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UMID _____

Final Exam
December 13, 2013
Answers

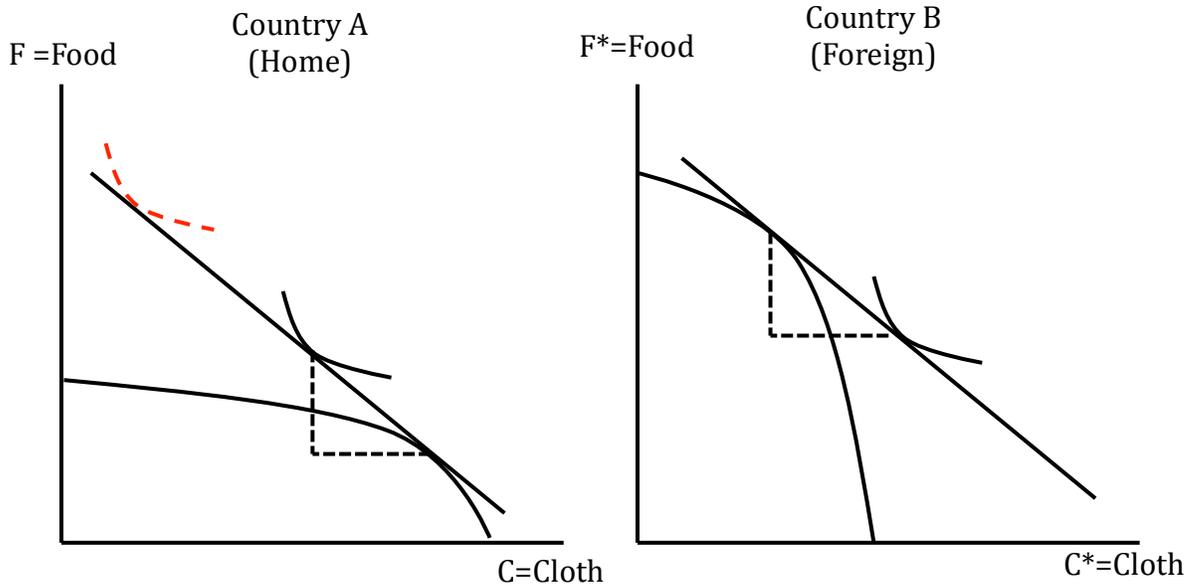
Answer on these sheets. Use the indicated point values as a guide to how extensively you should answer each question, and budget your time accordingly. The exam has a total of 75 points.

1. (10 points) The report by Fetzer on the US safeguards against tires from China reported that “Petitioner estimates the domestic supply elasticity to be in the range of 5 to 7.” In contrast, “respondents indicate that the domestic supply elasticity ‘with respect to subject imports’ should be near zero”. Who were these sources of information, and why would their estimates of this elasticity be so different?

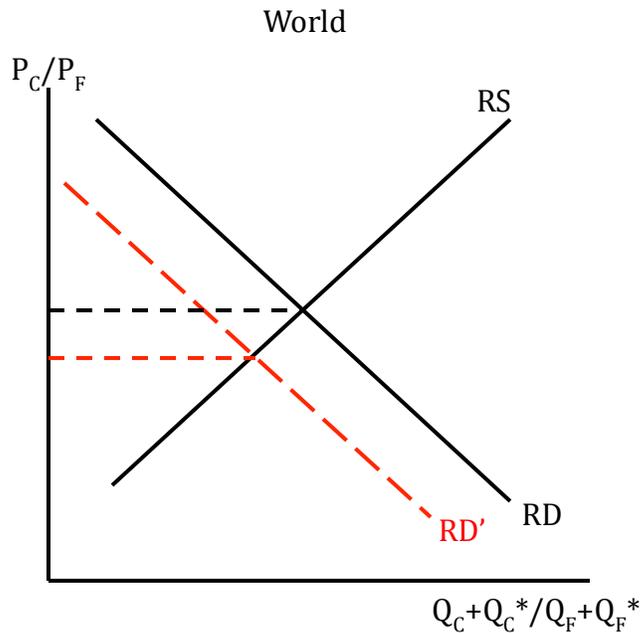
Ans: The “petitioner” is the US industry – primarily its labor union -- that requested safeguards protection against imports of tires. The “respondents” are the Chinese exporters of tires.

The US firms, by stating a high elasticity, are suggesting that low-priced imports have caused a large reduction in US production of tires and therefore a large reduction in employment and injury, which they expect to justify safeguards protection. The Chinese firms are arguing, on the basis that Chinese tires are of a different sort than US tires and therefore do not compete with them, that the exported tires have caused essentially no reduction in US supply or employment, and therefore have not caused injury. Both positions are designed to favor their desired policy outcomes, of a safeguards tariff to benefit the US interests and of no tariff so as not to harm the Chinese exporters.

