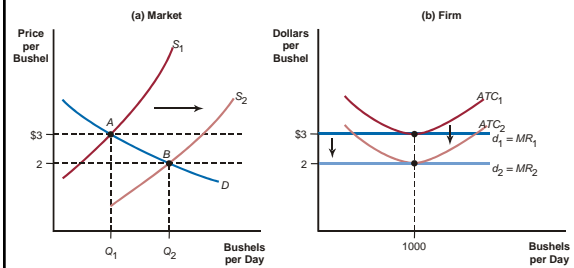


Economics 101 – Section 5

Lecture #20 – April 1, 2004

Monopoly

Figure 11 Technological Change in Perfect Competition



Lecture overview

- Role of technology in perfectly competitive markets
- What is a monopoly
- Sources of monopoly
 - Natural monopoly
 - Intellectual property rights
 - Patents
 - Copyright
- The goals of a monopolist, profit, and loss
- Equilibrium – comparison to the perfectly competitive firm
- Price discrimination

What is a monopoly?

- The term monopoly” often refers to exclusive access or control over some good or market.
- A monopolist (or monopoly firm) is the only seller of a good or service with no close substitutes
 - A monopsonist is the only buyer in a particular market

Changes in technology

- Under perfect competition – a technological advance making production cheaper or more efficient will cause the market supply curve to shift right
 - This will result in a lower price (and likely a higher quantity traded) in equilibrium
 - Early adopters may make SR profits, but in the LR all firms will earn zero economic profit (or simply normal profit)

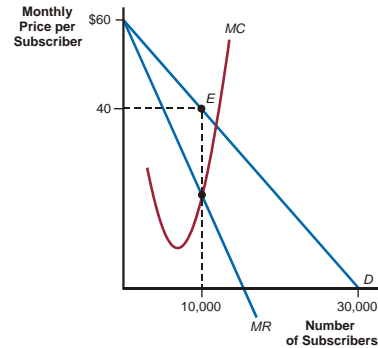
Sources of Monopoly

- 1) natural monopoly – exist when there are economies of scale
- 2) Intellectual property – Governments often allow for creators of new ideas and knowledge to exert some form of monopoly power over their product
 - i) patents – temporary granting of monopoly rights over a new product or discovery
 - ii) copyright – exclusive rights to sell a literary, musical, or artistic work

Goals of a monopolist

- Just like every other firm we have studied and will study in this class, the goal of a monopolist is to maximize profit
- A monopolist will face constraints on how much it will cost to produce output and what prices it can charge for its output
- As before – a monopolist will maximize profit where $MR=MC$ and the MC cuts the MR curve from below

Figure 2 Monopoly Price and Output Determination



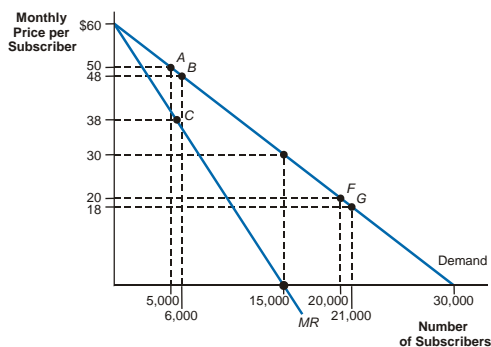
Goals of a monopolist

- As long as the monopolist faces a downward sloping demand curve:
 - 1) the marginal revenue curve will always lie below the demand curve
 - 2) the marginal revenue will be less than the price of output
- This will be true for any firm that faces a downward sloping demand curve
 - Recall that a firm in a PC market does not face a downward sloping demand curve

Monopoly

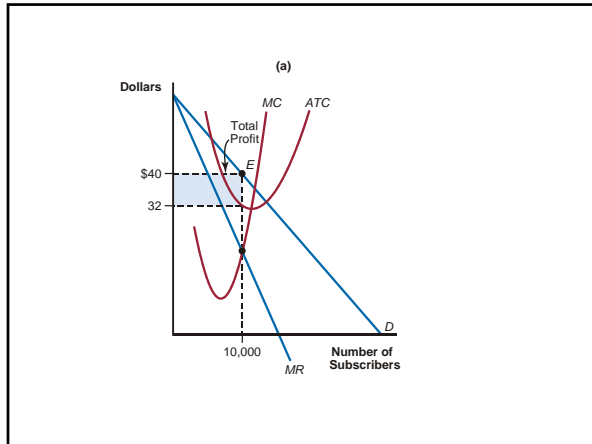
- A monopolist will never produce at a point where marginal revenue is negative
 - Recall our discussion of elasticities
 - – in the elastic portion total revenue goes up as q goes up
 - - in the inelastic portion of the demand curve total revenue goes down as q goes up
 - A monopolist will always produce over the range of output where demand is elastic!

