Market Structure Conduct and Performance

… up to ...

Contestable Markets

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What is market structure?

- Market structure is the organisational and other characteristics of a market
- We tend to focus on those characteristics of a market which affect the degree of competition between firms and their pricing decisions
- Traditionally we emphasise:

1. The number and size distribution of buyers and sellers
2. The existence or absence of barriers to entry and exit

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Structural characteristics of a market

- The number of firms and the extent of overseas competition (e.g. from within the single market or in global markets)
- The market share of the largest businesses (measured by the concentration ratio)
- The nature of costs in the short and long run
- The degree to which an industry is vertically integrated up and down the supply chain (e.g. forward and backward vertical integration)
- The extent of product differentiation / product branding
- Price and cross price elasticity of demand
- The number and size of buyers of the industry's product
- The turnover of customers from one seller to another (also called "market churn") – this is affected by brand loyalty and the effects of advertising and marketing

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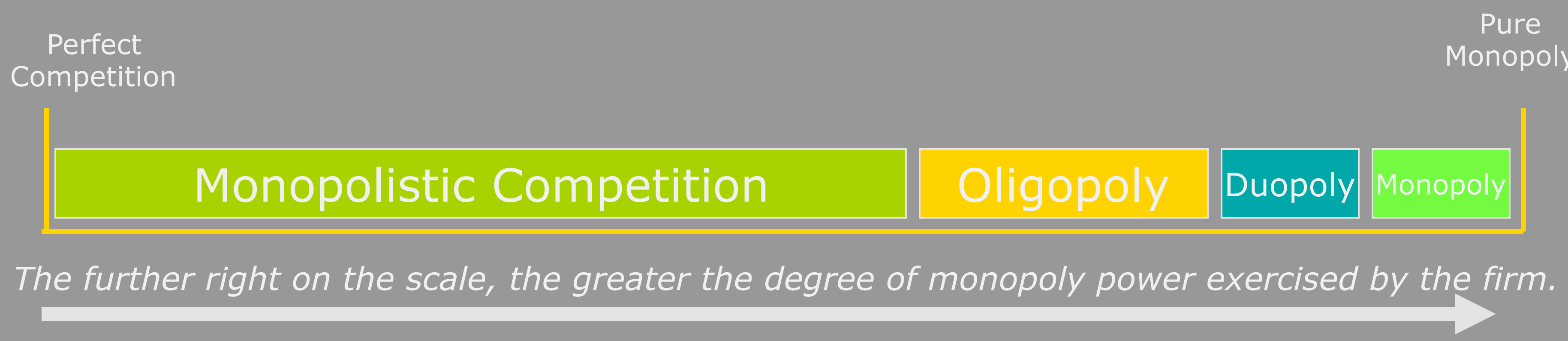
Defining the market

- Market and the industry are terms often used inter-changeably
- But……………………………
  - If we define a market in a narrow sense, it is likely that there will be fewer producers
  - A broader definition of the market often gives us more choice
  - Defining the market is important when we try to measure the concentration ratio and the extent to which a market is dominated by one or a few large producers

Market Structure



- **Characteristics of each model:**
  - Number and size of firms that make up the industry
  - Control over price or output
  - Freedom of entry and exit from the industry
  - Nature of the product – degree of homogeneity (similarity) of the products in the industry (extent to which products can be regarded as substitutes for each other)
  - Diagrammatic representation – the shape of the demand curve, etc.

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The nature of costs in a market

- Entry costs into a market
  - Capital costs will vary from industry to industry
  - E.g. a natural monopoly
- Sunk costs
  - These are costs that are not recoverable
    - E.g. advertising and marketing
    - Depreciation of capital equipment
  - High sunk costs makes a market less contestable
- Natural cost advantages
  - Location advantages e.g. close to ports, access to cheaper labour
  - Ownership of important raw materials
  - Control of the supply chain through vertical integration

