Chapter 17
Regulation and Antitrust Law

17.1 Regulation

1) In the United States since the 1970s, has regulation tended to increase or decrease?
   Answer: Since the middle of the 1970s, there has been a tendency to deregulate, which means that regulation has tended to decrease.
   Topic: History of regulation
   Skill: Level 2: Using definitions
   Objective: Checkpoint 17.1
   Author: SB

2) Although regulatory agencies vary in scope, size, and in the economic aspects they control, and exist at all levels of government, what features do all such agencies have in common?
   Answer: All regulatory agencies have political appointees, bureaucracies, industry experts, budgets, and operating rules for controlling prices as well as other aspects of economic performance. Regulatory agencies also control production quantities, the nature of the good or service, and the markets that will be served. However they rarely specify the exact details of the firms' production processes.
   Topic: Regulatory process
   Skill: Level 1: Definition
   Objective: Checkpoint 17.1
   Author: PH

3) "Under the public interest theory of regulation, regulators attempt to maximize profits for the public owners of the firms being regulated." Is the previous statement correct or incorrect?
   Answer: The statement is incorrect. The public interest theory is the theory that regulators seek an efficient use of resources. The capture theory of regulation is the theory that regulators attempt to maximize the producers' economic profit.
   Topic: Public interest theory
   Skill: Level 1: Definition
   Objective: Checkpoint 17.1
   Author: WM
4) What is the public interest theory of regulation? How does it differ from the capture theory of regulation?

Answer: The public interest theory of regulation is that regulators seek an efficient use of resources. The capture theory asserts that producers "capture" the regulators so that the regulation is designed to help the producers maximize their economic profit.

Topic: Public interest theory
Skill: Level 1: Definition
Objective: Checkpoint 17.1
Author: SA

5) "The theory that regulation seeks an efficient use of resources is called the capture theory of regulation." Is the previous statement correct or incorrect?

Answer: The statement is incorrect. The capture theory is the theory that the regulated producers "capture" the regulators and so the regulators help the producers maximize their economic profit. The theory that regulation seeks an efficient use of resources is the "public interest" theory.

Topic: Capture theory
Skill: Level 1: Definition
Objective: Checkpoint 17.1
Author: JC

6) What is the idea behind the capture theory of regulation?

Answer: Capture theory assumes that the marginal cost of regulation is high, but there is a specific group that receives a high marginal benefit (a special interest group) from the regulation. If the group has low organization costs, the regulations will be imposed, especially if voters practice rational ignorance. Rational ignorance means that because the marginal cost of staying informed is high, a voter won't spend the resources necessary to stay informed on the topic. If the costs of regulation are spread thinly, the regulation does not decrease votes (and so aren't costly to politicians). As a result, regulations can help producers, the special interest group, to maximize their profit.

Topic: Capture theory
Skill: Level 3: Using models
Objective: Checkpoint 17.1
Author: SB
7) Describe the difference between public interest theory of regulation and the capture theory of regulation.

Answer: Both are theories of regulation but they differ according to what they see as to the goal of the regulation. The public interest theory assumes that regulation that seeks an efficient use of resources. It asserts that the political process works to eliminate deadweight loss by using appropriate regulations. The capture theory proposes that producers bend the regulators to their will so that resources are not used efficiently because regulated market outcomes favor producers. Everyone else but producers bears the cost of this regulation. Because this cost is a small amount per person, no one finds it worthwhile to propose legislation to avoid it.

Topic: Public interest, capture theory
Skill: Level 2: Using definitions
Objective: Checkpoint 17.1
Author: CD

8) Why are water companies considered a natural monopoly?

Answer: Once one water company incurs the cost of establishing a physical connection to one customers' home or place of business, the marginal cost of providing service falls rapidly over time as more and more service is provided. For instance, once a main pipe is buried under a street, adding additional customers on the street is relatively cheap. Economies of scale make it very cost prohibitive for another firm to enter the market, leaving one water company as the provider of the service in that area.

