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Gwartney - Stroup
Sobel - Macpherson

Price-Searcher Markets with Low Entry Barriers

Full Length Text — Part: 5 Chapter: 22
Micro Only Text — Part: 3 Chapter: 10

To Accompany "Economics: Private and Public Choice 12th ed."
James Gwartney, Richard Stroup, Russell Sobel, & David Macpherson
Slides authored and animated by:
James Gwartney, David Macpherson, & Charles Skipton


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Competitive Price-Searcher Markets

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Competitive Price-Searcher Markets

- Firms in competitive *price-searcher* markets with low entry barriers face a downward sloping demand curve.
- Firms are free to set price, but face strong competitive pressure.
- Competition exists from existing firms and potential rivals.
- An alternative term for such markets is *monopolistic competition*.

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Product Differentiation

- Price searchers produce *differentiated products* – products that differ in design, dependability, location, ease of purchase, etc.
- Rival firms produce similar products (good substitutes) and therefore each firm confronts a *highly elastic demand curve*.

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Price and Output

- A profit-maximizing price searcher will expand output as long as *marginal revenue exceeds marginal cost*.
 - Price will be lowered and output expanded until $MR = MC$.
- The price charged by a price searcher will be greater than its *marginal cost*.

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Marginal Revenue of a Price Searcher

- Consider the market for a product with initial price P_1 & output q_1 . Total revenue (TR) = $P_1 \times q_1$.
- With a downward sloping demand curve, price reductions that increase sales will exert two conflicting influences on TR .
- As the price falls from P_1 to P_2 , output increases from q_1 to q_2 . What effect does this have on TR ?
- First, TR will rise because of an increase in the number of units sold $(q_2 - q_1) \times P_2$.
- However, TR will decline by $[(P_1 - P_2) \times q_1]$ as q_1 units once sold at the higher price (P_1) are now sold at the lower price (P_2).
- Because of these two conflicting effects, marginal revenue (MR) will be less than price.

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Price and Output: Short-Run Profit

- A price searcher maximizes profits by producing where $MR = MC$, at output level q ... and charges a price P along the demand curve for that output level.
- At q the *average total cost* is C .
- Because the price is greater than the *average total cost* per unit ($P > C$) the firm is making economic profits equal to the area $(P - C) \times q$.
- What impact will economic profits have if this is a typical firm?

Price

Economic Profits

P

C

q

Quantity/time

MC

ATC

d

MR

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Profits and Losses in the Long Run

- If firms are making *economic profits*, then rival firms will be attracted to the market.
 - The *entry* of new firms will expand supply and lower price.
 - The demand curve of each will shift inward until the economic profits are eliminated.
- Economic losses* will cause price searchers to *exit* from the market.
 - Demand for the remaining firms' output will rise until the losses have been eliminated, removing the incentive to *exit*.
- Competitive price searchers can make either *profits* or *losses* in the short run, but only *zero economic profit* in the long run.

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Price and Output – Long Run in a Competitive Price-Searcher Market

- Because entry and exit are free, competition will eventually drive prices down to the level of *ATC*.
- When profits (losses) are present, the demand curve will shift inward (outward) until the zero profit equilibrium is restored.
- The price searcher establishes its output level where $MC = MR$.
- At q the *average total cost* is equal to the market price. Zero economic profit is present. No incentive for firms to either enter or exit the market is present.

Price

$C = P$

q

Quantity/time

MC


ATC

d

MR

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Dynamic Competition, Innovation, and Business Failures

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Business Failures and Economic Progress

- Business failures are usually reported as *bad news* about the economy.
- Though business failures are painful for those directly involved, they release resources so they can be employed more productively elsewhere.
- The assets and workers of failed firms become available for use by others supplying goods that consumers value more relative to costs.
- Without this release of resources, economic expansion would be slowed.

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Questions for Thought:

1. What are the distinguishing characteristics of competitive price-searcher markets? Indicate a market that approximates these conditions.
2. Price searchers can set the price of their product. Does this mean that price searchers will charge the highest possible price for their product? What price will maximize the profits of a price searcher?
3. In price-searcher markets with low barriers to entry, will the firms be able to make economic profit in the long run? Why or why not? What do competitive price searchers have to do in order to make economic profit?

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Questions for Thought:

4. When competitive forces are present, sometimes firms will make losses and be driven out of business. Would our standard of living be higher if the government provided subsidies to troubled firms so that they would not have to go out of business? Why or why not?