2. (20 points) The solid curves in figure below show a free-trade equilibrium for two countries (the only countries in the world) in the Standard Trade Model of the textbook.



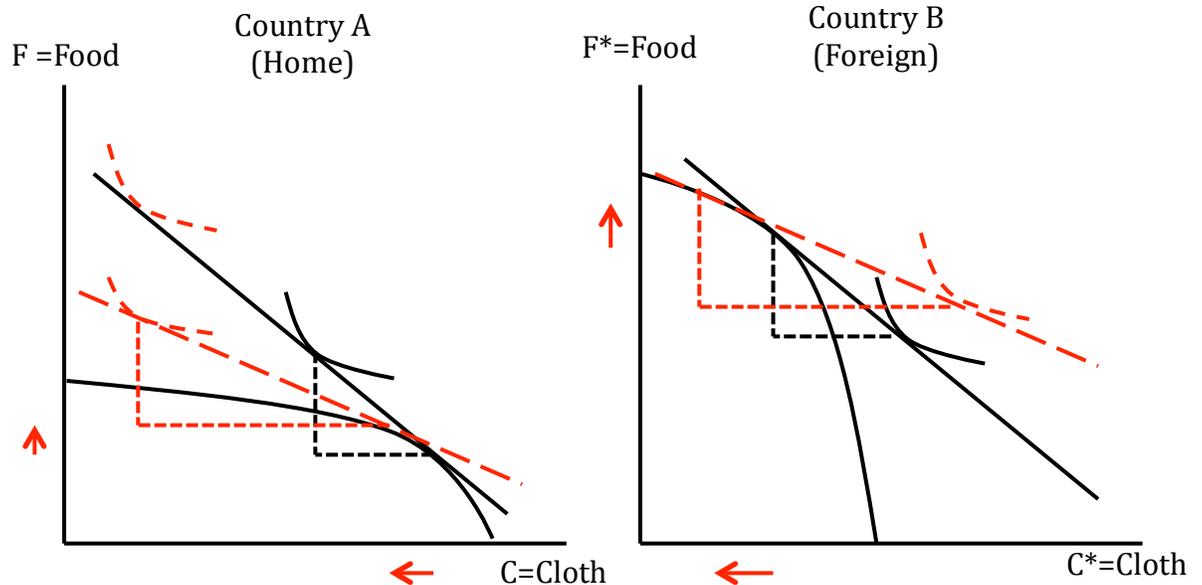
- a. In the space below, draw the relative supply and demand curves that underlie this world market equilibrium.



- b. Now suppose that preferences shift, in Country A only, so that consumers there prefer more food and less cloth than they did before, for any given prices, as indicated by the new dashed indifference curves shown in Country A. Show in your relative supply and demand diagram how this change will shift the curve or curves and therefore how the world equilibrium relative price will change as a result.

- c. Draw into the first diagram (for separate countries A and B) the resulting lines and curves, and the quantities produced and consumed in each country. In what direction will the quantities produced of cloth and food change in each country?

Ans: The fall in the relative price of cloth, found in the diagram for relative supply and demand, appears in the original diagram as a flattening of the price lines tangent to each production possibility curve, as shown below:



This causes each country to move production along its PPF in the direction of producing less cloth and more food.

- d. How has this change in preferences in Country A changed the terms of trade for each country, and the level of welfare of consumers in Country B?

Ans: The terms of trade of a country is the relative price of its export compared to its import. So the terms of trade of Country A is the relative price of cloth, which has gone down, or worsened. The terms of trade of Country B is the relative price of food, which has gone up, or improved.

As seen from the move to a higher indifference curve in Country B, the country has been made better off by this change in preferences in Country A in favor of the export good of Country B.

3. (15 points) In the Heckscher-Ohlin Model of international trade, suppose that the two factors are skilled labor and unskilled labor, and that the two goods are clothing, which uses unskilled labor relatively intensively, and electronics, which uses skilled labor relatively intensively.

- a. If a country is relatively well endowed with skilled labor compared to the world, which good will it export and which will it import if it opens from autarky to free trade? Explain in words why this happens.

Ans: The skilled-labor-abundant country will export the skilled-labor-intensive good, electronics. The reason is that, because it is relatively abundant, skilled labor will be relatively cheaper in that country than in the rest of the world, and this makes electronics relatively cheaper in the country compared to the world, giving it a comparative advantage in that good.

