Effects of Eliminating EU Export Subsidies

Susan Leetmaa

In the Uruguay Round Agreement on Agriculture (URAA) 25 GATT contracting parties agreed to reduce the volume and value of subsidized exports. The current WTO negotiations on agriculture may impose further disciplines on export subsidies. Export subsidies amounted to over US$ 27 billion from 1995 to 1998, and the European Union (EU) accounts for nearly 90 percent of expenditures. This study analyzes the impact of eliminating EU export subsidies either by bringing EU domestic intervention prices in line with world prices or by reducing domestic production to match domestic consumption (eliminating exports). The impact on world markets would be felt mainly in the wheat and pork sectors. In the case of wheat, world prices would decline as EU exports increased following production shifts out of less competitive crops. Conversely, world pork prices would increase as EU exports decline.

Introduction

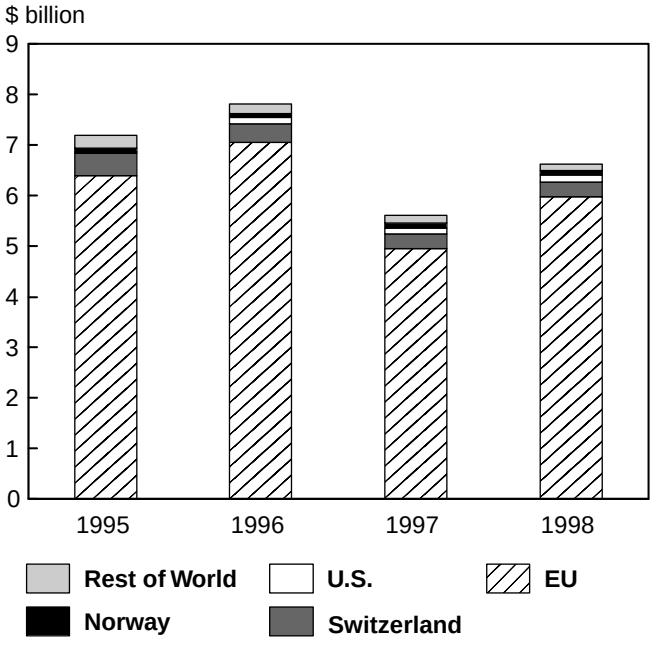
In the Uruguay Round Agreement on Agriculture (URAA), members of the General Agreement on Tariffs and Trade (GATT), the predecessor to the World Trade Organization (WTO), committed to reducing the volume of their export subsidies by 21 percent and the value of the subsidies by 36 percent over 6 years, from 1995 to 2000 (14 and 24 percent over a 10-year period for developing countries). Members also agreed to continue agricultural negotiations starting in the year 2000. Though the negotiations in Seattle in December 1999 did not result in the start of a new comprehensive trade round, negotiations on agriculture are progressing under the URAA's built-in agenda. In these negotiations, the United States has proposed reducing export subsidies to zero.

Twenty-five countries have made WTO export subsidy reduction commitments. The European Union (EU) is the largest user of export subsidies, accounting for roughly 90 percent of all export subsidy expenditures (fig. 5-1). Because the EU is the dominant user of export subsidies, this discussion will focus on the impact of EU export subsidy elimination on U.S. agriculture.

This analysis includes the following topics:

- an overview of EU export subsidy expenditures;
- explanation for the EU's reliance on export subsidies;
- the types of domestic policy reforms that would be necessary for the EU to eliminate export subsidies, and what past EU agricultural reforms have accomplished; and
- quantitative analyses of the effects of EU export subsidy elimination.

Figure 5-1
Export subsidy expenditure by country, 1995-98



Source: Economic Research Service, USDA

Agricultural Policies Force Reliance on Export Subsidies

Export subsidies are typically used by countries (such as EU member states) whose domestic prices are supported above world price levels. Price supports stimulate production, often resulting in a production surplus. Export subsidies are employed to bring the price of the commodities down to world price levels, in order to export surpluses. Because export subsidies increase the world supply of commodities, they depress world prices.

