

Economics 433: Advanced International Trade

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Problem Set 3

ANSWER KEY

Please print this problem set out and work directly on it. If necessary, you may attach extra sheets.
Be sure to show your work on all questions that require a numerical response.

Name _____

1) First, you must use the Heckscher-Ohlin model to say something (a simple logical series of steps is enough, we don't want any long essays) about how globalization (or in simple words, trade) could explain raising inequality in the U.S. Hint: higher income inequality comes about because of higher inequality in wages, which in turn comes from a raising "skill premium" (i.e., the ratio of the wage of skilled to unskilled workers). To use the HO model, you need to think about it in terms of skilled and unskilled labor rather than labor and capital.

To fit the problem into H-O framework suppose that there are two factors of production skilled and unskilled labor, there are two countries U.S. and Mexico, and of course two sectors of production with different skill intensities. Everyone would agree that U.S. is relatively skilled labor abundant and Mexico is relatively unskilled labor abundant. Roughly, globalization means opening up to trade, which within the Heckscher-Ohlin paradigm implies that the relatively abundant factor of production gains and the other factor loses. For the U.S. it means the skilled labor wage rises relative to unskilled labor wage leading to an increase in the wage differential and thus an increase in income inequality.

In particular, the chain of events is the following: Globalization leads to an increase in the relative price of the skilled labor intensive product in the U.S. This means a reallocation of resources from the other sector of the economy to skilled intensive sector. This increases the demand for skilled workers and reduces the demand for unskilled ones at the pre-globalization wage ratio. To bring the labor market to equilibrium the relative wage of skilled workers rises leading to an increase in inequality.

2) After doing this, answer the following two questions:

A - What implications does this story have for the skill intensity (ratio of skilled to unskilled workers used) in production in the U.S.? Do you think this is consistent with the data?

The skill intensity falls in both sectors of the U.S. economy because as the relative wage of skilled workers rises both sectors substitute away from relatively expensive skilled labor to cheap unskilled labor. It means that the ratio of skilled to unskilled labor in both sectors falls.

Even without looking at any specific data, it is quite obvious that this is not what is happening. On the contrary, most sectors in the economy are increasing their skill intensity.

B - What implications does this story have for the effect of trade on inequality in a country such as Mexico (abundant in unskilled labor)? Do you think this consistent with the data?

*In Mexico income inequality **falls** precisely because globalization works in favor of the abundant factor of production – unskilled labor. The story is similar to that in U.S. but for the fact that Mexico is abundant in unskilled workers, so they benefit from globalization in Mexico. In fact, wage inequality has been increasing in Mexico, not decreasing, so this is not consistent with the data.*