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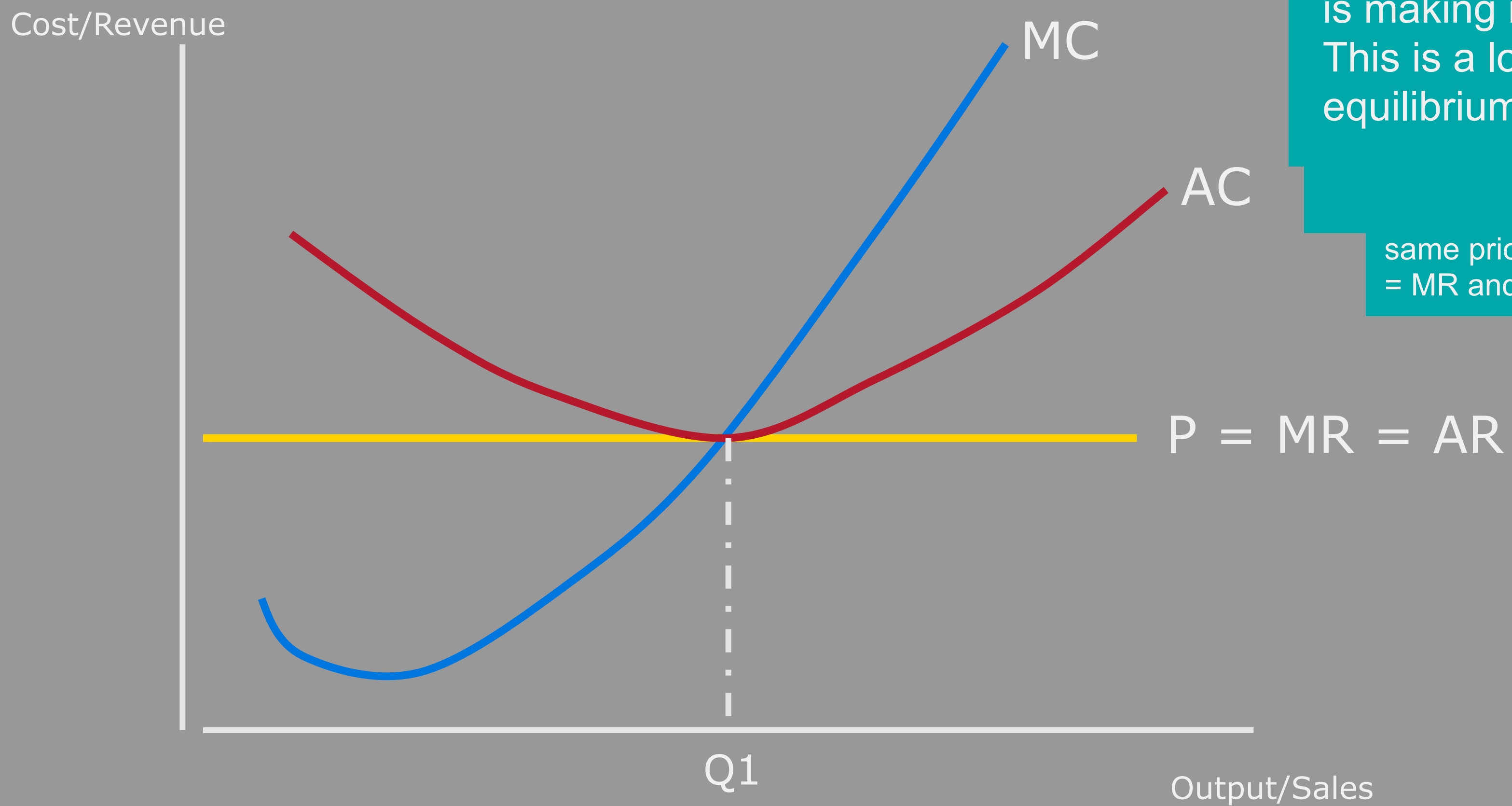
Product homogeneity or differentiation

- Homogeneous goods
  - Essentially the same physical characteristics
  - Associated with perfect competition
  - Potential for different grades
    - E.g. steel, cement, coal, fresh fruit
- Non-homogeneous goods
  - Products differentiated from their competitors
  - Branding
  - Packaging and marketing
- Strong product differentiation and brand loyalty allows firms to charge higher prices
  - Demand become less price elastic
  - Reduction in the cross-price elasticity of demand

Perfect Competition

Diagrammatic representation



At this output the firm is making normal profit. This is a long run equilibrium position.

