

CHAPTERS 9, 11 & 12 KEY CONCEPTS AND SUMMARY

9.1 How Monopolies Form: Barriers to Entry

Barriers to entry prevent or discourage competitors from entering the market. These barriers include: economies of scale that lead to natural monopoly; control of a physical resource; legal restrictions on competition; patent, trademark and copyright protection; and practices to intimidate the competition like predatory pricing. Intellectual property refers to legally guaranteed ownership of an idea, rather than a physical item. The laws that protect intellectual property include patents, copyrights, trademarks, and trade secrets. A natural monopoly arises when economies of scale persist over a large enough range of output that if one firm supplies the entire market, no other firm can enter without facing a cost disadvantage.

9.2 How a Profit-Maximizing Monopoly Chooses Output and Price

A monopolist is not a price taker, because when it decides what quantity to produce, it also determines the market price. For a monopolist, total revenue is relatively low at low quantities of output, because it is not selling much. Total revenue is also relatively low at very high quantities of output, because a very high quantity will sell only at a low price. Thus, total revenue for a monopolist will start low, rise, and then decline. The marginal revenue for a monopolist from selling additional units will decline. Each additional unit a monopolist sells will push down the overall market price, and as it sells more units, this lower price applies to increasingly more units.

The monopolist will select the profit-maximizing level of output where $MR = MC$, and then charge the price for that quantity of output as determined by the market demand curve. If that price is above average cost, the monopolist earns positive profits.

Monopolists are not productively efficient, because they do not produce at the minimum of the average cost curve. Monopolists are not allocatively efficient, because they do not produce at the quantity where $P = MC$. As a result, monopolists produce less, at a higher average cost, and charge a higher price than would a combination of firms in a perfectly competitive industry. Monopolists also may lack incentives for innovation, because they need not fear entry.

11.1 Corporate Mergers

A corporate merger involves two private firms joining together. An acquisition refers to one firm buying another firm. In either case, two formerly independent firms become one firm. Antitrust laws seek to ensure active competition in markets, sometimes by preventing large firms from forming through mergers and acquisitions, sometimes by regulating business practices that might restrict competition, and sometimes by breaking up large firms into smaller competitors.

A four-firm concentration ratio is one way of measuring the extent of competition in a market. We calculate it by adding the market shares—that is, the percentage of total sales—of the four largest firms in the market. A Herfindahl-Hirschman Index (HHI) is another way of measuring the extent of

competition in a market. We calculate it by taking the market shares of all firms in the market, squaring them, and then summing the total.

The forces of globalization and new communications and information technology have increased the level of competition that many firms face by increasing the amount of competition from other regions and countries.

11.2 Regulating Anticompetitive Behavior

Antitrust firms block authorities from openly colluding to form a cartel that will reduce output and raise prices. Companies sometimes attempt to find other ways around these restrictions and, consequently, many antitrust cases involve restrictive practices that can reduce competition in certain circumstances, like tie-in sales, bundling, and predatory pricing.

11.3 Regulating Natural Monopolies

In the case of a natural monopoly, market competition will not work well and so, rather than allowing an unregulated monopoly to raise price and reduce output, the government may wish to regulate price and/or output. Common examples of regulation are public utilities, the regulated firms that often provide electricity and water service.

Cost-plus regulation refers to government regulating a firm which sets the price that a firm can charge over a period of time by looking at the firm's accounting costs and then adding a normal rate of profit. Price cap regulation refers to government regulation of a firm where the government sets a price level several years in advance. In this case, the firm can either earn high profits if it manages to produce at lower costs or sell a higher quantity than expected or suffer low profits or losses if costs are high or it sells less than expected.

11.4 The Great Deregulation Experiment

The U.S. economy experienced a wave of deregulation in the late 1970s and early 1980s, when the government eliminated a number of regulations that had set prices and quantities produced in a number of industries. Major accounting scandals in the early 2000s and, more recently, the Great Recession have spurred new regulation to prevent similar occurrences in the future. Regulatory capture occurs when the regulated industries end up having a strong influence over what regulations exist.

12.1 The Economics of Pollution

Economic production can cause environmental damage. This tradeoff arises for all countries, whether high-income or low-income, and whether their economies are market-oriented or command-oriented.

An externality occurs when an exchange between a buyer and seller has an impact on a third party who is not part of the exchange. An externality, which is sometimes also called a spillover, can have

a negative or a positive impact on the third party. If those parties imposing a negative externality on others had to account for the broader social cost of their behavior, they would have an incentive to reduce the production of whatever is causing the negative externality. In the case of a positive externality, the third party obtains benefits from the exchange between a buyer and a seller, but they are not paying for these benefits. If this is the case, then markets would tend to under produce output because suppliers are not aware of the additional demand from others. If the parties generating benefits to others would somehow receive compensation for these external benefits, they would have an incentive to increase production of whatever is causing the positive externality.

12.2 Command-and-Control Regulation

Command-and-control regulation sets specific limits for pollution emissions and/or specific pollution-control technologies that firms must use. Although such regulations have helped to protect the environment, they have three shortcomings: they provide no incentive for going beyond the limits they set; they offer limited flexibility on where and how to reduce pollution; and they often have politically-motivated loopholes.

12.3 Market-Oriented Environmental Tools

Examples of market-oriented environmental policies, also called cap and trade programs, include pollution charges, marketable permits, and better-defined property rights. Market-oriented environmental policies include taxes, markets, and property rights so that those who impose negative externalities must face the social cost.

12.4 The Benefits and Costs of U.S. Environmental Laws

We can make a strong case, taken as a whole, that the benefits of U.S. environmental regulation have outweighed the costs. As the extent of environment regulation increases, additional expenditures on environmental protection will probably have increasing marginal costs and decreasing marginal benefits. This pattern suggests that the flexibility and cost savings of market-oriented environmental policies will become more important.

12.5 International Environmental Issues

Certain global environmental issues, such as global warming and biodiversity, spill over national borders and require addressing with some form of international agreement.

12.6 The Tradeoff between Economic Output and Environmental Protection

Depending on their different income levels and political preferences, countries are likely to make different choices about allocative efficiency—that is, the choice between economic output and environmental protection along the production possibility frontier. However, all countries should prefer to make a choice that shows productive efficiency—that is, the choice is somewhere on the production possibility frontier rather than inside it. Revisit [Choice in a World of Scarcity](#) for more on these terms.