MARKET STRUCTURES (TYPES OF COMPETITION)

- Firms can face a lesser or greater degree of competition in the market place. In economics there are four main types of competition which are referred to as market structures

- In considering market structures we need to look at the no.of firms in the industry and their size, the nature of the product produced (i.e. branded or identical), the degree of control over price and the position regarding entry

Perfect Competition

This is the most competitive. There are a large no. of firms in industry producing similar products. Price is the same for all firms and entry is unrestricted. Examples often would exist in unregulated agricultural markets e.g. strawberries

Monopolistic Competition

Here again there are several firms in the industry. However each firm has a degree of monopoly over its own product. Entry is still fairly free. Examples here would include services such as builders and plumbers.

MARKET STRUCTURES (TYPES OF COMPETITION)

Oligopoly

Here there are just a few firms in the industry who exercise a large degree of control.

Examples would be given by the banks and motor companies

Monopoly

Here there is just one firm in the market which has control over price.

Entry to industry is either largely or completely restricted for a variety of reasons.

It is important however to distinguish as between private monopolies that operate on fully commercial lines and public (state) monopolies that often are required to follow social objectives

Features of the four market structures

Type of market	Number of firms	Freedom of entry	Nature of product	Examples	Implications for demand curve faced by firm
Perfect competition	Very many	Unrestricted	Homogeneous (undifferentiated)	Cabbages, carrots (approximately)	Horizontal: firm is a price taker
Monopolistic competition	Many / several	Unrestricted	Differentiated	Builders, restaurants	Downward sloping, but relatively elastic
Oligopoly	Few	Restricted	Undifferentiated or differentiated	Cement cars, electrical appliances	Downward sloping. Relatively inelastic (shape depends on reactions of rivals)
Monopoly	One	Restricted or completely blocked	Unique	Local water company, train operators (over particular routes)	Downward sloping: more inelastic than oligopoly. Firm has considerable control over price

PERFECT COMPETITION

- This is the most competitive of market structures

There are a number of assumptions on which perfect competition depends.

- Firms are price takers. There are many firms in the industry with none producing a significant amount of supply. Therefore each firm must accept the market price that is given. Likewise buyers have no influence over price

- There is complete freedom of entry to and exit from the industry

- All firms produce an identical product (i.e. homogeneous) so that there are no brand differences

- Producers and consumers have perfect knowledge of the market

- There are no transport costs

- Factors of production are available on same terms to all producers

EQUILIBRIUM UNDER PERFECT COMPETITION

The short-run equilibrium

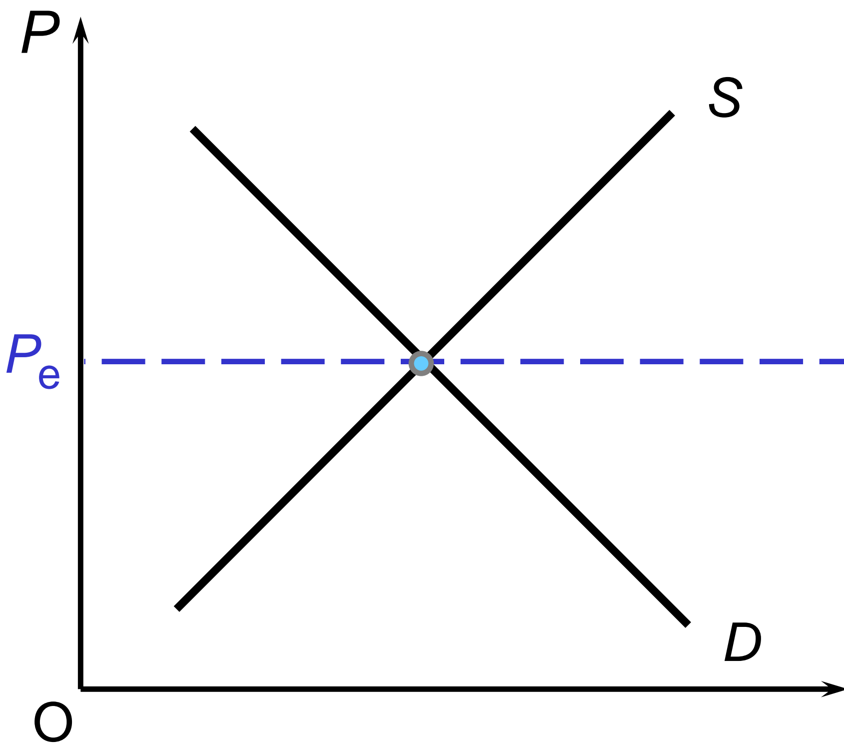
- Price for each firm is decided in the overall market. Each firm then takes this price as given. It is possible for the firm to be making either supernormal profits or losses.

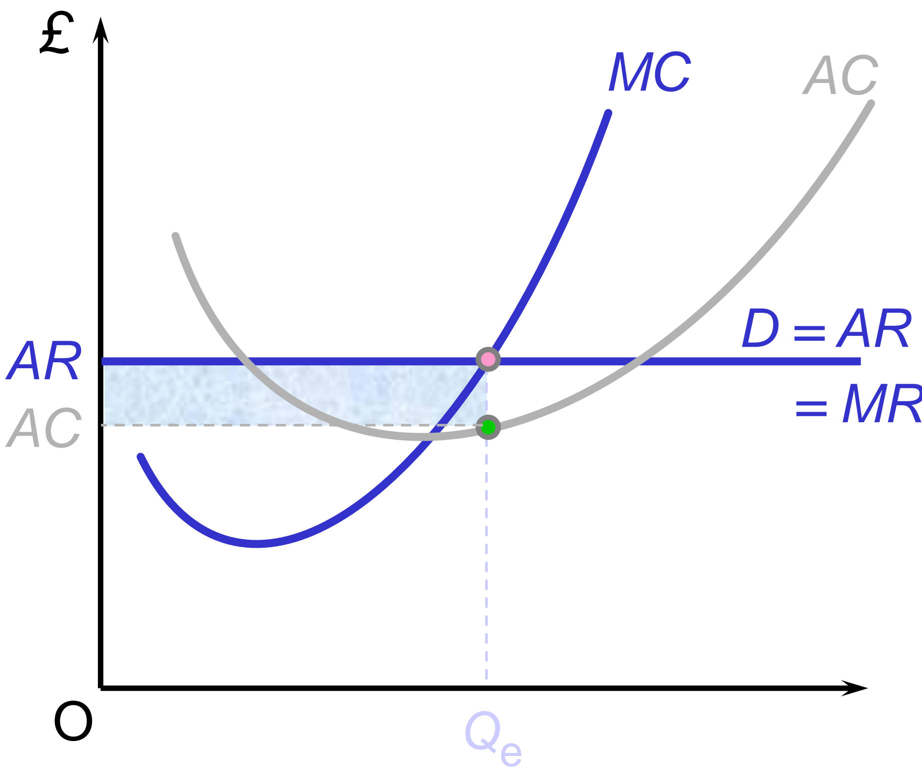
The long-run equilibrium

- If firms are making supernormal profits in the short-run, new firms will enter which will bring down price. This will erode supernormal profits made

  Likewise if firms are making losses firms will leave the industry. This will restore supernormal profits for those remaining. So in the long run there is a tendency towards normal profits for all firms remaining.

