. Under a more flexible interpretation of the modalities proposal the impact on EU agriculture could be even smaller than that outlined here.

⁴ Implicit in the analysis is the assumption that all countries opt for the historical approach to calculation of the SFP. This assumption should have little impact on the results in most cases.

Results of scenarios

The impact of the CAP reform varies across different sectors, in part reflecting differences in the degree to which pre-reform payments were tied to production decisions. In the crop sector the arable area aid payment was relatively decoupled, so the introduction of the SFP has relatively little effect (Table 1). For most of the crops there is a reduction in area of less than 2 percent for the EU and the resulting fall in output has a small positive impact on world prices.

Table 1: Crop sector baseline and scenario impacts (2007-2012 average).

	Baseline	MAX		MIN		
EU-15 crop area (1000 ha.)		Actual and percentage change from baseline				
Soft Wheat	14,282	-89	-0.6%	-63	-0.4%	
Durum	3,798	-185	-4.9%	-165	-4.3%	
Barley	10,750	-47	-0.4%	-45	-0.4%	
Corn	4,371	-12	-0.3%	-12	-0.3%	
Rye	960	-84	-8.8%	-84	-8.8%	
Rice	391	-10	-2.6%	-6	-1.5%	
3 Oilseeds	4,984	-30	-0.6%	-9	-0.2%	
Total	39,537	-458	-1.2%	-385	-1.0%	
World Prices (\$/mt)						
Wheat	146.67	0.98	0.7%	0.75	0.5%	
Corn	104.73	0.33	0.3%	0.22	0.2%	
Soybeans	232.39	0.62	0.3%	0.17	0.1%	

For some commodities there were additional reforms to the transfer of payments to the SFP. The payments made to durum wheat are reduced so there is a larger fall in durum area planted than the other major cereals. The end of intervention purchases of rye allows the price of that commodity to fall with the subsequent impact on area. Similarly, the halving of rice intervention prices means that rice area falls, although the fact that much

of the compensation for this fall is still fully coupled means that rice area does not fall to the same extent as rye area.

The payments that have been made in the livestock sector are generally more coupled than for crops. In order to claim the suckler cow premia, special beef premia, slaughter premia, or ewe premia farmers had to own the appropriate animal. These payments were also relatively more important in the livestock sector, often contributing more than 100 percent of some farmers' net producer incomes in countries like the UK and Ireland. The decoupling of these payments therefore has a large impact on production (Table 2). Were none of the recoupling options to be pursued, beef cow numbers are projected to fall by nearly 11 percent under the MAX scenario, resulting in a reduction of beef production of 2.6 percent. In the sheep sector, given the absence of exports and tight control on imports, prices rise by more than the beef sector and so the reduction in sheep numbers is not so dramatic.

In the dairy sector, production is determined by the quota and there is little difference in the volume of milk produced. The larger fall in the intervention price of butter leads to a reduction in butter production and stimulates production of cheese. Lower prices for products (with the exception of SMP) stimulate domestic consumption and lower net exports.

Table 2: Livestock sector baseline and scenario impacts (2007-2012 average).

	Baseline	MAX		MIN	
EU-15 animal numbers (1000 hd.)		Actual and percentage change from baseline			
Beef cows	11,816	-1,264	-10.7%	-384	-3.2%
Ewes	65,432	-4,160	-6.4%	-2,256	-3.4%
EU-15 meat production (1000 mt)					
Beef	7,268	-189	-2.6%	-15	-0.2%
Sheep meat	1,091	-60	-5.5%	-19	-1.7%
EU-15 meat prices (euro/mt)					
Beef	240.36	14.24	5.9%	1.50	0.6%
Pork	132.56	0.84	0.6%	0.13	0.1%
Poultry	126.91	0.92	0.7%	0.14	0.1%
Sheep meat	367.88	47.51	12.9%	13.35	3.6%
EU-15 Dairy					
Milk production (mmt)	122.36	-0.12	-0.1%	-0.12	-0.1%
4 product net exports (mmt)	0.98	-0.12	-12.6%	-0.12	-12.6%
Milk price (euro/100kg)	27.2	-0.80	-3.0%	-0.81	-3.0%

The WTO and EU Agriculture

Projecting the expenditures under the various components that comprise the WTO commitments is complicated by the fact that at time of writing the EU has not reported domestic support to the WTO for any year after 1999 and there is no record of how the Agenda 2000 changes are to be incorporated. Expenditure estimates are based on the assumption that WTO notifications will be made in a similar way in the future as they have in the past. Projections are made using the figures that are produced by the model.

In 1999 the EU reported domestic support under the amber box of 48 billion euro (against a limit of 69 billion) and 20 billion euro in blue box payments. For 2000 and beyond, the

amber box limit is 67 billion euro. Since 1999, the CAP has reduced intervention prices further and increased direct payments, transferring more support from the amber to the blue box. The EU considers the SFP to be decoupled and that therefore expenditures under that measure would fall into the green box (European Commission, 2003c).