The EU is the largest user of export subsidies in both value and volume. According to its official notifications to the WTO of export subsidy use, the EU spent an average of $6 billion annually from 1995 to 1998 subsidizing exports. Over the same period, the EU's volume of subsidized exports averaged about 28 million tons a year plus 3.6 million hectoliters (95 million gallons) of liquids (wine and alcohol). From 1995 to 1998 the EU subsidized nearly all of its exports of coarse grains, butter and butter oil, beef, and skim milk powder[1] (fig. 5-2). The majority of wheat and other dairy exports also required subsidies.

For most commodities, the EU supports high internal prices and employs import barriers to keep cheaper imported products out of the domestic market. The size of EU export subsidies change with world price and exchange rate fluctuations, as the price gap between the domestic and world price is the per-unit export subsidy. In the case of grains and beef, the EU employs intervention systems that purchase domestic products at guaranteed prices which act as price floors. There is one intervention price for all grains, which is currently set at 110.25 euro/ton (US$102/ton) and is to be reduced to 101.21 euro/ton (US$93.7/ton) for the period 2001/02 to 2006. Given world grain prices, this common price implies relatively high subsidies on barley and other coarse grains compared to wheat. This domestic price structure has encouraged barley and other coarse grains production. Grain and beef producers also receive direct payments.[2] Oilseed prices are not supported; producers receive world prices for oilseeds, as well as direct payments. Sugar and dairy production are supported by high guaranteed prices, and production is fixed by quotas. The EU is a net exporter of dairy and sugar, both of which require subsidies for export.

WTO members are required to reduce their export subsidies on a product-by-product basis. This ensures that a country cannot reduce subsidization of one commodity while increasing subsidies for another. The single largest EU export subsidy expenditure has been for beef, accounting for 22 percent of EU export subsidy expenditures from 1995 to 1998, although its expenditure share has been declining over time. Other commodities that have required large EU subsidy expenditures are other milk products (yogurt, ice cream, etc.), sugar, coarse grains, and incorporated products (processed products produced from other EU agricultural products). Grains have accounted for the majority of the EU's volume of subsidized exports, averaging 67 percent of subsidies from 1995 to 1998.

High world grain prices kept the EU's use of export subsidies well below WTO commitments in 1995 and 1996. For some time, the EU even imposed taxes on wheat exports to keep domestic supplies from falling and prices from rising. But when world wheat prices fell in 1997 and 1998, subsidy expenditures and the volume of subsidized exports increased. The EU has carried over unused portions of its 1995 commitments to make up for overruns in later years. The URAA has been interpreted to allow the use of "rollover" of the additional amount not used in earlier years to any of the years up to 1999/00, after which "rollover" is no longer possible.

