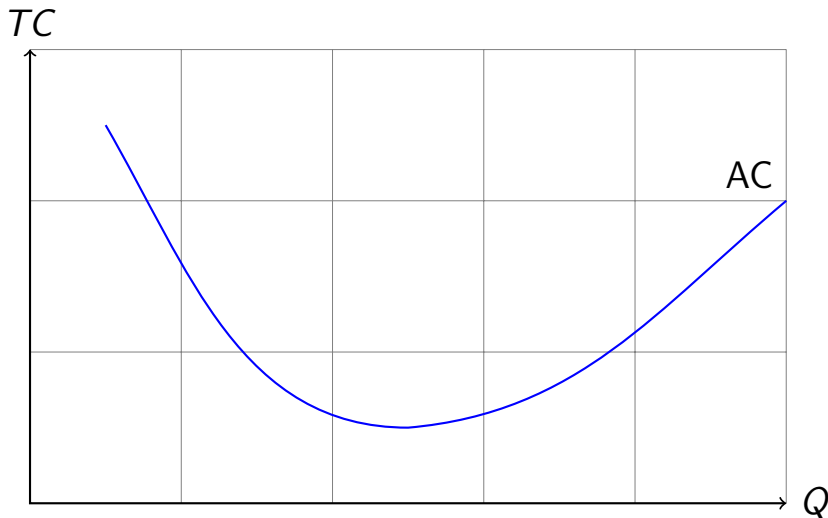


Monopoly-competition

Rob Hayward

December 9, 2014

Average Costs



Shape of average cost

The average cost curve is U shaped because

- Average costs initially fall with specialisation

Shape of average cost

The average cost curve is U shaped because

- Average costs initially fall with specialisation
- Average costs initially fall because fixed costs are spread

Shape of average cost

The average cost curve is U shaped because

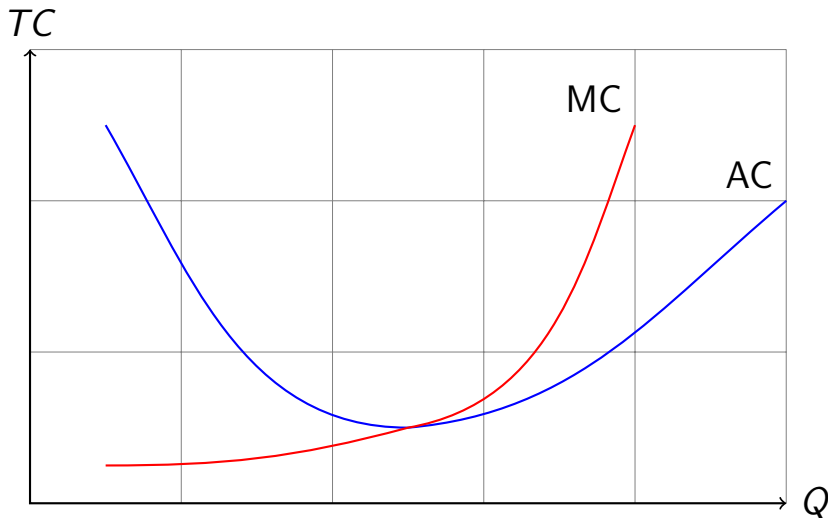
- Average costs initially fall with specialisation
- Average costs initially fall because fixed costs are spread
- Average costs eventually rise because of *diminishing returns* in the short-run

Shape of average cost

The average cost curve is U shaped because

- Average costs initially fall with specialisation
- Average costs initially fall because fixed costs are spread
- Average costs eventually rise because of *diminishing returns* in the short-run
- Average costs eventually rise because of *diseconomies of scale* in the long-run

Marginal costs



Shape and position of the marginal cost

The average cost curve is U shaped because

- The marginal cost is the cost of one more unit of output

Shape and position of the marginal cost

The average cost curve is U shaped because

- The marginal cost is the cost of one more unit of output
- The marginal cost is below the average cost while average cost is falling

Shape and position of the marginal cost

The average cost curve is U shaped because

- The marginal cost is the cost of one more unit of output
- The marginal cost is below the average cost while average cost is falling
- The marginal cost is above the average cost while the average cost is rising

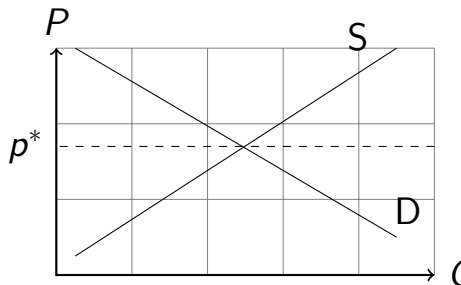
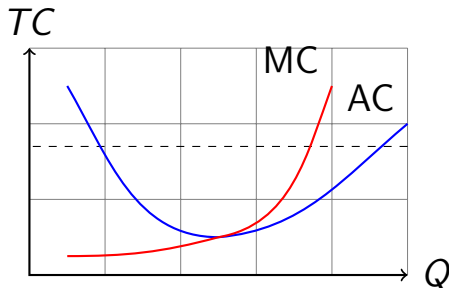
Shape and position of the marginal cost

The average cost curve is U shaped because

- The marginal cost is the cost of one more unit of output
- The marginal cost is below the average cost while average cost is falling
- The marginal cost is above the average cost while the average cost is rising
- The marginal cost cuts the average cost at the lowest point on the average cost

Perfect Competition

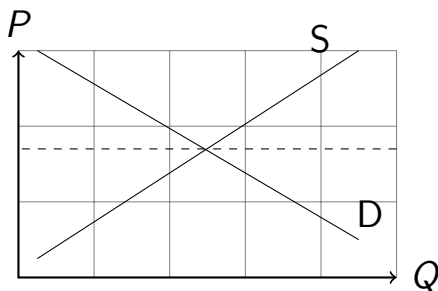
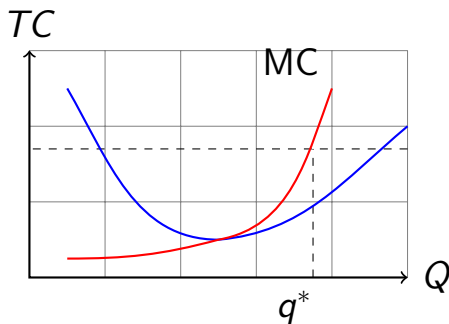
In a perfectly competitive market, the marginal cost curve is the firm supply curve



Equilibrium price = $p^* = AR = MR$

Profit maximisation

Profit maximised at $MR = MC$



Profit-maximising output moves along the MC curve

Profits and supply

Costs include *normal profits*

$$\pi = TR - TC$$

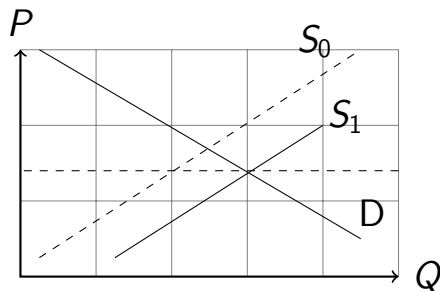
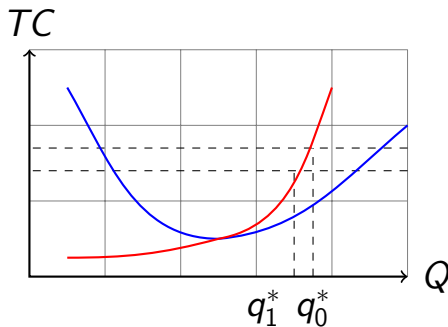
Profit per unit sold (average profit)

$$\frac{\pi}{Q} = AR - AC$$

Where there are *super-normal profits* new firms will enter the industry.

