

Exam ARE 201 (Trade module), Fall 20001

Attempt to answer all questions.

For all questions below, assume a two-commodity model. Provide a *brief* explanation for your answers. (For example, “It increases” is not a sufficient answer, even if the direction is correct; but do not write essays. In some cases you need only state a theorem or draw a graph and provide a very short explanation. If you use a graph, *be sure to label axes and curves.*)

1) (30 points) A country moves from autarky to trade. The world relative commodity price is different than the country’s autarkic price. How does this opening to trade affect workers’ welfare in the (a) Ricardian model, and (b) sector-specific (Ricardo-Viner) model? (Workers own only labor.)

2) (40 points) Use the H-O-S model. Under free trade, a small country produces both commodities, food and cloth, and imports food. Cloth production is relatively capital intensive, and production of cloth creates a negative externality for workers. Capital owners do not experience the effects of this externality. There are no factor intensity reversals. Workers and capitalists have identical homothetic preferences. Consider the following two scenarios separately.

(a) Suppose that capital owners come into the country, increasing the amount of capital in the country. (These immigrants supply additional capital but they do not supply labor.) How does this change affect:

- (i) The level of imports
- (ii) Welfare for capital owners already in the country
- (iii) Welfare for owners of labor.

(b) Suppose that the country imposes a small import tariff. How does this change affect:

- (i) The level of imports
- (ii) Welfare for owners of capital
- (iii) Welfare for owners of labor.

3) (15 points) Consider a two-country model. Suppose that there is an exogenous change in Home's preference, causing it to consume more of its import good at any level of price and income. (In other words, this exogenous change shifts Home's preferences toward its import good, and away from its export good.) How does this change affect the world equilibrium price of Home's import good, if: (a) the initial equilibrium is stable, (b) the initial equilibrium is unstable?

4) (10 points) Identify graphically the level of welfare for a small country under (a) free trade and (b) a tariff, when a fraction of the tariff revenue is thrown away and the remaining tariff revenue is distributed to consumers in a lump sum. (No explanation needed for this question. Merely identify the equilibrium consumption points as 'a' and 'b'.)

5) (5 points) Identify graphically the levels of welfare for a small country under (a) free trade and (b) a tax on the use of one factor in *only one sector*. (This factor is not taxed when used in the other sector.) Again, label the equilibrium consumption points as 'a' and 'b' For this question, provide a *very brief* explanation for the location of point 'b'.