

SESSION 7: Market Structures

Session Description

Students learn that market structures refer to the characteristics, level of competition, and the resulting prices and quantities of goods and services produced. In addition, they learn that, in general, the greater the amount of competition in a market, the lower the price and higher the quantity produced and vice versa.

Talking Points

Market Structures: Perfect Competition

1. The following exist in perfectly competitive markets:
 - a. Many firms produce essentially identical products.
 - b. Businesses enter and exit the market with ease—that is, there are no barriers to entry or exit.
 - c. Individual firms are “price-takers”—that is, they have no power over their output price.
 - d. The market sets the price in the short run.
 - e. In the long run,
 - i. firms enter an industry when economic profits cause supply to shift to the right or
 - ii. firms leave an industry when economic losses cause supply to shift to the left.
2. The following occur as a result of perfect competition:
 - a. Consumers get the lowest price possible.
 - b. Productive efficiency: Firms are forced to produce in the least-costly manner possible.
 - c. Allocative efficiency: The market sets the equilibrium quantity.
3. The “invisible hand” of the market refers to the market’s ability to respond to changes in society’s values by automatically reallocating resources toward more-desired goods.

Other Market Structures

1. There are other market structures—with varying levels of competition.

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2. The market structure with the least amount of competition is a monopoly. A monopoly is a single firm that
 - a. produces a product with no close substitutes and
 - b. is protected by insurmountable barriers to entry.
3. Barriers to entry are obstacles that limit the ability of new firms to enter a market.
4. Monopolies are “price-makers.” They have complete control over their output price because they have complete control over supply (the quantity produced).
5. Monopolies increase the price of their output by restricting their production (output).
6. The following occur as a result of a monopoly:
 - a. Prices are higher and output is lower than with perfect competition; therefore, the output level chosen is not allocatively efficient.
 - b. Productive efficiency is not necessary for the firm to survive.
7. The monopolistic competitive market structure is similar to the perfectly competitive market structure except there is some non-price competition due to product differentiation in the former.
8. The oligopolistic market structure is similar to the monopolistic market structure except price leadership is used to set prices and there is extensive non-price competition (advertising and product development) in the former.
9. Collusion is an agreement among firms in a market about quantities to produce or prices to charge.
10. If businesses are truly seeking long-run economic profits, they would much prefer to operate at the monopoly end of the market structure spectrum. Long-run economic profits are much more likely there than in the more-competitive market structures.
11. Monopolistic competitive markets tend to be dominated by sole proprietorships and partnerships, while oligopolistic markets tend to be dominated by corporations.

Session 7: Standards and Benchmarks

Arkansas Economic Standards

Strand: Exchange and Market

Content Standard 4: Students will evaluate the degree of competition among buyers and among sellers in markets.

- EM.4.E.1 Compare and contrast various degrees of competition in markets (e.g., perfect competition, monopolistic competition, oligopoly, monopoly)
- EM.4.E.2 Explain how differences in the extent of competition in various markets can affect price, quantity, and variety

Common Core State Standards


- CCSS.ELA-Literacy.RH.9-10.1 Cite specific textual evidence to support analysis of primary and secondary sources, attending to such features as the date and origin of the information.
- CCSS.ELA-Literacy.RH.9-10.2 Determine the central ideas or information of a primary or secondary source; provide an accurate summary of how key events or ideas develop over the course of the text.
- CCSS.ELA-Literacy.RH.9-10.4 Determine the meaning of words and phrases as they are used in a text, including vocabulary describing political, social, or economic aspects of history/social science.
- CCSS.ELA-Literacy.SL.9-10.1 Initiate and participate effectively in a range of collaborative discussions (one-on-one, in groups, and teacher-led) with diverse partners on grades 9–10 topics, texts, and issues, building on others' ideas and expressing their own clearly and persuasively.
- CCSS.ELA-Literacy.SL.9-10.1d Respond thoughtfully to diverse perspectives, summarize points of agreement and disagreement, and, when warranted, qualify or justify their own views and understanding and make new connections in light of the evidence and reasoning presented.
- CCSS.ELA-Literacy.L.9-10.4 Determine or clarify the meaning of unknown and multiple-meaning words and phrases based on *grades 9–10 reading and content*, choosing flexibly from a range of strategies.
- CCSS.ELA-Literacy.L.9-10.6 Acquire and use accurately general academic and domain-specific words and phrases, sufficient for reading, writing, speaking, and listening at the college and career readiness level; demonstrate independence in gathering vocabulary knowledge when considering a word or phrase important to comprehension or expression.
- CCSS.ELA-Literacy.RH.11-12.1 Cite specific textual evidence to support analysis of primary and secondary sources, connecting insights gained from specific details to an understanding of the text as a whole.