Topic: Natural monopoly
Skill: Level 2: Using definitions
Objective: Checkpoint 17.1
Author: JC

9) "If a natural monopoly is regulated using a marginal cost pricing rule, the firm earns a normal profit." Is the previous statement correct or incorrect?

Answer: The statement is incorrect. If a firm is regulated using a marginal cost pricing rule, the firm incurs an economic loss.

Topic: Natural monopoly, marginal cost pricing rule
Skill: Level 2: Using definitions
Objective: Checkpoint 17.1
Author: WM

10) "If Michigan's electric utilities were allowed to use marginal cost pricing, it would lead to economic profits for these utilities." Is the previous statement correct or incorrect?

Answer: The statement is incorrect. Imposing marginal cost pricing on natural monopolies results in the firms incurring economic losses not economic profits.

Topic: Natural monopoly, marginal cost pricing rule
Skill: Level 2: Using definitions
Objective: Checkpoint 17.1
Author: JC
11) When a natural monopoly is regulated using a marginal cost pricing rule, what can you say about the firm’s profit and the market’s efficiency?

Answer: Using a marginal cost pricing rule, the monopoly is incurring an economic loss. However, there is an efficient quantity of output produced so that the market is efficient with no deadweight loss.

Topic: Natural monopoly, marginal cost pricing rule
Skill: Level 2: Using definitions
Objective: Checkpoint 17.1
Author: MR

12) If a natural monopoly is regulated using the marginal cost pricing rule, how will that affect prices, outputs, profits, and the distribution of surpluses? What are the pros and cons to this method of regulation?

Answer: The marginal cost pricing rule sets the regulated price equal to the price where the marginal cost curve intersects the demand curve. This price is lower than the monopoly price, and results in a higher level of output. The monopoly’s economic profit is eliminated; in fact, this rule results in the firm making economic losses, as marginal cost is less than average total cost for a natural monopoly. Because output increases to the point where marginal cost equals price, consumer surplus is maximized. The advantage of this method of regulation is that it results in the efficient level of output. The disadvantage of this method is that means the firm will incur an economic loss. Unless subsidized by the government, the firm will eventually exit the industry, as no firm can operate at a loss in the long run.

Topic: Natural monopoly, marginal cost pricing rule
Skill: Level 4: Applying models
Objective: Checkpoint 17.1
Author: SB

13) What is an average cost pricing rule? Why do regulatory agencies use it for natural monopolies?

Answer: Average cost pricing means that the firms will equate their price to their average total cost. It is used by regulatory agencies, because if a natural monopoly is forced to charge a perfectly competitive price (using a marginal cost pricing rule), the firm will not be able to cover its costs. Even if the firm is allowed to price discriminate or use a two-part tariff, it still might not be able to cover its losses. So average cost pricing is considered a second-best solution: it allows the natural monopoly to make a normal profit but does not allow it to set its price as high as it would were it unregulated.

Topic: Natural monopoly, average cost pricing rule
Skill: Level 2: Using definitions
Objective: Checkpoint 17.1
Author: SA
14) "When electric utilities are regulated using an average cost pricing rule, they will earn a normal profit." Is the previous statement correct or incorrect? Why?

Answer: The statement is correct. An average cost pricing rule requires that the firm set its price equal to its average total cost. When price equals average total cost, the firm earns a normal profit.

Topic: Natural monopoly, average cost pricing rule
Skill: Level 2: Using definitions
Objective: Checkpoint 17.1
Author: JC

15) When a natural monopoly is regulated using an average cost pricing rule, what can you say about the firm’s profit and the market’s efficiency?

Answer: Using an average cost pricing rule, the monopoly is earning a normal profit. However, there is an inefficient quantity of output produced so that the market is inefficient and there is a deadweight loss.

Topic: Natural monopoly, average cost pricing rule
Skill: Level 2: Using definitions
Objective: Checkpoint 17.1
Author: MR

16) Electric utilities are often considered natural monopolies and are regulated. When would the price be highest: when the utility is not regulated, when it is regulated using an average cost pricing rule, or when it is regulated using a marginal cost pricing rule? When would its price be lowest?