5. When firms are price searchers, why will marginal revenue (*MR*) be less than price?

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Contestable Markets and the Competitive Process

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Contestable Markets

- A **contestable market** is one in which entry and exit costs are low and there are no legal barriers to entry.
 - *Example:* Airline industry
- Actual and potential competition leads to:
 - Zero economic profits
 - Efficient production

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Complex Decision Making and the Entrepreneur

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Entrepreneurs

- Entrepreneurial judgment is necessary when there is no decision rule that can be applied using only information that is freely available.
- For this reason, we are unable to incorporate fully the function of the entrepreneur into economic models.
- There simply is no way to model these complex decisions that involve uncertainty, discovery, and business judgment.

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Entrepreneurship and Economic Progress

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Entrepreneurs and Economic Progress

- Entrepreneurs who discover and introduce lower-cost production methods and new products that are highly valued relative to cost promote economic progress.
- Entrepreneurs also have a strong incentive to discover the type of business structure, size of firm, and scope of operation that can best keep the per-unit cost of products or services low.

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Evaluating Competitive Price-Searcher Markets

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Comparing Price Searchers & Takers

- Below, we show the long-run equilibrium for both price-taker & price-searcher markets with low entry barriers. For both, $P = ATC$ and there are no economic profits.
- As the price searcher faces a downward-sloping demand curve, its profit-maximizing price exceeds MC . In contrast with the price-taker market, price-searcher output is too small to minimize ATC in long-run equilibrium.

Price Taker

Price Searcher

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Comparing Price Searchers & Takers

- Even though the two markets have the same cost structure, the price in the price-searcher market is higher than that in the price-taker market ($P_2 > P_1$).
- Some consider this price discrepancy a sign of inefficiency; others perceive it as the price paid for variety and dynamic improvement in products over time.

Price Taker: Price vs. Quantity/Time. Curves: MC , ATC , d . Equilibrium at q_1 , price P_1 .

Price Searcher: Price vs. Quantity/Time. Curves: MC , ATC , d , MR . Equilibrium at q_2 , price P_2 .

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**A Special Case:
Price Discrimination**

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Price Discrimination

- **Price discrimination:** When a seller charges different consumers different prices for the same good or service.
- **Price discrimination** can only occur when a price searcher is able to
 - identify groups of customers with different price elasticities of demand, and,
 - prevent customers from re-trading the product.

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Price Discrimination

- Sellers may gain from *price discrimination* by charging
 - higher prices to groups of customers with *more inelastic demand*.
 - lower prices to groups of customers with *more elastic demand*.
- *Price discrimination* generally leads to more output and additional gains from trade.

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The Economics of Price Discrimination

- Consider a hypothetical market for *airline travel* where the *Marginal Cost* per traveler is \$100.
- If the airline charges all customers the same price, profits will be maximized where $MC = MR$. Here the airline charges everyone \$400 and sells 100 seats.
- This generates *Net Operating Revenue* of \$30,000 or (total revenues) \$40,000 – (operating costs) \$10,000.

Single price

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The Economics of Price Discrimination

- By charging higher prices to consumers with less elastic demand and lower prices to those with more elastic demand it will increase net operating revenue.
- If the airline charges \$600 to business travelers (who have a highly inelastic demand) and \$300 to other travelers (who have a more elastic demand), it can increase its *Net Operating Revenue* to \$42,000.

Single price

Price Discrim.

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Questions for Thought:

1. Is price discrimination harmful to the economy? How does price discrimination affect the total amount of gains from exchange? Explain. Why do colleges often charge students different prices, based on their family income?
2. What is the primary requirement for a market to be competitive? Is competition necessary for markets to work well? How does competition influence (a) the cost efficiency of producers and (b) the quality of products. What determines whether a good will continue to be produced in a competitive market?

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Questions for Thought:

3. Which of the following is a necessary condition for long-run equilibrium in **both** competitive price-searcher and competitive price-taker markets?
 - a. Price must equal *marginal cost (MC)*.
 - b. The typical firm in the market must be earning zero economic profit.
 - c. All of the firms in the market must be charging the same price.
4. What is the role of the entrepreneur? Why is entrepreneurial discovery and development of improved products and production processes a central element of economic progress?

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Questions for Thought:

5. Which of the following indicates that a firm operating in the highly competitive retail sector is providing goods and services that consumers value highly relative to their cost?
 - a. The firm is making losses and its sales are declining.
 - b. The wages earned by the employees of the firm are low.
 - c. The firm is highly profitable and its sales have grown rapidly.

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