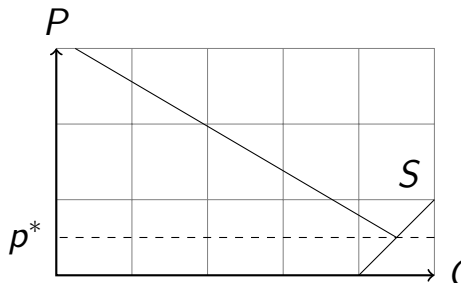
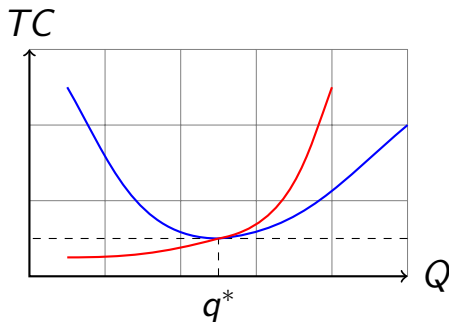
Supply increase

Profit maximised at $MR = MC$



Profit-maximising output moves along the MC curve

Long-run Equilibrium



Long-run equilibrium when price is equal to the minimum on the average cost curve.

Monopoly

For monopoly, the firm and the market are the same
There are barriers to entry

Monopoly

For monopoly, the firm and the market are the same
There are barriers to entry

- Government or regulatory

Monopoly

For monopoly, the firm and the market are the same
There are barriers to entry

- Government or regulatory
- Patents or unique product

Monopoly

For monopoly, the firm and the market are the same
There are barriers to entry

- Government or regulatory
- Patents or unique product
- Access to customers or materials

Monopoly

For monopoly, the firm and the market are the same
There are barriers to entry

- Government or regulatory
- Patents or unique product
- Access to customers or materials
- First-mover advantage

Monopoly

For monopoly, the firm and the market are the same
There are barriers to entry

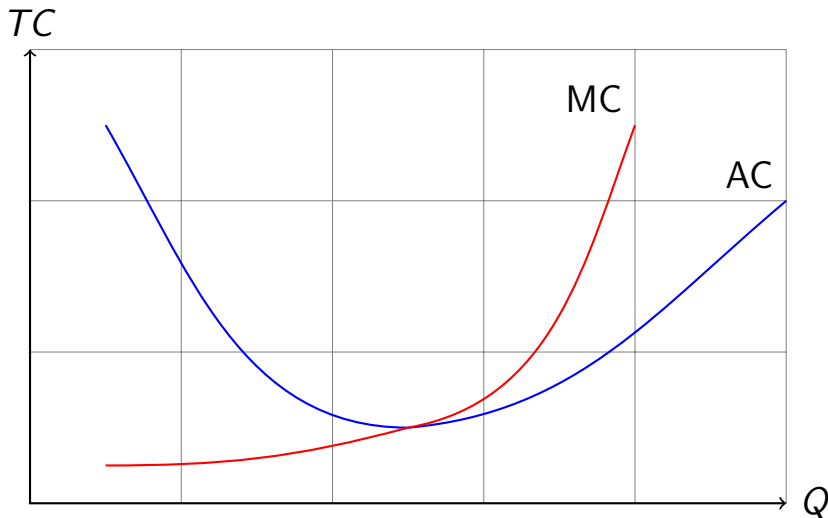
- Government or regulatory
- Patents or unique product
- Access to customers or materials
- First-mover advantage
- Threats

Monopoly

For monopoly, the firm and the market are the same
There are barriers to entry

- Government or regulatory
- Patents or unique product
- Access to customers or materials
- First-mover advantage
- Threats
- Agreements

Monopoly firm



Monopoly vs perfect competition

Consider a large number of market stalls

Monopoly vs perfect competition

Consider a large number of market stalls

- Each firm takes the market price

Monopoly vs perfect competition

Consider a large number of market stalls

- Each firm takes the market price
- One monopolist buys all the small market traders

Monopoly vs perfect competition

Consider a large number of market stalls

- Each firm takes the market price
- One monopolist buys all the small market traders
- The monopolist manages market stalls to maximise profits

Monopoly vs perfect competition

Consider a large number of market stalls

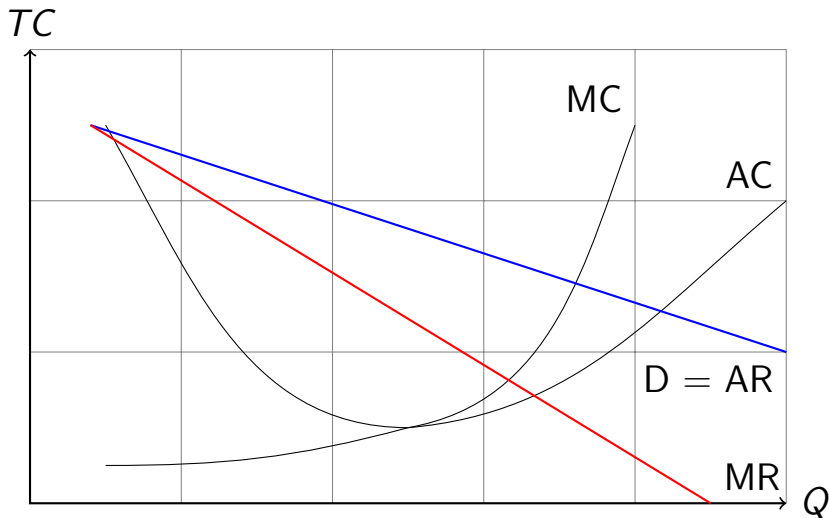
- Each firm takes the market price
- One monopolist buys all the small market traders
- The monopolist manages market stalls to maximise profits
- $MR = MC$

Monopoly vs perfect competition

Consider a large number of market stalls

- Each firm takes the market price
- One monopolist buys all the small market traders
- The monopolist manages market stalls to maximise profits
- $MR = MC$
- Reduce output to the point where there is *unit elasticity*