EU Volume Commitment Has Been More Binding Than Value

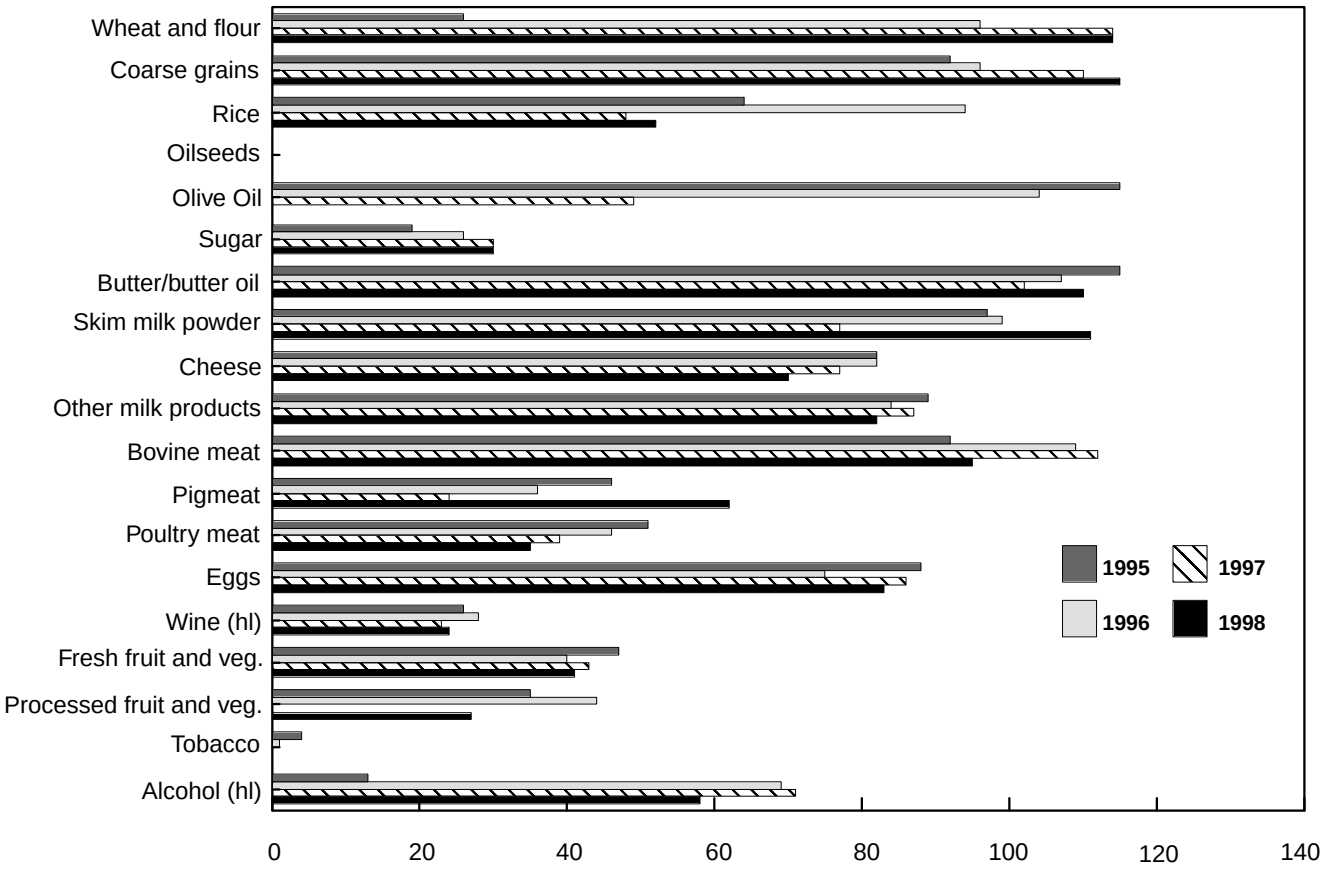
From 1995 to 1998, the EU has come closer to filling its volume commitments than its expenditure commitments. The only expenditure commitments that have been consistently more binding than the EU's volume commitments from 1995 to 1998 have been for sugar,

[1] The EU uses export statistics from July-June expressed in product weight for their notification of total exports and export certificates issued during the marketing year in question in equivalent weight, irrespective of actual date of export. Therefore, notifications of subsidized exports may exceed total exports notified, and the percent of total exports subsidized as seen in figure 5-2 can exceed 100 percent.

[2] The payments to grain and oilseed producers are partially decoupled (i.e., although they are tied to area planted up to a maximum fixed area, yields are fixed at historical levels). The payments to beef producers are fully coupled as they are tied to production, though are only available for a fixed herd size.

Figure 5-2

Percent of total EU export volume subsidized, 1995-98



Source: Economic Research Service, USDA

processed fruits and vegetables, tobacco, and alcohol, none of which are included in the model in this analysis. If the average of only 1997 and 1998 is taken, only sugar and alcohol expenditure commitments have been closer to their expenditure bounds than their volume commitments. This is because the EU at the time was carrying-over unused sugar subsidies from 1995 and 1996 to increase its subsidized sugar exports, and because the per-unit subsidy expenditure is by far the highest for the EU's alcohol products.

It is likely that the EU's value commitments became more binding for grains in 1999 than in past notifications, because world grain prices were low in 1999. Value commitments become more binding as world prices fall, because the gap between the EU support prices and world prices increases; volume limits also constrain exports when prices are low. Therefore, even though past WTO notifications have shown that the value limit has been less restrictive than the volume limit, that could change in the future if world prices remain low.

