Monopoly Notes

- Pure monopoly is at the opposite end of the spectrum from pure (perfect) competition.
- Examples – U.S. Post Office, Cable companies, local phone services, etc.

- Main characteristics:
  1. Single seller – the firm is the industry.
  2. No close substitutes – the product is unique. Consumers must either buy from the monopolist or do without.
  3. “Price maker” – the firm controls price by controlling quantity. The firm faces the market demand curve and can pick whatever price/quantity combination he/she wants.
    - You will notice, however, that this does not mean that the firm can charge whatever price they want. They are limited in the price they can charge by the quantity that they desire to sell and the price that consumers are willing and able to pay for that quantity (i.e. they are limited by the market demand curve).
  4. Blocked entry – there are barriers preventing potential competitors from entering the market.
  5. Nonprice competition – there may be some types engaged in (such as public relations or attempts to increase demand), but it is not necessary for the firm to differentiate its product using nonprice measures like competition.

- Barriers to entry:
  1. Economies of scale
    - If long-run average total cost (LRATC) declines over an extended range of output, it is argued that to achieve low costs and low prices it is better to have a few large firms (and in the extreme case, only one firm).
    - This is the natural monopoly argument.
    - A natural monopolist’s lower unit cost allows it to charge a lower price than if the industry were more competitive.
    - It is not clear that these arise independently, but government has effectively created many monopolies based on this argument.
  2. Legal barriers, such as patents and licenses
    - Patents – these are temporary monopolies given to inventors. This type of monopoly may encourage research and development (R&D).
      - Xerox is an example.
    - Licenses – the government limits entry into an industry or occupation through licenses. (Note: your book refers to this as a government granted monopoly franchise.)
      - New York taxicabs and state-run liquor stores are examples.
  3. Ownership or control of essential resources
    - Without access to necessary resources, competitors cannot enter the market.
      - De Beers diamond syndicate is an example.
4. Pricing and other strategic barriers
   - Predatory pricing – cutting prices below cost when competitors enter. There
     is substantial disagreement among economists about whether this actually
     occurs or not.
   - Excess production capacity – a monopolist might maintain a plant size beyond
     what they need to sustain their ordinary level of production to signal potential
     competitors that if they enter the monopoly will up production, thereby
     reducing product price.
   - Lawsuits – monopoly producers could tie competitor resources up in court
     cases, forcing them to exit the market before they really get started.
   - Acquisition – monopolies also have the option of purchasing competitors
     outright.

   - Demand:
     - The demand curve facing the monopolist is the market demand curve because
       they are the only supplier.
     - MR will be less than price for all but the first unit sold.
     - Because the monopolist must set a lower price to sell more output, marginal
       revenue is less than price (average revenue) for every level of output except
       the first. (See Figure 24.2 in the book.)

   - Profit maximization (See Figure 24.3, 24.5, or 24.6 in the book):
     - As with pure competition, the monopolist will find the profit-maximizing (or loss-
       minimizing) quantity where MR=MC.
     - The monopolist will then charge the price associated with that quantity on the
       demand curve (i.e. the maximum amount he/she can sell that amount of output
       for).
     - To determine this price, they use the price associated with the profit
       maximizing quantity of output. They find this on the market demand curve.
     - The profit associated with this level of output can be determined by using the
       usual formula: economic profit = TR – TC. TR = P * Q and TC = ATC * Q. So
       profit per unit equals (P – ATC). Total profit is then (P – ATC) * Q, where Q is
       the profit maximizing quantity.
     - Notice that a monopoly seeks to maximize their profits, not charge the highest
       price possible.

   - Note that there is no rule that says a monopoly necessarily makes profits. It is
     possible for them to make short-run losses or even to shut down. This is likely to
     happen if there is weak demand or relatively high costs.
   - Short-run losses versus shut-down:
     - Imagine that a firm has a monopoly over a particular input, so that they are the
       only supplier of the output. (For example, diamonds in diamond engagement
       rings.)
     - If consumers tastes change (maybe rubies become all the rage and people lose
       interest in diamonds), demand for diamond rings could fall to the point where
       the firm suffers losses.
• As long as P>AVC, the firm will produce even with short-run losses (remember that losses are where P<ATC).
• If P<AVC, the firm will shut-down production and suffer only their fixed costs in the short-run (SR).

