International trade: problem set 3

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Autumn 2017

Suppose that there is a small open economy which has 200 workers working in the bacon and steel industry. For the production of one unit of bacon 1 worker-hour is needed while a unit of steel requires 3 worker-hours. In autarky both sectors employ 100 workers. The international market prices for bacon and steel are 10 and 20 euros respectively.

1. Wage w equals 8 euros per hour. What are the autarky prices of bacon and steel?
2. Opening up to trade, what will the country produce, import, and export?
3. How much does the country import and export? And what is the national income?
4. Suppose that in contrast with the Ricardian model labour is actually not that mobile and workers remain in their sector after opening up to trade. What is the national income under this scenario?
5. Following question 4, what are the wages?
6. Does the country gain from trade when labour is not mobile? Who gains and who loses?
7. Suppose that under autarky the hourly wage is 15 euros; what are the autarky prices of bacon and steel?
8. Again allowing for labour mobility; what is the wage under free trade and how does the real wage change under free trade?