This situation highlights the importance of both volume and value restrictions. Targeting both constrains exports in times of both high and low prices. When prices are low, the value limit becomes more constraining because the wedge between the domestic support price and the competitive export price becomes larger. Volume limits prevent export of excess supply in response to low domestic prices. When world prices are high, the value constraint becomes less binding but the volume constraint can still be effective. Limits on value and volume weaken the ability of export subsidies to maintain fixed internal price support programs.

Agricultural Reform Necessary to Eliminate EU Export Subsidies

The EU could employ a number of options to limit or eliminate the need for subsidized exports. It could apply production controls such as production quotas to eliminate surplus production. Through the Common Agricultural Policy (CAP), the EU already employs production controls for arable crops, dairy, sugar, and beef, in the form of a mandatory land set-aside program, and quotas. It also limits acreage and herd size eligible for direct payments. However, most producers dislike the existing production controls. Additionally, production controls would have to be very limiting in order to eliminate subsidized exports. The dairy quota would have to be cut by over 30 percent, as the majority of diary products require subsidies for export. However, the EU dairy quota is currently in the process of being increased 2.4 percent due to the Agenda 2000 reforms. Therefore, it is doubtful that reducing production quotas would be a practical solution for EU export subsidy elimination.

If the EU elected to eliminate export subsidies without changing agricultural policies, it would build unmanageable stocks of beef, coarse grains, and dairy products. Building stocks is costly to the government, which would incur great losses if the stocks had to be disposed of on the domestic market. Stockholding, then, is not a likely method the EU would employ to reduce or eliminate the need for export subsidies.

Another policy option the EU could employ to eliminate reliance on export subsidies would be to reduce support prices. This would increase domestic consumption, possibly reduce domestic production, and decrease the need for export subsidies. The EU's past two agricultural reforms have reduced support prices and compensated producers by increasing direct payments, but not by the full amount of the price decrease, such that total support falls. Policymakers would most likely follow a similar path of reform in the future.

Until the EU's 1992 reform of the CAP, high internal prices provided the majority of income support to farmers. The 1992 reform lowered EU support prices, instead supplementing farmers' income with direct payments, and imposed a land set-aside for supply control. Agenda 2000 built on the 1992 reforms by further reducing prices for some commodities while compensating producers for half of the price decline through direct payments.

The Agenda 2000 policy reforms addressed the following areas:

- **Support prices**. These were reduced for grains (15 percent) and beef (20 percent), and will be reduced for dairy (15 percent) over 3 years beginning in 2006.
- **Compensatory payments to producers**. These increased, except to oilseed producers whose payments were cut by 33 percent over 3 years in order to equal the grains payment by 2002. After 2002, compensatory payments will no longer play a role in arable crop producers' production decisions, as they will be the same across commodities (except durum wheat).
- **Land set-aside**. Policy is maintained and the base rate[3] of the required set-aside is set at 10 percent from 2000 to 2006.
- **Dairy quota**. Quota was raised 2.4 percent over the period of the Agenda 2000 reforms.
- **EU agricultural spending**. Total was fixed for 2000-06 at 40.5 billion euros (US$37.5 billion) in real terms.

Developing a Scenario for Export Subsidy Elimination

This study analyzes the impact of eliminating EU export subsidies by reducing internal EU prices until domestic supply equals domestic demand, or until world prices are equaled — whichever point is reached first. If EU price declines bring domestic supply and demand into balance before world price levels are met, the EU would have no need to export. If prices fall to world price levels, excess EU production is exported because it does not require subsidies.

Two external factors affect EU reliance on export subsidies: world prices and exchange rates. The per-unit export subsidy for a commodity is the gap between EU and world prices. As world prices change, the gap between EU and world prices changes, altering the value of the subsidy and often the percentage of

[3] The base rate is the default set-aside rate. To change the set-aside rate from the base rate, EU member countries would have to agree on a new rate.

exports requiring subsidies. If world prices increase, the EU's reliance on export subsidies decreases, and if world prices decrease, the EU becomes more reliant on export subsidies.

