Trade: Changing comparative advantage
Questions for group discussion in class
Oct. 14

1. The discovery and implementation of “fracking” technology early in this century dramatically reduced the cost to extract natural gas from suitable geological formations. Assume that:

- Prior to this technological advance little trade in natural gas occurred, because neither the U.S. nor Europe had a comparative advantage in natural gas production. That is to say the price of natural gas relative to other goods was similar in both regions.
- Geological structures in the U.S. and relevant U.S. laws are much more favorable for the use of fracking than is the case in Europe. Thus use of the new technology is far more widespread in the U.S. than in Europe.

a. If, hypothetically, there was no trade in natural gas, what effect would this new technology have on the price of natural gas (relative to “all other goods”) in the U.S.? How would the impact on the price of natural gas in Europe compare?

b. Under these assumptions, what impact would you predict this technological change would have on the trade of natural gas between the U.S. and Europe? Justify your answer by explaining what change in comparative advantage occurred and why it came about.

2. The article also notes that in Europe coal is cheap relative to natural gas, whereas the relationship is the opposite in the U.S.: natural gas is cheaper than coal.

a. According to the theory of comparative advantage, given the relative prices in the two regions, who should be exporting coal and who should be exporting natural gas? Explain.

b. How can you explain the discrepancy between your answer to (2.a) regarding coal exports and the facts as reported in the article?