Monopoly firm

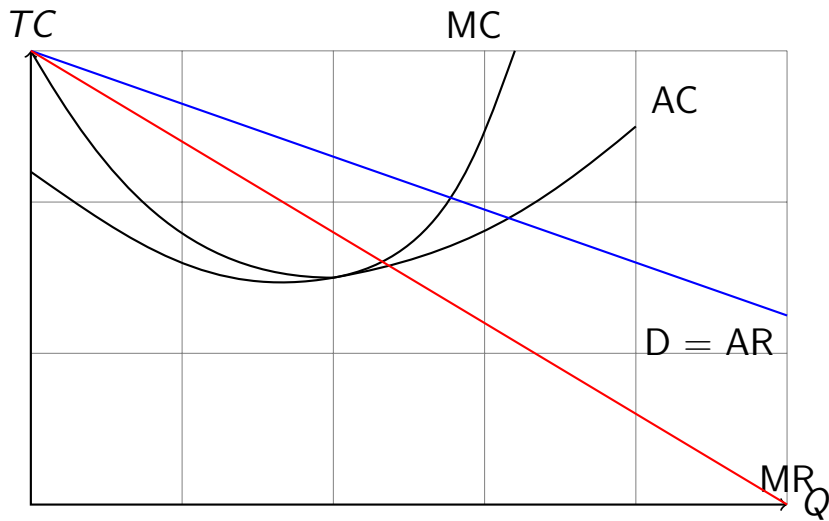


Average revenue and marginal revenue

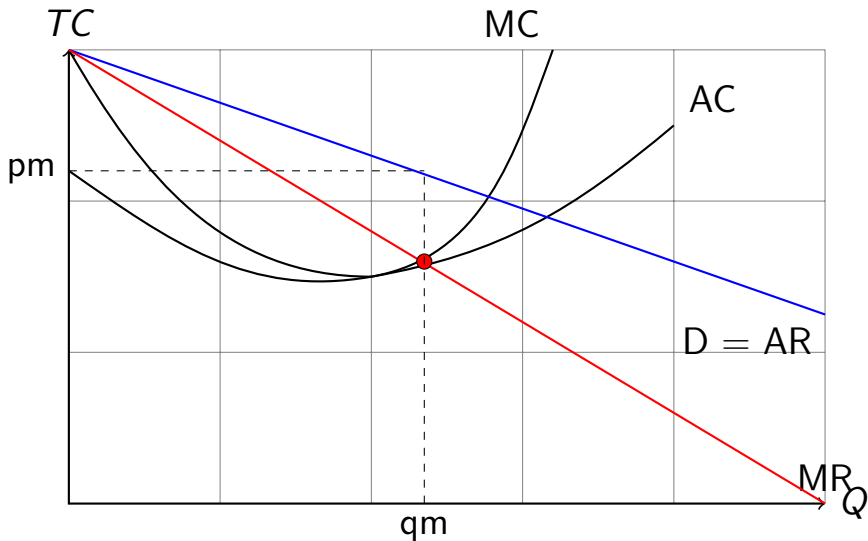
The marginal revenue will be below the average revenue

P	Q	TR ($P \cdot Q$)	AR (TR/Q)	MR ($\Delta TR / \Delta Q$)
5	1	5	5	5
4	2	8	4	3
3	3	9	3	1
2	4	8	2	-1

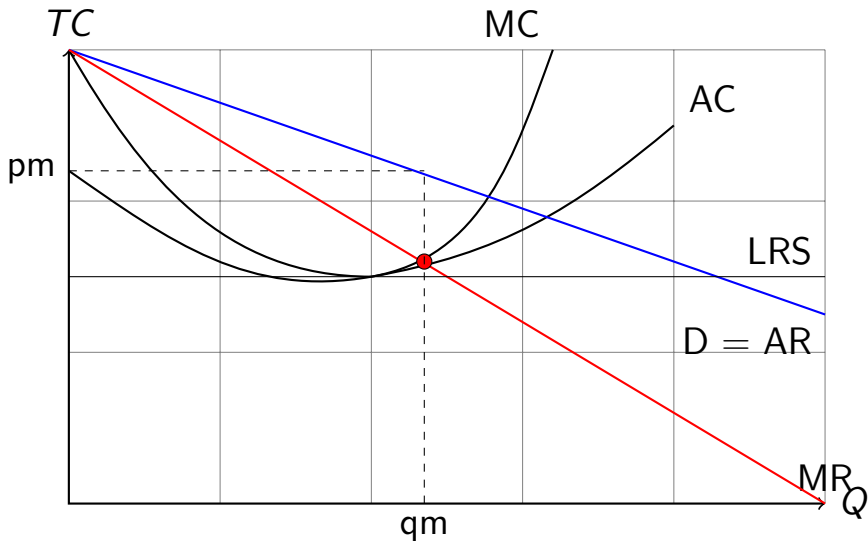
Competition vs monopoly 2



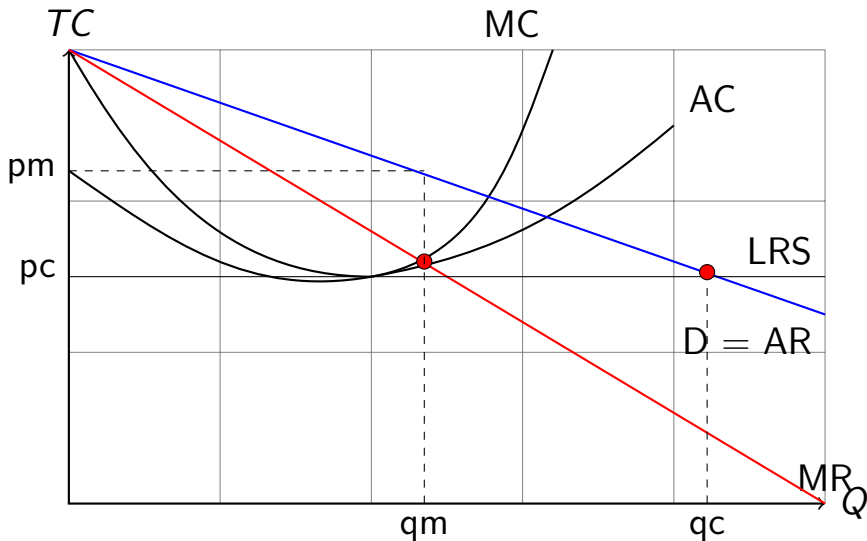
Competition vs monopoly 2



Competition vs monopoly 2



Competition vs monopoly 2



Competition vs monopoly 3

When costs do not change, monopoly will charge a higher price and will therefore provide less product.

Competition vs monopoly 3

When costs do not change, monopoly will charge a higher price and will therefore provide less product. However, costs are likely to change

- Specialisation

Competition vs monopoly 3

When costs do not change, monopoly will charge a higher price and will therefore provide less product. However, costs are likely to change

- Specialisation
- Economies of scale

Competition vs monopoly 3

When costs do not change, monopoly will charge a higher price and will therefore provide less product. However, costs are likely to change

- Specialisation
- Economies of scale

Competition vs monopoly 3

When costs do not change, monopoly will charge a higher price and will therefore provide less product. However, costs are likely to change

- Specialisation
- Economies of scale

If the cost curve shifts lower after the take-over, it is possible that more can be supplied at a lower price.