Similarly, changes in the value of the euro alter the gap between EU internal prices and world prices. If the euro increases in value, the EU perceives world prices in euros to be lower and the need for subsidies increases. Conversely, if the euro falls in value, world prices faced by the EU appear to be higher, reducing the need for subsidies.

Scenarios

In this study, two export subsidy scenarios are examined. One scenario reflects USDA's 2000 baseline exchange rates, with the euro's value greater than US$1. The second scenario assumes a U.S. dollar/euro parity exchange rate. As of January 2001, the euro was worth just less than US$1 ($0.96); however, the baseline assumes a euro stronger than the dollar and appreciating over time. The inclusion of two scenarios provides some sensitivity analysis on how changes in exchange rates can alter dependence on export subsidies.

The commodities included in this analysis are wheat, barley, corn, other coarse grains, oilseeds and their products, beef, pork, and poultry. These account for just over 50 percent of EU *expenditures* on export subsidies (not accounting for subsidy expenditures on incorporated/processed products), and roughly 75 percent of the *volume* of subsidized exports. The results of this analysis are applicable to other EU commodities, in that the general direction of price movements would be similar.

Dairy has been omitted from this analysis due to model constraints. However, analysis of the EU's WTO export subsidy notifications suggests that current dairy prices are too high to allow the EU to export most dairy products without a subsidy. The EU export subsidy for skim milk powder (SMP) has declined over 80 percent from the January 2000 level (810 euro/ton to 150 euro/ton), though it is unclear whether current market conditions will continue to allow for such a small export subsidy. Currently, the world SMP price is high, due to high demand, and subsidies are low due to a relatively weak euro.

EU dairy price reforms under Agenda 2000 will begin to be phased in in 2005 (a 15-percent decline over 3 years). However, the EU milk production quota will increase 1.2 percent in 2001 and by an additional 1.2 percent from 2005 to 2007. It is likely that the EU will need to subsidize most dairy exports until at least 2005, and perhaps longer. From 1995 to 1998, the EU subsidized over 90 percent of its butter exports, nearly all SMP and other dairy exports, and over 82 percent of cheese exports. The Agenda 2000 15-percent reductions in support prices are far smaller than the average 1995-98 export subsidies for both butter and SMP. Therefore, if market conditions are similar, the EU will probably need to subsidize much of its exports even after the dairy reforms are implemented. While there is no EU support price for cheese, both butter and SMP are components in cheese production. Dairy reform is thus not likely to make EU cheese competitive in most markets.

Key assumptions that drive the results of the analysis include the following:

- The economic model used in this analysis includes a very complete feed sector, including nongrain feedstuffs (such as corn gluten and manioc) which are important components of EU feed, given existing EU policy pricing. It is important to examine how EU demand for all foodstuffs will change with the elimination of grain price distortions the CAP has induced.
- As is consistent with actual trade flows, the model assumes that pork and poultry exports are partially price competitive; not all exports require subsidies.
- Imports do not respond to price changes.
- The milk production quota remains in place for the duration of the analysis, as do livestock headage limits and area bindings for arable crops.

As in the official USDA baseline projections[4] for the EU, it was assumed that:

- the set-aside rate is fixed at 10 percent of arable land,
- total farmland is fixed with only yields changing,
- the EU's Blair House limits on oilseed area are maintained,
- the EU dairy quota would remain in place through the projection period 2001-09,

[4] The official USDA projections for EU agricultural production, consumption, and trade for the period 2000-09. See *USDA Agricultural Baseline Projections to 2009*, WAOB-2000-1.

- the dairy quota also constrains EU beef production as more than half of the beef produced is a product of the dairy herd,
- stocks are held constant, and
- compensatory payments will stay at the Agenda 2000 rates for the period analyzed.

