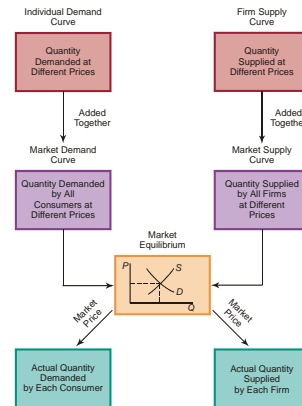


Economics 101 – Section 5

Lecture #19 – Tuesday, March 30, 2004

- Chapter 8
- Competition in the Short-Run
 - Competition in the Long-Run
 - Technology in the Long-run

Figure 6
Perfect Competition



Lecture Overview

- NOTE: Exam #3 Thursday April 8th
 - Including material since last midterm up to an including the material for next Tuesday.
- Finish up wheat example from last day
- Competition and short-run equilibrium
- Long-run equilibrium
 - Entry and exit from the industry and the long-run
- The role of technology
- Start on monopoly

Competitive Markets in the SR

- What is going on for individual firms when there are changes in the market price?
 - Would obviously think that as prices go down then firms are going to be worse off
 - Why? Because they are getting less \$
 - How does this tie into their cost structure and all these graphs we have been using?

Figure 5 Deriving the Market Supply Curve

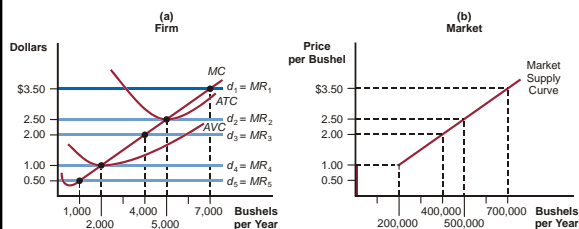
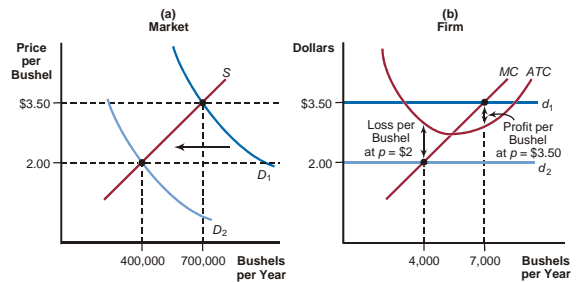


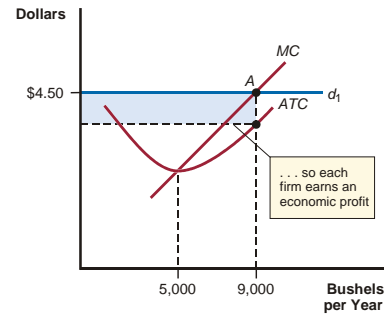
Figure 7 Short-Run Equilibrium in Perfect Competition



Competitive markets in the Long-run (LR)

- What happens to firms that are making profits in the short-run? Those making losses?
 - In short,
 - if there is profit more firms will enter
 - If there is loss, firms will exit the industry
- In a competitive market, economic profit and loss are the forces driving long-run change
 - The expectation of continued economic profit causes outsiders to enter the market, the expectation of continued economic losses causes firms in the market to exit

FIGURE 8b From Short-Run Profit to Long-Run Equilibrium



Competitive markets in the Long-run (LR)

- Long-run equilibrium
 - If there were profits in the short-run (SR) then entry will shift the market supply to the right until profits are eroded
 - If there were losses in the SR then exit will cause the market supply to shift left until there are no longer any losses.