Short-run equilibrium of industry and firm under perfect competition



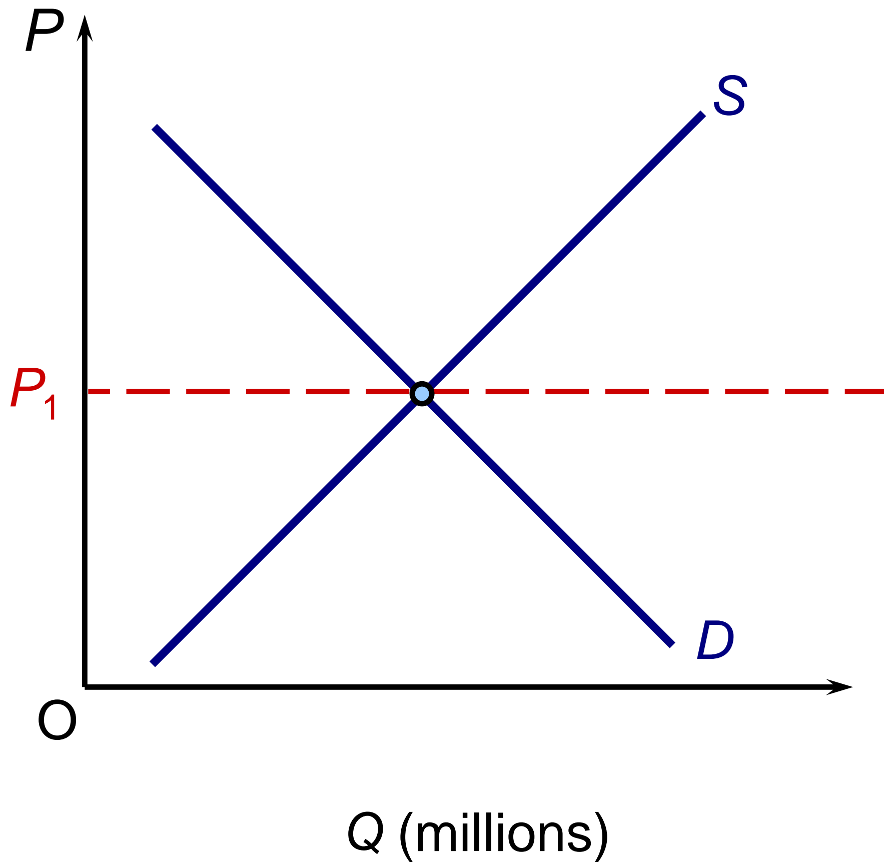


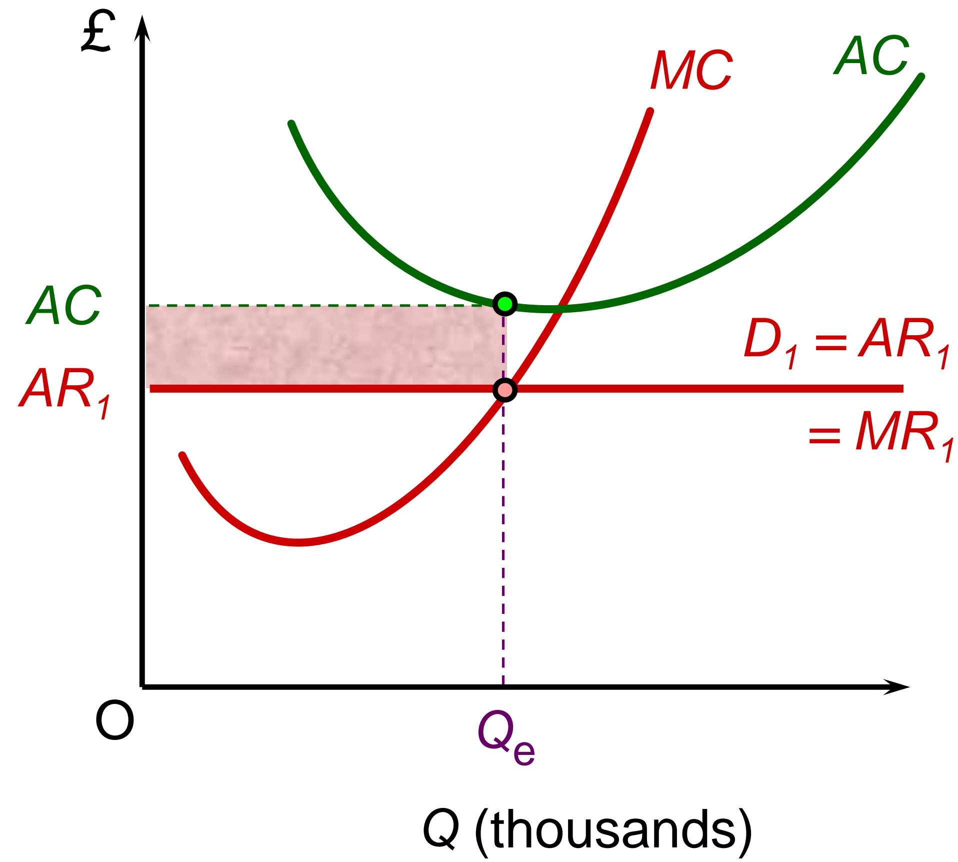
(a) Industry

fig

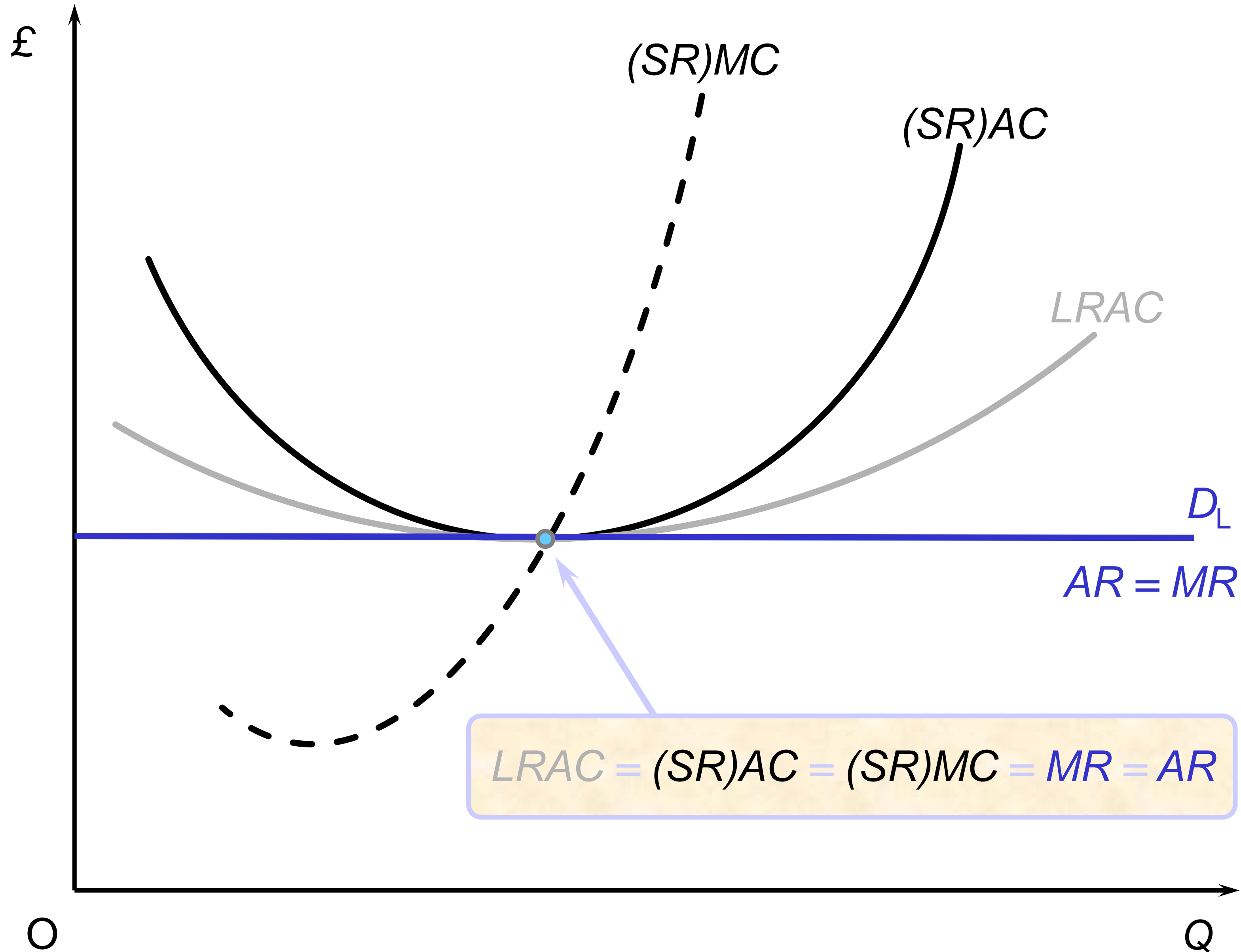
(b) Firm

Loss minimising under perfect competition





Long-run equilibrium of the firm under perfect competition



BENEFITS OF PERFECT COMPETITION

Perfect competition in general is good for consumers

- As can be seen from the second diagram, Profits are maximised where MC = MR. Here no excess profits are made (AC = AR)

- Likewise the firm produces at the lowest possible cost (in equilibrium) where AC = MC.

  Thus the consumer benefits on both counts through low prices.

  This perhaps explains why competition so often (in any sector) is good for the consumer.

- Competition can also provide a spur for new inventions, products and better ways of organising business as each firm strives to get an advantage over fellow competitors

  The successful can then earn supernormal profits in the short-run though these tend to be eroded (through other firms catching up) in the long-run

DISADVANTAGES OF PERFECT COMPETITION

- Can lead to instability and loss of resources and employment during times of recession as firms struggle to maintain normal profits

- In many industries (e.g. motor cars) long-run cost efficiency demands substantial economies of scale

  It would not be possible to obtain such economies if firms operated according to conditions of perfect competition

- The supernormal profits made by large monopoly type firms could be used to fund expensive research and development to the ultimate benefit of consumers

  Smaller firms often do not have sufficient resources to properly develop new products

- Sometimes governements choose to follow certain social objectives in the running of state companies which would not be possible under perfect competition

MONOPOLY