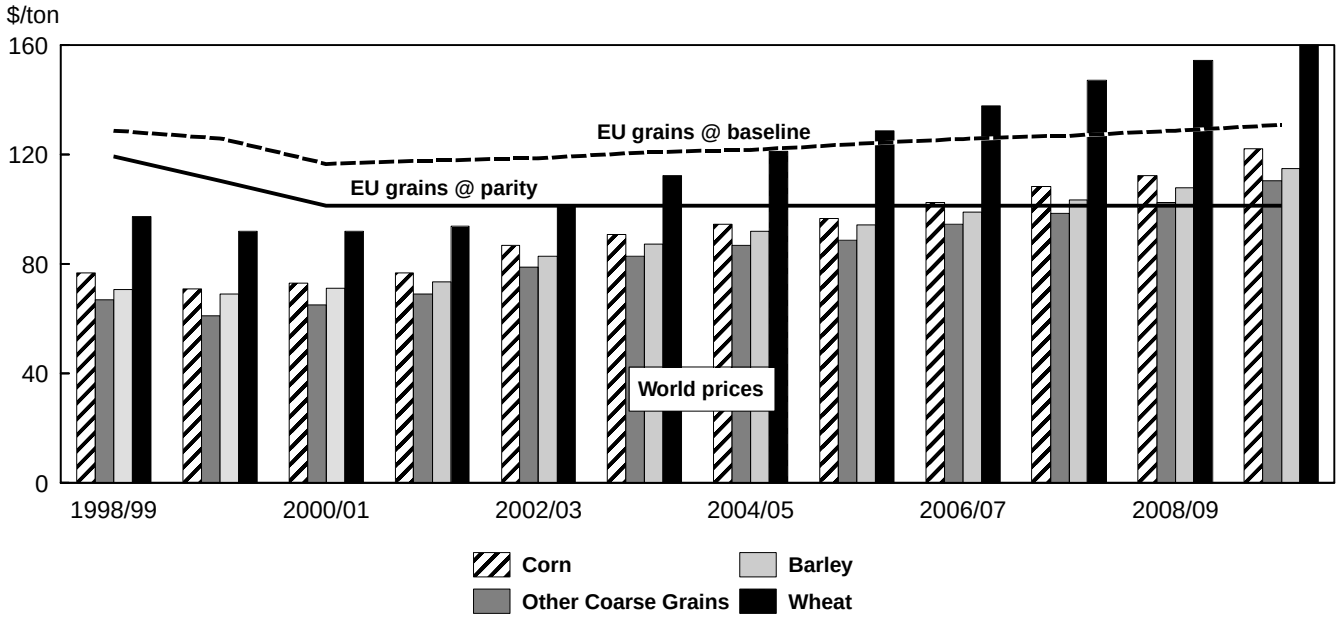
The EU will be able to export commodities without subsidy when domestic EU prices are lower than or equal to world prices. The base world prices for this analysis are the prices used for the official 2000 USDA baseline projection exercise.

Scenario One: Export Subsidies Eliminated and Euro Stronger Than Dollar

Arable Crops: With a relatively stronger euro, even if EU internal prices equal world price levels, the EU would have exportable surpluses of all grains. Grain prices would fall from a common internal price under the CAP for all grains to different world prices for each of the grains. The world price of wheat is higher than for barley and other coarse grains (fig. 5-3); consequently, EU wheat production increases at the expense of other grains (table 5-1). The EU would export more wheat as production shifts out of less lucrative crops.[5] At much lower internal prices, barley and rye feeding would increase while wheat feeding would decline, as wheat would became a more costly feed relative to other grains and would be exported. Total area planted to grains would decrease, even though wheat area would increase slightly. Oilseed area would increase slightly as well, as EU oilseed producers already receive world prices for their products and the relative decline in oilseed prices, due to cross-price effects, would be less than that for coarse grains. A slight decline in the world price of rapeseed would result in a slight decline in yields and a minimal increase in feeding of rapeseed, reducing EU exports slightly.

[5] The other studies included in this report use a 1997 base year and policies from 1998, when the EU was using export subsidies for wheat. This study uses a time-path model that accounts for changes likely to occur between our 1997 base year and future years. One of these changes is that the world wheat price is expected to increase, while the EU domestic support price is expected to decrease, eliminating the need for EU export subsidies. Additionally, this analysis holds imports constant at a fixed level, whereas the other analysis allows imports to vary.

