

Dylan Blank

## Lecture 16 Oligopoly + Review

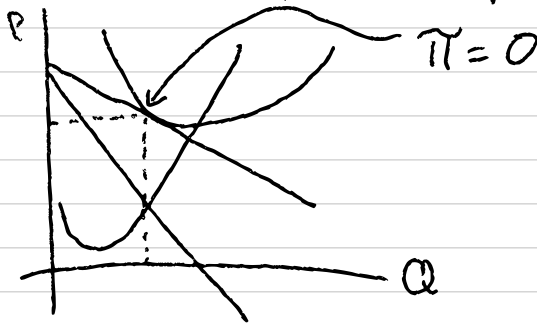
### Monopolistic Competition, cont.

- Many firms
- No barriers
- Differentiated products  $\Rightarrow$  some market power

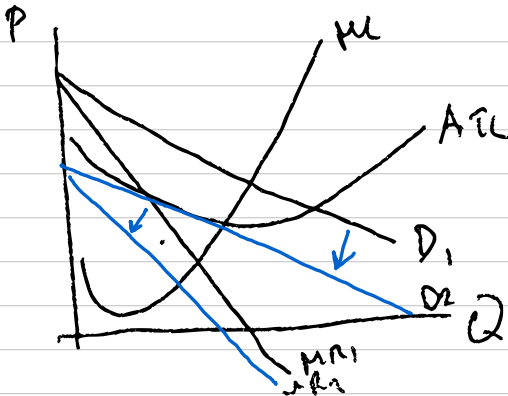
### Oligopoly

- Few firms
- Barriers high
- Homogeneous or heterogeneous products

Monopolistically competitive firms produce where  $MR = MC$



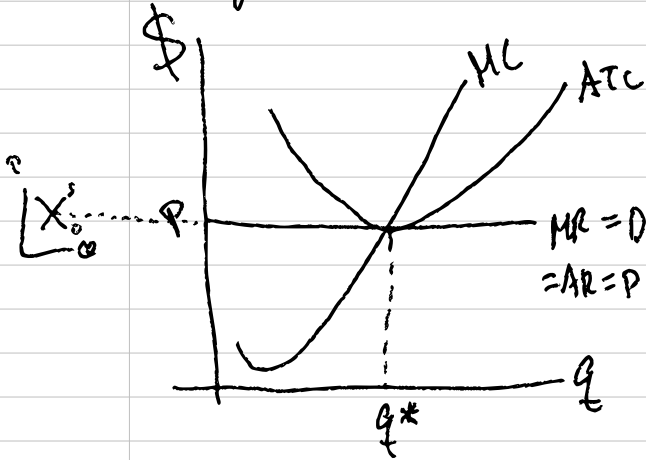
Long run in  
monopolistic  
competition



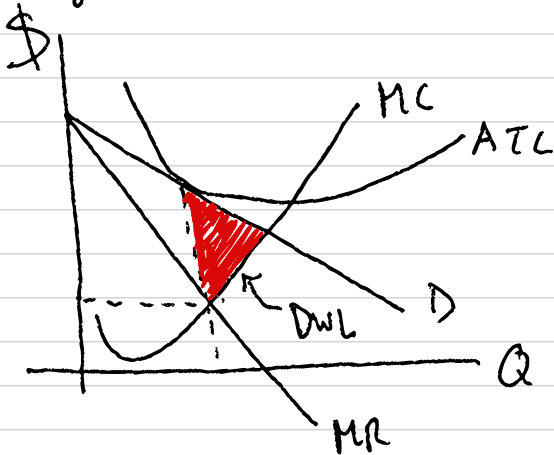
Long run adjustment  
-  $\pi > 0$   
- Firms enter  
- Competition drives  
D and MR down  
until ATC is  
tangent to D

Compare w/ Perf. Comp.

Long Run PC



Long Run MC



# Oligopoly

## - Duopoly Models

- Bertrand - firms choose price simultaneously
- Cournot - firms choose output simultaneously
- Stackelberg - firms choose output sequentially

In oligopoly - no unconditional profit-maximizing strategy  
- firms' actions affect each other

## Reaction function - chosen strategy

- A firm assumes how much competitor will charge  $q$  or  $P$
- sets  $q$  or  $P$  accordingly

Nash Equilibrium - firms' reaction functions intersect  
- Both firms doing the best thing they can do

## Bertrand Duopoly

- 2 firms, simultaneously choose price
- Compete in prices

Example:  $MC_1 = MC_2 = 2$

identical products

→ What price do you charge in equilibrium?

$P = 2$  b/c of constant undercutting

↑  $P = MC \Rightarrow$  efficiency