A monopoly is not always easy to classify

The extreme case requires that only one firm be in the industry and that there are no close substitutes

However this situation is rare - even in the public sector - so often monopoly is taken to refer to a situation where an industry is dominated by one particular firm

Examples of state monopolies in Ireland - ESB, Irish Rail

Private - Guinness, CRH

MONOPOLY (con)

- Barriers to entry
  - for a firm to maintain a monopoly position there must be significant barriers on entry
- Economies of scale
  - the best example of this is where a natural monopoly exists. For example in Ireland the ESB has a natural monopoly in electricity. Attempts to encourage new competitors into the industry have not been successful
- Product differentiation and brand loyalty
  - if a firm has a well-recognised brand it can give it a considerable degree of monopoly power. Waterford Glass in the past was dominant in the crystal market for this reason
- Lower Costs
  - a firm may gain a monopoly because of lower costs. The rising dominance in air travel of RyanAir is due to this fact

MONOPOLY (con)

- Ownership of key factors
  - a mining company could have exclusive control over a raw material such as gold giving it a monopoly.

- Legal Protection
  - sometimes the government maintains legal monopolies e.g. Dublin Bus for social reasons (though this may now change)

- Mergers and Takeovers
  - Independent Newspapers has become dominant in Ireland due to takeovers in the paper market

- Aggressive Tactics
  - a monopoly may be obtained through bullying tactics which is the approach of the unions to the ministers plans to free up competition for the buses.

MONOPOLY

- To see how the firm reaches equilibrium under monopoly see diagram

  The demands curve (AR) slopes down from left to right reflecting the fact that the price must be lowered for a firm (which is the industry) to sell more.

