EFFECTS OF EEP ON CANADIAN/UNITED STATES WHEAT TRADE

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INTRODUCTION

The Export Enhancement Program (EEP) was first operated in 1985. For legal authority, the Secretary of Agriculture at the time reverted to the Commodity Credit Corporation's Charter Act that allowed the United States Department of Agriculture to export product via the use of subsides. Further clarification of the legal authority was provided in the Food Security Act of 1985 and most recently as part of the Food, Agriculture, Conservation and Trade Act of 1990. The 1990 Act also allowed the Secretary to provide cash bonuses to exporters of products.

Review of the legislation indicates that the intent was to "...discourage unfair trade practices by making United States agricultural commodities competitive." (Food, Agriculture Conservation and Trade Act of 1990, Section 1531). While the legislative authority does not single out any commodity—other than those that have been adversely affected by foreign trade practices—wheat has been the dominant beneficiary of the program. From the 1985 through 1993 marketing year, 147 million metric tons of wheat were exported utilizing various EEP bonuses. During the same period, an average of 47 percent of United States wheat exports have left the country under EEP. (Figure 1).

Several authors have examined the effects of EEP on the wheat market. Ackerman and Smith (1989) lay out much of the vocabulary regarding program, as well as providing a good history of the early operation of the EEP. Bailey (1988, 1989) looks at the effects of EEP on United States wheat exports and attempts to place the program in context with other factors affecting wheat trade. Haley (1989) also looks at a myriad of reasons for changes in wheat exports, including the EEP. Epstein and Carr (1991) looked specifically at the elimination of the EEP and its impact on the wheat markets utilizing an econometric modeling system. They also report on a similar effort conducted by the WEFA group.

The United States and the European Union are not the only two wheat exporters on Earth. Canada, Australia, Argentina all feel that they have product for sale as well. In more recent times, India and now some republics of the Former Soviet Union have also entered the arena. There has been a major change in the relationship with Canada in particular, in the last few years that changes the implications of operating an EEP.
The North American Free Trade Agreement allowed Canada access to wheat markets in the United States when the levels of support for the two commodities came in balance between Canada and the United States. At that point, tariff barriers to Canadian wheat were removed, and product from Canada was allowed to move into the United States.

In 1993, the United States suffered severe flooding which disrupted production of a number of fall and spring planted crops for harvest in the summer and fall of 1993. The corn crop for the United States dropped to 6.33 billion bushels, off a third from the previous year. This reduction in available supplies of feed products, in particular in the United States during the subsequent marketing year, made Canadian wheat attractive not only to the milling industry in the United States, but to the feeding sector as well. Imports of wheat from Canada showed a marked increase in the 1993/94 marketing year, raising concerns among a number of producers in the United States that Canadian wheat was taking over markets in the United States.

Several have indicated that the linkage between the EEP operated by the United States and Canadian shipments to the United States is very strong. As the United States takes action to raise domestic prices, while simultaneously lowering world prices, it makes sense for the Canadians to move product into the United States instead of shipping product to third countries.

This paper looks at the effects of eliminating the EEP on world trade by the United States, and the changes that would likely occur in Canadian production and export levels. The analysis is conducted utilizing a large scale econometric model of the agricultural sectors in the United States, Canada and other major importers and exporters of wheat and other agricultural products.
THE MODELING SYSTEM

In total, the model consists of over 3,000 endogenous variables. The livestock models for the United States are described in Brown (1994), with the crops side discussed in Adams (1994). The international models are discussed in a number of publications. The wheat model was last discussed in CNFAP 10-94. The model is static in the sense that it models total trade, but does not discuss trade flows. In other words, total world wheat trade is endogenous to the system, with eight exporters and sixteen importers or importing regions. Total exports by the United States are endogenous, but the model does not indicate the destination of those shipments.

EEP enters the model through price wedges for Algeria, Brazil, China, Egypt, India, Mexico, Morocco, Tunisia, the Former Soviet Union as a block as well as Other Africa and Middle East, Other Latin America, Other Asia, Eastern Europe and Other Western Europe. The model closes in the United States, with the Gulf price for wheat serving as the basis for world wheat prices. Importing countries see this world price for wheat, less the EEP bonus levels specific for each importing country or region. For other exporting countries, such as Canada, the exporter sees a price, less the EEP bonus weighted for the quantity of wheat that they traditionally ship into markets that also receive EEP benefits. Consequently, Canada sees the Gulf price for wheat, adjusted downward by a portion of the world average EEP bonus levels. Either an increase in the Gulf price of wheat, or a reduction in the EEP bonus level is viewed as a positive price movement for Canadian producers.

