Price Theory I TFUs
Practice Set 13

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1. Suppose an exogenous influx of immigrants into California increases the market price of California housing. Then those considering moving to California are more affected by the price change than those considering leaving California. (3.9.8)

   False. The income effect mitigates the substitution effect for those already living in California, whereas they reinforce each other for those considering moving to California.

2. A monopolistic producer of a new good X that is habitual to consumers may initially price X below its stationary and constant marginal costs, but the producer will not price in this way indefinitely. (Core 1994)

   True. Assume a monopolist maximizes the long-term profits. In the beginning, she may price the new good X in a very low level so that X can be exposed to many consumers; since X is habitual (e.g., cigarettes), the demand for X increases for the exposed consumers. This can in turn increase the long-term profits. Of course, later she will increase the price based on the "new" demands to maximize her profits.

3. A criminal can be penalized either by a fine if caught or by the probability of being caught. If the expected fine is held constant, the criminal's utility is reduced by raising the fine if caught. (3.21.3, Core 1992)

   Uncertain. Depends on the risk aversion of the criminal.

4. 3.21.4. Legalizing drugs can increase the equilibrium consumption of drugs. (3.21.4, Core 1997)

   True. If the drugs are legalized, the production costs decrease because there is no longer a risk of being punished. Hence the supply increases, and this can increase the equilibrium consumption. Also, on the demand side, price decreases (again because there is no risk of being caught), so demand may increase; cheaper supply and higher demand can definitely increase quantity, although it doesn't mean the market price will drop.

5. If the rate of time preference declines with the level of consumption then a one-time increase in productivity will reduce the level of interest rate in the long run. (4.8.5, Midterm 2014)

True. In the NCG model, we had $f'(k) = \rho + \delta$. If the slope of f increases, K will increase and bring real interest rates down. Given a decline in ρ, now K will have to increase further and further reduce the interest rate in the long-run.

6. A subsidy to new housing construction will reduce the rental price of housing more in the short run than in the long run. (4.22.9)

   False. A subsidy to new housing construction will do nothing to the rental price of housing in the very short run since neither the stock of housing nor the demand for housing is affected. The subsidy will increase new construction however and gradually increase the stock which will push down rents over time.

7. An expected future increase in demand for a good can lower price today. (4.22.11, Core 1999)

   False. This may increase the price, encourage investment, and expand the stock and lower rental rates in the short-run. But price will not decrease since if it did, investment would not be rising over time to meet the higher demand.

8. Higher interest rates will lead to both higher rental rates on houses and higher housing prices. (4.22.12, Final 2000)

   False. Higher interest rates discourages investment, reduces K and results in a high rental rate. In the short-run, higher interest rates will lead to lower house prices, and rental rates may not change so much in the short-run.

9. The fact that more educated people work more hours than less educated people implies that education raises market productivity more than household productivity. (5.5.4, Core 2008)

   False. The educated people working more hours than less educated people has mainly to do with the fact that the educated people (which I will label as college graduates) receive higher wage than less educated people (which I will call high school graduates). Household production requires time spent to produce that commodity, and a higher wage means that the cost of spending time in household production is higher for the college graduates. Hence, college graduates will tend to substitute time spent in household towards time spent working and earning market wage. Even if education raises household productivity more than the market productivity, if the wage difference is sufficiently large and household production tends to be very time-intensive, the college graduates will spend more hours working than the high school graduates.