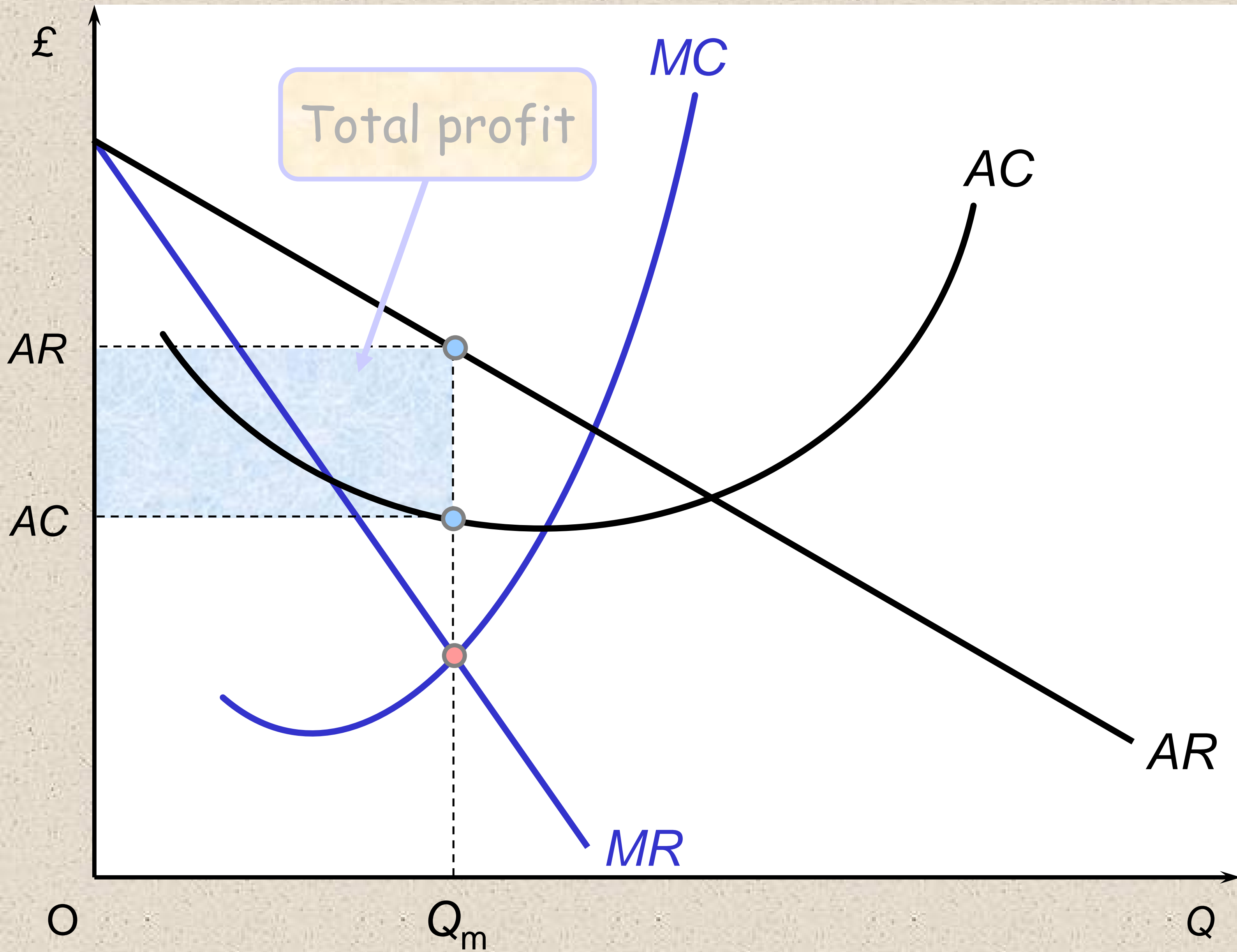
  The MR is less than AR (when AR is falling) and is drawn inside AR curve. (In other words AR can only fall if MR < AR). The AC curve is U - shaped (reflecting increasing returns (due to division of labour) over lower levels of output and then diminishing returns as output increases beyond a certain point. The MC curve is less than AC (when AC falls) and greater than AC (when rises) thereby cutting AC at lowest point.

- Profits are maximised where MR = MC

  Typically with private monopoly, supernormal (excess) profits are made at this point (with AR > AC).

  Because there are barriers to entry these are not likely to be competed away. So the monopolist can make these profits for some considerable time.

Profit maximising under monopoly



DIFFICULTIES WITH MONOPOLY

Monopoly is usually considered bad for the consumer

- Firstly the firm makes excess profits which means that prices are above what they would be if perfect competition existed

- Secondly the firm always produces less than the maximum efficient output resulting in higher costs. This also results in higher prices for consumer. Furthermore due to lack of competition, the monopolist can become very complacent and unwilling to launch cost saving initiatives

PERFECT COMPETITION AND MONOPOLY

However there is a possible difficulty with perfect competition

- If firms are very small they may not be able to achieve substantial economies of scale. This could put up costs unduly so that the consumer would lose out.

  So in some industries (e.g. motor cars) it is not really feasible to have perfect competition. However it is still possible to maintain significant competition as between the smaller number of suppliers (e.g. through international competition)