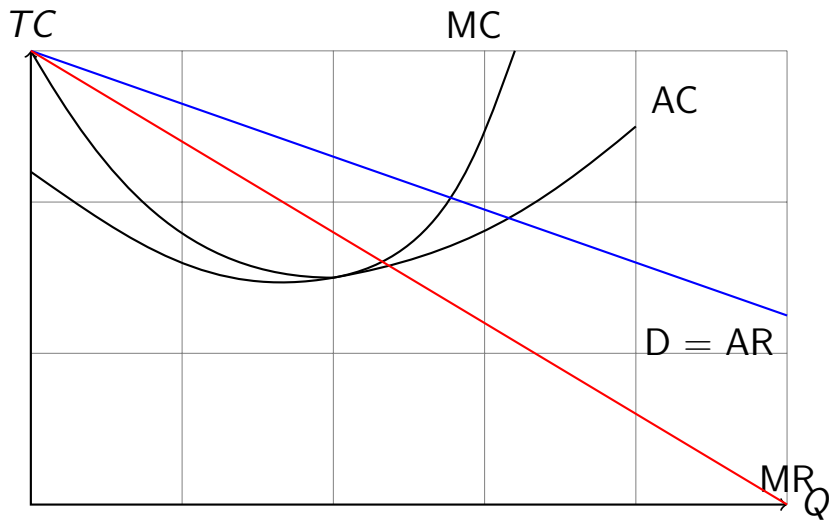
Competition vs monopoly 3

When costs do not change, monopoly will charge a higher price and will therefore provide less product. However, costs are likely to change

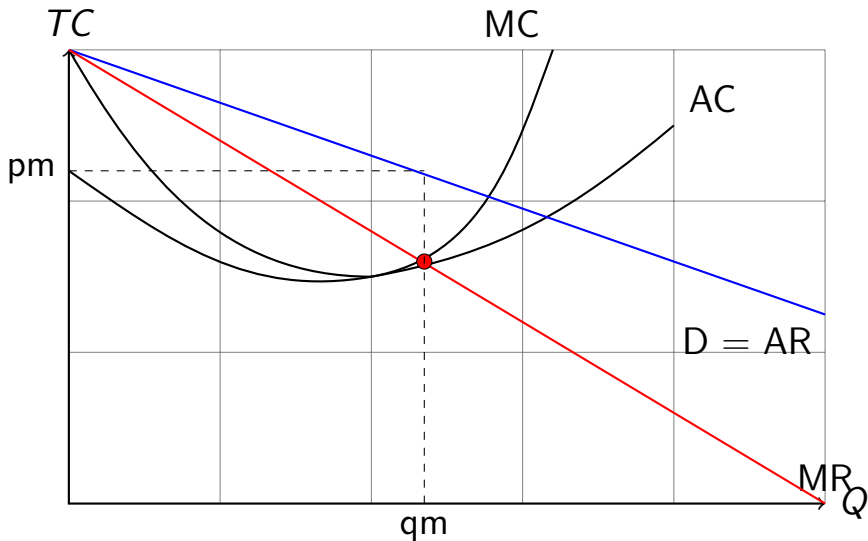
- Specialisation
- Economies of scale

If the cost curve shifts lower after the take-over, it is possible that more can be supplied at a lower price. Monopoly may be able to use super-normal profits for Research and Development (improve products and lower costs)

