

PRICE THEORY I TFUs

PRACTICE SET 14

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1. A recent paper credits new household durables - such as dishwashers and vacuum cleaners - with much of the growth in labor force participation of married women during the 20th century in richer nations. But that hypothesis is contradicted by the sharp declines in fertility in these nations. (Final 2001)

False. The introduction of dishwashers and vacuum cleaners made household production more efficient, meaning it was possible to spend more time in the labor force than before. However, children and household labor may be complementary goods, while both of them are substitutes for market labor. So it should not be surprising that when labor participation went up, fertility went down.

2. If the wage bill is held fixed for different soccer teams in the same professional league, then we can conclude that there is discrimination against black players if the teams with above-average proportions of black players have higher winning percentages than other teams. (3.11.4, Core 2000)

False. (1) There may be complementarities in production; (2) total compensation level may be comparable.

3. The increase in health associated with new information that cigarette smoking is more harmful than previously believed will overestimate the gains to consumers from this new health information. (Core 2001)

True. In a competitive industry; refer to the above question. The new information will move the demand curve down. If the cigarette industry is competitive, the market price is determined at the lowest point of the average cost, which will not be affected by the new information. Therefore, the consumer's surplus decreases. The increase in health overestimates the gains because it doesn't include the decreased consumer's surplus. On the other hand, if the market is not competitive, the cigarette company will react by reducing the consumer price. In this case, the two effects - lower demand and reduced price - will change the consumer's surplus from cigarette smoking. If the consumer's surplus decreases, then "the increase in health" will overestimate the gains to consumers, and vice versa.

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4. In the 1950s, an antitrust suit against the single manufacturer of cellophane was correctly dismissed because the cellophane accounted for only a modest share of the market for flexible wrapping materials, even though the price of cellophane was very high. (4.9.3, Core 2000)

False. Don't just consider the market share or current price to determine whether a firm is anti-competitive. It is better to use some measure of cost.

5. It would be welfare enhancing to subsidize firms that would compete against an existing monopolist. (4.9.4, Final 2002)

False. Some industries (such as utilities or public transit) have sub-additive cost functions, which means they are a "natural monopoly." It is more efficient to allow such monopolies than to encourage competition.

6. Since Microsoft is charging a price for Windows that is (according to some estimates) about 5 times lower than what the first order conditions for monopoly producer imply, we conclude that Microsoft does not have a monopoly in the market for operating systems. (4.10.3, Core 2000)

False. Microsoft, a monopolist, sells not only Windows (the operating system) but also its complementary good MS Office. Hence it will be the case where they sell a good (Windows) at $P < MC$ if the demand is elastic (and the share is small,) but instead they sell the other (MS Office) at $P > MC$ if the demand is inelastic (and the share is large.) (Furthermore, a potential entry of new firms may also reduce the price of Windows if Microsoft is acting to create barriers to entry.)

7. Interior house temperatures in the winter should be higher in colder climates even if individuals place the same value on higher interior temperatures in both warmer and colder climates as long as individuals can increase the energy efficiency of their homes (5.8.6, Final 2011)

False. A household will set the interior temperature of their house so that the marginal benefit of spending another dollar on heating is equal to the marginal benefit of spending that dollar elsewhere. Heating the same house to the same interior temperature when it's colder outside will be more expensive, but maybe houses in cold climates are more energy efficient. Thus, it may be cheaper to heat the house to a warmer temperature. It is uncertain how these two effects play out. They could be warmer, but won't necessarily be warmer.

8. If we learn today that there will be a subsidy to housing construction starting in five years, then housing prices will fall today and rental prices will begin to increase. (4.22.14, Midterm 2009)

True. It's cheaper to invest in five years, so investment will slow down today. Prices will also fall in the short run since the long-run rental rate should decrease. This combined effect will decrease the supply of houses and rental rates will increase in the short-run.

9. Suppose a durable good X and a non-durable good Y have the same income elasticity, price elasticity and supply elasticity. If all consumers experienced a permanent decline of 5% in their income, then the price of Y falls more than that of X both in the short run and in the long run. (4.22.15)

False. In the long-run, they should converge to the same steady-state. In the short-run, the price of durable goods falls more.