Figure 5-3
World and EU grain prices



Source: *USDA Agricultural Baseline Projections* to 2009.

Table 5-1—Elimination of EU export subsidies: Changes from 2000 baseline under two scenarios, 2007/08

Commodity		Euro stronger than dollar	Euro/dollar parity
		Percent change	
Wheat	EU price	-8.6	+14.9
	World price	-6.1	-5.4
	Area	+0.6	+1.6
	Production	+0.1	+2.6
	Consumption	-4.4	-6.5
	Exports	+19.5	+42
Barley	EU price	-16.6	+3.1
	World price	+7.3	+6.3
	Area	-1.8	-2.9
	Production	-3.2	-2.6
	Consumption	+1.3	+1.0
	Exports	-32.7	-26.3
Other coarse grains	EU price	-13.2	+8.2
	World price	+4.9	+4.8
	Area	+0.1	-0.9
	Production	-0.9	-0.2
	Consumption	+0.3	+0.5
	Exports	-17.3	-10.4
Rapeseed	EU/World price	-4.9	+19.4
	Area	+1.2	+0.3
	Production	+0.4	+3.4
	Consumption	+0.8	+2.8
	Exports	-5.5	+12
Beef	EU price	-59.7	-39.3
	World price*	N/A	N/A
	Production	-1.7	-0.9
	Consumption	+8.3	+9.1
	Exports	-100	-100
Pork	EU price	-13.9	-0.1
	World price	+10.1	+9.9
	Production	-4.2	-4.5
	Consumption	-2.0	-2.3
	Exports	-44	-44
Poultry	EU price	-12.0	+2.8
	World price	+3.3	+3.2
	Production	-4.8	-6.0
	Consumption	-2.0	-3.6
	Exports	-29.8	-27.2

*EU beef exports do not compete with other world beef exports; hence there is no impact on the world beef price.
Note: All euro-to-U.S. dollar conversions assume an exchange rate of US$1 = 1.08 Eu

Meats: If export subsidies were eliminated, the EU would continue to be noncompetitive in exports of beef, as the domestic price decline would drive up EU beef consumption sufficiently to eliminate the need for exports prior to reaching the world price. Direct payments constitute a large portion of the support beef producers receive and much of the EU's beef supply is a by-product of the dairy herd; therefore, EU beef production is not very responsive to price declines. The model assumes that only 25 percent of any producer price decline reaches consumers, as this has been true of past price declines (which have not been as large as in this scenario). Thus, the EU internal beef price would have to decline nearly 60 percent to drive up consumption sufficiently to absorb excess EU production. However, even such a large price decline is not quite enough to eliminate the need for export subsidies for the type of beef the EU tends to export. As most of EU beef is a by-product of the dairy herd, consequently much of it is used for ground beef. Additionally, due to current EU policies, much EU beef has been in frozen storage for many months (sometimes years), which is undesirable to most consumers and significantly reduces its value. The "world" price of EU beef

is therefore much lower than the world price of standard beef.

The EU does produce a relatively small quantity of "premium" beef — grain-fed beef not produced from dairy animals — which could be exported at a higher price. However, it is unlikely that it would be exported, as there is excess demand for high-quality beef in the EU which cannot be fully met by U.S. or Canadian beef, due to the EU beef hormone ban. Therefore it is doubtful that the EU would begin to export higher quality beef even if able to do so without subsidy. However, the EU beef industry could restructure in order to enter into the world's higher quality beef trade.

Smaller price declines than for beef would be necessary to bring EU pork and poultry supply in line with consumption. This is due to reduced feed costs and narrower gaps between internal and world prices than is the case with beef. The EU would be able to export more pork and poultry without subsidy than they currently do. The EU is highly competitive in exports of whole birds (most are exported to the Middle East and North Africa) and Danish pork exports. However, it would take a 12-percent decline in the EU poultry price to bring EU poultry supply and demand into balance. To make EU poultry parts competitive with U.S. poultry parts on the world market, EU poultry prices would have to fall further. The U.S. is highly competitive in the parts market since U.S. consumers are willing to pay a premium for boneless chicken breasts; therefore, the export price of U.S. dark meat (which is preferred by consumers in many countries) is very competitive.

