

## Solution to Selected Questions: CHAPTER 1 PRELIMINARIES

### Questions for Review

2. Which of the following two statements involves positive economic analysis and which normative? How do the two kinds of analysis differ?

- a. Gasoline rationing (allocating to each individual a maximum amount of gasoline that can be purchased each year) is a poor social policy because it interferes with the workings of the competitive market system.

Positive economic analysis is concerned with explaining *what is* and predicting *what will be*. Normative economic analysis describes *what ought to be*. Statement (a) is primarily normative because it makes the normative assertion (i.e., a value judgment) that gasoline rationing is “poor social policy.” There is also a positive element to statement (a), because it claims that gasoline rationing “interferes with the workings of the competitive market system.” This is a prediction that a constraint placed on demand will change the market equilibrium.

- b. Gasoline rationing is a policy under which more people are made worse off than are made better off.

Statement (b) is positive because it predicts how gasoline rationing effects people without making a value judgment about the desirability of the rationing policy.

### Exercises

1. Decide whether each of the following statements is true or false and explain why:

- a. Fast-food chains like McDonald’s, Burger King, and Wendy’s operate all over the United States. Therefore the market for fast food is a national market.

This statement is false. People generally buy fast food locally and do not travel large distances across the United States just to buy a cheaper fast food meal. Because there is little potential for arbitrage between fast food restaurants that are located some distance from each other, there are likely to be multiple fast food markets across the country.

- b. People generally buy clothing in the city in which they live. Therefore there is a clothing market in, say, Atlanta that is distinct from the clothing market in Los Angeles.

This statement is false. Although consumers are unlikely to travel across the country to buy clothing, they can purchase many items online. In this way, clothing retailers in different cities compete with each other and with online stores such as L.L. Bean. Also, suppliers can easily move clothing from one part of the country to another. Thus, if clothing is more expensive in Atlanta than Los Angeles, clothing companies can shift supplies to Atlanta, which

would reduce the price in Atlanta. Occasionally, there may be a market for a specific clothing item in a faraway market that results in a great opportunity for arbitrage, such as the market for blue jeans in the old Soviet Union.

- c. **Some consumers strongly prefer Pepsi and some strongly prefer Coke. Therefore there is no single market for colas.**

This statement is false. Although some people have strong preferences for a particular brand of cola, the different brands are similar enough that they constitute one market. There are consumers who do not have strong preferences for one type of cola, and there are consumers who may have a preference, but who will also be influenced by price. Given these possibilities, the price of cola drinks will not tend to differ by very much, particularly for Coke and Pepsi.

2. The following table shows the average retail price of butter and the Consumer Price Index from 1980 to 2000, scaled so that the CPI = 100 in 1980.

	1980	1985	1990	1995	2000
<b>CPI</b>	<b>100</b>	<b>130.58</b>	<b>158.56</b>	<b>184.95</b>	<b>208.98</b>
<b>Retail price of butter (salted, grade AA, per lb.)</b>	<b>\$1.88</b>	<b>\$2.12</b>	<b>\$1.99</b>	<b>\$1.61</b>	<b>\$2.52</b>

- a. **Calculate the real price of butter in 1980 dollars. Has the real price increased/decreased/stayed the same since 1980?**

Real price of butter in year  $t = \frac{CPI_{1980}}{CPI_t} \times (\text{nominal price of butter in year } t)$ .

	1980	1985	1990	1995	2000
<b>Real price of butter (1980 \$)</b>	<b>\$1.88</b>	<b>\$1.62</b>	<b>\$1.26</b>	<b>\$0.87</b>	<b>\$1.21</b>

The real price of butter decreased from \$1.88 in 1980 to \$1.21 in 2000, although it did increase between 1995 and 2000.

- b. **What is the percentage change in the real price (1980 dollars) from 1980 to 2000?**

Real price decreased by \$0.67 ( $1.88 - 1.21 = 0.67$ ). The percentage change in real price from 1980 to 2000 was therefore  $(-0.67/1.88) \times 100\% = -35.6\%$ .

- c. **Convert the CPI into 1990 = 100 and determine the real price of butter in 1990 dollars.**

To convert the CPI into 1990 = 100, divide the CPI for each year by the CPI for 1990 and multiply that result by 100. Use the formula from part (a) and the new CPI numbers below to find the real price of milk in 1990 dollars.

	1980	1985	1990	1995	2000
<b>New CPI</b>	<b>63.07</b>	<b>82.35</b>	<b>100</b>	<b>116.64</b>	<b>131.80</b>
<b>Real price of butter (1990 \$)</b>	<b>\$2.98</b>	<b>\$2.57</b>	<b>\$1.99</b>	<b>\$1.38</b>	<b>\$1.91</b>

- d. **What is the percentage change in the real price (1990 dollars) from 1980 to 2000? Compare this with your answer in (b). What do you notice? Explain.**

Real price decreased by \$1.07 ( $2.98 - 1.91 = 1.07$ ). The percentage change in real price from 1980 to 2000 was therefore  $(-1.07/2.98)*100\% = -35.9\%$ . This answer is the same (except for rounding error) as in part (b). It does not matter which year is chosen as the base year when calculating percentage changes in real price