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- CCSS.ELA-Literacy.RH.11-12.2 Determine the central ideas or information of a primary or secondary source; provide an accurate summary that makes clear the relationships among the key details and ideas.
- CCSS.ELA-Literacy.SL.11-12.1 Initiate and participate effectively in a range of collaborative discussions (one-on-one, in groups, and teacher-led) with diverse partners on grades 11–12 topics, texts, and issues, building on others’ ideas and expressing their own clearly and persuasively.
- CCSS.ELA-Literacy.SL.11-12.1d Respond thoughtfully to diverse perspectives; synthesize comments, claims, and evidence made on all sides of an issue; resolve contradictions when possible; and determine what additional information or research is required to deepen the investigation or complete the task.
- CCSS.ELA-Literacy.L.11-12.4 Determine or clarify the meaning of unknown and multiple-meaning words and phrases based on *grades 11–12 reading and content*, choosing flexibly from a range of strategies.
- CCSS.ELA-Literacy.L.11-12.6 Acquire and use accurately general academic and domain-specific words and phrases, sufficient for reading, writing, speaking, and listening at the college and career readiness level; demonstrate independence in gathering vocabulary knowledge when considering a word or phrase important to comprehension or expression.

Session 7: Resources

1. Video: Episode 25: Market Structures (Dr. Mary J. McGlasson; 5:51);
<https://www.youtube.com/watch?v=9Hxy-TuX9fs>
2. Capstone: Exemplary Lessons for High School Economics (*Virtual Economics*® 4.5)
 - a. Lesson 22: How Competitive Is the Industry?
3. Lesson 7.1: Market Structures (Council for Economic Education)
4. High School Economics (*Virtual Economics*® 4.5)
 - a. Lesson 9: Perfect Competition Versus Monopoly
5. High School Economics (*Virtual Economics*® 4.5)
 - a. Lesson 10: Game Theory: One Step Ahead of the Competition
6.  Visual 7A: Barriers to Entry
 - a. Use when discussing monopolies.
7. Focus: Understanding Economics in United States History (*Virtual Economics*® 4.5)
 - a. Lesson 25: The Economic Effects of the Nineteenth-Century Monopoly
8. Slides: Perfect Competition (Federal Reserve Bank of St. Louis);
<https://www.stlouisfed.org/education/perfect-competition>
 - a. Choose your preferred medium:
 - i. SMART Notebook
 - ii. PowerPoint
9. Slides: Monopoly (Federal Reserve Bank of St. Louis);
<https://www.stlouisfed.org/education/monopoly>
 - a. Choose your preferred medium:
 - i. SMART Notebook
 - ii. PowerPoint
 - iii. PDF
10. Slides: Monopolistic Competition (Federal Reserve Bank of St. Louis);
<https://www.stlouisfed.org/education/monopolistic-competition>
 - a. Choose your preferred medium:
 - i. SMART Notebook
 - ii. PowerPoint

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Lesson 7.1: Market Structures

NOTE: This lesson is adapted from a Council for Economic Education lesson of the same name. Used with permission.

Introduction

Economists group industries into four distinct market structures: pure competition, pure monopoly, monopolistic competition, and oligopoly. These four market structures differ by the number of firms in the industry, whether those firms produce a standardized product or try to differentiate their products from those of other firms, and how easy or difficult it is for firms to enter the industry. Together these structures help to explain, in a general way, how output and price are determined in the many product markets that exist in an economy. They also help to assess the extent of efficiency or inefficiency in those markets.

Objectives

Students will

- distinguish among various market structures and
 - demonstrate the effects of collusion and competition on prices.
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Time Required

One class period

Concepts

(Though not explicitly defined, these concepts are addressed in the lesson.)

