chapter: 14

>> Oligopoly

Krugman/Wells Economics

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WHAT YOU WILL LEARN IN THIS CHAPTER

- The meaning of **oligopoly**, and why it occurs
- Why **oligopolists** have an incentive to act in ways that reduce their combined profit, and why they can benefit from **collusion**
- How our understanding of oligopoly can be enhanced by using **game theory**, especially the concept of the **prisoners' dilemma**
- How repeated interactions among oligopolists can help them achieve **tacit collusion**

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The Prevalence of Oligopoly

- In addition to perfect competition and monopoly, *oligopoly* and monopolistic competition are also important types of market structure. They are forms of *imperfect competition.*
- **Oligopoly** is a common market structure. It arises from the same forces that lead to monopoly, except in weaker form. It is an industry with only a small number of producers. A producer in such an industry is known as an **oligopolist.**
- When no one firm has a monopoly, but producers nonetheless realize that they can affect market prices, an industry is characterized by **imperfect competition.**

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Understanding Oligopoly

- Some of the key issues in oligopoly can be understood by looking at the simplest case, a *duopoly.*
- An *oligopoly* consisting of only two firms is a duopoly. Each firm is a *duopolist.*
- With only two firms in the industry, each would realize that by producing more, it would drive down the market price. So each firm would, like a monopolist, realize that profits would be higher if it limited its production.
- So how much will the two firms produce?

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Understanding Oligopoly

- One possibility is that the two companies will engage in **collusion**. Sellers engage in **collusion** when they cooperate to raise each others' profits.
- The strongest form of collusion is a **cartel**, an agreement by several producers to obey output restrictions in order to increase their joint profits.
- They may also engage in **non-cooperative behavior**, ignoring the effects of their actions on each others' profits.

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Understanding Oligopoly

- By acting as if they were a single monopolist, oligopolists can maximize their combined profits. So there is an incentive to form a *cartel*.
- However, each firm has an incentive to cheat—to produce more than it is supposed to under the cartel agreement. So there are two principal outcomes: successful *collusion* or behaving *non-cooperatively* by cheating.
- When firms ignore the effects of their actions on each others' profits, they engage in **non-cooperative behavior**. It is likely to be easier to achieve informal collusion when firms in an industry face capacity constraints.

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The Prisoners' Dilemma

- When the decisions of two or more firms significantly affect each others' profits, they are in a situation of **interdependence**.
- The study of behavior in situations of interdependence is known as **game theory**.
- The reward received by a player in a game—such as the profit earned by an oligopolist—is that player's **payoff**.
- A **payoff matrix** shows how the payoff to each of the participants in a two player game depends on the actions of both. Such a matrix helps us analyze interdependence.

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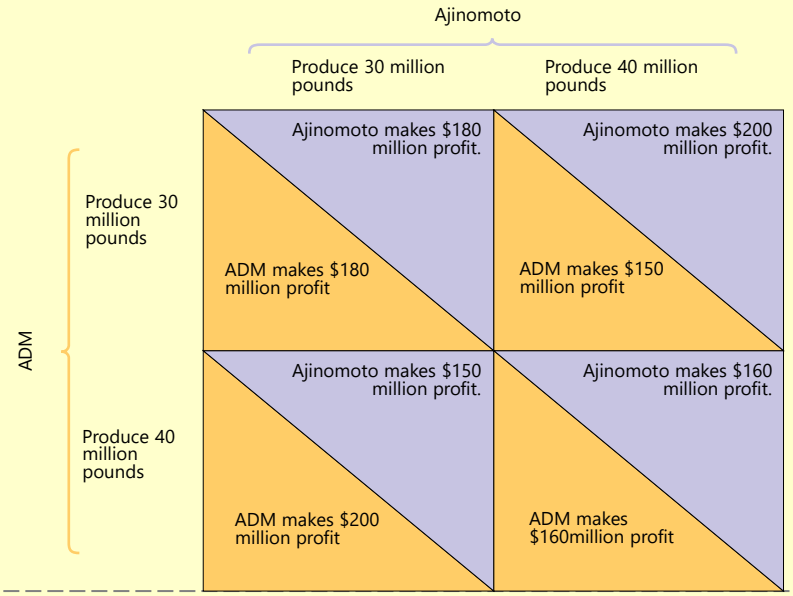
A Payoff Matrix



