Section Exercise for February 8/9 with Answers

1) Return to our perfectly competitive marketplace, with a perfectly-elastic supply curve:

$P_s = \$2.50$

and our standard demand curve for lattes:

$P_d = \$10 - 0.0002Q$

a) What is the equilibrium price? Quantity? Consumer surplus? Producer surplus?

P = \$2.50; Q = 37500; PS = 0 CS = (\$6.25 - \$2.50) x 37500 = \$140625

b) Now suppose that a bunch of alumni from Crony-Capitalism University in the not-too-distant town of Old Stick establish the Latte Avicenna Monopoly Enterprise, and get a monopoly over the production and sale of lattes in Avicenna. Assume that the technology of producing lattes is unchanged. What will be the cost curve of the LAME?

Its cost curve will be simply the free-market's perfectly-elastic supply curve: C = P = \$2.50

c) What price would LAME decide to charge for lattes if it wanted to maximize its profits?

The monopolist's marginal revenue curve has, if the demand curve is a straight line, the same y-intercept as the demand curve and twice the slope. The marginal revenue curve is thus:

MR = \$10 - 0.0004Q

That MR curve intersects the cost curve at Q = 18750—half the production of the competitive free market. at Q = 18750, the price is halfway between the marginal cost of \$2.50 and the maximum willingness to pay of \$10 at \$6.25.

d) How large are the monopoly profits that LAME collects? How much consumer surplus do consumers reap?

LAME collects (\$6.25 - \$2.50 x 18750 = \$70,312 of monopoly profits. Consumers are left \$35,153 of consumer surplus

e) How bad an outcome is this monopoly outcome relative to the competitive free market?

The coming of a monopoly cuts consumer surplus by 3/4. Of that 3/4 of the original consumer surplus, 2/4 of the original consumer surplus is redirected to the monopolist as monopoly profits, and the remaining 1/4 of the original surplus is simply wasted.

f) What do we think of this outcome? How much attention should public policy pay to preventing monopoly?

It probably depends on whether you think monopolists—even monopolists who graduated from Crony-Capitalism University in Old Stick—are people too, increasing whose wealth and happiness is as much a proper goal of a well-run economy as increasing the wealth of anybody else. If you think money being redirected from normal consumers to monopolists is no biggie, then you probably think the economic losses from monopoly are not that large. You would probably conclude that the dangers that government intervention to try to fix the market would go horribly wrong are bigger than the likely gain from antitrust policy.

If you think that the well-being of monopolists is neither here nor there—that you don't care—or if you don't care about the well-being of graduates of CCA, you feel much worse about monopoly and are willing to endorse much

more aggressive efforts on the part of government. Monopoly is destroying 3/4 of the consumer surplus, 3/4 of the societal value of the marketplace. That is, as Donald Trump would say, YUGE!! Even imperfect and costly attempts to restore competition are worth undertaking.

And if you think monopolist wealth is a minus—if you think it undermines justice, or promotes costly political corruption—then you are even more willing to break up monopolies, and prevent their formation.