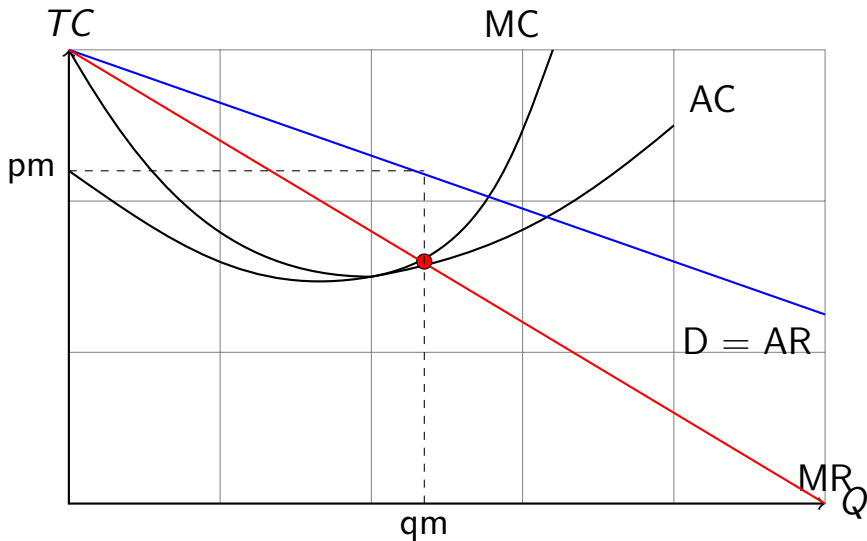
Competition vs monopoly 3



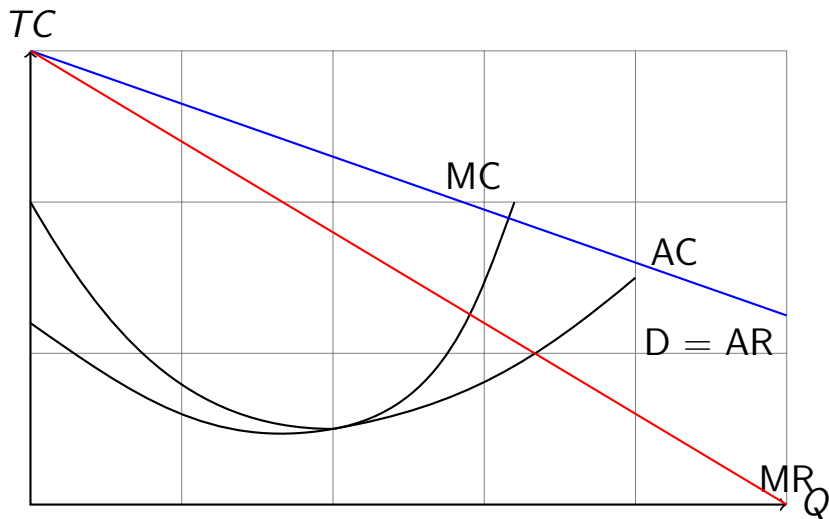
Competition vs monopoly 3



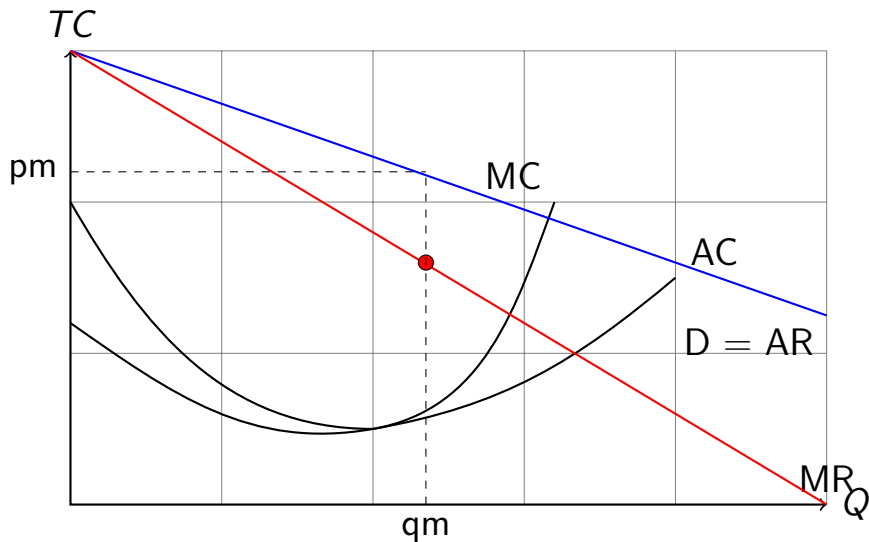
Competition vs monopoly 3



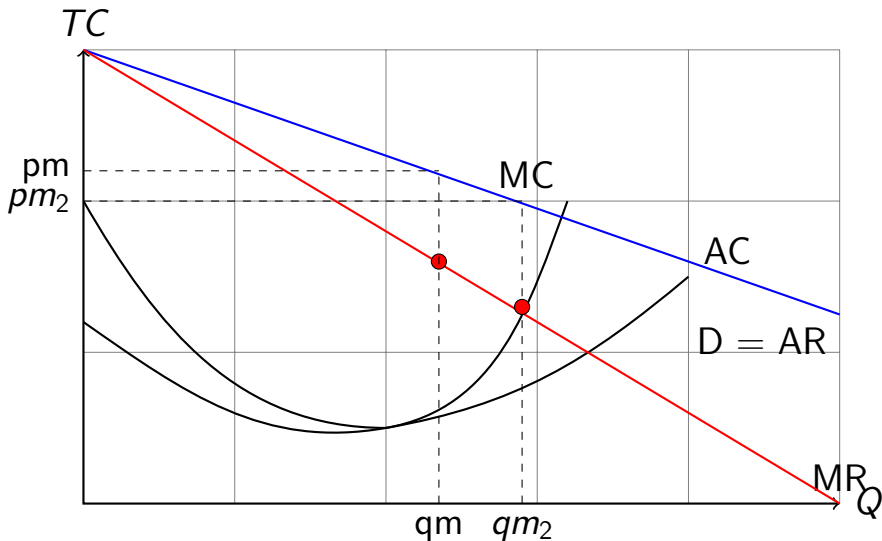
Competition vs monopoly 3



Competition vs monopoly 3



Competition vs monopoly 3



Regulation

It is also possible to regulate

Regulation

It is also possible to regulate

- Monopolies commission in UK can prevent mergers that generate too much market power

Regulation

It is also possible to regulate

- Monopolies commission in UK can prevent mergers that generate too much market power
- Regulator can set prices and determine output (OFCOM, OFWAT)

Regulation

It is also possible to regulate

- Monopolies commission in UK can prevent mergers that generate too much market power
- Regulator can set prices and determine output (OFCOM, OFWAT)
- Public ownership (agency and political issues)

Price Discrimination

- Charge different prices to different customers

Price Discrimination

- Charge different prices to different customers
- Higher price for those with less elastic demand

Price Discrimination

- Charge different prices to different customers
- Higher price for those with less elastic demand
- This will increase the revenue and profits of the firm

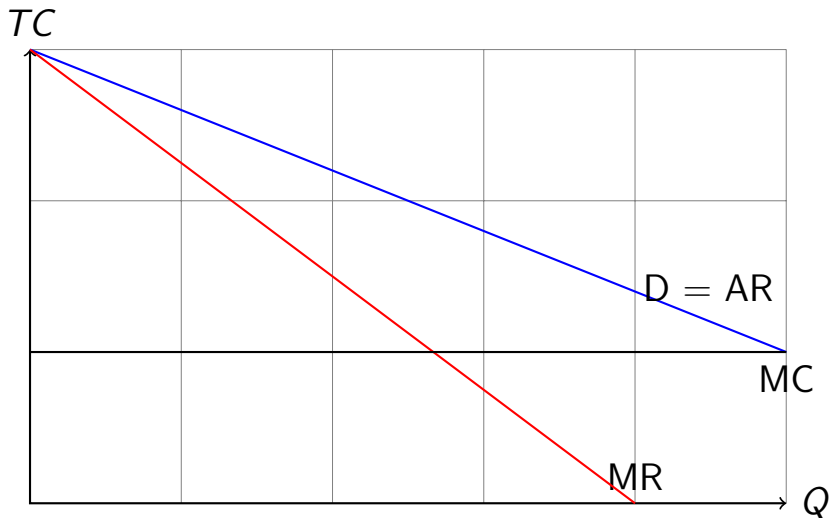
Price Discrimination

- Charge different prices to different customers
- Higher price for those with less elastic demand
- This will increase the revenue and profits of the firm
- Ethical issues

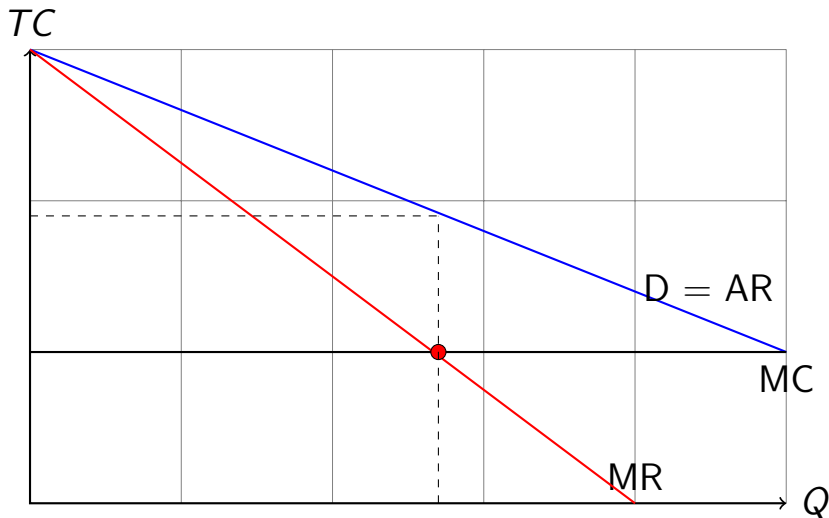
Price Discrimination

- Charge different prices to different customers
- Higher price for those with less elastic demand
- This will increase the revenue and profits of the firm
- Ethical issues
- Branding issues

