Chapter Two:
Prices, Costs, and the Gains from Trade

General Discussion and Teaching Suggestions

1. Following the "quality of oranges" example in Section 2.1, I often assign a problem that probably originated with Dee McCloskey: Since Prohibition raised the cost of producing and selling whiskey, the average quality of whiskey sold during Prohibition would have been lower than at other times (True or False). The most naive "Trues" come from students who didn't understand the oranges example; there are thankfully few of these. The somewhat naive "Falses" come from students who blindly apply the logic of the example, substituting good and bad liquor for good and bad oranges, and the cost of hiding the still for the cost of the orange's train ticket. The brightest students see this argument, but also recognize that the cost of hiding a still in your bathtub is not the same as the cost of hiding the Jack Daniels distillery, leaving the conclusion uncertain.

2. The carpenter-electrician example is cooked up to come out neatly, so that there are gains from trade when the two tasks are exchanged at a relative price of one for one. Some ambitious students will try it with other numbers and will be distressed to find that things don't work out so well. Refer them to the numerical exercise at the end of the chapter for a full explanation.

3. A majority of students find the carpenter-electrician example surprising but clear. A few will argue vehemently against the conclusion. Often their arguments will revolve around the possibility of one agent's "paying" the other to perform a task. (For example, the electrician, who has become wealthy through his superior skills, pays the carpenter to do all of the work while he goes to the Riviera; or, the carpenter, who is such a bumbler, pays the electrician to get all of the jobs done right.) The correct response is that "payment" must consist of the delivery of some good. For simplicity, we have assumed that the only two goods in the world are rewiring jobs and paneling jobs. If the student insists on introducing another good to be used as a medium of exchange—say, bananas—then we must add another row to the tables in Exhibit 2–2, for "growing bananas" (in addition to paneling and rewiring). This will complicate the example, but will not change the essential conclusion.

Additional Problems

1. Comment briefly on the merits of the proposal in the following letter to the editor of the *Des Moines Register*:

   One of the reasons Iowa farmers are suffering economically is because we are buying too much food which has been processed in other places while we are selling our raw products, i.e., corn, soybeans and livestock, for whatever "the market" dictates.

   The solution is for groups of agreeable Iowans, including women and older teenagers, to incorporate and start producing a finished food, i.e., specials breads or pastries, canned or frozen foods or vegetables, corn meal, tofu, etc.

   Sell these at farmer's markets, for school lunches, for food stamps, perhaps the World Trade Center, eventually!

   —Mildred Conley

2. *True or False*: A rational society will use its most fertile land for agriculture.

3. West Publishing Company owns its own printing presses. The Dryden Press rents time on presses belonging to other firms. *True or False*: This gives West a comparative advantage over Dryden, because it can produce books more cheaply.

4. *True or False*: If Americans produce both industrial and agricultural products more cheaply than Mexicans can, then there can be no benefit to Americans from trading with Mexico.

5. *True or False*: Consumers pay higher prices in retail markets than they would if they could buy directly from wholesalers, because they have to pay enough to cover two profit margins.

Price Theory and Applications
by
Steven E. Landsburg

Solutions to Problem Set for Chapter 2

1. The relative price of tea decreased. The relative price of Civics increased.

2. You may conclude that he is confused. If the relative price of widgets in terms of gadgets has risen, then the relative price of gadgets in terms of widgets must have fallen.

3. The difference will be smaller.

4. There will be a greater percentage of childless couples at the cheap movie. For a childless couple, a show might cost 10 times as much as a movie; add the cost of a babysitter and the show now costs less than ten times as much. So for a childless couple, the show is more expensive relative to the movie (and the movie is cheaper relative to the show) than it is for a couple with children.

5. The logic of the "good and bad oranges" example (at the end of Section 2.1) suggests that the average quality of liquor should have risen. But that logic need not apply. It costs about the same to ship a good orange or a bad orange. It does not cost about the same to hide the Jack Daniels distillery and a bathtub full of gin. So: Not necessarily true.

6. False. The gains from trade arise from comparative advantages, not absolute advantages.

7. a) 400 bushels of corn. 300 bushels of corn. Oklahoma.
   b) Iowa.
   c) In Iowa 7.6 acres must be used while in Oklahoma 22 acres must be used.
   d) Iowa has .4 extra acres and Oklahoma has 2 extra acres.

8. False. If Dell buys hard drives from other manufacturers, it is because that's cheaper than making its own hard drives. The cost to Dell of making hard drives would be the forgone opportunity to do the things that Dell is good at.

9. False, in the sense of "not necessarily true." The statement of the problem omits the key information that Mary is a highly skilled neurosurgeon, whereas George can do nothing except type. Mary's greater typing speed does not imply that she has a comparative advantage at typing.

Some students argue that *if* you are an employer who only wants to hire a typist, and *if* George and Mary are available at the same wage rate, then yes, it makes more sense to hire Mary as a typist than to hire George. But even this strained interpretation does not lead to the alleged conclusion. If you can really hire Mary at typist's wages, then you should set her to performing brain surgery, collect her fees as revenue to your firm, and use a small part of that revenue to hire George to do the typing.

10. False. Suppose that the going wage for child labor on farms is $5 per hour. Then the farmer without children must pay $5 to employ someone else's children; the farmer *with* children must forgo $5 per hour (which he could earn by renting his children out to neighboring farmers) to employ his own children. Both face the same cost of $5 per hour.

Some students argue that the farmer with children incurs the costs of feeding, housing, and education. However, it is *not* correct to count these among the costs

of putting the children to work, since they must be paid whether the children work or not.

Other students argue that the farmer with children is wealthier at the end of the year since he makes no cash payments to hire labor. Whether or not this is true, it is irrelevant to the question. The question does not ask which farmer is wealthier; it asks only which farmer has higher costs of harvesting. The answer is that both have the same costs.

11. False. The students with the most talent for medicine need not have a comparative advantage in medicine.

12. False, in the sense of not necessarily (or even probably) true. If the people of the country are desperate for food, they ought to engage in that activity which will produce the most food. That activity might be growing food, or it might be producing decorative jewelry and trading it for food.

13. False. Except in the hairline case in which each country has the same costs for all activities, the country must have a comparative advantage in something (see Exhibit 2.2).

14. False. This puts the Winkies at a comparative disadvantage in producing automobiles but a comparative advantage in producing other goods. Thus, the gains from trade makes *both* the Winkies and the Munchkins better off.

15. It goes wrong exactly where it says that in each case there are the same costs for producing, shipping, and marketing the clothes. If a professional middleman can perform some of these tasks more cheaply than Anderson-Little can, then Brand X might be able to pay the middleman more than enough to cover his costs and still deliver the clothes more cheaply than Anderson-Little.

16. False. People trade for two reasons, one of which is different tastes. Some people will choose inferior housing in order to have better cars, or more books, or fancier vacations.

One student answered this question by saying "False, because there are some people who, no matter how high their incomes, would still choose to live in the most disgusting, degrading, infested, and putrid environments imaginable." An asterisk pointed to a footnote at the bottom of the exam paper which read, "For example, my uncle."

Answers to Numerical Exercises

N1.a)

	Rewiring	**Paneling**
Electrician	1/2 Paneling	2 Rewirings
Carpenter	2/3 Panelings	3/2 Rewirings

b) The electrician. The carpenter.

c)

	Without Trade	**With Trade**
Electrician	15 hours	10 hours
Carpenter	25 hours	30 hours

The electrician benefits from this trade, but the carpenter does not.

d)

	Without Trade	**With Trade**
Electrician	15 hours	12 hours
Carpenter	25 hours	24 hours

Both gain from this trade.