Figure 1 Demand and Marginal Revenue



Monopoly

- The monopolist will earn positive profit when $P > ATC$
 - The profit will be $(P-ATC)*Q$



Monopoly

- In the long-run it is possible for a monopolist to earn positive economic profits since there are no competitive pressures
 - No threat of other firms entering the industry
- A privately owned firm which suffers an economic loss will exit in the LR just like any other firm
 - Thus in the LR the only monopolies we see operating are those making zero or positive economic profits

Monopoly

- The monopolist will incur a loss if $P < ATC$
 - Loss is $(ATC - P) * Q$
 - Profit will be $(P - ATC) * Q$ (This will be a negative number)

Monopoly

- A market with a monopolist operating will charge a higher price for output than will a competitive firm

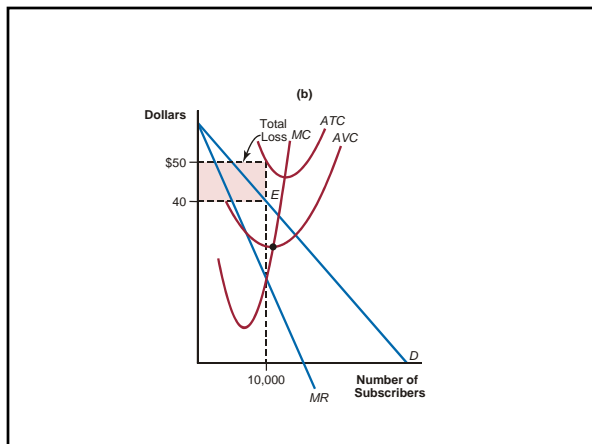


Figure 4
Comparing Monopoly and Perfect Competition

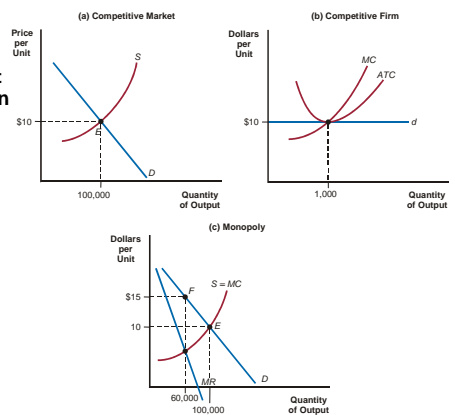
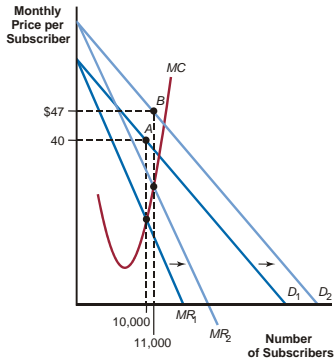


Figure 5 A Change in Demand



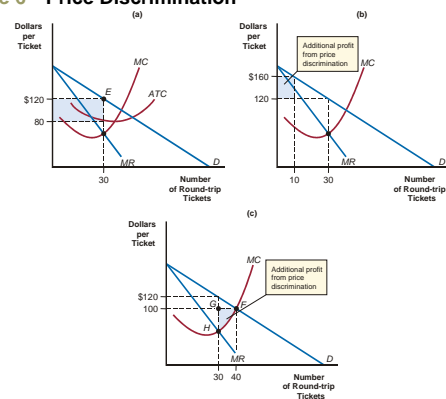
Monopoly – Price discrimination

- High demand groups are willing to pay more for the same quantity than a low demand group
- The monopolist will always like to price differently for these two groups since
- Also, the option to price discriminate should never make a monopolist worse off
 - More choice is always better for a firm

Monopoly

- If there is an increase in demand, the monopolist will
 - Charge a higher price, produce more quantity
 - Earn higher profit
- If there is a decrease in demand, the monopolist will
 - Charge a lower price and reduce output
 - Earn smaller profit

Figure 6 Price Discrimination



Monopoly – Price discrimination

- Price discrimination
 - Charging different people different prices
- If a monopolist can charge different prices to different groups of people they would generally like to do so.
 - Why?
 - By distinguishing between the low and high demand individuals they are better able to charge a higher price to those individuals with higher demand

Figure 7 Perfect Price Discrimination

