Principles of Economics Review Session

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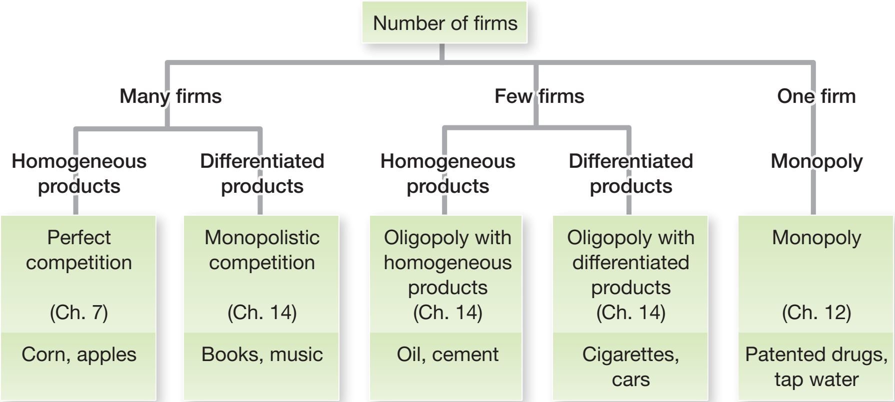
§14.1 Market Structures



§14.2 Bertrand Duopoly 兩家廠商削價寡占

- Homogenous goods in the market
- Bertrand: simultaneous choose price; Duopoly: 2 firms
- Like a simultaneous move game
  - Firms set a price (best response) depending on the guess of the other's price
  - Obtain a Nash equilibrium if both firms are best responding each other
- Often this is enough to generate an outcome close to perfect competition (see the textbook example)
- You may learn other forms of oligopoly in the future

§14.2 Collusion 勾結 / Cartel 聯合壟斷

- Firms may have incentive to cooperate with each other and act like a monopolist and earn a high share of profit
- But this is difficult to maintain, since this is usually not their best response, they will have an incentive to cheat on each other, so this will break the monopoly-like outcome
- Consider the previous textbook example, if they collude, ...

Homogenous Oligopoly and Collusion

ALL 14-10. Suppose the world demand schedule for oil is as follows. There are two oil-producing countries, A and B. Each will produce either 10 or 20 barrels of oil. To keep things simple, assume they can produce this oil at zero cost.

Price per Barrel	Quantity Demanded
\$50	40
\$75	30
\$125	20

a. There are four possible outcomes: A produces 10 or 20 and B produces 10 or 20. Find each country's profit for each of these four possibilities.

b. Suppose these countries choose the quantity of oil to produce simultaneously and without consulting with one another. Show that each country will produce 20 barrels of oil and each will earn a profit of $1,000.

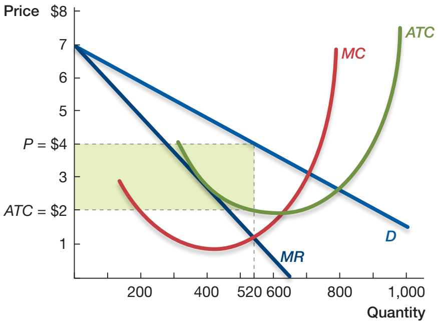
c. The oil ministers realize they can do better if they collude and agree that each will produce 10. How much profit will each country earn if each produces 10 instead of 20?

d. Will country A have an incentive to cheat and produce 20 instead of 10? Will country B have an incentive to cheat and produce 20 instead of 10?

