

## Microeconomics, Module 11, "Monopoly"

### *Micro mod 11: Readings for tenth edition*

(The attached PDF file has better formatting.)

{The Landsburg textbook is excellent. We say to read certain sections and to skip others. This does not mean that certain sections are better; it means that the homework assignments and exam problems are based on the sections that you must read for this course. Some skipped sections are fascinating but are not tested.}

We cover *monopoly* in two modules: Module 11 covers monopoly pricing and Module 12 covers price discrimination. These two modules complete the basic tools for this course; the remaining sections deal with additional topics in microeconomics.

Know the definition of monopoly: "a firm has monopoly power (or market power) if it faces a downward-sloping demand curve for its product"; this is the reverse of the definition of a competitive firm. The definition deals with the demand curve facing the firm, not the number of firms in the industry. Monopoly is not good or bad *per se*. Microsoft is a monopoly, either because it provided products at lower cost and higher quality than its peers (good) or because it refused to allow other firms access to its operating systems (bad).

Read section 10.1; know the elasticity formulas in section 10.1.2 Elasticity and Marginal Revenue and the Lerner index in section 10.1.3 Measuring Monopoly Power. These formulas are tested on the final exam. For instance, the exam may give the elasticity at a given price and ask for the marginal revenue.

The final exam will give a demand curve, from which you derive the total revenue curve and the marginal revenue curve. From the total cost curve you derive the marginal cost curve and the optimal price. Landsburg uses charts; final exam problems use differentiation.

In the section on welfare (10.1.4), focus on Exhibit 10.2, comparing monopoly with competition. Understand the graphical depiction of consumers' surplus and producers' surplus under monopoly. Note how the demand curve for competition is replaced by the marginal revenue curve for monopoly.

Read section 10.2 on *sources of monopoly power*. Know the definition of natural monopoly. You can skip the sub-section on *the welfare economics of natural monopoly* and the sub-section on *the history of photography*, but read the other sub-sections. Know the types and attributes of the sources of monopoly power.

Natural monopoly was a major source of monopoly power until the deregulation of municipal utilities, transportation, and telecommunications in the 1980's; these industries are more competitive now. Resource monopolies was important before globalization; now it is hard for any firm to control the global supplies of any resource. The closest example we have is the OPEC cartel, though it is not clear how effective OPEC has been in setting oil prices. ALCOA's ownership of U.S. aluminum supplies is the traditional example of a resource monopoly; it is hard to find a similar example in our generation.

*Question:* You make it sound as though deregulation of airlines has been good. But the result of deregulation of airlines has been the bankruptcy of many firms. Doesn't society lose when firms become insolvent?

*Answer:* Costs of air travel have fallen 50% in real terms since deregulation. Some airlines are unprofitable because they are inefficient. As they go bankrupt and more efficient lower-cost carriers take their place, consumers gain. The same is true for other industries that have deregulated: prices fall, consumers gain, and inefficient firms go bankrupt. This is the benefit of free markets, not a problem with free markets. Economists call this creative destruction: the failure of firms is the result of innovative products for consumers.

Google, Microsoft, Facebook, and Apple have great monopoly power, but a poor man with a laptop and a smart phone has benefits that our grandparents could only dream of. We all deprecate monopolies, but these firms have made a better world for us.

Patents are a source of monopoly power, but they are a net social benefit, not a cost. The U.S. is the major innovator for new drugs, because other countries do not provide the patent protection that the U.S. does.

*Question:* If not for patent protection, AIDS drugs would not cost so much.

*Answer:* One reason we have so few AIDS drugs (and similar medications) is that firms are reluctant to spend the billions of dollars needed for research and development without strong patent protection. If drugs are not patented, fewer drugs are developed, and consumers lose. Suits for medical malpractice and products liability are another reason that development of new drugs has slowed so much in recent years.

Legal barriers to entry are the major source of monopoly power now. These legal barriers make the salaries of doctors and lawyers the highest professional salaries in the U.S.

*Question:* What are the legal barriers to entry for doctors and lawyers?

*Answer:* Only physicians can prescribe drugs; only lawyers can practice law.

*Question:* Do actuaries have any such legal monopolies?

*Answer:* Only actuaries can sign certain Statements of Actuarial Opinion. But this is legal monopoly on an activity with such low demand that the effect on actuarial salaries is not material. Actuaries would love a legal monopoly, such as a monopoly on the right to set insurance rates, but this is anti-competitive and will probably never happen.

Review questions R1, R2, R3

Review Exercise N1; it involves taking a derivative. The final exam problems are similar.

Review end of chapter problems 4, 5, 7, 8, 9, 10, 11, 12, 13, 14, 15, 22, 23, 24, 25.