- Monopoly type conditions may not always be bad for the consumer

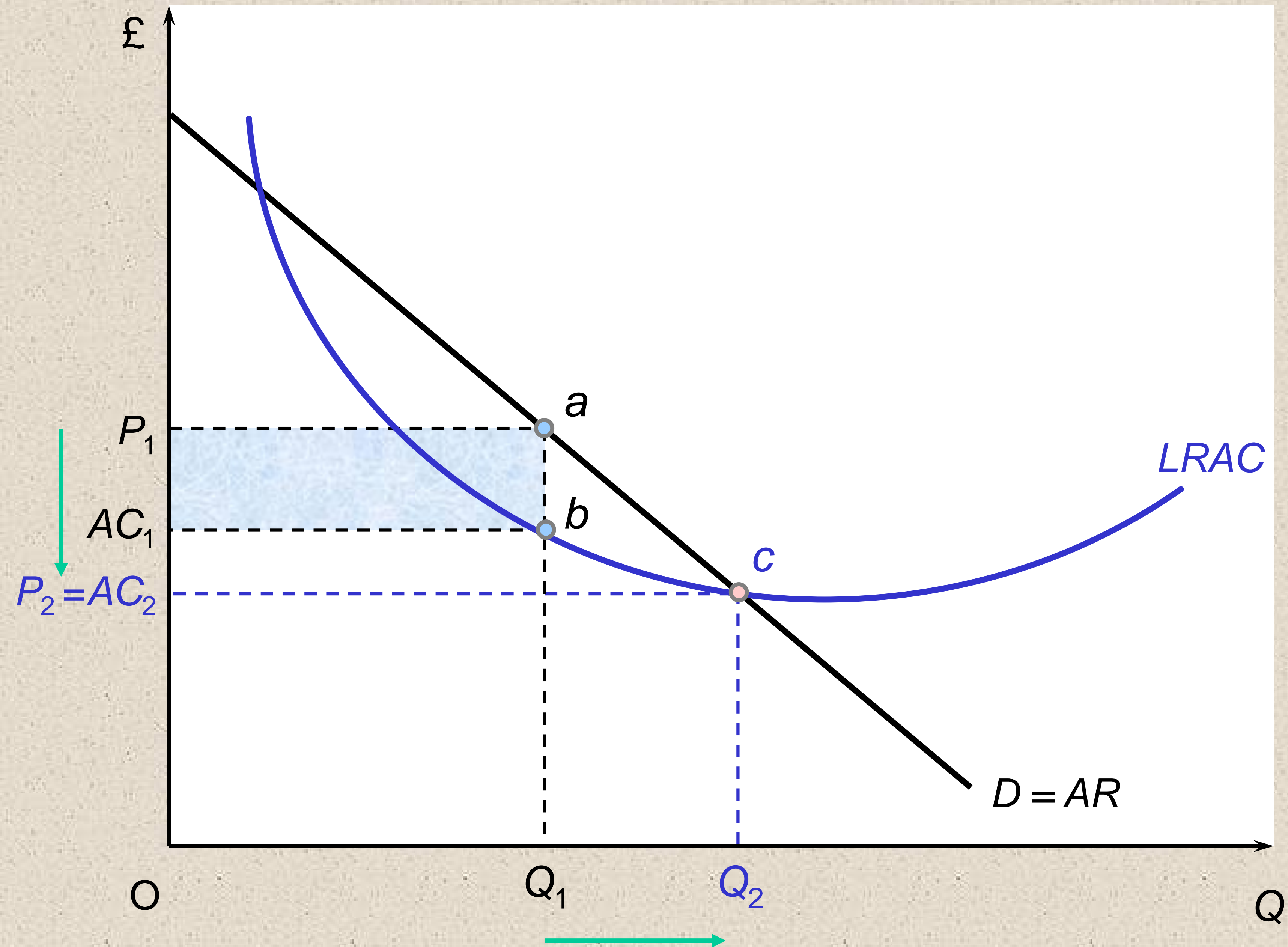
  So firms may achieve their market dominance through being more successful than competitors

  Thus monopoly power in itself is not wrong but rather abuse of a strong position. For example Microsoft would argue that it has achieved its market position through being good for the consumer and is determined to further improve its service in this regard. Others of course would disagree!

PERFECT COMPETITION AND MONOPOLY (con)

- A monopoly may use its supernormal profits to further research and needed investment which ultimately would be to the benefit of the consumer
- Also a monopoly could be more stable in a business recession and be able to maintain output and employment
- Finally there may be social reasons for maintaining monopolies (as in the public sector).

A contestable monopoly



MONOPOLISTIC COMPETITION

- Characterised by quite a large no. of firms (though not as many as perfect competition: often coexists with oligopoly in same industry (e.g. financial services

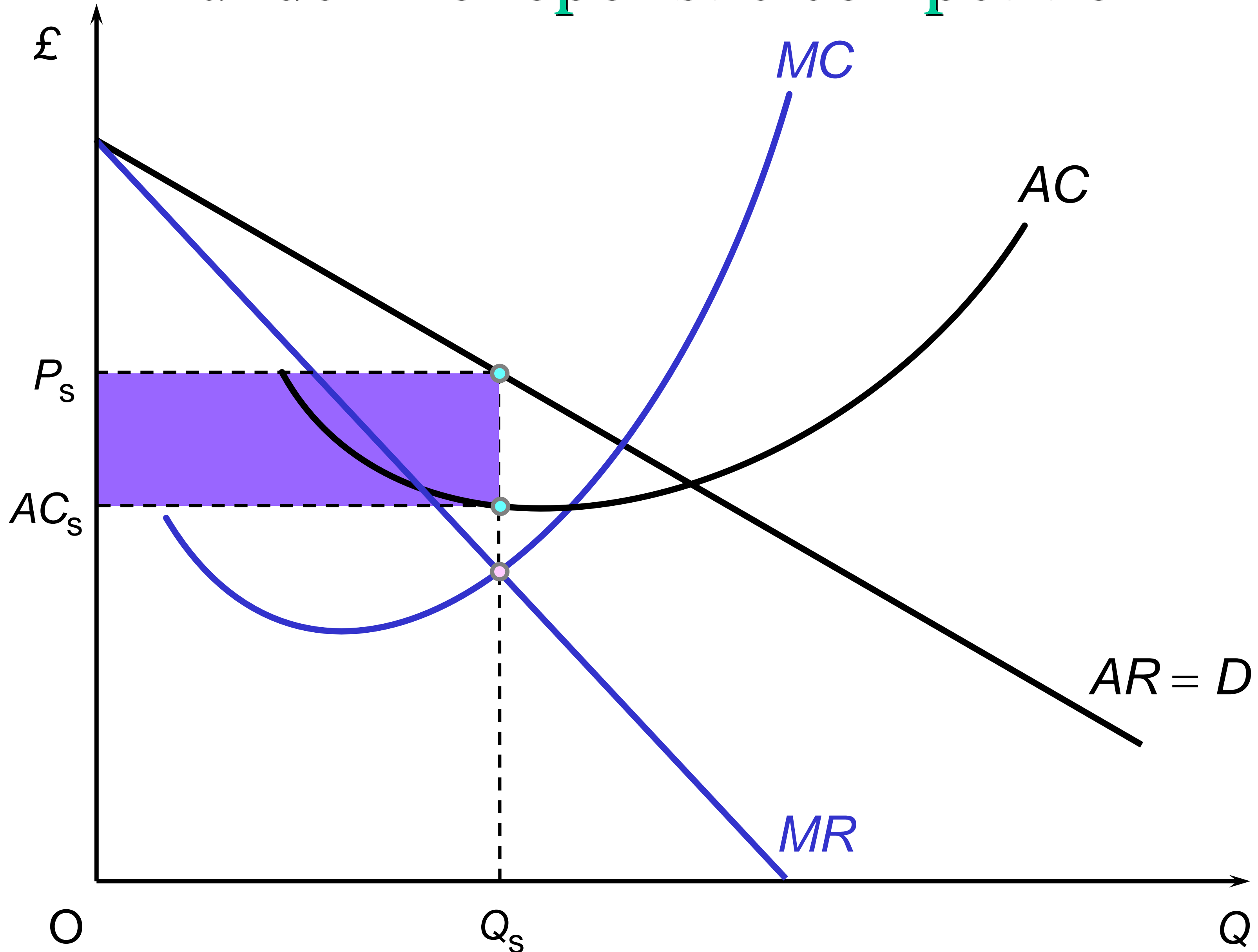
- Freedom of entry and of exit

- Each firm produces a product or service that is in some way different to that of its competitors
  - can be due to location (petrol station) , unique product (small bakery), quality of service (plumber) etc.