The projections for EU-15 domestic support levels are presented in Table 3. The introduction of the SFP results in a large shift from the blue box to the green box. In the MIN scenario, blue box spending is reduced to 7 billion euro annually by 2007, while in the MAX scenario the blue box stands at less than 400 million euro annually after 2007. The differences between MAX and MIN reflect the options that are available to the individual countries and the different dates that are available for the introduction of the SFP. The CAP reforms also have an impact on the amber box regardless of the options chosen by member states through the reduction of the intervention price of butter and rice and the elimination of intervention for rye.

The results suggest that meeting the requirements regarding domestic support in the original EU modalities proposal would not be a problem for the EU. Even under the baseline scenario the amber box support is well below the current limit. The introduction of the SFP results in much lower blue box expenditure, and even under the MIN scenario the value of the blue box expenditure is likely to be below the 5 percent level of production suggested in the EU-US joint proposal and the Derbez text (the details of the different proposals are summarized in the appendix to this paper).

Table 3: EU-15 domestic support levels.

	2001/02	2002/03	2003/04	2004/05	2005/06	2006/07	2007/08	2008/09
	million euro							
Permitted AMS	67,170	67,170	67,170					
Current AMS								
Baseline	40,081	34,814	34,687	34,744	34,332	33,933	33,505	33,520
MAX			34,687	34,134	32,972	32,388	32,117	32,121
MIN			34,687	34,134	33,059	32,540	32,174	32,208
Blue box								
Baseline	23,064	24,018	23,989	23,998	25,020	26,029	27,054	27,033
MAX			23,989	25,330	367	372	376	379
MIN			23,989	25,330	26,976	28,366	7,411	7,089
Sum of current AMS and blue box								
Baseline	63,145	58,832	58,676	58,742	59,352	59,962	60,559	60,553
MAX			58,676	59,464	33,339	32,760	32,493	32,500
MIN			58,676	59,464	60,035	60,906	39,585	39,297
Current AMS vs.2003/04 permitted AMS								
Baseline			-48%	-48%	-49%	-49%	-50%	-50%
MAX			-48%	-49%	-51%	-52%	-52%	-52%
MIN			-48%	-49%	-51%	-52%	-52%	-52%
Sum of current AMS and blue box vs. 2003/04 sum of current AMS and blue box								
Baseline			0%	0%	1%	2%	3%	3%
MAX			0%	1%	-43%	-44%	-45%	-45%
MIN			0%	1%	2%	4%	-33%	-33%

Source: FAPRI calculations based on GOLD model projections.

Both the joint paper and the Derbez text call for reductions in the total of de minimis, blue box, and AMS. The EU has not utilized the de minimis provisions. In the baseline, under Agenda 2000 the reduction in the level of price support is offset by an increase in direct payments leaving the total largely unchanged. Table 3 shows that the sum of blue box and AMS is projected to fall significantly with the total falling by a third of the 2003/04 sum by the end of the projection period in the MIN scenario.

The main impact of CAP reform on the EU's position with regard to the WTO is in the classification of domestic support expenditure. The reform will have smaller impacts on both market access and export subsidies. The use of export subsidies by the EU as a method for the disposal of surplus production is perhaps the area under most pressure in the WTO negotiations, and it is realistic to assume that in any final Doha WTO agreement the export subsidy limits will at least be reduced significantly.

In the EU beef sector, recent years have seen a dramatic reduction in the volume of beef exported as production has fallen and consumption rebounded post the latest BSE related shock. As a result, export subsidies are already well below the maximum level allowed both in volume and value terms. The reforms are likely to further reduce the volume and value of subsidized exports as beef production falls as the beef cow herd contracts, with the possibility that internal beef prices rise. The EU Commission may cut back on export subsidies if there is significant positive pressure on prices, as producers were compensated for a price fall that has yet to materialize under Agenda 2000. The projections here suggest that the EU could agree to even greater reductions in beef export subsidies than implied in the EU modalities submission without making further policy adjustments.

In the cereal sector, successive reforms have seen EU prices converge with prices elsewhere in the world. In recent years some EU wheat exports have been undertaken without the use of subsidies. The Luxembourg reforms will have little impact on this situation, given the small changes that are projected above. There may be events in the

future that require large scale subsidization of exports but the probability of this occurring is low.

For some dairy products, however, subsidized exports have been close to their URAA limits in recent years. The impact of CAP reform is to further reduce EU dairy product prices below those that were projected to occur in the baseline for all products except SMP. Lower internal prices mean that there is less surplus to export so the reforms reduce the volume and value of subsidized exports. Nonetheless, under the scenario, the strong projected euro/US dollar exchange rate and weakness in global dairy markets mean that the modalities scenario requires reductions in SMP and cheese, although the negative impact on prices is not substantial.

