Class 13: Profit, Rent and Non-Competitive Price Setting

Journal Assignment, Due February 28
Find a news article that describes a situation in which a firm has market power and uses it to raise profits. Write a 200-300 word essay in which you use the concepts covered in this lecture to interpret the article. Journals will be collected on February 28 and reviewed.

1. The economic definition of profit is different from the accounting definition of profit. The accounting definition counts only explicit costs when it calculates profit. The economic definition counts both explicit costs and the opportunity cost of the owner’s time and property when it calculates profit.

   a. Accounting Profit = Total Revenue - Total Explicit Cost
   b. Economic Profit = Total Revenue - Total Explicit Cost - Normal Profit
   c. Normal Profit is the opportunity cost of resources supplied by the owners of the firm including the opportunity cost of their time.
   d. Example

   John Jones owns and manages a Chapel Hill café. His weekly revenue is $5,000. Weekly expenses are:

<table>
<thead>
<tr>
<th>Expense</th>
<th>Amount</th>
</tr>
</thead>
<tbody>
<tr>
<td>Labor</td>
<td>2,000.00</td>
</tr>
<tr>
<td>Food and Drink</td>
<td>1,500.00</td>
</tr>
<tr>
<td>Electricity</td>
<td>100.00</td>
</tr>
<tr>
<td>Vehicle Lease</td>
<td>150.00</td>
</tr>
<tr>
<td>Rent</td>
<td>500.00</td>
</tr>
<tr>
<td>Interest on Equipment Loan</td>
<td>50.00</td>
</tr>
</tbody>
</table>

   i. What is John’s accounting profit?

   ii. John could earn $300.00 per week working as a shift manager of Foster’s Market. What is John’s economic profit per week?
iii. John uses a gift from his Uncle to pay off the loan on his café equipment. How does John’s decision affect his economic profit?

iv. Suppose everything remains the same except that Sarah Foster decides to open a new store and offers John $1000 per week as store manager. Is the café still making an economic profit?

v. Suppose now that John likes being his own boss. He would prefer running the café and receiving $200.00 per week to working for Sarah Foster at $1000.00 per week. Is the café making an economic profit?

2. Profit and the Invisible Hand
a. Profit motivates individuals to provide goods and services that members of society would like to consume and use.

b. Competition among individuals tends, over the long run, to reduce profits to normal economic profit levels.
   
i. Competition works best to reduce profits to normal levels (and reduce economic profit to zero) in markets where there is free entry.

   ii. Owners of profitable firms have very strong incentives to block entry to the markets where they make profits. We will study strategies that firms use to block entry a bit later in the course.

3. Economic Rent is not profit. It is that part of a payment for a factor of production that exceeds the owner’s reservation price for that factor.

a. Scott Adams loves to draw and has created a well liked cartoon series called Dilbert. When he started out, Scott earned $3,000 per month drawing Dilbert for subscribing newspapers. Dilbert became popular and now Scott earns $10,000.00 per month drawing Dilbert. Is Scott Adams receiving economic rent or profit?

b. Mario leases twenty five acres of vineyard from Gianpietro in Tuscany. With the grapes he grows, Mario makes a “single estate” Brunello wine. At first, Mario and his product were little known and Mario made just enough profit to be willing to keep making wine. Then, wine critic Robert Parker gave Mario’s Brunello a very high rating. The price of Mario’s Brunello went from $25 to $60 per bottle. Will Mario or Gianpietro benefit from the price increase?

4. Non-Competitive Pricing—the big ideas
a. In a competitive industry, there are many sellers and buyers. The price of a good that is traded in a competitive market is set by the forces of supply and demand.
   
i. No seller has the power to influence price. If any seller charges a price that is too high, buyers buy from a different seller.
   
   ii. No buyer has the power to influence price. If the buyer seeks a discount, the seller refuses.
   
   iii. Each buyer and seller in a competitive market is a price taker.
   
   iv. A good example of a competitive market is the market for wheat.
b. Most markets we trade in are not perfectly competitive. Buyers do not perceive the products offered by different sellers to be perfect substitutes.
   i. Some buyers prefer Coke to Pepsi. Others prefer Pepsi to Coke. Still others think a cola is a cola.
   ii. Those who prefer Coke will buy Coke even if it costs (something) more than Pepsi or a generic cola beverage.

c. In imperfectly competitive markets, a seller has some latitude to set its own price

d. Firms in imperfectly competitive industries face different demand schedules than firms in perfectly competitive industries.
   i. In a perfectly competitive industry, individual firms face horizontal demand curves at the market equilibrium price.
   ii. In an imperfectly competitive industry, individual firms face downward sloping demand schedules.
   iii. The more inelastic the demand schedule faced by the individual firm, the more market power the firm has. It follows that a firm will have more market power if fewer substitutes exist for the good that the firm sells.