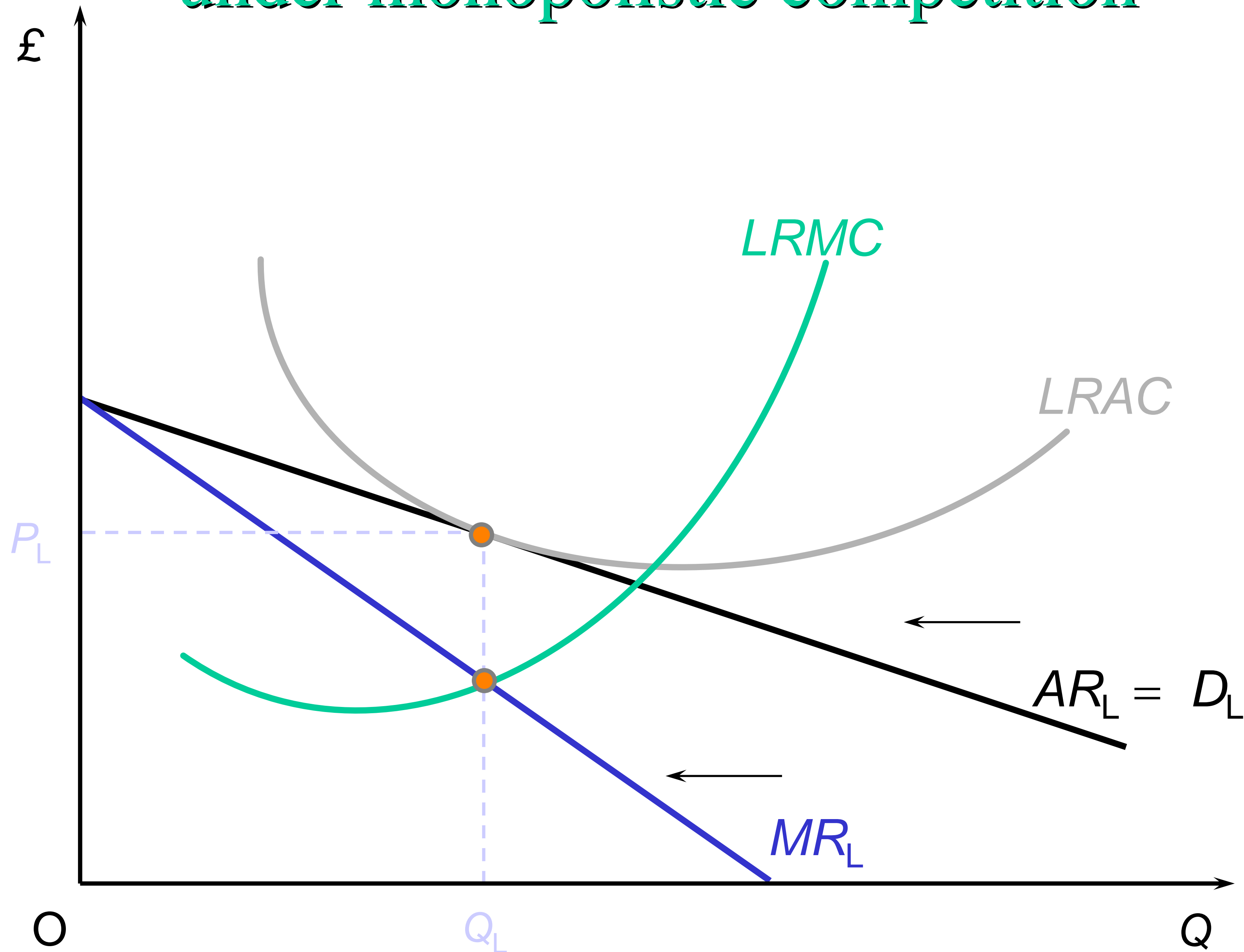
- Petrol stations, restaurants, hairdressers, builders, vehicle repairs are all examples of monopolistic competition

In the long run firms operating under monopolistic competition will not make supernormal profits - however they will be led to operate inefficiently due to excess capacity at profit maximisation point

Short-run equilibrium of the firm under monopolistic competition



Long-run equilibrium of the firm under monopolistic competition



OLIGOPOLY

- Oligopoly occurs when just a few firms share a large proportion of the output of an industry

- Types: (a) differentiated (b) non-differentiated

Two key features of oligopoly:

- Barriers to entry

- Interdependence of the firms

This interdependence can lead to a conflicting dilemma

(a) Firms may wish to collude with each other e.g. through forming a cartel so that they can act as a single monopoly

(a) They may be tempted to compete with each other in the hope of achieving a bigger share of the industry – however this can lead to a price war where every producer suffers lower profits

OLIGOPOLY (con)

Types of collusion

- Formal (or informal) cartel - examples OPEC, car dealers
- Rigid pricing - here oligopolists show a reluctance to compete directly on price favouring various forms of non-price competition e.g. advertising, new products
- Market sharing - here firms agree to sell only in designated market areas
- Price leadership - here when prices need to be changed due to rising costs, one firm traditionally takes the lead and then is followed by others.

Examples of Collusion

- Oil, Industry, motor cars, beer, cement, steel, chemicals, banking, insurance companies etc

OLIGOPOLY (con)