THE BASELINE

In conducting the analysis, it is necessary to first establish a benchmark, or ruler against which the policy change can be measured. FAPRI develops a constant policy baseline each year that serves just such a purpose. Key to its generation is an assumption that policies currently in place remain in place, unless the legislation to change those policies through time has already been enacted. For example, the United States has policies in place that allow for the adjustment of Acreage Reduction Program (ARP), or set aside, levels. The baseline is put together allowing these set aside levels to adjust through time. The Uruguay Round of the GATT provides bounds on the quantity and expenditure level on EEP the United States is allowed to utilize in the coming years, just as it places constraints on the value and quantity of export subsidies allowed for the European Union. These constraints are included in the baseline. The baseline is developed for November through January. Thus the baseline does not include elimination of the Canadian Western Grain Transportation subsidy program, as it remained part of Canadian policy at the time the baseline was developed.

The baseline anticipates that the United States will, for the most part, take full advantage of the EEP levels allowed under GATT. The expenditure constraints bind for the
United States, not the quantity limits. Consequently, the average level of the EEP bonus falls as the constraints begin to bind. (Figure 1).

The baseline includes a fairly robust expectation of growth in world trade. While world net wheat exports were off somewhat in the 94/95 marketing year, exports are expected to increase in 95/96 by nearly 5 million metric tons (mmt). In the out years, trade should continue to grow with exports rising by an average of 1.6 mmt per year between 95/96 and 00/01, reaching 91.88 MMT in 00/01. (Figure 2).

![Figure 2 United States—Wheat Baseline Utilization](image)

The United States is expected to lose trade share in the early years of the analysis, as the European Union remains a strong exporter. As GATT constraints bind European Union wheat export subsidies, Union wheat exports are expected to fall. The United States is expected to pick up a fair proportion of the markets the Union leaves behind. While trade share is expected to decline to less than 36 percent in 96/97, it is projected to recover to just less than 40 percent by 00/01. Plantings in the United States are expected to rise through this period as well, as the long-term land idlement program, the Conservation Reserve Program (CRP) begins to expire. A portion of acreage in that program remains out of production as some contracts are extended, but by 00/01, nearly 5.4 million acres of wheat base will be ready to come back into production. Overall plantings of wheat should be up by 5.3 million acres in 00/01, relative to 94/95 plantings in the United States (harvested area moving from 25.0 million hectares in 94/95 to 26.53 million hectares in 00/01). Domestic use increases should continue to grow at relatively moderate rates. Domestic use is expected to rise from 33.7 mmt in 93/94 to 35.6 mmt in 00/01.

Canadian plantings are also expected to recover from 94/95 lows. Area is expected to be up by 0.8 million hectares (mha) in 95/96, continuing to grow to 12.6 mha by 98/99. With yield improvements, production is anticipated to reach 28.4 mmt in 00/01. Domestic use of wheat in Canada, as in the United States, should show modest growth as population increases. Domestic usage is anticipated to move from 6.7 mmt in 94/95 to 7.4 mmt in 95/96.
and hold at that level through much of the remainder of the projection period. Canadian wheat exports should remain relatively flat. With somewhat depressed beginning stocks for the 95/96 marketing year, and increased pressure from the United States and other competitors, Canadian wheat exports are expected to fall to 18.5 mmt in 95/96. Recovery to the 20 mmt level is projected for 96/97, with exports holding in the 20 to 21 mmt range through the remainder of the decade. (Figure 3).

![Figure 3 Canada—Baseline Wheat Utilization](image)

Wheat prices should remain relatively low for much of the remainder of the decade. Prices should move down in 95/96 and again in 96/97. Recovery to levels anticipated in 95/96 should occur by the end of the decade. These are United States prices, f.o.b. Gulf. Prices less EEP bonuses should show even stronger increases. (Figure 4).
ELIMINATION OF EEP SCENARIO

In analyzing the effects of eliminating EEP, a number of alternative assumptions could be made. The most important relates to the utilization of ARP's or set asides in managing the United States wheat sector. Eliminating EEP bonuses will obviously raise the price of United States wheat in world markets. Increase in prices will translate into reduced demand for U.S. product, and reduced domestic prices. The reduction in demand could be offset by reducing wheat production in an effort to hold domestic wheat prices at baseline levels. Rather than complicating and confounding the analysis by making this type of domestic program operation changes, this analysis does not modify ARP levels from those contained in the baseline (baseline ARP rates were held at zero throughout the projection period). (Figure 5).