- Collusion
 - Market structure
 - Monopoly
 - Oligopoly
 - Perfect competition
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Materials

- A stick of gum or other small item for each student
- A sheet of scrap paper for each student
- \$5.00 in quarters and other coins

Procedure

1. Have each student take a sheet of scrap paper and write his/her name on it.
2. Ask for volunteers for a very profitable demonstration as you show a handful of quarters and other coins.
3. Select and move students around the room as follows and remind them to bring along the scrap paper and pencils. (NOTE: The procedure is written for a class of at least 20. For smaller classes, use only 2 students in Groups 2 and 3 so that there are at least 10 students in Group 4.)
 - Ask for one volunteer to be Group 1. Have him/her stand in the front of the class on the side of the room. He or she is not to talk to the other groups.
 - Ask for three volunteers to be Group 2. Have them stand together in front of the class on the other side of the room. (It helps if some of your better students are in this group.) Tell them that they *are* allowed to talk to each other during the entire demonstration but not to the other groups.
 - Ask for three volunteers to be Group 3. Have them stand in the back of the class separated from one another. Tell the group that they are *not* allowed to talk to each other during the entire demonstration or to any other groups.
 - Tell the rest of the class that they are Group 4. They *are* allowed to talk to each other but not to any other groups.
4. Point out the groups:
 - Group 1: One student not allowed to talk
 - Group 2: Three students who *are* allowed to talk to each other but not to any other group
 - Group 3: Three students who are *not* allowed to talk to each other or to any other group
 - Group 4: The rest of the class, who *are* allowed to talk to each other but not to the other groups
5. Pass out a piece of gum or other small item to each student in each group.

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6. Give the following instructions:
 - Each of you now holds a very valuable item that you may sell. I am a buyer interested in purchasing the item you have. I am going to buy one and only one item from each group. I am willing and able to pay up to \$1.50 for each item, but I am looking for the best deal I can get. So I want each of you to write down the minimum you would be willing to accept for your item. I will then buy from the person with the lowest price in each group. Keep in mind that you are only competing against the people in your group. In the event of a tie, I will just randomly choose which of the sellers from whom to buy. You have 2 minutes to consider your bids.
7. Remind members of Group 3 that they may not talk to each other, but members of Groups 2 and 4 that they may.
8. After 2 minutes, announce that you are going to make your deals.
9. Go to Group 1 and ask the student the price of the item. (Given the lack of competition, it will most likely be \$1.50.) Purchase the item from the student.
10. Next ask Group 2 to share their prices. (Most likely, the group will see the collusion possibilities and each write down \$1.50 and agree to split it among the group. However, it may be the case that one member of the group agreed to collude, but then wrote down a lower price. This provides the opportunity to discuss the difficulties of collusion and the possibility of cheating in a colluding oligopoly.)
11. Next ask Group 3 to share their prices. Purchase the item from the student with the lowest price.
12. Next ask Group 4 to share their prices. Purchase the item from the student with the lowest price.
13. Have all students return to their seats.

Closure

14. Ask the following questions (all may not apply to what happened in your classroom):
 - What type of market structure did Group 1 represent? (*A monopoly*)
 - Why was the price offered by Group 1 so high? (*There was no competition, so the price was constrained only by the buyer's willingness and ability to pay.*)
 - What type of market structure did Group 2 represent? (*Colluding oligopoly*)

- Why did Group 2 choose to collude? (*They had a financial incentive to act as a single seller.*) If someone in Group 2 cheated, discuss.
- What type of market structure did Group 3 represent? (*Oligopoly*)
- Why were the prices lower in Group 3? (*Competition lowered the price.*)
- What type of market structure did Group 4 represent? (*Perfect competition*)
- What happened to the price in Group 4? (*Likely, the price was driven even lower because of the large number of competitors.*)
- Why didn't Group 4 collude? (*It was too difficult to get everyone to agree.*)

⑤ **Visual 7A: Barriers to Entry**

Barriers to entry are obstacles that

- limit the ability of new firms to enter a particular industry and
- allow existing firms to earn economic profits in the long run.

Examples

Legal Barriers (imposed or sanctioned by the government)

- Patents and copyrights
- Import restrictions
- Licensing
- Regulatory requirements

Control of Vital Resources

- Natural resource deposits
- Technical knowledge and/or equipment

Significant Economies to Scale

- Small-scale entry (production of a few items), which puts new firms at a cost disadvantage
- Large-scale entry (production of many items), which requires a large initial investment and makes financial backing difficult

Market Advantages of Existing Firms

- Brand loyalty
- Network economies (industry “standard”)
- Access to marketing and distribution channels