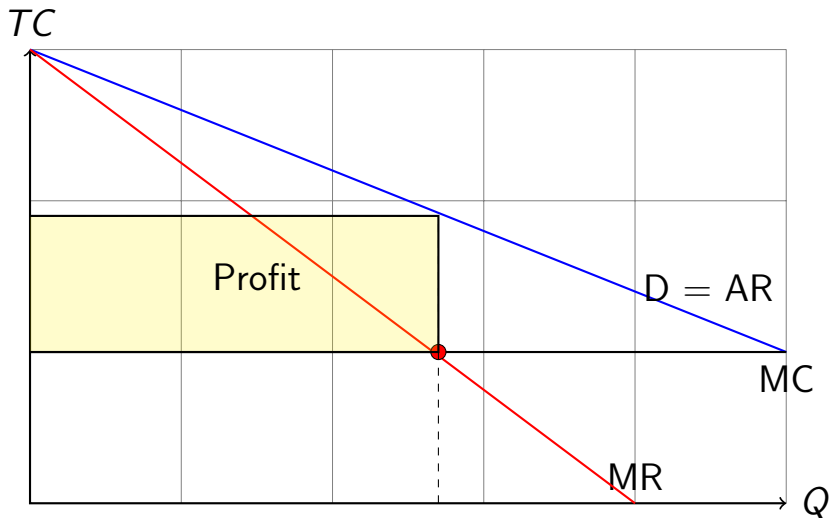
Price Discrimination



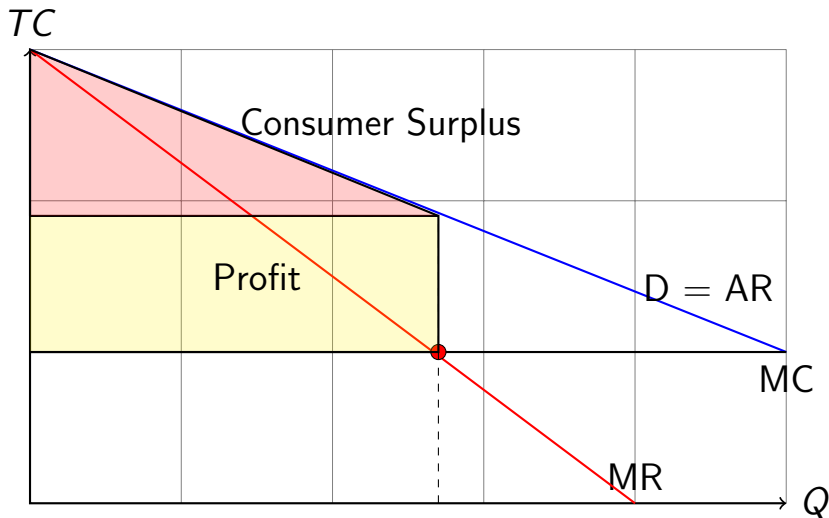
Price Discrimination



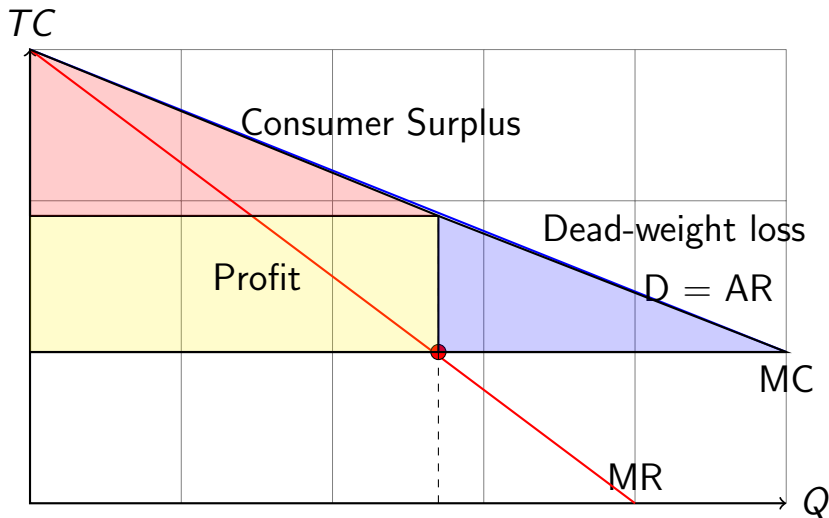
Price Discrimination



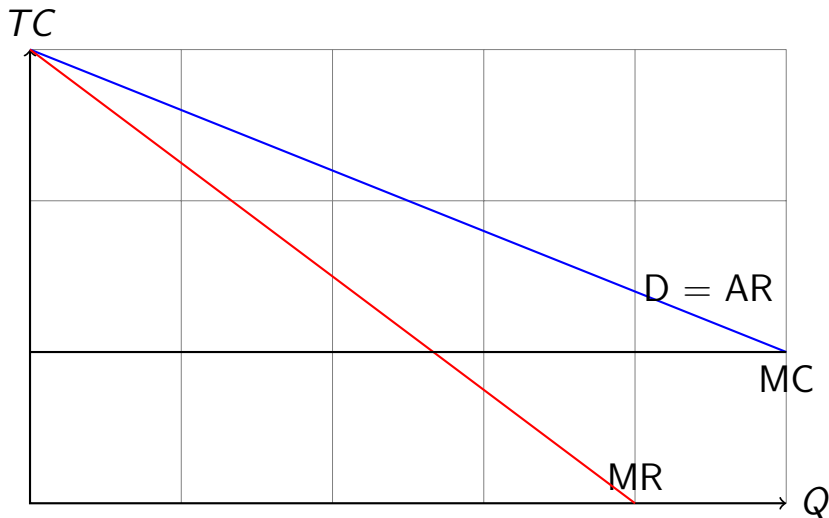
Price Discrimination



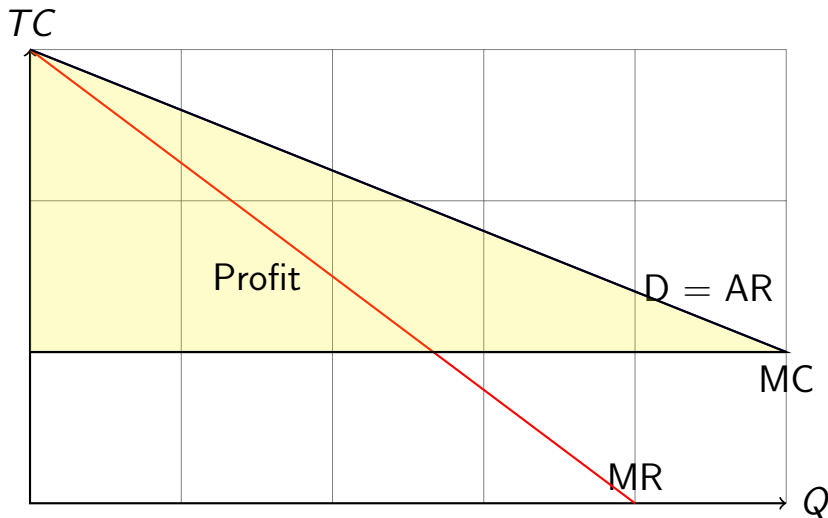
Price Discrimination



Perfect Price Discrimination



Perfect Price Discrimination



Monopolistic competition

Monopolistic competition A combination of monopoly and competition

Monopolistic competition

Monopolistic competition A combination of monopoly and competition

- There are no significant barriers to entry

Monopolistic competition

Monopolistic competition A combination of monopoly and competition

- There are no significant barriers to entry
- However, there is pricing power so firms face a downward sloping demand curve