FIGURE 8c From Short-Run Profit to Long-Run Equilibrium

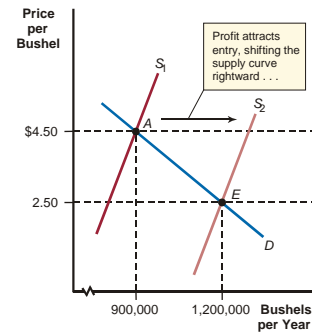


FIGURE 8a From Short-Run Profit to Long-Run Equilibrium

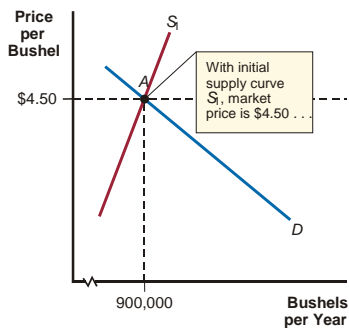
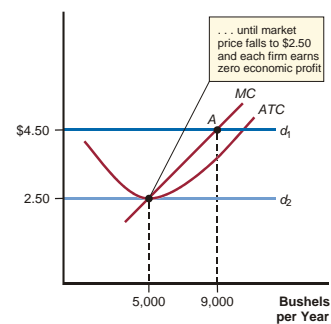


FIGURE 8d From Short-Run Profit to Long-Run Equilibrium



Competitive markets in the Long-run (LR)

- In the long-run all competitive firms will earn zero economic profit (normal profit)
- Why zero economic profit?
 - Recall the difference between economic profit and accounting profit.
 - A business or firm may be making positive accounting profit but zero economic profit.
 - This zero economic profit basically implies that there is not too much money to be made – i.e. there are acceptable or normal profits to warrant continued operation but they are neither large enough to entice further entry nor low enough to cause additional exit

Competitive markets in the Long-run (LR)

- For every competitive firm in long-run equilibrium the following must hold:
 - $P=MC=\text{minimum ATC}=\text{minimum LRATC}$

Competitive markets in the Long-run (LR)

- In long-run equilibrium:
 - All competitive firms will select its plant size and output level so that it operates at the minimum point of its LRATC curve
 - Why? – This is the only point where profit is zero in the long run and production still takes place

Competitive markets in the Long-run (LR)

- What happens if there is a shift in demand? What will happen to the long-run equilibrium?
- The following is the scenario for an increasing cost industry
 - 1) Move up MC in the SR and firms earn positive economic profits
 - 2) Profits attract new entrants – this increases market supply and drives up ATC
 - 3) A new equilibrium will be occur where profits once again return to zero with the new ATC curve
 - 4) The long-run price will be higher than what it was before the demand shock
- Can use this new information to map out the LR market supply curve

Figure 9 Perfect Competition and Plant Size

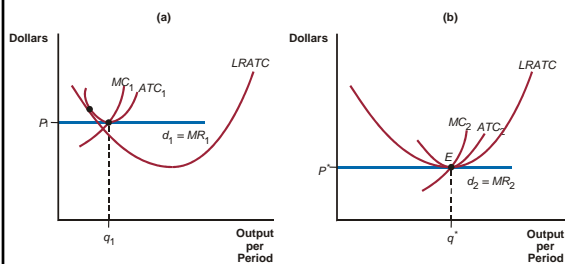
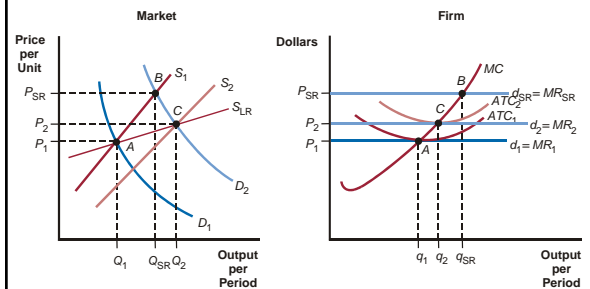


Figure 10 An Increasing-Cost Industry



Competitive markets in the Long-run (LR)

- The long-run supply curve – is the curve indicating the quantity of output that will be supplied at each price after all long-run adjustments have been made
 - Increasing cost industry – The long-run supply curve will be upward sloping
 - Constant cost industry – The long-run supply curve will be flat (horizontal)
 - Decreasing cost industry – The long-run supply curve will be downward sloping

Monopoly

Changes in technology

- Under perfect competition – a technological advance making production cheaper or more efficient will cause the market supply curve to shift right
 - This will result in a lower price (and likely a higher quantity traded) in equilibrium
 - Early adopters may make SR profits, but in the LR all firms will earn zero economic profit (or simply normal profit)

Figure 11 Technological Change in Perfect Competition