- There is no supply curve for a monopoly.
  - This is because there is no unique relationship between price and quantity.
  - Different demand and/or cost conditions can bring about different prices for the same level of output.

- Economic effects:
  - Allocative efficiency – P = MC, otherwise referred to as marginal cost pricing.
    - Price is set higher than MC for a monopolist. Hence, monopolies are not allocatively efficient.
    - Figures 24.4 and 24.6 both show that the price the monopolist will charge exceeds that associated with perfect competition (which we have already seen yields an allocatively efficient outcome).
  - Productive efficiency – P = minimum average total cost.
    - Under monopoly the quantity sold is less than under pure competition and hence falls short of the quantity necessary to achieve the minimum average total cost required for productive efficiency.
      - Figure 24.6 shows the long-run competitive equilibrium associated with productive efficiency.

- We have seen that firms are limited in the degree to which they can exercise their market power. The ultimate limit on their power is the demand curve that they face.
  - In fact, the more elastic the demand curve they face, the less control they have, because any price increase results in a more than proportional change in quantity sold.
    - If they faced a relatively inelastic demand curve, they could raise price without losing many sales.
- Firms may be able to get around this limitation if they are able to price discriminate. **Price discrimination** is the ability to sell an identical good to different consumers or groups of consumers at different prices.
  - If a firm were able to sell an identical good to consumers at the maximum price that each consumer was willing to pay, they would be practicing *perfect price discrimination*.
  - Conditions necessary for price discrimination are:
    1. The ability to separate individuals based on the amounts they are willing to pay.
    2. The ability to prevent resale.
- Examples of price discrimination include:
  1. Telephone services – charge different prices based on when calls are made. Higher prices charged to those with less elastic demand.
  2. Movies – charge different prices at different times of day.
3. Airlines – charge consumers different prices based on their ability to plan ahead and accept certain limitations.
4. Payments made by parishioners to the church for absolution in the Middle Ages. This is an example of perfect price discrimination in practice.

- Some pros and cons of monopolies:

<table>
<thead>
<tr>
<th>Pro</th>
<th>Con</th>
</tr>
</thead>
<tbody>
<tr>
<td>Monopolies are better able to pursue research and development because of greater profits.</td>
<td>Monopolies lack the incentive to pursue research and development and may in fact suppress innovations.</td>
</tr>
<tr>
<td>The potential for substantial profits creates an incentive for entrepreneurs to develop new products and techniques. (This may be particularly apt for a firm obtaining patents. It may even be necessary to recoup investments.)</td>
<td>The same potential exists in competitive markets in the short-run. Some innovation may even be precluded due to the impossibility of breaking into monopoly markets.</td>
</tr>
<tr>
<td>Economies of scale may make some markets better suited to only one producer.</td>
<td>Even in the case of a natural monopoly, consumers might suffer from higher prices and less innovation.</td>
</tr>
<tr>
<td>Monopolists may still behave competitively if they operate in a contestable market. This is a market where there is a threat of entry if prices or profits become too high.</td>
<td>Even with a contestable market, firms probably do not behave as competitively as they would in a competitive market.</td>
</tr>
</tbody>
</table>

- The government plays two roles in the monopoly process.
  1. It sets up monopolies and regulates them.
     - Frequently, the government has identified industries and set up regulated monopolies, frequently using the argument that the industry will only support one firm efficiently (i.e. a natural monopoly industry).
     - In many cases, it sets up these government regulated monopolies before they emerge naturally.
     - Cable companies are one example.
     - Other examples include liquor stores and cab companies (although I do not believe that the natural monopoly argument was used in either case).
  2. The government seeks to promote competition and minimize monopoly power using antitrust laws.
     - Examples include ALCOA, AT&T, and Microsoft.