Monopolistic competition

Monopolistic competition A combination of monopoly and competition

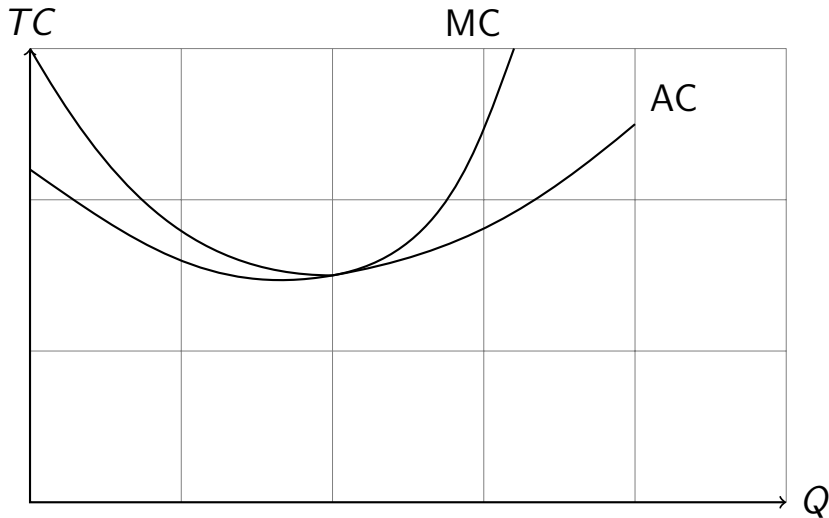
- There are no significant barriers to entry
- However, there is pricing power so firms face a downward sloping demand curve
- There is *product differentiation*

Monopolistic competition

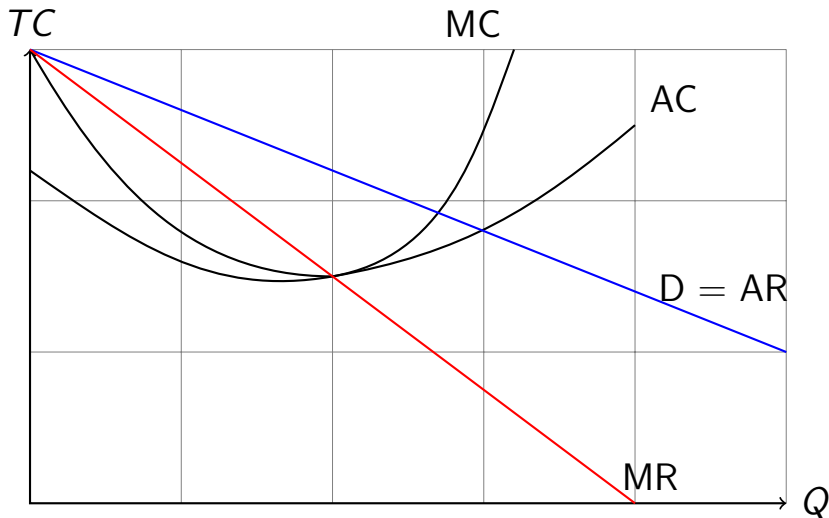
Monopolistic competition A combination of monopoly and competition

- There are no significant barriers to entry
- However, there is pricing power so firms face a downward sloping demand curve
- There is *product differentiation*
- Restaurants, game makers, Cinemas ...

