Solutions to Warm-up Questions and Odd-Numbered Problems

There is no harm in being sometimes wrong – especially if one is promptly found out.

– John Maynard Keynes, 1933

Chapter 2

True/False
1. False; consumers of the exported good lose as its price increases.
2. True.
3. False: producers of the domestic import-competing good see lower prices for their goods.
4. True.
5. True; but both are rare at times!

Multiple Choice
1. A.
2. A.
3. C.
4. A.
5. C.

Problems
1a. The equilibrium price of bread in Leinster is 0.6 telephones per loaf; in Saxony the price is 0.2 telephones per loaf.

b. Yes. Since Saxon’s bread price is less than Leinster’s, there will be an incentive for Leinster bread consumers to buy Saxon bread. Saxon bread producers have an incentive to sell in Leinster where the price is higher.

d. The equilibrium trade price must be the same in both countries (that’s why it is the price at which they trade with each other): it is 0.25 telephones per loaf. Notice that this is the price where import demand from Leinster equals export supply from Saxony.

e. At the trade price of 0.25 telephones per loaf, excess demand for bread in Leinster equals 80 million loaves – exactly the amount of excess supply in Saxony at the trade price.

f. Looking at Figure 2.1, consumer gain in Leinster = a + b + c; where producer loss in Leinster = a; consumer loss in Saxony = d; and producer gain in Saxony = d + e.

g. Bread consumers in Leinster and bread producers in Saxony will be happy about the opening of free trade. However, Leinster bread producers will not be happy (they are undercut by cheaper imported Saxon bread) nor will Saxon bread consumers, who used to pay a lower price before the people in Leinster became able to buy the bread.

h. The net gain to Leinster is the area labeled “L”; this is equal in magnitude to the net gain b + c from the domestic graph. The net gain to Saxony is the shaded area labeled “S”; this is equal in magnitude to the net gain e from the domestic graph.
i. The country with the less elastic trade curve (usually the result of less elastic domestic supply and demand curves) will gain the most from trade. In our case this is Leinster. It was able to "drive" the price it pays for bread far below its previous domestic bread price. As a percentage of the free-trade price, Leinsters' price for bread changed 140 percent, whereas in Saxony the price changed only 20 percent.

j. The losses from closing trade would just be the net gain the countries had obtained from free trade: "L" in Leinster, "S" in Saxony.

3. They would lose 5 percent per board-foot on the 48 billion board-feet they continue to sell at home, plus sell four billion less board-feet in total, summing to a total loss of $2.5 billion.

![Graph](Figure S2.3d)

Producer surplus loss = a+b+c : price decline on remaining sales
- d : reduction in total sales

\[
\begin{align*}
\text{Producer surplus loss} &= \text{price decline on remaining sales} \\
&= \text{reduction in total sales} \\
&= \frac{2.4 \text{ billion}}{} \\
&= \frac{0.1 \text{ billion}}{} \\
&= \frac{\$2.5 \text{ billion}}{}
\end{align*}
\]

**Chapter 3**

**Multiple Choice**

1. D
2. D
3. A
4. A
5. B

**Problems**

1a. Leinster has an absolute advantage in both goods since it takes less labor to make bread and less labor to make telephones than in Saxony.

b. Leinster has a comparative advantage in telephones; in Leinster, the price of one telephone is 5/3 of a bread loaf, while in Saxony the price of one telephone is five loaves of bread. At the same time Saxony has a comparative advantage in bread: in Saxony, the price of one loaf is 1/5 telephone, while in Leinster the price of one loaf of bread is 3/5 telephone.

c. With free trade the international price will fall somewhere between the two pre-trade prices. Thus, 5/3 loaf <= one telephone <= five loaves, and 1/5 telephone <= one loaf <= 3/5 telephone. (You might look back to problem 2.1: the trade price turned out to be ¼ telephone per loaf of bread.)

d. If trade is stopped the prices in each country revert to their pre-trade levels.

3. **Figure S3.3**

**True/False**

1. True: that was David Ricardo's point.
2. False.
3. False; it is the abundance of land relative to other factors that matters.
4. True.
5. True.
The PPCs of the two countries can be represented by the one drawn. The country with tastes skewed toward pizza will have a higher pre-trade price for pizza in terms of beer than the country that has tastes skewed toward beer. The two countries should trade: the pizza-loving country will produce more beer and export it in exchange for pizza; the beer-loving country will make more pizza and export it in exchange for beer, such as with points PL and BL. We get the interesting result that trade causes each country to specialize less in production— at some middle point like P*— and trade for the preferred good.

5. Suppose that you, as the older sibling, are absolutely better at washing dishes, taking out the garbage, and walking the dog. Your younger brother could do these chores too, but he is absolutely worse at them than you. It is likely, however, that his comparative disadvantage lies in washing the dishes. Your parents could have you do a less-than-complete job on all three tasks by splitting your limited time between them and let your brother go ride his skateboard. It would be more efficient (and equitable) to have you focus on washing the dishes well, and let your brother use his labor resources to take out the garbage and walk the dog.

To be more precise: Let’s say it takes you 15 minutes to do the dishes and five minutes to take out the trash. Your brother, on the other hand, would need 45 minutes to wash the dishes properly, and ten minutes to take out the trash. Clearly you have an absolute advantage in “production” of these services.

<table>
<thead>
<tr>
<th>Labor to do dishes (minutes)</th>
<th>You</th>
<th>Your brother</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>15</td>
<td>45</td>
</tr>
<tr>
<td>Labor to take out trash (min.)</td>
<td>5</td>
<td>10</td>
</tr>
</tbody>
</table>

Notice your brother has a comparative advantage in taking out the trash. While he would “give up” 4 \( \frac{1}{2} \) trash runs to do the dishes, you would only lose out on doing three runs. Alternatively, you could say that the cost to you of taking out the trash is getting one-third of the dishes done, whereas the cost to your brother is getting less than one-quarter of them done. You are the low-cost producer of clean dishes; your brother is the low-cost producer of trash disposal.

Chapter 4

True/False

1. True.
2. False: just the reverse is the case, with owners of scarce factors seeing their incomes fall.
3. True: that’s why Joan Robinson will never receive the prize for her work on imperfect competition. Proof it is an imperfect world.
4. True.
5. True: unskilled labor is used relatively more in the import-competing industries in the United States.

Multiple Choice

1. C.
2. A.
3. B.
4. A.
5. D.

Problems

1. When trade opens up, the price of bread falls in Leinster and rises in Saxony. At the same time, the price of telephones rises in Leinster and falls in Saxony.

a. In the short run Leinster’s bread workers see their wages fall, while telephone workers see their wages rise. In the long run all workers see their wages rise as labor moves out of the declining bread industry and into the labor-intensive telephone industry.

b. In the short run Saxony’s bread workers see their wages rise, while telephone workers see their wages fall. In the long run all workers see their wages fall as labor is released from the labor-intensive telephone industry but its not needed in great amounts in the land-intensive bread industry.

c. If the factor price equalization theorem holds, the wages of the abundant workers in