Answer: The price would be highest if the utility was left unregulated and could set the profit-maximizing price. The price is lowest if the utility is regulated using a marginal cost pricing rule.

Topic: Natural monopoly, regulations
Skill: Level 2: Using definitions
Objective: Checkpoint 17.1
Author: MR
17) Compare and contrast the marginal cost and average cost pricing rules for regulating natural monopolies.

Answer: Marginal cost pricing sets the price equal to the marginal cost. It does so by determining the price using the intersection of the marginal cost curve and the demand curve. Marginal cost pricing results in an efficient level of output but the firm incurs an economic loss. Average cost pricing sets the price equal to the average total cost. It does so by determining the price using the intersection of the average cost curve and the demand curve. Average cost pricing results in an inefficient level of output and zero economic profit, that is, a normal profit.

Topic: Natural monopoly, regulations
Skill: Level 2: Using definitions
Objective: Checkpoint 17.1
Author: SB

18) What is a marginal cost pricing rule and an average cost pricing rule? What are the disadvantages and advantages of each?

Answer: Natural monopolies can be regulated using a marginal cost pricing rule, so that the firm must set its price equal to its marginal cost, or by using an average cost pricing rule, so that the firm must set its price equal to its average total cost. The advantage of the marginal cost pricing rule is that the resulting output is efficient; the disadvantage is that the firm suffers an economic loss. The advantage of the average cost pricing rule is that the firm earns a normal profit; the disadvantage is that it produces an inefficient quantity of output.

Topic: Natural monopoly, regulations
Skill: Level 2: Using definitions
Objective: Checkpoint 17.1
Author: TS

19) Why do some utilities have an incentive to exaggerate their costs of production?

Answer: Because utilities are generally allowed to charge prices that cover their average cost of production, a utility might want to incur higher than normal costs (maybe from lush carpets, hunting lodges, tickets to sporting events, and so forth). If the utility exaggerates its costs, the regulators are likely to simply order higher rates to cover the higher costs, and so the utility executives can enjoy benefits (the carpet, hunting lodge, sporting events) without incurring any personal costs.

Topic: Natural monopoly, cost exaggeration
Skill: Level 2: Using definitions
Objective: Checkpoint 17.1
Author: JC
20) What potential problem is there with rate of return pricing?

Answer: The monopolist might exaggerate its costs and mislead the regulator. In this case, the regulator allows the firm to increase its price, so the monopolist has no incentive to operate efficiently and cost effectively.

Topic: Natural monopoly, cost exaggeration
Skill: Level 2: Using definitions
Objective: Checkpoint 17.1
Author: PH

21) How can managers of natural monopolies exaggerate their costs?

Answer: By increasing on-the-job luxury items such as sumptuous office suites, limousines, golf competitions at expensive locations, company jets, and other non-necessary expenditures, the managers can exaggerate their costs over what is truly necessary to produce the product.

Topic: Natural monopoly, cost exaggeration
Skill: Level 2: Using definitions
Objective: Checkpoint 17.1
Author: SB

22) What incentive does price cap regulation attempt to give the firm? How does it give the firm this incentive?

Answer: Price cap regulation is intended to motivate the firm to operate efficiently and keep its costs under control. It does so setting the maximum price the company can charge and then allowing the firm to keep part (or perhaps all) of any economic profit it can earn if it cuts its costs.

Topic: Natural monopoly, price cap
Skill: Level 2: Using definitions
Objective: Checkpoint 17.1
Author: PH
23) Briefly describe and discuss the different ways a natural monopoly can be regulated:
Marginal cost pricing, average cost pricing, rate of return regulation, and price cap regulation.

Answer: Marginal cost pricing: The regulated price is set equal to marginal cost. In this case, the efficient quantity is produced so there is no deadweight loss. Consumer surplus is maximized. The firm incurs an economic loss unless it can raise revenues in an additional way, such as using price discrimination or a two-part tariff.

Average cost pricing: The regulated price is set equal to average cost. While this form of regulation does not produce an efficient outcome, it allows firms to earn a normal profit. There is a deadweight loss.

