Lecture on Monopoly

MONOPOLY: only seller in the market

Monopoly vs. Perfect Competition

1) HETEROGENEOUS vs. Homogeneous goods:

NO close substitutes

D slopes down
2) PRICE-SETTER (searcher/maker) vs. Price-taker:

P.C. can sell as much as wants at market price; Monop. must decrease P to sell more Q

P.C. chooses q where \( P = MC \); Monop. sets P or Q where \( MR = MC \)

MR falls 2x as fast as D \((2x\ \text{steeper}) \Rightarrow MR = P \times (1 + 1/Ed)\)

\( MC = MR \)

\( MC = P \times (1 + 1/Ed) \)

\( \text{P-C Margin (Lerner Index)} \quad (P - MC) / P = -1/Ed \)

(overcharge or monopoly markup)

3) MARKET POWER: ability to profitably set \( P \) above \( Pc \) (i.e. > MC)

Results in DWL (inefficiency/loss of welfare)

4) Both Max PROFITS (not revenues) ...Why?

Monop. never operates on inelastic portion of demand curve; if it did, could raise Prices to increase Profits

5) Monop. and P.C. can make (-/0/+1) profits in SR, but in LR Monop. makes (0/+1) and P.C. zero.

[ note: DWL and Profits vary with Elasticity of Demand ]

The Pros of a Monopoly

1) Profits motivate firms to develop new products/techniques

(e.g. via patents; 20-year legal monopoly)

but...

\( \rightarrow \text{Rent-seeking} \) (profits become part of DWL); company willing to spend resources = Monopoly Profits to win position as monop.

e.g. case of bidding for government sponsored monopoly
or

2) find lower cost methods of production → raises profits
(can spur technology)

Ways to Maintain a Monopoly

1) Strategic Action – prevent entry
2) Merger (e.g. AOL Time-Warner): possibly to eliminate SR losses?
3) Special Knowledge (government protection)
4) Market large enough for only one firm to produce
5) Natural Monopoly: can produce market Q at lower cost than two or more firms

Positive (Econ.) Profits → always a Monopoly?

NOT necessarily

1) rents due to scarce resources (extremely productive land) or lower costs; star athletes
   (competitive situation but have unique skill, compensated accordingly)

MONOPSONY: only buyer in a market

Some great graphs:

In Figure 1 we see the association between the linear demand curve and the revenue function. Revenue starts at zero when quantity is zero, rises to a peak, and then declines again to zero when price is zero.

Profit follows much the same pattern. Profit can be measured in the demand space as demand price minus average cost. Hence, it is the demand curve above the AC=MC line. In total space it follows the same pattern as total revenue, though interior to it.

Figure 2 shows two-tiered pricing.
Figure 1
Figure 2