A Competitive Industry

• The General Rules
  – Produce widgets until MC = P.
  – If I cannot cover VC, shut down immediately
  – If I cannot cover my VC + FC, start shedding my fixed costs. Then shut down.

For lack of a better term, the standard case

The Graphics of the Rule
A Competitive Industry

**The Graphics of the Rule**

- **Case A**
  - Profit Maximization where MC = P

- **Case B**
  - Profit Maximization where ATC > AVC

- **Case C**
  - Profit Maximization where AVC > P

For lack of a better term, the standard case

**A Competitive Industry**

• Two cases:
  – When all firms have the same cost functions
  – When firms have different cost functions

**Identical Cost Functions**

• In many cases, the assumption of identical production functions and hence identical cost functions make sense.

**A Competitive Industry**

• Two cases:
  – When all firms have the same cost functions
  – When firms have different cost functions

• We do the first case here; the second case in a later lecture.

**Identical Cost Functions**

• In many cases, the assumption of identical production functions and hence identical cost functions make sense.
  – Consider machine shop operators Smith and Jones
Identical Cost Functions

- In many cases, the assumption of identical production functions and hence identical cost functions make sense.
  - Consider machine shop operators Smith and Jones
  - Wilson, Brown and Green can also enter with the same production function.

After all, is there a difference between McDonald’s and Burger King?

The Graphical Analysis

- At \( p_1 \), the firm supplies \( q_1 \) units
- At \( p_2 \), the firm supplies \( q_2 \) units
At $p_{\text{min}}$, the firm supplies $q_{\text{min}}$ units.

With 10 firms, supply curve is 10 times each firm’s supply curve.

$P = p_2$.

$P_2 > AC$.

An Entry Signal!
A Competitive Industry

Industry Equilibrium

Entry continues until price drops to \( p_{\text{min}} \). Then no incentives to enter or leave.

No matter what the demand curve, firms enter or leave until \( p = p_{\text{min}} \).

Suppose the demand curve shifts to \( D' \); 10 firms leave the industry.

With 12 firms, supply curve shifts; price drops.

Suppose the demand curve shifts to \( D' \); 10 firms leave the industry.
A Competitive Industry

The U-Shaped AC Curve

- Common sense suggests initially, AC is downward sloping.
- If it never sloped upward, MC < AC. Always. No competitive firms.