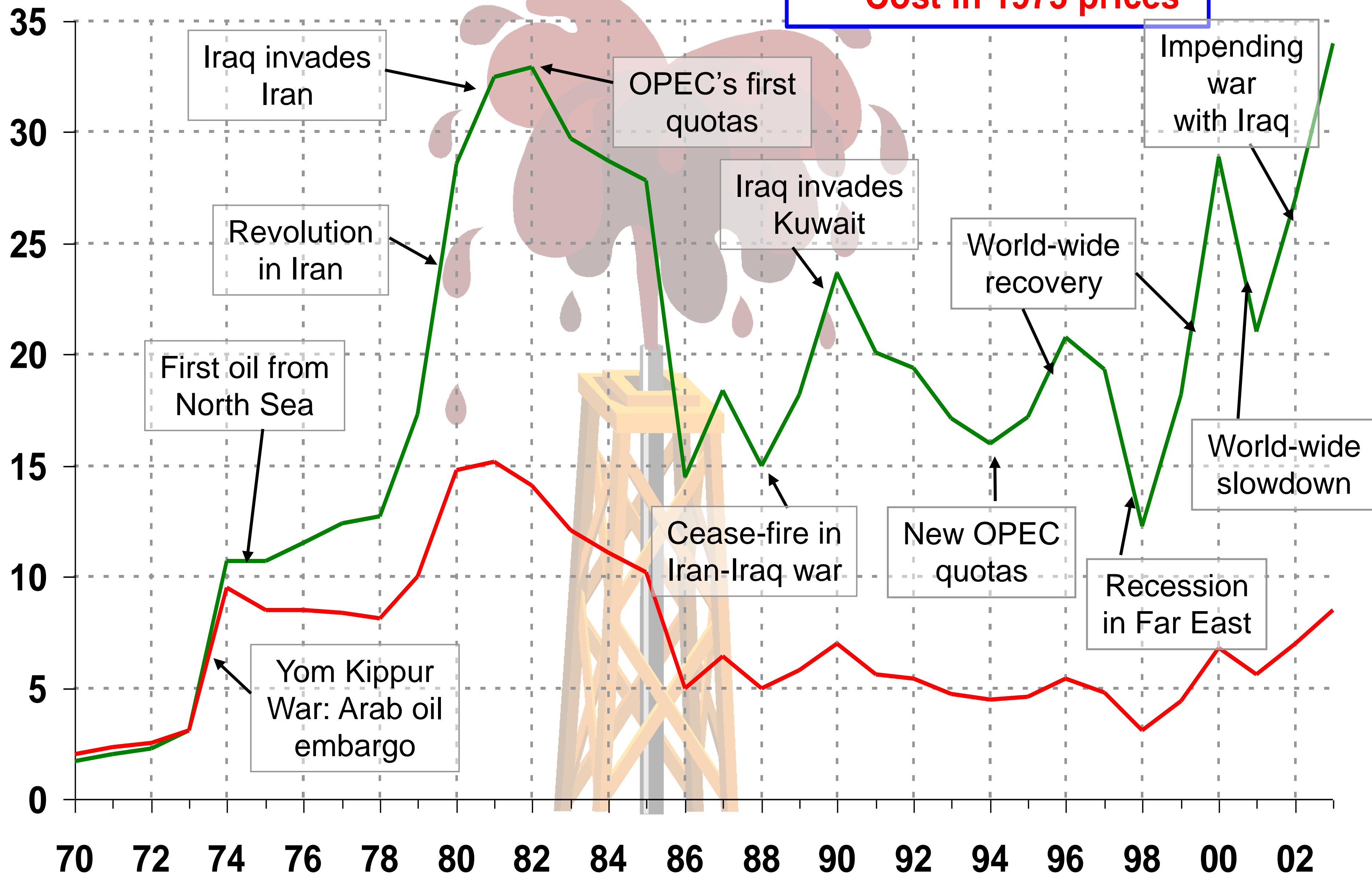
- Due to the disadvantages from lack of competition, oligopoly and monopoly are increasingly subject to scrutiny and legislation e.g. through specialised regulators and competition enforcement (with restrictive practices such as price fixing open to prosecution and penalties (mostly of a financial nature)

  As mergers especially can increase concentration in industry most countries have anti-merger restrictions

- Growth of firms can come from diversification, integration (horizontal and vertical), takeovers etc.

- Overall monopoly power of a firm can be difficult to assess

Oil prices



FACTORS FAVOURING COLLUSION

- There are few firms all known to each other
- They are open about costs and production methods
- They have similar production methods and costs
- They produce similar products and can more easily agree on price
- There is a dominant firm
- There are significant barriers to entry and little fear of disruption by new firms
- The market is stable
- No government measures to curb collusion

OLIGOPOLY AND CONSUMER

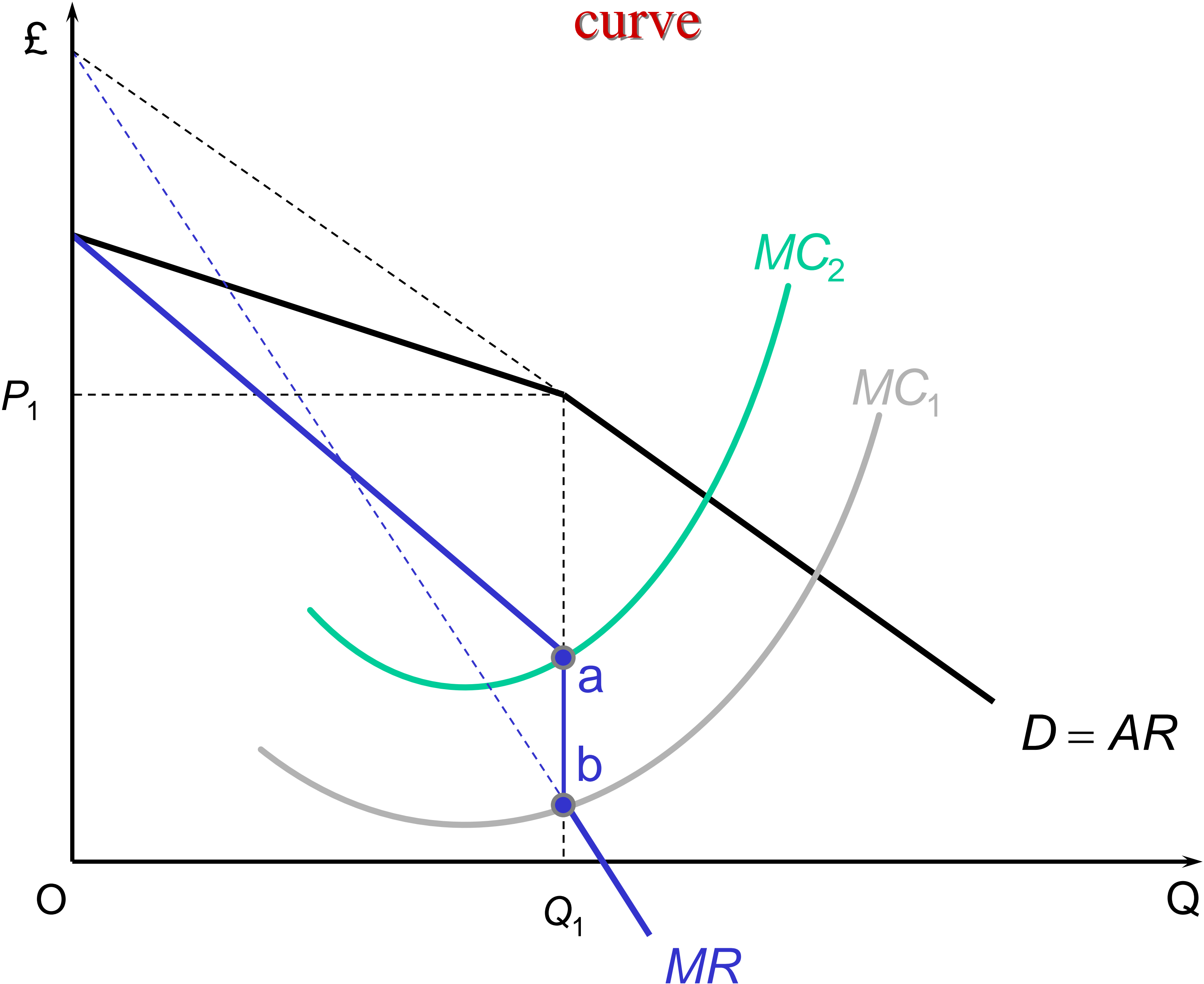
- When oligopolists act collusively and jointly maximise profits they effectively act as a monopolist