Rate of return regulation: The regulated price enables a regulated firm to earn a specified target percent return on its capital. If a regulator could observe the firm's total cost and also know that the firm minimized total cost, the regulation would be the same as average cost pricing. In some cases, however, the firm is able to "capture" the regulator, which enables the firm to exaggerate its costs and so set its price and produce the amount of output that it would were it an unregulated monopoly.

Price cap regulation: The regulator sets a price ceiling. The firm can charge any price it wants below the price cap and keep some or all of any economic profit it earns. This regulation induces the firm to operate efficiently and control costs. If the firm earns a profit that is too high, the regulator might impose earnings share regulation, which require the firm to make refunds to customers when profits rise above a target level.

**Topic:** Natural monopoly, regulations
**Skill:** Level 3: Using models
**Objective:** Checkpoint 17.1
**Author:** CD

24) Do firms in a cartel support regulation that limits the amount each firm can produce?

Explain your answer.

Answer: Firms in a cartel definitely support regulation that limits the amount each firm can produce. The major problem faced by firms in a cartel is "cheating" by firms on the cartel agreement to limit production. Firms cheat by increasing their production beyond the assigned limit because each firm knows that if it, and it alone cheats, its profits will increase dramatically. Regulation that limits production can eliminate cheating and ensure that the cartel, and hence the firms within it, earn an economic profit.

**Topic:** Cartel regulation
**Skill:** Level 3: Using models
**Objective:** Checkpoint 17.1
**Author:** SB
25) In the figure above, complete the graph of the electric utility company by adding the marginal revenue and marginal cost curves. Assume the marginal cost is constant at 4¢ per kilowatt-hour. Now discuss the marginal cost pricing rule and the average cost pricing rule regulators might use to regulate the firm. Be sure to state the price and quantity that are selected for each option. Also, what price and quantity does the firm select if it is not regulated?
Answer:

The completed figure is above. Two methods regulators might use to regulate the firm are a marginal cost pricing rule and an average cost pricing rule. If the regulators use a marginal cost pricing rule, the firm must set its price equal to its marginal cost. In the figure, the firm sets a price of 4¢ a kilowatt-hour and produces 400 megawatts per hour. The firm produces the efficient quantity of output, but it incurs an economic loss because $ATC > P$. If the regulators use an average cost pricing rule, the firm must set its price equal to its average total cost. In the figure, the firm sets a price of 8¢ a kilowatt-hour and produces 300 megawatts per hour. In this case the firm covers its costs (so that it earns a normal profit) but it produces an inefficient amount of output. Finally, if the firm is allowed to maximize its profit, it produces where its $MR = MC$. So the firm produces 200 megawatts of power and, setting its price from its demand curve, charges a price of 12¢ per kilowatt-hour.

*Topic: Natural monopoly*

*Skill: Level 3: Using models*

*Objective: Checkpoint 17.1*

*Author: WM*
26) The above figure shows the demand for cable and the cable company’s cost of providing cable.
   
   a. What price and quantity will be produced if the company is unregulated and profit maximizes?
   
   b. What price and quantity will be produced if the company is regulated using the marginal cost pricing rule?
   
   c. What is the advantage of the marginal cost pricing rule?
   
   d. What price and quantity will be produced if the company is regulated using the average cost pricing rule?
   
   e. What is the advantage of the average cost pricing rule?

   Answer: a. The price will be $90 per month and the quantity will be 20,000 households.
   
   b. The price will be $30 per month and the quantity will be 40,000 households.
   
   c. This rule results in the efficient level of production.
   
   d. The price will be $60 per month and the quantity will be 30,000 households.
   
   e. This rule results in the firm earning a normal profit.

Topic: Natural monopoly
Skill: Level 3: Using models
Objective: Checkpoint 17.1
Author: SB
27) The above figure illustrates the market for electric power that is served by the one utility in Alberta, Canada.

a. If the government did not regulate this utility, what would be the price of a kilowatt hour in this region and how much power would be generated?

b. If the government regulates the utility and chooses an average cost pricing rule, what would be the price of a kilowatt hour and how much power would be generated?

c. If the government regulates the utility and chooses a marginal cost pricing rule, what would be the price of a kilowatt hour and how much power would be generated?

