N. GREGORY MANKIW

PRINCIPLES OF
ECONOMICS
Eight Edition

CHAPTER 16

Monopolistic Competition

Premium PowerPoint Slides by:
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Modified by Joseph Tao-yi Wang

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The Big Picture

- Chapter 13: The cost of production
- Now, we will look at firm's revenue
  - But revenue depends on market structure

1. Competitive market (chapter 14)
2. Monopoly (chapter 15)
3. Monopolistic Competition (this chapter)
4. Oligopoly (chapter 17)
   - Are there other types of markets? Yes, not now

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CHAPTER 14

Perfect Competition

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Chapter 14: Perfect Competition

- Products are Perfect Substitutes
- Result: Price Taking
- P = MR = MC
- SR: Will operate if P > AVC (FC is sunk)
- LR: Will operate at P = ATC
  - Firms enter if P > ATC; exit if P < ATC

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CHAPTER 15

Monopoly

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Chapter 15: Monopoly

- MR=MC to maximize profit (still true!)
- But, P > MR (D - downward sloping)
- Welfare Cost of a Monopoly:
  - Profits (unfair?) vs. DWL (efficiency loss!)
- Cures? Do nothing?
  - Auction off the market!

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Look for the answers to these questions:

- What market structures lie between perfect competition and monopoly, and what are their characteristics?
- How do monopolistically competitive firms choose price and quantity? Do they earn economic profit?
- How does monopolistic competition affect society's welfare?
- What are the social costs and benefits of advertising?

Introduction

- Two extremes
  - Perfect competition: many firms, identical products (perfect substitutes)
  - Monopoly: one firm (no substitutes)
- Imperfect competition – in between the extremes: (partial substitutes)
  - Oligopoly: only a few sellers offer similar or identical products.
  - Monopolistic competition: many firms sell similar but not identical products.

Monopolistic Competition

- Characteristics:
  - Many sellers with product differentiation
    - → Location, location, location! (產品定位)
    - Not price takers; downward sloping D curve
  - Free entry and exit
    - Zero economic profit in the long run
- Examples of monopolistic competition:
  - Apartments, books, bottled water, clothing, fast food, night clubs

Comparisons

	Perfect Competition	**Monopolistic Competition**	**Monopoly**
Number of sellers	Many	Many	One
Free entry/exit	Yes	Yes	No
Long-run economic profits	Zero	Zero	Positive
The products firms sell	Identical	Differentiated	No close substitutes
Firm has market power?	None; price-taker	Yes	Yes
D curve facing firm	Horizontal	Downward-sloping	Downward -sloping (market D)

Short Run Equilibrium

- Profit maximization in the short-run for the monopolistically competitive firm:
  - Produce the quantity where MR = MC
  - Price: on the demand curve
  - If P > ATC: profit
  - If P < ATC: loss
  - Similar to monopoly

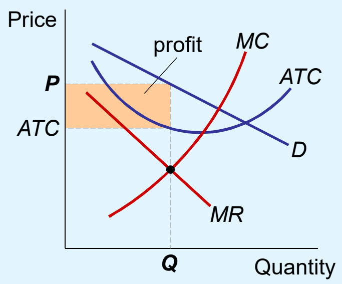
A Monopolistically Competitive Firm Earning Profits in the Short Run

The firm faces a downward-sloping *D* curve.

At each ***Q***, *MR* < *P*.

To maximize profit, firm produces ***Q*** where *MR = MC.*

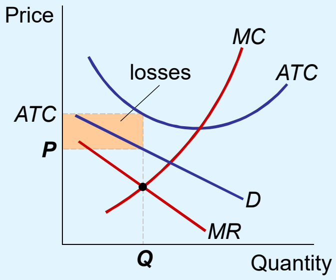
The firm uses the *D* curve to set *P*.



A Monopolistically Competitive Firm With Losses in the Short Run

For this firm,
P < ATC
at the output where
MR = MC.

The best this firm can do is to minimize its losses.



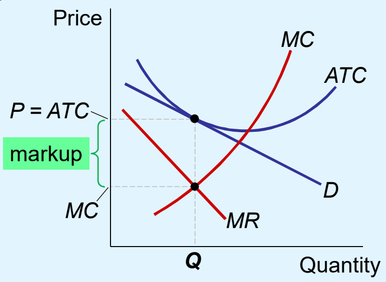
Long Run Equilibrium

- If monopolistically competitive firms are making profit in short run
  - New firms: incentive to enter the market
    - Increase number of products
  - Reduces demand faced by each firm
    - Demand curve shifts left; prices fall
  - Each firm's profit declines to zero
- If losses in the short run:
  - Some firms exit the market, remaining firms enjoy higher demand and prices

A Monopolistic Competitor in the Long Run

Entry and exit occurs until *P = ATC* and profit = zero.

