Econ 355 - Midterm 2

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Solutions

The correct answer is in bold

Questions

1. Consider the Heckscher-Ohlin-Samuelson model we saw in class with constant returns to scale and homogeneous goods. Take the same two countries (US and China), the same two goods (Computers and Textiles) and the same two factors of production (Skilled and Unskilled labor). Assume that China is relatively more abundant than the US in Unskilled labor. Starting from autarky, when China and the US open to trade:

   (a) The relative price of computers to textiles rises in China (compared to China in autarky)

   (b) China employs more skilled workers in computers (compared to autarky)

   (c) The marginal product of skilled workers decreases in the US (compared to the US in autarky)

   (d) **The skill premium (the wage of skilled workers relative to unskilled workers) rises in the US (compared to the US in autarky)**

   (e) none of the above

2. Again using the setup from question 1, starting from autarky, when China and the US open to trade:

   (a) **China employs more skilled workers in textiles (compared to autarky)**

   (b) The US stops producing textiles

   (c) China stops producing computers

   (d) The quantity produced of textiles goes up in both countries, but relatively more in China

   (e) None of the above

3. Take again the same setup from questions 1 and 2. According to the Stolper-Samuelson theorem, when China and the US open up to trade:

   (a) Skilled workers' wage in the US rises in nominal terms, but it is not clear whether it rises in real terms

   (b) Unskilled workers wages in the US rise in real terms

   (c) Unskilled workers wage in China drop in real terms, but drops by less than the skilled workers' wage

   (d) Unskilled workers wages in China rise in nominal terms, but not in real terms

   (e) **None of the above**

4. Consider the special case in which, regardless of the wage of skilled and unskilled workers a unit of computers requires one skilled worker and one unskilled worker and a unit of textiles requires two unskilled workers and one skilled worker. Imagine that China initially has 10 Skilled workers and 15 Unskilled workers. Consider an increase in the skilled worker population in China so that China now has 11 skilled workers and ASSUME that world prices are not affected by the increase in the number of skilled workers in China. Indicate by S_T, S_C, U_T, U_C respectively the skilled workers and unskilled workers employed in textiles and computers in China. What happens to S_T, S_C, U_T, U_C BEFORE and AFTER the skilled workers population increase in China?

   (a) U_C goes from 4 to 7 and S_C goes from 5 to 4

   (b) S_T goes from 5 to 5.5 and S_C goes from 5 to 5.5

   (c) S_T **goes from 5 to 4 and** U_C **goes from 5 to 7**

   (d) U_T goes from 10 to 8 and U_C goes from 5 to 4

   (e) All of the above

5. In an HOS model with ONLY two factors (capital and labor) and ONLY two countries (A and B):

   (a) If $K_A > K_B$ then country A exports only capital (embodied in the goods that it trades)

   (b) **If** $\left(\frac{K}{L}\right)_A > \left(\frac{K}{L}\right)_B$ **then country A is a net exporter of capital (embodied in the goods that it trades)**

(c) If $\left(\frac{K}{L}\right)_A > \left(\frac{K}{L}\right)_B$ then country A export on net both capital and labor (embodied in the goods that it trades), but relatively more capital

(d) If $\left(\frac{K}{L}\right)_A = \left(\frac{K}{L}\right)_B$ the two countries exchange goods, but the net factor content of trade is zero

(e) None of the above

6. 'Reciprocal dumping':

   (a) Involves a producer interrupting business with its supplier and vice versa

   (b) Refers to a scenario where firms sell at lower prices in their own domestic market because their have to pay transport costs on their exports

   (c) **Refers to a scenario where because of increased competition from foreign firms, domestic monopolists see their prices decrease**

   (d) Involves firms sending their polluting products abroad

   (e) none of the above

7. In the Krugman model (monopolistic competition and increasing returns to scale) when two countries open up to trade

   (a) **Firms in both countries generally become larger**

   (b) Prices may rise because some firms exit and the remaining ones raise their prices

   (c) Profits increase because of new exporting opportunities

   (d) all of the above

   (e) none of the above

8. In the Krugman model (monopolistic competition and increasing returns to scale):

   (a) the number of firms in the market does not depend on the size of the fixed cost of production

   (b) **the number of firms in the market depends positively on market size**

   (c) the number of varieties available to consumers may drop under trade

   (d) the more elastic demand is, the larger the number of firms in the market

   (e) None of the above

9. According to the "infant industry argument"

   (a) Governments should protect constant returns to scale industries when they are young and small, so that they can grow and get more productive

   (b) Governments should protect industries that produce baby products

   (c) Governments should protect industries like the automobile sector, where firms have large fixed costs of production

   (d) **Governments should protect industries where there is learning-by-doing across firms (where firms learn from other firms' production activity)**

   (e) none of the above

10. Intra-industry trade:

    (a) prevails among countries that have similar tastes

    (b) prevails among countries that have similar income, but different factor endowments

    (c) does not matter because it is a very small share of world's trade

    (d) **prevails in those industries where firms' technology exhibits increasing returns to scale**

    (e) none of the above