

Monopolistic Competition

Today's Topics: Brands and Advertising

1. **Between Monopoly and Perfect Competition:** (pp. 320–322) number of sellers? type of products? oligopolies, monopolistic competition.
2. **Monopolistic Competition:** (pp. 368–373) competition in the short run, in the long run; compared with perfect competition, and efficiency.
3. **Advertising:** (pp. 374–379) pros and cons, as a signal of quality, brand names.

I. Between Two Poles

		Number of Sellers:		
		One	A Few	Many
Homogenous Product	Pure		<i>Homogeneous Oligopoly</i>	<i>Pure Competition</i>
	Monopoly		<i>Differentiated Oligopoly</i>	<i>Monopolistic Competition</i>
Differentiated Product				

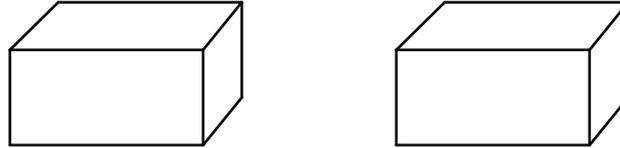
Assume: *Many Buyers*

“I think it’s wrong only one company makes the game Monopoly”
– US humorist, Steve Wright

Oligopoly: a market structure in which only a few sellers offer similar or identical products. Often behave strategically. (Next lecture.) Examples?

Monopolistic Competition: a market structure in which many firms sell products that are similar but not identical.

Differentiated Products



***Homogeneous
or
Differentiated?***

Degree of Substitutability?

Different Attributes:

- **Physical Attributes**
- **Ancillary Services**
- **Geographical Location**
- **Subjective Image**

Examples?

2. Monopolistic Competition

For a firm with some *market power* in a market with other firms selling *close substitutes*, there is competition as firms enter, and change the prices of the close substitutes, which results in a shift to the left in the demand curve that our firm faces.

→ ***Monopolistic Competition***

(If we raise our price 5%, will we still sell anything to buyers in full knowledge of others' prices? Yes → we have some market power.)

Examples?

Conditions for Monop. Comp.

1. ***Many sellers competing by selling differentiated (such as branded) products.***
2. ***Because the products are differentiated (substitutes, but not perfect substitutes), each firm faces a downwards-sloping demand curve and has some market power to determine price.***
3. ***Free entry or exit from the market: until zero economic profits for all.***
4. ***Firms do not collude or behave strategically: they assume competitors' actions fixed.***
5. ***Buyers are price takers; no bargaining.***

In the Short Run

Five points:

1. Prices of substitutes affect the downwards-sloping demand curve. (imperfect substitutes)

2. Assume that each firm takes others' actions constant & then sets sales y_{SR}^* so that

$$MR(y_{SR}^*) = MC(y_{SR}^*) \quad (SR = \text{Short Run})$$

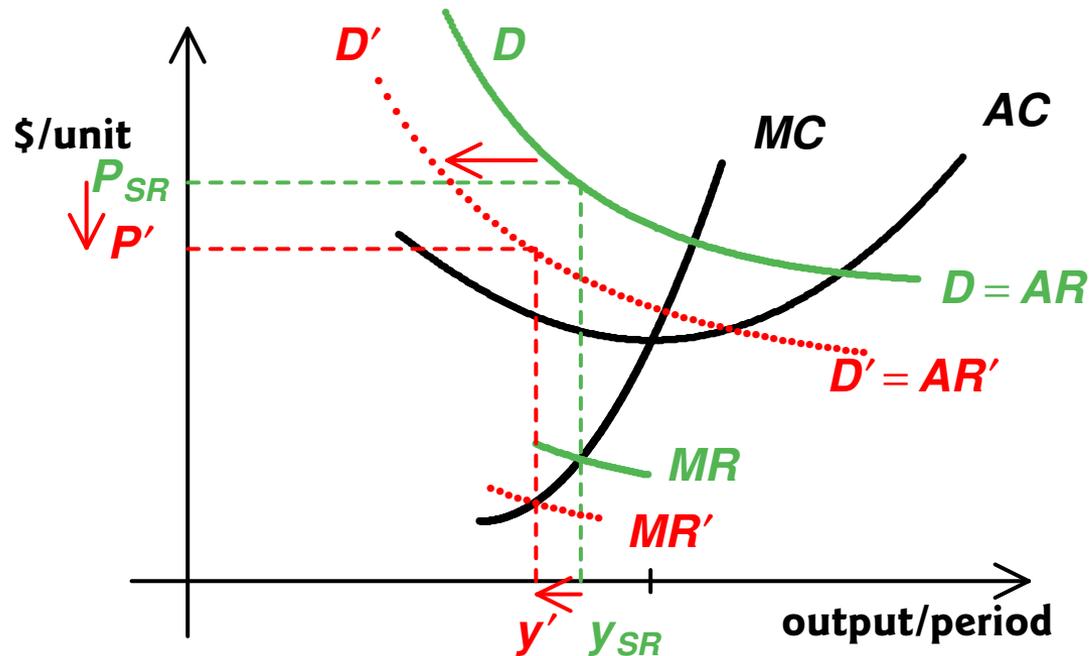
to maximize its profit. This results in the short-run price: $y_{SR}^* \rightarrow P_{SR}^*$.