Scenario Two: Export Subsidies Eliminated and Exchange Rates at Parity

A weaker euro than in the baseline scenario would help the EU achieve export subsidy elimination. If the euro remains at or near parity with the U.S. dollar, EU prices would not have to fall as far as under the baseline exchange rate scenario in order for the EU to eliminate export subsidies. For most commodities, EU internal price levels would be higher than those under the baseline exchange rate scenario.

Under exchange rate parity, the EU would have been able to export wheat without subsidies starting even in 2000. The EU would experience a more pronounced increase in wheat area, production, and exports than under baseline exchange rates, since the internal EU wheat price decline would be minimal and the wheat price would be higher than prices for other grains. As under baseline exchange rates, barley feeding would increase, as wheat would command a higher price on world markets and thus be exported. Consumption of other coarse grains and oilseeds would be up as well, but barley would capture the bulk of displaced wheat feeding.

A euro/dollar parity would have little impact on the livestock sector, as producers are less responsive to price changes. As under baseline exchange rates, no beef would be exported, since domestic supply and demand would balance before EU export prices would equal world prices. Pork and poultry exports would be only slightly higher than under baseline exchange rates.

Impact on U.S. Agricultural Sector

For most commodities, the impact of both scenarios on the U.S. agricultural sector would be minimal. The commodity most affected would be wheat, as EU exports would increase under both scenarios, lowering world prices. The larger the EU exports, the more they would drive down the world price of wheat. The lower the world price falls, the more U.S. wheat production declines and consumption increases, decreasing exports. If EU export subsidies were eliminated, the world price would decline by about 6 percent and U.S. exports could decline roughly 5 percent. There would be little impact on other U.S. grain or oilseed exports, with most changes around 1 percent.

Declines in EU livestock exports would drive up world prices of livestock products. This would slightly increase U.S. production, and consequently exports. The largest impact would be in the beef sector, where EU exports would be severely limited or eliminated. U.S. pork exports could increase as well.

These results are similar to those in an OECD study of global export subsidy elimination. That study also finds that export subsidy elimination results in fairly modest world price impacts. The largest impacts in the OECD study were on world dairy markets, which were omitted from this study. A substantial share of trade in world dairy markets occurs with subsidy. The OECD study found that EU exports of butter and skim milk powder would be severely reduced by 2005, while EU cheese exports would increase. In the case of cheese,

the EU internal price would fall by 5 percent and the world price would increase 10 percent on average. They also found that EU milk price changes would not be large enough to cause EU milk producers to underfill their quotas, so the production quota would continue to be binding. One slight drawback of the OECD study is that the analysis does not include nongrain feeds and consequently eliminates a new source of demand for feed that would lead to an increase in both food and feed grains with the elimination of export subsidies.

Conclusions

The current WTO negotiations on agriculture may impose further disciplines on export subsidies, which would have the most direct consequences for the EU, as the world's largest user of export subsidies. Past EU agricultural reforms have reduced support prices and increased farmers' direct payments. This study finds that if the EU employed similar reforms to eliminate export subsidies or to bring domestic supplies in line with domestic demand (which would eliminate exports), the EU would continue to have exportable surpluses of all grains, while the EU would remain uncompetitive in beef exports. The impact on world markets would be felt most in the wheat and livestock sectors. In the case of wheat, world prices would decline due to increased EU exports as production shifts out of less competitive crops. Conversely, world livestock prices would increase as EU exports decline due to the reduction in EU livestock prices necessary to reduce or eliminate subsidies.

References

Leetmaa, Susan. "An Analysis of Agenda 2000," in *The European Union's Common Agricultural Policy: Pressures for Change, USDA*, WRS-99-2, 1999.

Organization for Economic Co-operation and Development. *A Forward-Looking Analysis of Export Subsidies in Agriculture*, 2000.

USDA. *USDA Agricultural Baseline Projections to 2009*, 2000.

World Trade Organization. Export subsidy notifications.