**Figure 4** Wheat Prices—Baseline and EEP Elimination Scenario
Removing EEP bonuses raises the price of United States wheat in world markets. Because the United States plays such a large role in world wheat markets, world prices for wheat are expected to rise as well. The Gulf price of wheat falls relative to the scenario by more than $16 per mmt. Yet when compared to the Gulf price of wheat net of EEP in the baseline, wheat prices rise by nearly $26 per mmt in the first year. While the gap narrows between the scenario wheat prices and the baseline price net of EEP, United States wheat prices, net of EEP, remain well above levels observed in the baseline. In short, the market price of wheat in the United States moves down part of the way needed to offset the removal of EEP subsidies. (Figure 7).
Movement all the way to baseline price levels, net of EEP, is precluded from two directions. First, the lower price generates additional domestic demand for wheat supporting prices. Second, the lower price for wheat reduces production of wheat in the United States by 5 percent initially, and by 4 percent in the final year of the analysis. This reduction in supply also helps to support prices.

United States wheat exports are off markedly, as would be expected with an initial 25 percent increase in the price of wheat. Exports decline by 15 percent in the first year and by more than 18 percent in the second and third years. As the baseline level of EEP bonuses work down, the change from the baseline price levels net of EEP are reduced, and the decline in exports is not quite as severe. In the fourth and fifth year of the analysis, exports are off less than 15 percent. (Figure 6).

Domestic use of wheat reacts to the lower prices. Given the price of wheat relative to the price of corn, feed utilization in particular is up sharply. The increase in domestic utilization offsets 25 to 50 percent of the decline in export markets.

Canadian markets also react to the change in the export prices for United States wheat. Again, only a portion of the change in United States wheat prices is passed through to Canadian producers and to markets for Canadian wheat. Canadian wheat exports rise only marginally. Area planted to wheat changes very little. In the last year of the analysis, wheat plantings are up 0.06 mha. (Figure 8).

The reduction in United States exports is not completely made up for by other exporters. The removal of the export subsidy by the United States translates directly into higher prices paid for wheat by a number of importing countries. Given these higher prices, demand falls and domestic production rises. Canada, Australia and Argentina pick up some
of the market demand given up by the United States, but a portion of the original demand simply goes away.

\[ \text{Figure 8 Canadian Wheat Exports—Baseline and EEP Elimination Scenario} \]

**CONCLUSIONS**

Removing the Export Enhancement Program from the United States wheat sector generates a major impact on wheat prices in the United States. Without the subsidy, wheat prices fall by more than $0.30 per bushel (9 percent). The decline in domestic prices for wheat however, does not offset the rise in prices paid faced by importers of United States wheat after removal of the export subsidy. Consequently, export demand for United States wheat also falls considerably. Exports are off 15 to 20 percent under the scenario.

Canada is able to pick up some of the market demand abandoned by the United States, particularly in the short run. For the 95/96 season—the first year the subsidy was removed—Canadian exports rise by 14 million bushels (380,000 mt). This accounts for nearly 10 percent of the loss in United States exports.

What has not been covered by this analysis are the destinations of those wheat exports, the change in the pattern of shipments, in particular out of Canada. Shipments from Canada into the United States have attracted considerable attention in the past few years. As discussed earlier in this paper, the modeling system utilized here does not track or project trade flows. It deals in the overall demand and supply of the product in question. With the removal of EEP, the world price seen by Canadians for their wheat will increase, the relative price they would receive for wheat going into markets in the United States will fall. This
will make the United States a less attractive market for their products. It should be expected then that wheat shipments from Canada to the United States will decline. Again, this is a hypothesis, and is not a result that can be tested by the modeling system used in this analysis.

Reducing or eliminating EEP will substantially affect the United States markets. Dropping the domestic price of wheat by more than $0.30 per bushel will have a direct impact on all wheat producers. While producers in the current federal program will receive higher deficiency payments to offset some of the decline in prices, they too will face a drop in revenues, at least on their Normal Flex Acres and on the difference between their actual yield and their program payment yields. The analysis conducted here suggests a $3 to $4 drop in net returns over variable costs for program participants. For producers outside the program, the revenue drop is in the $10 to $15 per acre level.

REFERENCES