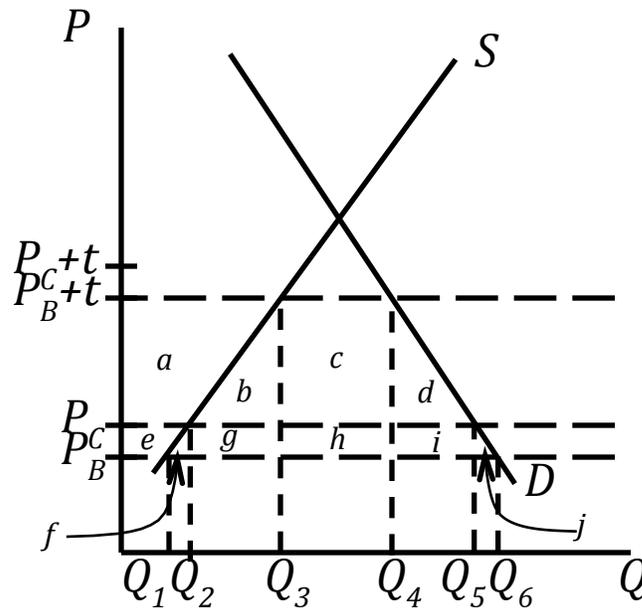
- b. Will anybody in that country be made worse off by this opening to trade? If so, who, and why? If not, why not?

Ans: Unskilled workers in this country will be made worse off by trade. The reason is that when trade causes the country to shift production from unskilled-labor-intensive clothing to skilled-labor-intensive electronics, the demand for skilled labor rises and the demand for unskilled labor falls. This causes the wage of unskilled labor to fall as well. The Stolper-Samuelson theorem states that this fall in the wage of the scarce factor of production is a fall in real terms – that is, the wage falls more than the prices of either good, so that these workers' incomes can buy unambiguously less.

- c. What is the relevance of this theoretical result for what happened to wages in the US since about 1980. That is, did the change in wages conform with or contradict this theoretical result? And to what extent did studies conclude that the change in wages was the result of trade?

Ans: Starting in about 1980, the wages of educated workers in the US began to rise relative to the wages of less educated, unskilled workers. The theoretical result suggests that this would have been a natural result of increased trade, if the US was skilled-labor abundant and unskilled-labor scarce, as is and was the case. Empirical work (reported in the assigned article by Freeman) suggests however that, although this mechanism was a part of the reason for the change in relative wages, it was not the major reason. Studies concluded that the largest reason for the changing wages was technological progress that increased the relative demand for skilled labor.

4. (15 points) The graph below shows the domestic market in country A for a good, which it could import from either country B or country C for the prices indicated. Its tariff on this good is the amount t .



- a. With the tariff applied to imports from both countries, from whom will it import, why, and how much?

Ans: It will import from country B, because the price from B, including the tariff, is lower than the price from C including the tariff. The quantity of imports will be $Q_4 - Q_3$.

- b. If country A forms a free trade area (FTA) with country B, from whom will it import, and how much? What will be the net welfare effect on country A of forming the FTA in this case (compared to the situation in part (a))? Does this appear to be positive or negative?

Ans: It will still import from country B, the quantity $Q_6 - Q_1$. Country A's net welfare will change by $+(b+d+f+g+i+j)$, which is positive.

- c. If country A instead forms an FTA with country C, from whom will it import, and how much? What will be the net welfare effect of this FTA on country A, again compared to the situation in part (a)? Does this appear to be positive or negative?

Ans: Now it will import only from country C, the quantity $Q_5 - Q_2$. Compared to part (a), A's net welfare will change by $+(b+d) - h$. Since area h appears to be smaller than $(b+d)$, country A gains from this FTA.

5. (15 points) You have been called in to advise the workers in the US plastic toy industry, which competes with imports from China. Imports have recently increased, and employers are warning that they must reduce wages in order to compete, or their factories will have to shut down. As an expert on international trade policy, you are to advise the workers and their employers on options for help that they could request from the US government. Write an essay explaining what those options are (i.e., what sort of help do they provide), and what information would be needed in order to qualify for them.

Ans: The options are: a safeguards tariff, an anti-dumping duty, a countervailing duty, and trade adjustment assistance. The first three provide a tariff on toys that should reduce the imports and allow the US firms to compete. To qualify for these, you or the industry would need to demonstrate first that the industry has suffered (or is threatened to suffer) injury from imports.

- Safeguards: For this, you need to show serious injury, and that's all. And you only get the tariff for a temporary period of a few years.*
- Anti-dumping duty: For this, material injury is enough, but you also need evidence of dumping, which means showing that the prices of competing imports are below either the prices they are sold for in China or below cost. If successful, the anti-dumping duty may stay in place indefinitely.*
- Countervailing duty: For this too, material injury is enough, but you need evidence that the Chinese government is subsidizing the exports, and the subsidy must be specific to the toy industry, not generally available.*
- Trade adjustment assistance: This won't give you protection from imports at all, but it will provide increased income for displaced workers as well as training and relocation assistance, etc.*