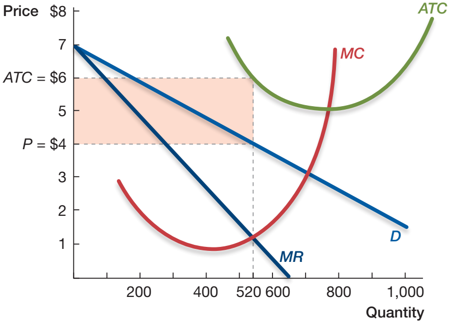
§14.3 Monopolistic Competition 獨占性競爭

- Monopolistic competition and oligopoly with differentiated products are very similar, other than the former has many sellers and the latter has only a few
- They are also very similar to what you have learned in monopoly
- In monopoly, there is only one seller and hence one product, the firm must face the whole downward-sloping demand curve
- In monopolistic competition and oligopoly with differentiated products, since there are different kinds of goods, the demand curve a single firm faces (or the so-called *residual demand*) is also downward-sloping, and hence so does MR
- In contrast, under perfect competition, a single firm faces a horizontal demand curve since they are price takers, so does MR

Profit under Monopolistic Competition

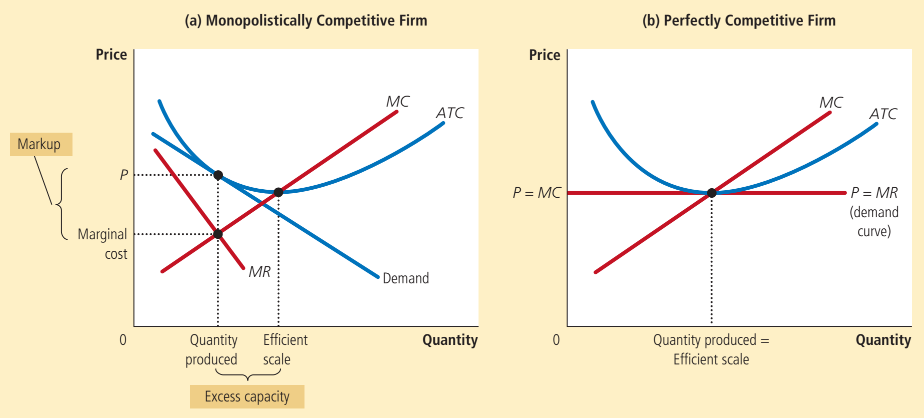


(a) Economic Profits



(b) Economic Losses

Monopolistic Competition is Inefficient



Near Perfect Competition

Final 2011 Essay B.

(omitted) Mr. Liu's livelihood is now just as precariously balanced. He reckons his cooking-oil costs shot up 27% in 2010... (omitted)

In recent weeks, Beijing has moved to snuff out rumors that cooking oil is in short supply by auctioning millions of metric tons from strategic national reserves in Xinjiang and Shandong. The national planning agency has declared that supply 'is completely guaranteed.' In November, China's government ordered the largest producers to cap their retail prices through March. And it quintupled the fine for conspiring to raise prices to 5 million yuan, or $750,000.

For now, the measures appear to have put a lid on edible-oil prices. Yet one midsize producer in Shanghai says they are also discouraging production. The company's general manager, who asked not to be identified, said he would normally be maximizing output ahead of the Lunar New Year in early February but has deactivated half his plant.
(omitted)
Cooking oil is a rising concern of food vendor Mr. Liu and his wife, whose $105 daily sales from their tiny Shanghai stall go to support their two children who live back in their home province of Shandong. Despite the higher price for soybean oil, Mr. Liu shudders at the risk he faces in lifting his 10.5-cent charge for a flaky sweet bun. 'Customers would disappear,' he says.

2. Draw a graph to illustrate the demand curve and marginal revenue curve Mr. Liu's breakfast stand is facing.
5. What is the reaction of the government to this price surge? Do you think its regulatory measures are effective? Why or why not?

Monopsony 獨買

Final 2010 Essay B.

1. Consider the labor market for Nan Shan Life Insurance employees after the merger, in which the take-over firm, Chinatrust Financial Holdings, is the monopsony (single buyer), and former Nan Shan Life Insurance employees are the only group of sellers. How does Chinatrust determine its “demand” for Nan Shan employees?
2. Draw a diagram and find Chinatrust’s profit maximizing wage and quantity. (Hint: This is the “reverse” of a monopoly, with a “supply curve + marginal cost curve” instead of a “demand curve + marginal revenue curve.”)
3. Is the monopsony outcome efficient? Why or why not?