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.

The Graphics of the Rule

Case A
Profit Maximization where MC = P

Case B
Profit Maximization where ATC=p>AVC

Case C
Profit Maximization where AVC>P

For lack of a better term, the standard case
Make a gracious exit from the industry
Leave -- Now!
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

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  - When firms have different cost functions
  - We do the first case here; the second case in a later lecture.

Identical Cost Functions

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  - Consider machine shop operators Smith and Jones
Identical Cost Functions

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  - 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

MC and AC curves for all firms, both actual and potential
A Competitive Industry

The Graphical Analysis

At $p_{min}$, the firm supplies $q_{min}$ units

Industry Equilibrium

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

Industry Equilibrium

$P = p_2$

Industry Equilibrium

$P_2 > AC$

Industry Equilibrium

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 \( P = P_{\text{min}} \).

With 12 firms, supply curve shifts; price drops.

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

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