Elements of Microeconomics

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Week 12

Housekeeping Items

- These are the last two weeks of classes, you have **one** assignment left.
- The last day to request a regrade on the exam is today by **5 PM EST**.

Brief Recap

- The past few weeks we have covered the costs of production.
- These costs helped inform our discussion of perfectly competitive markets.
- However, we know that often the world may contain other market structures.
    - Our last couple weeks will be dedicated to exploring these structures.

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  - A **monopoly** is a firm that is the sole seller of a product without any close substiutes.
  - Think of a monopoly as *"the only game in town"*
  - They are the only ones doing what they do, they do its best. We will see that there are multiple ways for a monopoly to arise.

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     - Can anyone think of an example of this?

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  2. **Government Regulation**: The government gives a single firm the exclusive right to produce a good or service.
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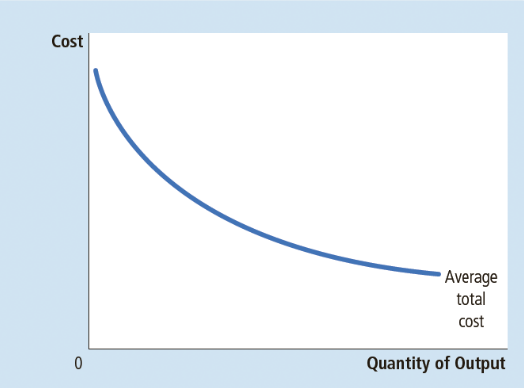
  3. **The Production Process**: A single firm can produce output at a lower cost than can a large number of firms.
     - ★ Often this is the advantage that leads to *natural monopolies*.

A Brief Interlude on Natural Monopolies

- Natural monopolies arise for many reasons. The most common being that they are the best at supplying a good or service.
- By best here we mean that they produce *at a lower cost than multiple firms could*.
- Graphically, this looks like a continually decreasing ATC.



Key Characteristics of a Monopoly

- Here we will do a litter compare and contrast. Remember that the demand curve faced by perfectly competitive firms is horizontal.
  - Remember why this is.
- A monopoly faces a downward sloping demand curve. This is an **distinction** between the two markets.
- What are the *implications* of this?
  1. Downward sloping demand affects production decision
  2. Price
  3. Marginal revenue behaves a little differently than it did in perfect competition.

The Profit Maximizing Behavior

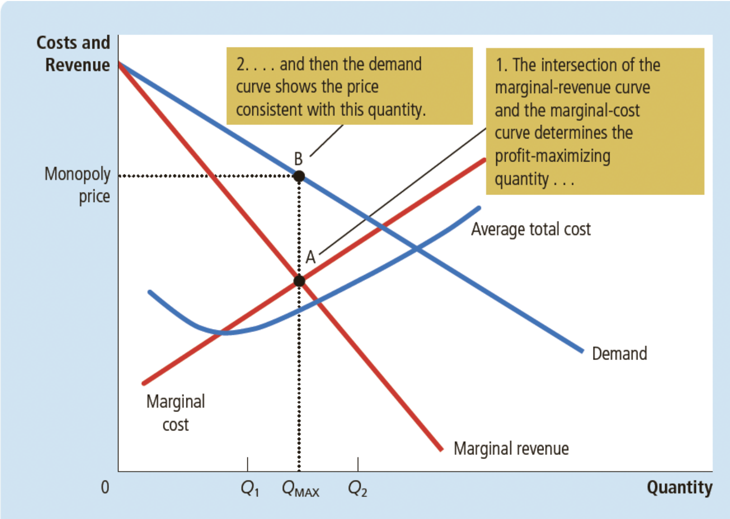
- Just as perfectly competitive firms, monopolies seek to maximize profit. (Trivial but important!)

Monopolist's Profit Maximizing Condition

A monopolist maximizes profits at the quantity where the marginal revenue curve intersects the marginal cost curve.

- Notice how this is the same as perfect competition, $\mathrm{MR} = \mathrm{MC}$. **But**, we know that the MR curve is downward sloping as opposed to horizontal and we know $\mathrm{P} > \mathrm{MR}$, since a monopolist would have to lower the price to sell more thus lowering MR below the price.

The Profit Maximizing Behavior



Practice Problem

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Based on market research, a hand carved fountain pen producer in Bozeman, MT, obtains the following information about the demand and costs of its latest pen:

Demand: $P = 1000 - 10Q$

Total Revenue: $TR = 1000Q - 10Q^2$

Marginal Revenue: $MR = 1000 - 20Q$

Marginal Cost: $MC = 100 + 10Q$

Your mission should you choose to accept it:

1. Find P and Q that maximize profit for the company.
2. Find P and Q that maximize social welfare
3. Calculate DWL

Onto Monopolistic Competition

- Here we build off what we learned in the previous chapter.
- True perfect monopolies exist but, there is an imperfect form of a competitive market that melds some aspects of perfect competition and monopoly.
- In comes, **monopolistic competition**.

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   - This is important becasue an implication is that the firms face a *downward sloping demand curve*. Think back to monopoly and reflect on how this may influence our analysis of the market later.

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3. **Free Entry and Exit**: Firms can enter or exit without restriction.
    - This has an important implication, can anyone tell me what it is?