Answer:  

a. The price would be $12\text{¢}$ a kilowatt hour and 20 megawatts per hour would be generated.

b. The price would be $8\text{¢}$ a kilowatt hour and 30 megawatts per hour would be generated.

c. The price would be $4\text{¢}$ a kilowatt hour and 40 megawatts per hour would be generated.

*Topic: Natural monopoly*

*Skill: Level 3: Using models*

*Objective: Checkpoint 17.1*

*Author: JC*
28) The above figure represents the cost and demand curves for a natural monopoly that is regulated using a marginal cost pricing rule.

a. What is the quantity?

b. What price is charged?

c. What area represents the consumer surplus when the firm is regulated using a marginal cost pricing rule?

d. What distance represents the firm's loss per unit when the firm is regulated using a marginal cost pricing rule?

Answer: a. The quantity is the efficient quantity, Q3.

   b. The price is P2.

   c. When the firm is regulated using a marginal cost pricing rule, the consumer surplus is equal to the area of the triangle P1dP2.

   d. The loss per unit is the amount equal to the distance cd.

*Topic: Natural monopoly, marginal cost pricing rule*

*Skill: Level 3: Using models*

*Objective: Checkpoint 17.1*

*Author: SB*
29) The above figure shows the demand, marginal revenue, and cost curves for a natural monopoly.
   a. Which price and quantity is set if the capture theory is correct?
   b. If production is at the price and quantity specified in part (a), what area represents the economic profit?
   c. If production is at the price and quantity specified in part (a), what area represents the deadweight loss?
   d. If production is at the price and quantity specified in part (a), what area represents the consumer surplus?

Answer: a. The profit-maximizing price and quantity are $P_2$ and $Q_1$.
   b. The economic profit equals the area of the rectangle $P_2abP_3$.
   c. The deadweight loss is the area of the triangle $acd$.
   d. The consumer surplus is the area of the triangle $P_1aP_2$.

*Topic: Capture theory
Skill: Level 3: Using models
Objective: Checkpoint 17.1
Author: SB
30) The above figure shows the market for moving companies, who provide moving services. If the market is perfectly competitive, what is the price per mile and the number of miles per year? If the market is regulated, and the regulators follow the public interest regulation, what is the price per mile and the number of miles per year? If the market is regulated and the regulators are captured by the movers, what is the price per mile and the number of miles per year?

Answer: If the market is perfectly competitive, production will be where the demand and supply curves intersect, 300 million miles of moving per year. The price will be 8¢ per mile. If the market is regulated in the public interest, the outcome is the same as it were perfectly competitive, 300 million miles of moving and a price of 8¢ a mile. If the market is regulated and the producers capture the regulators, the outcome is the same as the monopoly result. Production is at the point where \( MR = MC \), only 200 million miles of moving per year, and the price is 12¢ per mile.

*Topic: Collusive oligopoly*

*Skill: Level 3: Using models*

*Objective: Checkpoint 17.1*

*Author: WM*
17.2 Antitrust Law

1) Does section 2 of the Sherman Act make it a felony to "attempt" to monopolize an industry or must the attempt succeed before it is a felony?

Answer: Section 2 of the Sherman Act makes attempting to monopolize an industry a felony. It is not necessary for the attempt to succeed.

*Topic: Sherman Act*

*Skill: Level 2: Using definitions*

*Objective: Checkpoint 17.2*

*Author: JC*

2) "The Clayton Act repealed the Sherman Act so that only the Clayton Act remains in force."

Is the previous statement correct or incorrect?

Answer: The statement is incorrect. The Sherman Act remains part of the law of the land.

*Topic: Clayton Act*

*Skill: Level 1: Definition*

*Objective: Checkpoint 17.2*

*Author: SA*

3) What are the actions that are prohibited according to the Clayton Act and its amendments. What conditions must be met for these actions to be prohibited?