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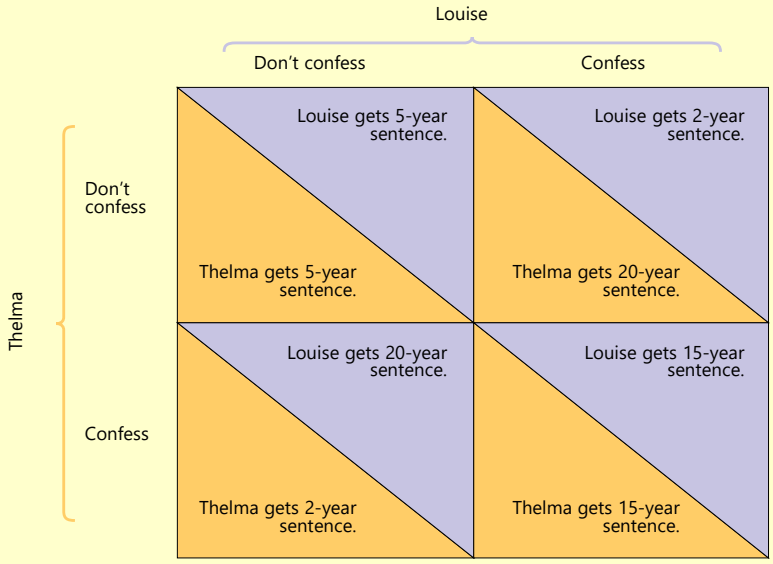
The Prisoners' Dilemma



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The Prisoners' Dilemma

- An action is a **dominant strategy** when it is a player's best action regardless of the action taken by the other player. Depending on the payoffs, a player may or may not have a *dominant strategy*.
- A **Nash equilibrium**, also known as a **non-cooperative equilibrium**, is the result when each player in a game chooses the action that maximizes his or her payoff given the actions of other players, ignoring the effects of his or her action on the payoffs received by those other players.

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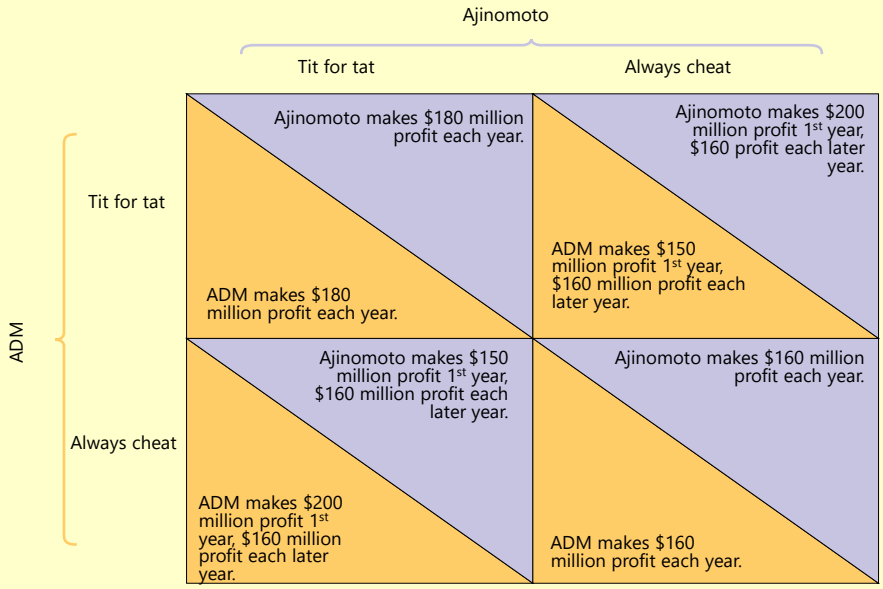
How Repeated Interaction Can Support Collusion



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The End of Chapter 14

Coming attraction

Chapter 15: Monopolistic Competition and Product Differentiation

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