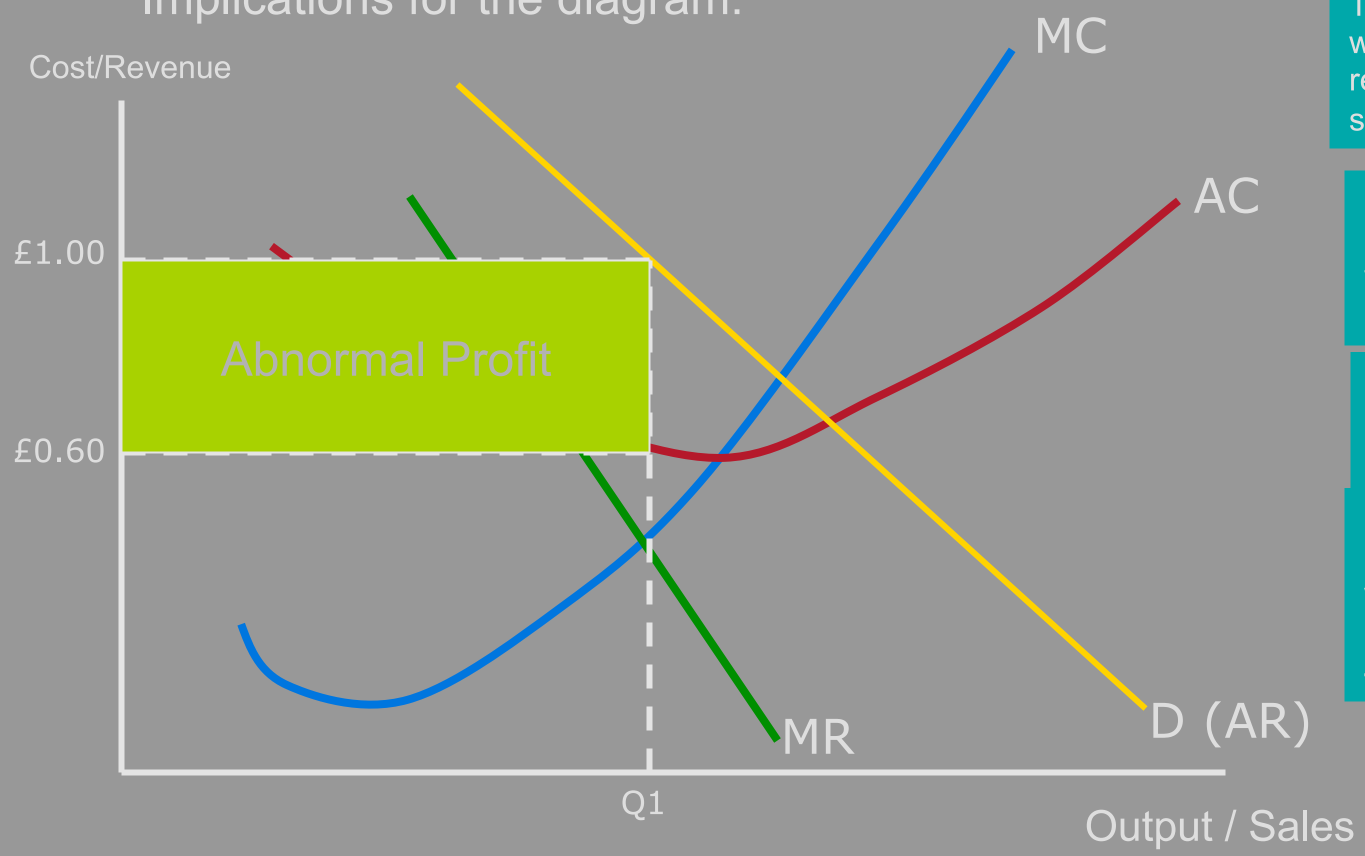
same price. Price therefore = MR and AR

Monopolistic or Imperfect Competition

We assume that the firm produces where MR = MC (profit maximising output). At this output level, AR>AC and the firm makes abnormal profit (the grey shaded area).

Marginal Cost and Average Cost will be the same shape. However, because the products are differentiated in some way, the firm will only be able to sell extra output by lowering price.

Implications for the diagram:



The demand curve facing the firm will be downward sloping and represents the AR earned from sales.

Since the additional revenue received from each unit sold falls, the MR curve lies under the AR curve.

This is a short run equilibrium position for a firm in a monopolistic market structure.

If the firm produces Q1 and sells each unit for £1.00 on average with the cost (on average) for each unit being 60p, the firm will make 40p x Q1 in abnormal profit.