Answer: The Clayton Act prohibits certain practices only if they substantially lessen competition or create monopoly. These practices are:

1. Price discrimination.
2. Tying arrangements.
3. Requirements contracts.
4. Exclusive dealing.
5. Territorial confinement.
6. Acquiring a competitor’s shares or assets.
7. Becoming a director of a competing firm.

*Topic: Clayton Act*

*Skill: Level 1: Definition*

*Objective: Checkpoint 17.2*

*Author: CD*
4) Briefly explain resale price maintenance. Is it legal or illegal? Does it create efficiency or inefficiency?

Answer: Resale price maintenance is a form of price fixing. It is an agreement between a manufacturer and a distributor on the price at which a product may be resold. Resale price maintenance is illegal under the Sherman Act. But it is not illegal for a manufacturer to refuse to supply a retailer who does not accept the manufacturer’s guidance on what price the retailer should charge. Resale price maintenance might create efficiency or it might create inefficiency. Resale price maintenance creates efficiency when it enables a manufacturer to induce dealers to provide the efficient level of service. It leads to inefficiency when it enables dealers to operate a cartel and charge the monopoly price.

*Topic:* Resale price maintenance
*Skill:* Level 2: Using definitions
*Objective:* Checkpoint 17.2
*Author:* CD

5) What is meant by the term "exclusive dealing"? Give an example of an exclusive deal. When is it illegal?

Answer: Exclusive dealing is a contract that prevents a firm from selling competing items. For instance, Taco Bell has a contract with Pepsi that only Pepsi products will be sold at Taco Bell. Hence Pepsi has arranged an exclusive deal with Taco Bell. Exclusive deals are illegal under the Clayton Act only if they substantially lessen competition or create a monopoly.

*Topic:* Clayton Act
*Skill:* Level 2: Using definitions
*Objective:* Checkpoint 17.2
*Author:* SB

6) If Sony required all its retailers not to sell televisions from other companies, Sony would be engaging in what kind of activity? Is Sony’s requirement legal or does it violate the Clayton Act?

Answer: Sony is engaged in an exclusive deal. The question of whether Sony’s requirement is legal depends on whether it substantially lessens competition or creates a monopoly. If it does either, it is illegal under the Clayton Act. If it does neither, it is legal under the Clayton Act.

*Topic:* Clayton Act
*Skill:* Level 2: Using definitions
*Objective:* Checkpoint 17.2
*Author:* SA
7) Explain how the courts have ruled on price fixing.

Answer: Price fixing is always a violation of the antitrust law. Price fixing, in and of itself, is a violation of the law. If the government can prove the existence of price fixing, the accused firms are guilty because there are no mitigating circumstance allowed.

*Topic: Price fixing*
*Skill: Level 2: Using definitions*
*Objective: Checkpoint 17.2*
*Author: PH*

8) If price fixing is necessary because without it a firm will go bankrupt, is the price fixing legal?

Answer: No, price fixing is always illegal. Regardless of whether a firm will go bankrupt or not, price fixing is illegal.

*Topic: Price fixing*
*Skill: Level 2: Using definitions*
*Objective: Checkpoint 17.2*
*Author: MR*

9) Describe the Department of Justice's claims against Microsoft.

Answer: The Department of Justice claims that Microsoft has a monopoly in the operating systems market, and that it engages in predatory pricing behavior by lowering its price to drive competitors out of business. Further, the Department of Justice claims that Microsoft uses tying agreements and anti-competitive practices to strengthen its monopoly power in the Web browser market and in the operating system market.

*Topic: United States versus Microsoft*
*Skill: Level 2: Using definitions*
*Objective: Checkpoint 17.2*
*Author: PH*

10) What are the merger rules used by the Department of Justice to help decide whether firms are allowed to merge?