- In some respects oligopoly may be more disadvantageous than monopoly
  - there may be less scope for economies of scale to mitigate the effects of market power
  - Oligopolists are likely to engage in much more extensive advertising than a monopolist

- However there may be advantages too;
  - supernormal profits can be used for research and development
  - non-price competition through product differentiation can lead to much greater choice for consumer

- Phenomenon of workable competition and importance of competition policy

Stable price under conditions of a kinked demand curve



GAME THEORY

The study of the alternative strategies that firms may adopt depending on assumptions regarding rivals' behaviour

Maximin – the strategy of choosing the policy where the worst policy outcome (for various strategies) is expected

Maximax – the strategy of choosing the policy where the best policy outcome is expected

Complex games with no dominant strategy

Importance of threats and promises

OLIGOPOLY

- The breakdown of collusion

- Non-collusive oligopoly: game theory

  - alternative strategies
    - maximax and maximin

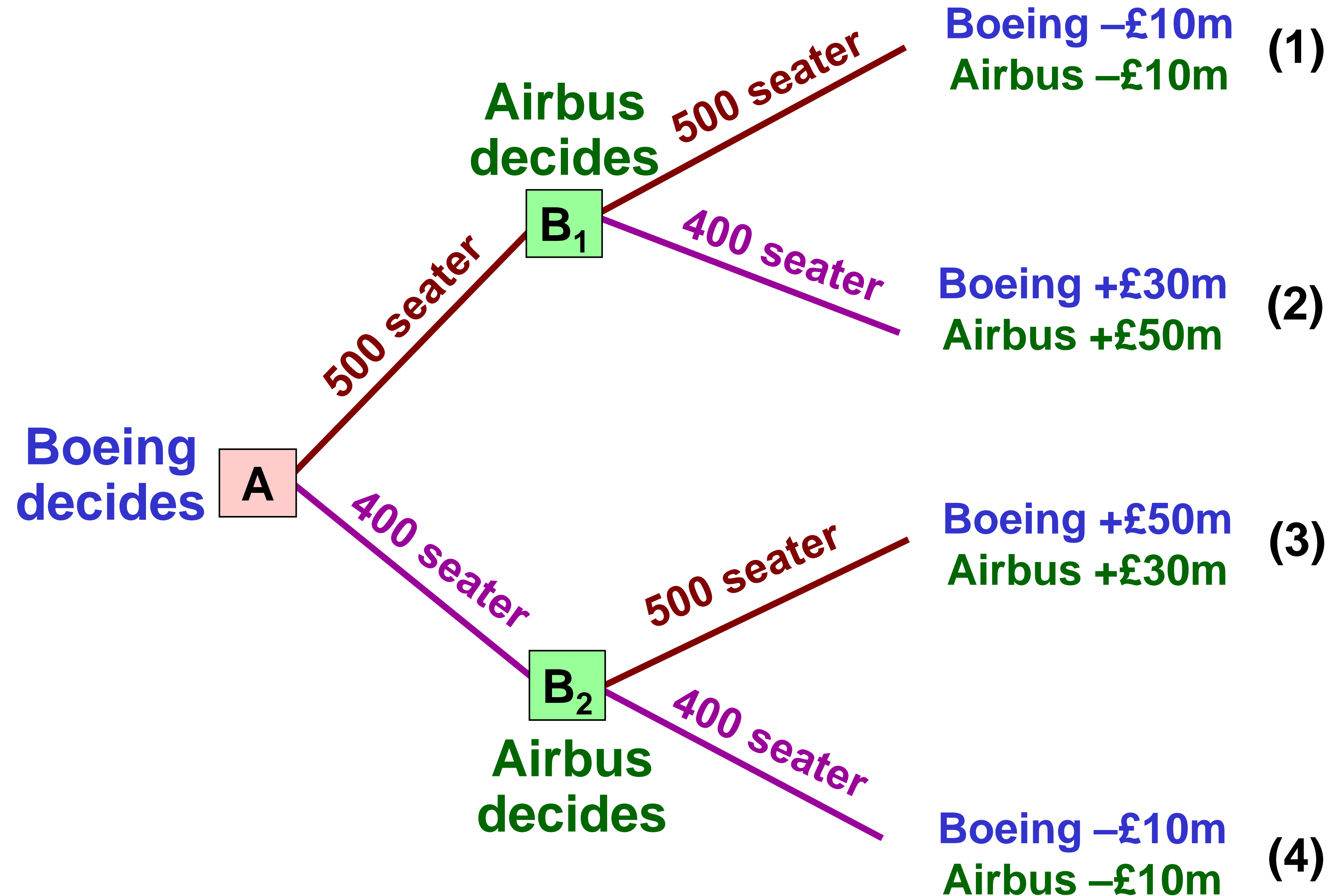
  - simple dominant strategy games

    - the prisoners' dilemma

    - Nash equilibrium
  - more complex non-dominant strategy games
  - the importance of threats and promises
  - the importance of timing of decisions

    - decision trees

A decision tree



PRICE DISCRIMINATION

- Conditions

  - firm must be able to set price
  - markets must be separate
  - demand elasticity must differ in each market
  - no legal barrier to its use

Examples: airline tickets, hotel pricing, pricing in different markets (e.g. in UK and Ireland by same store)

Advantages to firm:

Enables it to make greater profits than if a standard pricing policy was to apply

Profit-maximising output under third degree price discrimination