Definition

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Oligopolies

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Duopolies vs. Oligopolies

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• An oligopoly is a firm whose profits depends on the behavior of a few firms.
• All duopolies are oligopolies, but all oligopolies are not duopolies.

Why Duopolies

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Defining an Oligopoly

• Often defined by four firm concentration ratio.

What percent of total sales come from the four largest firms?

Defining an Oligopoly

• Often defined by four firm concentration ratio.
• We use another definition:
  – When other firms affect demand.

The Cooperative Solution

• Two firms make up an industry.
  – How should they set price and output?
The Cooperative Solution

- Two firms make up an industry.
  - How should they set price and output?
- One option is to cooperate, work like a monopoly and split monopoly profits

An Illustration

\[ Q = 100 - 2P \]
\[ MC = \$5 \]

- In a Competitive Industry, \( P = \$5; Q = 90 \)
- In a Monopoly, \( P = \$27.50; Q = 45 \)

The Problem

- Cartels are both illegal and difficult to maintain

Why not cooperate? Let each produce 22.5 and sell at $27.50
The Problem

• Cartels are both illegal and difficult to maintain
• The Solution is to develop models of how firms behave when they cannot explicitly cooperate.

Modeling Duopoly

• The Cournot Model
• Nash Equilibrium
• The Bertrand Model

End

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