Answer: The Department of Justice uses guidelines based on the Herfindahl–Hirschman Index (HHI). If a market’s HHI is less than 1,000, the government will not challenge a merger. If the HHI is between 1,000 and 1,800 (a moderately concentrated market), the department will challenge the merger if it increases the HHI by 100 points. If the HHI is greater than 1,800, the market is considered concentrated. The department will challenge the merger if it raises the HHI by 50 points.

*Topic: Merger rules*
*Skill: Level 1: Definition*
*Objective: Checkpoint 17.2*
*Author: CD*
11) In a market with a Herfindahl–Hirschman Index of 2,000, according to their guidelines will the Department of Justice challenge a merger that would increase the index by 50?

Answer: Yes, according to their guidelines the Department of Justice will challenge a merger that increases the Herfindahl–Hirschman Index by more than 50 points if the initial index is greater than 1,800.

Topic: Merger rules
Skill: Level 2: Using definitions
Objective: Checkpoint 17.2
Author: SA

12) "If an industry’s Herfindahl–Hirschman Index is below 1,000, a merger between any two firms in that industry will be disallowed." Comment on the accuracy of the previous statement.

Answer: The statement is incorrect in at least three dimensions. First, the lower the Herfindahl–Hirschman Index, the more competitive the industry and hence the more likely the government will allow a merger to occur. Second, even if the Herfindahl–Hirschman Index is high, a merger that increases it only a small bit will not be challenged. And third, the Herfindahl–Hirschman Index is only part of the information considered when the government is determining whether to challenge a merger.

Topic: Merger rules
Skill: Level 2: Using definitions
Objective: Checkpoint 17.2
Author: JC

13) In 1911, Standard Oil Co. was declared a monopoly by the government under the Sherman Act and the company was ordered to break itself up into competing companies. Two oil companies, Exxon and Mobil, were the result of this breakup. A few years ago, Exxon and Mobil merged again to form ExxonMobil Corporation. Why did the government allow this merger now?

Answer: When the government declared Standard Oil to be a monopoly and asked for its break up, the oil market was extremely concentrated. The government (and then the courts) concluded that Standard Oil had monopolized the oil trade. The merger of Exxon and Mobil was allowed because there are many more oil companies in the market now. The government concluded that the oil market was sufficiently competitive and that the merger was acceptable.

Topic: Merger rules
Skill: Level 5: Critical thinking
Objective: Checkpoint 17.2
Author: SA
14) Suppose the industry for washing machines has only four firms. The market shares are:
   Firm A, 40 percent; Firm B, 20 percent; Firm C 20 percent; and Firm D, 20 percent.
   a. What is the Herfindahl–Hirschman Index (HHI)?
   b. If Firms C and D were to announce a merger, would the Department of Justice oppose
      the merger?

   Answer: a. The HHI is 2,800.
   b. Yes, the Department of Justice would oppose the merger. If the merger occurred,
      the new HHI would be 3,600. The merger would increase the HHI by 800 points. The
      Department of Justice’s guidelines are to challenge a merger if the initial HHI exceeds
      1,800 and the merger raises the HHI by more than 50 points. The merger considered
      in the problem easily falls under these guidelines.

   Topic: Merger rules
   Skill: Level 3: Using models
   Objective: Checkpoint 17.2
   Author: WM

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15) A market has ten firms, whose market shares are given in the table above.
   a. If firms I and J wanted to merge, according to the Department of Justice guidelines,
      would the Department of Justice challenge the merger?
   b. If firms A and B wanted to merge, according to the Department of Justice guidelines,
      would the Department of Justice challenge the merger?

   Answer: a. The decision whether to challenge the merger depends, in part, on the market’s
            Herfindahl–Hirschman Index (HHI). The HHI for the market initially is 1,150. Thus
            the Department of Justice guidelines say it will challenge a merger if the merger
            raises the HHI by 100 or more points. If firms I and J merge, the HHI becomes 1,200.
            The Department of Justice will not challenge this merger.
   b. If firms A and B merge, the HHI becomes 1,600. The Department of Justice will
      challenge this merger.

   Topic: Merger rules
   Skill: Level 3: Using models
   Objective: Checkpoint 17.2
   Author: MR