Notice that the firm charges a markup of price over marginal cost and does not produce at minimum *ATC*.



Why Monopolistic Competition Is Less Efficient than Perfect Competition

- Monopolistic competition
  - Excess capacity: quantity is not at minimum ATC (it is on the downward-sloping portion of ATC)
  - Markup over marginal cost: P > MC
- Perfect competition
  - Quantity: at minimum ATC (efficient scale)
  - P = MC

Welfare of Society

- Monopolistically competitive markets
  - Do not have all the desirable welfare properties of perfectly competitive markets
- Sources of inefficiency
  - Markup of price over marginal cost
  - Too much or too little entry (number of firms in the market)
    - Product-variety externality
    - Business-stealing externality

Welfare of Society

- Markup, P > MC
  - Market quantity < socially efficient quantity
    - Deadweight loss of monopoly pricing
- The product-variety externality:
  - Consumers get extra surplus from the introduction of new products
- The business-stealing externality:
  - Losses incurred by existing firms when new firms enter market

Active Learning 1 — Advertising

1. So far, we have studied three market structures: perfect competition, monopoly, and monopolistic competition.
   - In each of these, would you expect to see firms spending money to advertise their products? Why or why not?
2. Is advertising good or bad from society's viewpoint? Try to think of at least one "pro" and "con."

Advertising

- Incentive to advertise
  - When firms sell differentiated products and charge prices above marginal cost
  - Advertise to attract more buyers
- Advertising spending
  - Highly differentiated goods: 10-20% of revenue
  - Industrial products: Little advertising
  - Homogenous products: No advertising

Advertising

- In monopolistically competitive industries
  - Product differentiation and markup pricing lead naturally to the use of advertising
- The more differentiated the products
  - The more advertising firms buy
- Economists disagree about the social value of advertising:
  - Wasting resources?
  - Valuable purpose?

The Critique of Advertising

- Firms advertise to manipulate people's tastes
  - Psychological rather than informational
    - Creates a desire that otherwise might not exist
- Advertising impedes competition
  - Increase perception of product differentiation
    - Foster brand loyalty; higher markups
    - Makes buyers less concerned with price differences among similar goods

The Defense of Advertising

- The defense of advertising
  - It provides useful information to buyers
  - Informed buyers can more easily find and exploit price differences
  - Advertising promotes competition and reduces market power
- Results of a prominent study: **Benham (1972)**
  - Eyeglasses were more expensive in states that prohibited advertising by eyeglass makers than in states that did not restrict such advertising

Advertising

- Advertising as a signal of quality
  - Little apparent information
  - Real information offered – a signal
    - Willingness to spend large amount of money = signal about quality of the product
  - Content of advertising = irrelevant

Brand Names

- In many markets, brand name products coexist with generic ones.
- Brand names
  - Spend more on advertising and charge higher prices than generic substitutes
- As with advertising, there is disagreement about the economics of brand names…

Brand Names

- Critics of brand names
  - Products – not differentiated
  - Irrationality: consumers are willing to pay more for brand names
- Defenders of brand names
  - Consumers – information about quality
  - Firms – incentive to maintain high quality to protect the reputation of their brand name

Summary

- A monopolistically competitive market has many firms, differentiated products, and free entry.
- Each firm in a monopolistically competitive market has excess capacity—it produces less than the quantity that minimizes ATC. Each firm charges a price above marginal cost.

Summary

- Monopolistic competition does not have all of the desirable welfare properties of perfect competition.
  - There is a deadweight loss caused by the markup of price over marginal cost.
  - Also, the number of firms (and thus varieties) can be too large or too small.
  - There is no clear way for policymakers to improve the market outcome.

Summary

- Product differentiation and markup pricing lead to the use of advertising and brand names.
  - Critics of advertising and brand names argue that firms use them to reduce competition and take advantage of consumer irrationality.
  - Defenders argue that firms use them to inform consumers and to compete more vigorously on price and product quality.

Chapter 16: Monopolistic Competition

- Differentiated Products: Closest to reality!
  - Location, location, location!
- SR: Like a monopoly (locally)
- LR: Zero profits
  - Homework: Mankiw, Ch.16, Problem 2, 5, 7-10
- Challenge Questions (Past Finals)
  - 2007 - Part 3, 6
  - 2014 - Essay C5-6
  - 2015 - Essay B7-12
  - 2017 - Essay B6-8, D1
  - 2018 - Essay C5-9