3. In general, the short-run price $>$ the Average Cost: $AR(y_{SR}^*) = P_{SR}^* > AC(y^*)$ for each firm, so that profit π is positive in the short run.

\therefore attractive for new firms to produce close substitutes in the long run.

Positive Profits

(The firm's cost and revenue curves, not the market's.)



With demand D , the positive profit attracts new entrants, which contracts the demand to D' .

Profit falls, but still positive: $AR'(y') = P' > AC(y')$.
 Profit always maximised: $MR(y) = MC(y)$.

Long-Run Equilibrium

4. In the medium-to-long run, new entrants invest, and the original firms' demand curves move to the left, as their *market share* falls.

5. In the long run (*LR*), all profits will be bidden away for the marginal firm, with

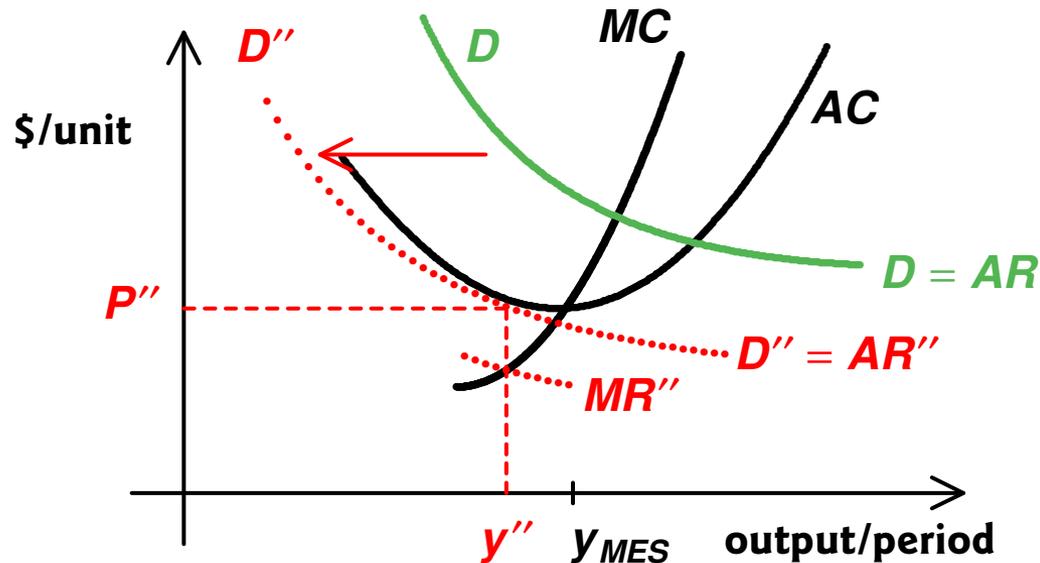
$$AR = D \equiv P = AC$$

$\therefore \pi = 0$ and output is such that the maximum (zero) profit point is on demand curve

\therefore the demand curve D'' must be tangent to the AC curve at the price P'' & output y'' chosen.

& any further contraction of the firm's demand
→ negative profits.

