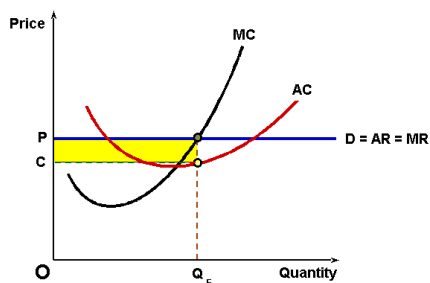


## Comparing the four main market structures.

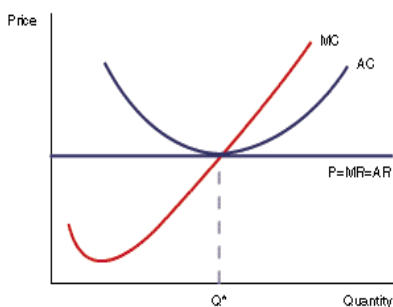
### Perfect Competition

- Many Sellers/Many Buyers
- Homogenous goods
- No barriers to entry
- Perfect Information
- No advertising
- Price Taker
- $P = MR = MC$
- Can make profits in short-run
- Long-run profits equal zero
- $P = ATC \rightarrow$  Break-Even Point
- $P = AVC \rightarrow$  Shut-Down Point

Short Run Graph:  
Profits > 0



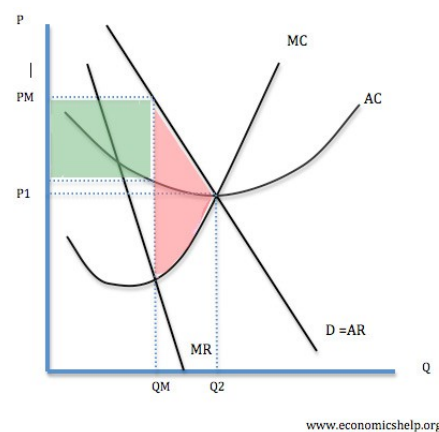
Long-run Graph:  
Profits = 0



### Monopoly

- One Seller/ Many Buyers
- Unique good
- Extreme barriers to entry
  - Govt (patents)
  - Location (desert)
  - Resource (DeBeers)
  - Tech. (Microsoft)
- Imperfect Information
- Little advertising
- Price Setter
- Max Profits  $\rightarrow MR = MC$
- Long-run profits can be positive
- Inefficient outcome
- Results in DWL
- Can Price Discriminate

#### Regular Monopoly Graph

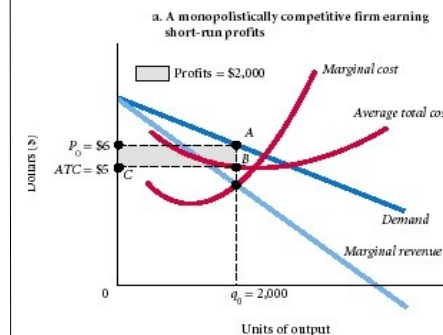


Red = DWL  
Green = Profit

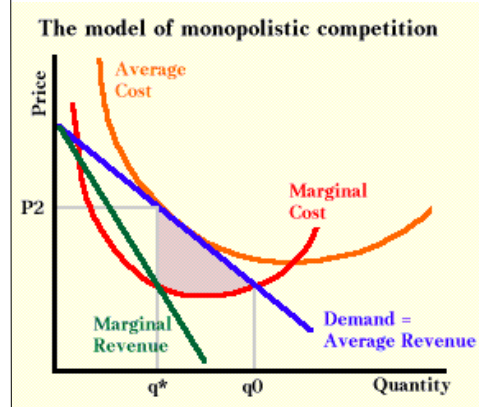
### Monopolistic Competition

- Many Sellers/Many Buyers
- Differentiated Products
- No barriers to entry
- Slightly Imperfect Information
- Use advertising to shift demand
- Price Setter
- Max Profits  $\rightarrow MR = MC$
- Can make profit in the short-run
- Long-run profits = 0
- Inefficient outcome
- Results in DWL

Short Run Graph:  
Profits > 0



Long Run Graph  
Profits = 0



### Oligopoly

- Few Firms/Many Buyers
- Similar Products
- High Barriers to entry
- Slightly Imperfect Information
- Uses advertising
- Uses Game Theory to set Q or P
- Always Max Profit when  $MR = MC$
- No colluding (illegal)
- No way to graph market

Types of Strategy:

- Cournot
  - q is choice variable
  - simultaneous game
  - Profits > 0
  - Profits < Monopolists profits
  - If a symmetric problem, all q's are equal and profits are equal
  - Results in Nash Eq.
- Stackelberg
  - q is choice variable
  - sequential game
  - Profits > 0
  - Profits < Monopolists profits
  - 1<sup>st</sup> Mover Produces More and makes more profit
  - 2<sup>nd</sup> Mover produces less and makes less profit
  - Uses 'backward induction' to solve for eq.
- Bertrand
  - p is choice variable
  - simultaneous or sequential game
  - Profits  $\rightarrow 0$  b/c of price war
  - P and Q end up being at perfectly competitive outcome.