Both the joint US and EU paper and the Derbez text include the objective of the elimination of export refunds of “particular interest to developing countries.” Such an agreement would mean that the EU could continue to support its more sensitive commodities. Throughout the Doha process the European Commission has been at odds with some member states as to the extent of reduction in subsidies that should be promised. In May 2004 the Commission offered to eliminate all export subsidies, albeit subject to its other demands on agriculture being met including the elimination of export credits and state trading enterprises (European Commission, 2004). Phasing out export subsidies, also a feature of the Derbez text, would have a significant impact on EU agriculture and the results here suggest that some further reform of the CAP would be

needed, particularly in the dairy sector, to accommodate such an agricultural trade reform outcome from the Doha round.

The reforms have even less impact on market access than on export subsidies. The only commodity where a change to market access is implemented is rice where the reduction in the intervention price requires a change in the access arrangements. The motivation for the reform of the rice sector arises from the Everything But Arms (EBA) agreement extending duty free access to many developing countries. Reducing the intervention price would automatically reduce tariffs for those countries not part of the EBA agreement, but the Commission chose to restructure the way these tariffs were calculated. The degree of import access increase under the reforms is therefore restricted.

In the scenario all tariffs were reduced by 30 percent. The fact that there is significant “water” in tariff levels currently means that this reduction has little effect on trade. For dairy products and beef, tariff levels are frequently over 100 percent of the world price. There are some increases in imports for some commodities. In beef, for example, although most traded cuts of beef are protected by substantial tariffs, there would be opportunities for more imports of some high quality cuts of meat or frozen beef. Since the model does not disaggregate commodities it is impossible to gauge the scale of such changes. Given the overall high level of tariffs, the projected small impact on imports seems defensible.

Under the EU modalities proposal it is reasonable to assume that changes to tariffs could be structured to minimize the impacts on markets. The joint initiative's proposal for a blended set of rules for tariff reductions is echoed in the Derbez text, but neither goes into enough details to draw conclusions regarding the level of market access.

Conclusion

The 2003 reform of the CAP constitutes a major change in the way direct payments are made in the EU. The introduction of the SFP results in a reduction in the link between the payments and production. The EU argues that the payments do not distort trade and therefore should be placed in the green box. The major impact of CAP reform on the EU negotiating position in the current round of the WTO negotiations is through the transfer of support from the blue box to the green box.

The estimates in this paper, based on the simulation of a commodity-level partial equilibrium model, indicate that even if countries were to opt for the fullest possible degree of re-coupling, the EU would still be able to agree to reductions in domestic support outlined in their submission on modalities, or in the joint US-EU proposal with little or no further reform of the CAP. Recent changes in the tobacco, cotton, and olive oil sectors will further transfer expenditure out of the amber and blue boxes into the green box.

The reforms are likely to have less of an impact on export subsidy levels or market access. The changes for the crop sector, where the payments were previously relatively decoupled, are small. In the beef sector under a no policy change scenario, volume and value of export subsidies are well below their limits, with the reform likely to further decrease surplus as beef cow numbers drop. As the dairy quota stays in place the reforms will have little impact on the export subsidy situation in the dairy sector, where the current limits appear to be the most likely to be binding. The EU therefore remains vulnerable to changes in export subsidy limits in the dairy sector.

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Appendix. Summary table of the proposals for the WTO discussed in the paper.

	EU Modalities Paper^a	Joint EU-US Initiative^b	Derbez Text^c
Export Subsidies	Average cut of 45% in <i>value</i> .	Elimination of those of “particular interest to developing countries”, with unspecified reductions in value and quantity allowances for others	Elimination of those of “particular interest to developing countries”, with unspecified reductions, “with a view to phasing out”, allowances for others
Market Access Tariff	Average reduction of 36% and minimum reduction of 15%	Blended formula of fixed reductions, Swiss formula, and elimination of tariffs	Blended formula of fixed reductions, Swiss formula, and elimination of tariffs
TRQs	No proposal for change	No specific proposal	Unspecified reduction
Domestic Support AMS	55% cut	Unspecified reduction	Unspecified reduction
Blue box	Retained	Shall not exceed 5% of total value of agricultural production Sum of blue box and de minimis reduced significantly less than sum of de minimis, blue box, and AMS, in 2004	Shall not exceed 5% of total value of agricultural production, with further reductions Sum of Total AMS, blue box, and de minimis cut on first year and then further phased reductions
De minimis	Eliminated for developed countries	Unspecified reduction	Unspecified reduction
Phase in period	6 years for developed 10 years for developing	Not specified	Not specified

^aEuropean Commission, 2003a.

^bEuropean Commission/Office of the United States Trade Representative, 2003.

^cWorld Trade Organization, 2003.