5. The Sources of Market Power
a. Exclusive control over important inputs (DeBeers).

b. Patents and Copyrights
   i. A patent gives, to the patent holder, an exclusive right to sell a product.
   ii. A copyright gives exclusive rights to sell and use intellectual properties such as books, movies, software, music, images and other published works.

c. Government Licenses or Franchises
   i. The government sometimes gives an exclusive contract to a firm that provides government services.
   ii. Halliburton, Marriott and Powers Great American Midways are examples.

d. Economies of Scale
   i. A production process is said to have constant returns to scale if, when all inputs are doubled, output is also doubled.
   ii. A production process is said to have increasing returns to scale if, when all inputs are doubled, output increases by more than double.
   iii. When a production process is characterized by increasing returns to scale, the average cost of production falls as the scale of production increases.
   iv. When there are economies of scale, equilibrium typically involves few and perhaps only one seller because that seller has low costs and new entrants to the industry face high costs.

e. Network Economies
   i. With some goods or services, the value of the good or service depends on how many have adopted it.
   ii. Videotape formats, cell phone networks, and computer operating systems are examples.
   iii. Once a particular “brand” is widely adopted, producers of complementary goods tend to make them compatible with the dominant brand further enhancing the network and further protecting the brand from would-be rivals.
6. **Marginal Cost and Marginal Revenue**

   a. Carla supplements her income as a TA by editing term papers for undergraduates. Carla can set her price but charges the same price to all her customers. There are eight students (A-H) for whom she might edit, each with a reservation price as given by the following table.

<table>
<thead>
<tr>
<th>Student</th>
<th>Reservation Price</th>
<th>Total Revenue</th>
<th>Marginal Revenue</th>
</tr>
</thead>
<tbody>
<tr>
<td>A</td>
<td>$40</td>
<td></td>
<td></td>
</tr>
<tr>
<td>B</td>
<td>$38</td>
<td></td>
<td></td>
</tr>
<tr>
<td>C</td>
<td>$36</td>
<td></td>
<td></td>
</tr>
<tr>
<td>D</td>
<td>$34</td>
<td></td>
<td></td>
</tr>
<tr>
<td>E</td>
<td>$32</td>
<td></td>
<td></td>
</tr>
<tr>
<td>F</td>
<td>$30</td>
<td></td>
<td></td>
</tr>
<tr>
<td>G</td>
<td>$28</td>
<td></td>
<td></td>
</tr>
<tr>
<td>H</td>
<td>$26</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

   If Carla’s opportunity cost for editing a paper is $29, how many will she edit (presuming that her objective is to maximize her profit)?

   b. A Price Setter faces a tradeoff when they decide how much to sell.
      i. In a perfectly competitive industry, firms supply the quantity such that marginal cost of production equals market price (which they take as beyond their control).
      
      ii. In an imperfectly competitive industry, a firm understands that increasing supply has two consequences—increasing supply by one unit incurs the marginal cost of production and also lowers the market price of the good supplied.
      
      iii. The marginal revenue schedule shows how the firm's revenue changes as a function of the quantity it sells.
      
      iv. A firm in an imperfectly competitive industry will maximize profits by choosing the quantity such that marginal cost equals marginal revenue.
      
      v. The marginal revenue schedule associated with the classes our Oreo Cookie demand schedule.

6. **The Impact of Market Power on Efficiency**

   a. In a competitive industry, market price of a good
      i. Equals the reservation price of the “last” consumer to buy the good.
      ii. Equals the marginal cost of the “last” producer to supply the good.

   b. In an imperfectly competitive industry,
      i. The market price of a good is greater than the marginal cost of production.
      ii. There are consumers who are willing to pay the marginal cost of producing the good but are unable to purchase it.

   c. Price discrimination is selling the same good to different groups of consumers at different prices.
      i. In a single price market purchasers of the good receive consumer surplus.
ii. Price discrimination involves schemes through which firms attempt to charge different prices to different consumers and thereby acquire some consumer surplus in the form of higher profits.

iii. Discounts and coupons are a form of price discrimination.