Zero Profits π



Long-run equilibrium at the margin.

At y'' , $AR''(y'') = P'' = AC(y'')$: zero profit, π .

There will be excess capacity: firms will not operate at the y_{MES} of their minimum AC , and so they could reduce their AC by increasing output. Why don't they?

versus Perfect Competition

Higher average costs: there are zero profits, but firms are on the downwards-sloping part of their ATC curves, not at y_{MES} , the *Minimum Efficient Scale*.

Mark-up over marginal cost: price is always above MC , because the firm always has some market power, not $P = MC$.

Note that $MC < AC$, since AC is falling, not $MC = AC$.

\therefore Firms are always eager to make another sale: an extra unit sold at the current price means more profit, not unwilling.

And Efficiency?

In the long run, monopolistic competition is inefficient, but there is greater variety in the market.

Do the inefficiencies outweigh the benefits of variety and competition? Three inefficiencies:

- 1. A Mark-up: $P > MC$ \therefore the dead-weight loss
DWL of monopoly pricing: some consumers value the output above MC but below the P charged.**
- 2. Production y'' less than y_{MES} , the Efficient Scale of production at minimum AC : excess capacity.**
- 3. Too much or too little entry: the individual entrant considers only its profit, *but* consumers gain Consumer Surplus CS with a new product, *while* incumbents lose Producer Surplus PS with the new competitor. Spillover.**

3. Advertising

A natural feature of monopolistic competition: each firm wants more sales because of its falling \bar{AC} with output (or $P > MC$).

Australian media shares of advertising (roughly):

Print media:	50%
Electronic media:	33%
Rest:	17%

Q: How does the level of advertising vary over types of goods and services?

A: Highest advertising budgets for the most highly differentiated consumer goods (up to 10% – 20% of revenues).

Examples?

Pro & Con

Manipulation of tastes? Creating desires that otherwise wouldn't exist?

Higher prices (for two reasons)? Because $P > MC$, and by reducing consumers' price elasticity of demand (or brand loyalty).

or because

Advertising conveys information (prices, locations, existence of new products) → better choices? More competition, not less (think: Internet comparison browsing). Reduces brands' market power. Facilitates entry.

Empirical results (p. 375): Across 50 U.S. states: the price of spectacles was 20% lower when advertising allowed.

As a Signal of Quality

How much information?

Is the firm's willingness to buy advertising (especially for repeat-purchase, experience goods) a signal of the product's quality?

Is what the advert says important?

Not much when signalling quality – just that it is expensive and paid for.

e.g. breakfast cereals

Brand Names

Economics of brand names:

Perceived differences, not real – a rip-off, from advertising.

but:

Quality – firms use brands to convey signals about quality; and, firms must defend their brands' reputations (or *brand equity*) as high-quality products by maintaining quality.

e.g. fast-food franchises

Rationality: irrational preference for brand names, or for good reason?

Summary

- 1. Between monopoly and perfect competition lie most markets: oligopolies (few sellers) or monopolistic competition (many sellers).**
- 2. Monopolistic Competition: Neither perfect competition, nor pure monopoly: many sellers and zero profit, but with a price mark-up: $P > MC$.**
- 3. Many products → variety for consumers!**
- 4. Advertising to increase sales. Justified or not?**

Appendix

Under what conditions is it true that the slope $\frac{dMR}{dQ}$ of the *MR* curve is twice that $\frac{dP}{dQ}$ of the *AR* (i.e demand) curve?

Now revenue $R = Q \cdot P(Q)$

$$\therefore MR \equiv \frac{dR}{dQ} = P(Q) + Q \frac{dP}{dQ} = P \cdot \left(1 + \frac{1}{\eta}\right),$$

where η is the price elasticity of demand.

\therefore The slope of the *MR* curve is given by:

$$\frac{dMR}{dQ} = 2 \frac{dP}{dQ} + Q \frac{d^2P}{dQ^2}$$

So it is only true in general for linear demand curves, for which $\frac{d^2P}{dQ^2} = \frac{d}{dQ} \left(\frac{dP}{dQ}\right) = 0$, because their slopes are constant (but not, of course, their elasticities).