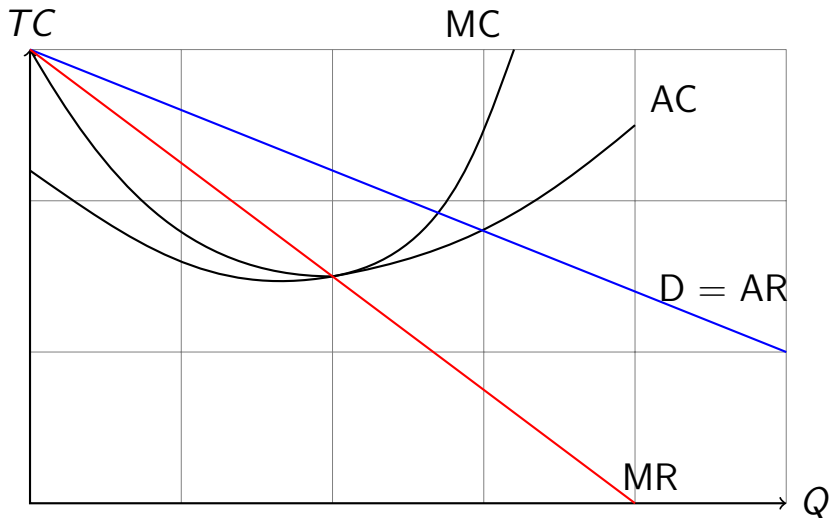
Monopolistic Competition



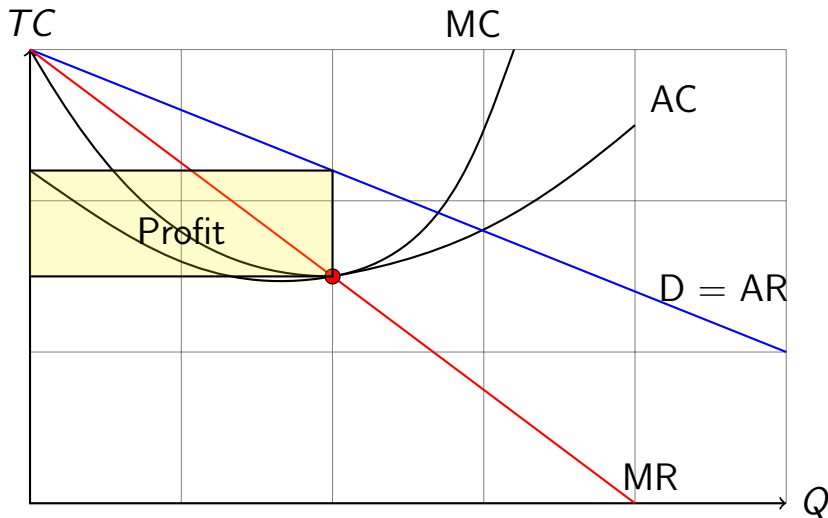
Monopolistic Competition



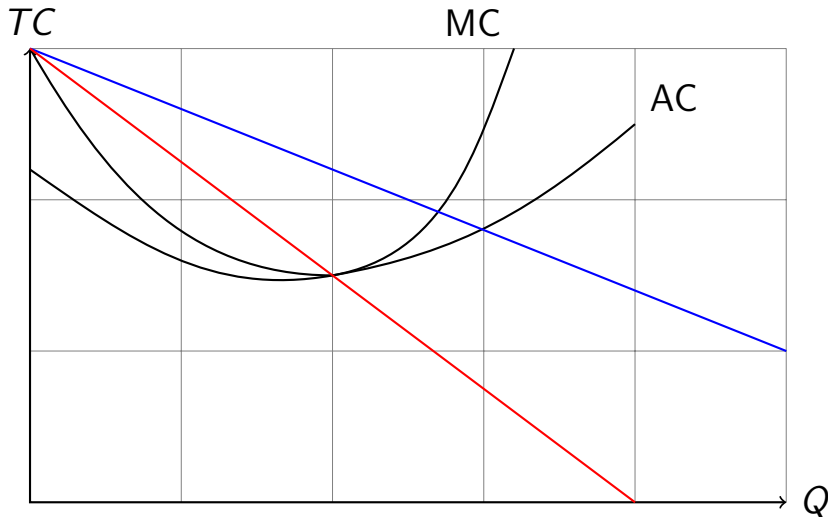
Monopolistic Competition



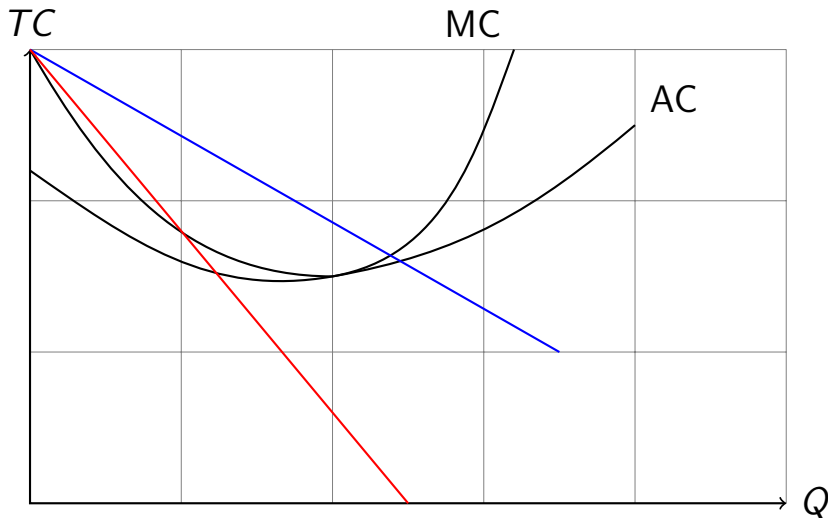
Monopolistic Competition



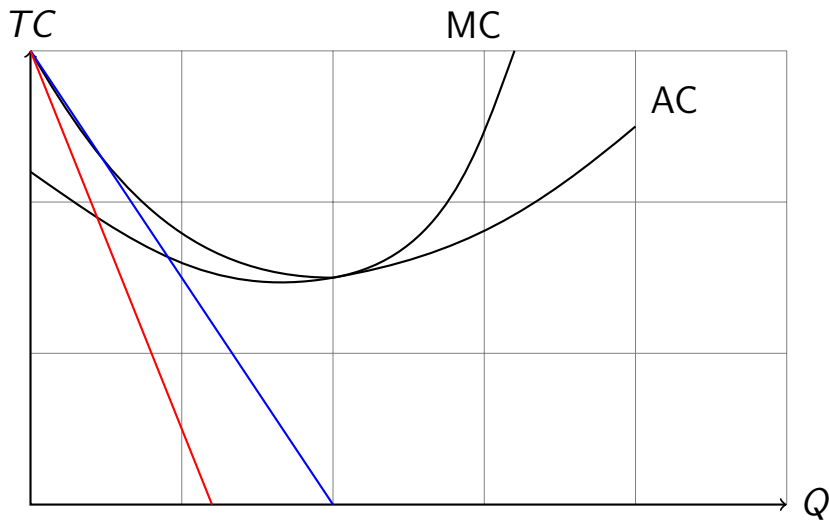
Monopolistic Competition: Long run 1



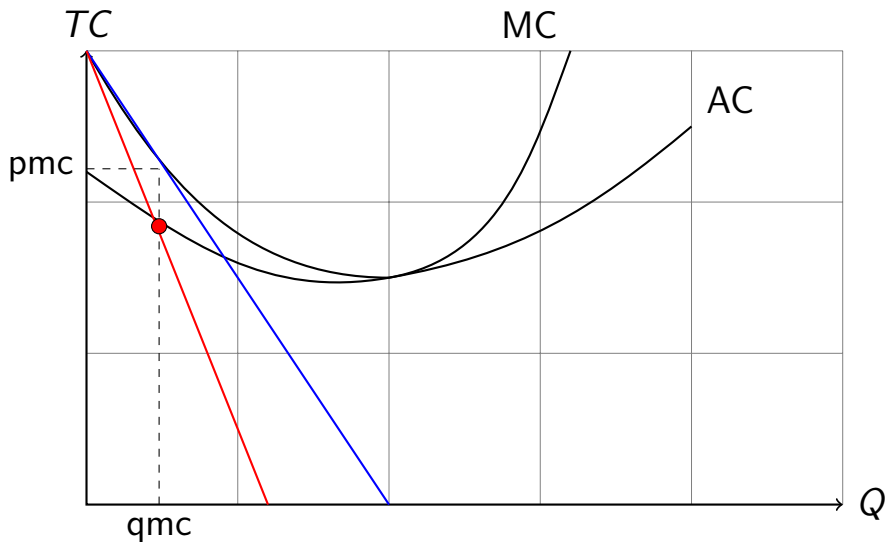
Monopolistic Competition: Long run 2



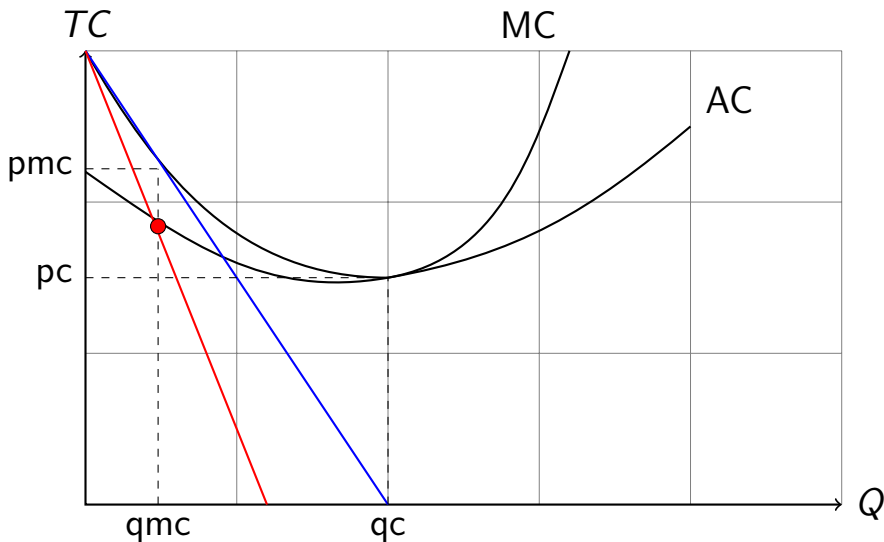
Monopolistic Competition: Long run 3



Monopolistic Competition: Long run 3



Monopolistic Competition: Long run 3



Difference Perfect competition and monopolistic competition

- There is spare capacity in monopolistic competition

Difference Perfect competition and monopolistic competition

- There is spare capacity in monopolistic competition
- Firms operate at the efficient scale (lowest point on the average cost curve) in perfect competition

Difference Perfect competition and monopolistic competition

- There is spare capacity in monopolistic competition
- Firms operate at the efficient scale (lowest point on the average cost curve) in perfect competition
- Price is above marginal cost in monopolistic competition