

## **Micro 20.1 – Make-Up Midterm Exam**

It's the spring of 2002. You are an economist on President Bush's council of economic advisors. Congress is considering legislation, called the "2002 Farm Bill," that would increase subsidies to US farmers. The president has asked you to explain how the proposed legislation will affect world market prices and how the proposed legislation will affect farmers in less-developed countries.

### **Background**

Since the 1930s, marketing loans programs have been the primary source of domestic support for US farmers. Marketing loans allow farmers to sell their crops throughout the year. With the loan, producers can afford to store their harvest instead of having to sell the crops immediately. In other words, the loan allows farmers to sell the crop at a strategic time, i.e. when prices are high.

Every six years Congress passes a "Farm Bill," which sets the loan rates for each agricultural product (for example: \$100 per metric ton of wheat). Beginning in 1985, Congress established "target prices" for agricultural products and authorized "deficiency payments" to farmers when the market price fell below the target price. (The payments were equal to the difference between the target price and the market price or the difference between the target price and the loan rate, whichever was lower). **Note: the target prices and deficiency payments effectively create a price floor.**

To prevent the deficiency payments from creating excess supply of agricultural output, the 1985 Farm Bill separated payments from current production by basing the deficiency payments on a farmer's historical average yield and the number of acres planted to each program crop.

The 1990 Farm Bill went one step further and fixed the acreage base for each crop at historical levels. Since current planting and input decisions could no longer influence the deficiency payment a farmer received, income support payments were almost fully separated from production decisions.

The 1996 Farm Bill eliminated target prices and deficiency payments altogether, thus eliminating any link between income support payments and market prices.

### **The 2002 Farm Bill**

President Bush has asked you, his economic advisor, to provide him with an analysis of the 2002 Farm Bill. The bill Congress is currently considering would reestablish a target price system, increase loan rates and allow farmers to update the historical base on which payments were made, so that payments would once again be linked to production decisions.

Not surprisingly, interest groups that represent farmers, such as the American Farm Bureau, strongly support the proposed legislation.

Oxfam (a development, advocacy and relief agency) opposes the legislation and is conducting a public awareness campaign to focus attention on the effects that such subsidies have on world prices and how lower agricultural prices depress living standards in developing countries.

## **Your Assignment**

For simplicity, assume that there are only two countries in the world: the US and Africa. Both the US and Africa produce two goods: manufactures and food. Manufactures are produced using capital,  $K$ , and labor,  $L$ . Food is produced using arable land,  $T$ , and labor,  $L$ . Assume that the US and Africa have equal endowments of arable land and labor, but the US has more capital than Africa.

The president has asked you to answer the following list of questions using the **Specific-Factors Model**:

1. (10 points) Why does the US have a comparative advantage in the production of manufactures?
2. (10 points) Why does Africa have a comparative advantage in the production of food?
3. (15 points) Why does the US gain from exporting manufactures and importing food?
4. (15 points) Why does Africa gain from importing manufactures and exporting food?
5. (25 points) If US farmers sell food on world markets, then how will the 2002 Farm Bill affect the relative price of food in the world?
6. (25 points) How would passage of the 2002 Farm Bill alter the income distribution in Africa? In other words: Who would gain and who would lose? Discuss.



## **Required Reading**

Krugman, Paul and Maurice Obstfeld. *International Economics*. Chap. 3 “Specific Factors and Income Distribution.”

Note: Krugman-Obstfeld is on reserve in the library – call no.: HF1359 .K78 2003

**Please submit this make-up exam with your final exam.**



## **Rules on Group Work**

I strongly encourage you to work with your classmates on every assignment that I give you. You learn more when a classmate criticizes your solution to a problem and forces you to find a new method of solution.

“Working with” however does not mean “copy from.”

You learn nothing by copying a classmate’s answer.

Obviously, there will be many occasions when you and a classmate agree on an answer, but the thought process by which you both arrived at the same answer will differ.

Therefore, please work together on every assignment that I give you, but do not submit identical answers. The answers that you submit may be similar, but the thought process embodied in your answers must differ.