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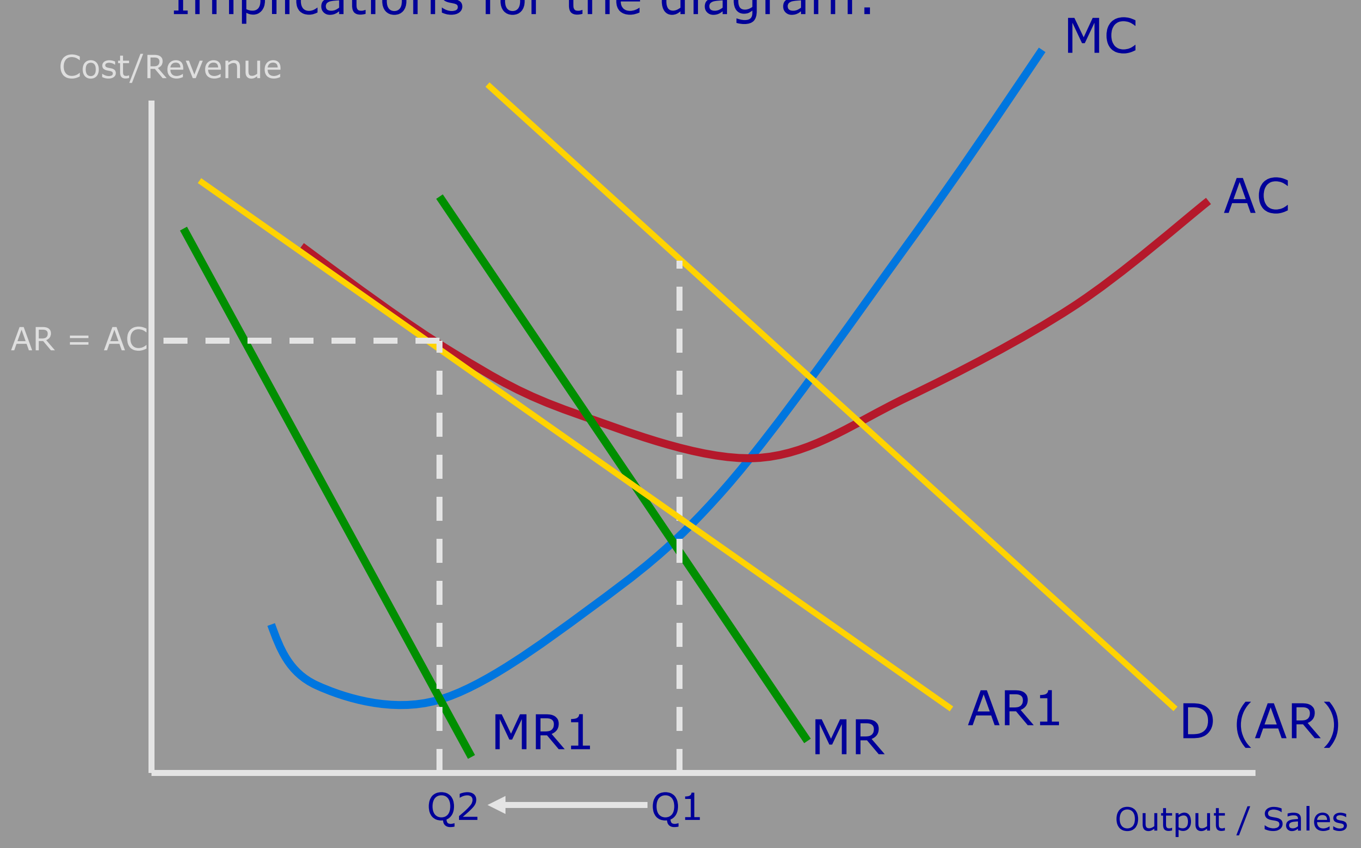
Monopolistic or Imperfect Competition

Implications for the diagram:



Notice that the existence of more substitutes makes the new AR (D) curve more price elastic. The firm reduces output to a point where MC = MR (Q2). At this output AR = AC and the firm will make normal profit.

The Conduct / Behaviour of Firms

- How does **market structure** affect pricing, output and other decisions of businesses within the market
- Are there dominant firms?
- Is there evidence of anti-competitive behaviour?
  - Collusive pricing agreements
  - Predatory pricing?
  - Vertical restraint?
- How important is non-price competition in the market?
- Is there **interdependence** between firms?
- Do businesses behave strategically to retain profits by deterring the entry of new competitors in the long run?
- Be aware that the market structure will affect the behaviour of firms

Oligopoly

- Features of an oligopolistic market structure:
  - Price may be relatively stable across the industry – kinked demand curve?
  - Potential for collusion
  - Behaviour of firms affected by what they believe their rivals might do – interdependence of firms
  - Goods could be homogenous or highly differentiated
  - Branding and brand loyalty may be a potent source of competitive advantage
  - Non-price competition may be prevalent
  - Game theory can be used to explain some behaviour
  - AC curve may be saucer shaped – minimum efficient scale could occur over large range of output
  - High barriers to entry

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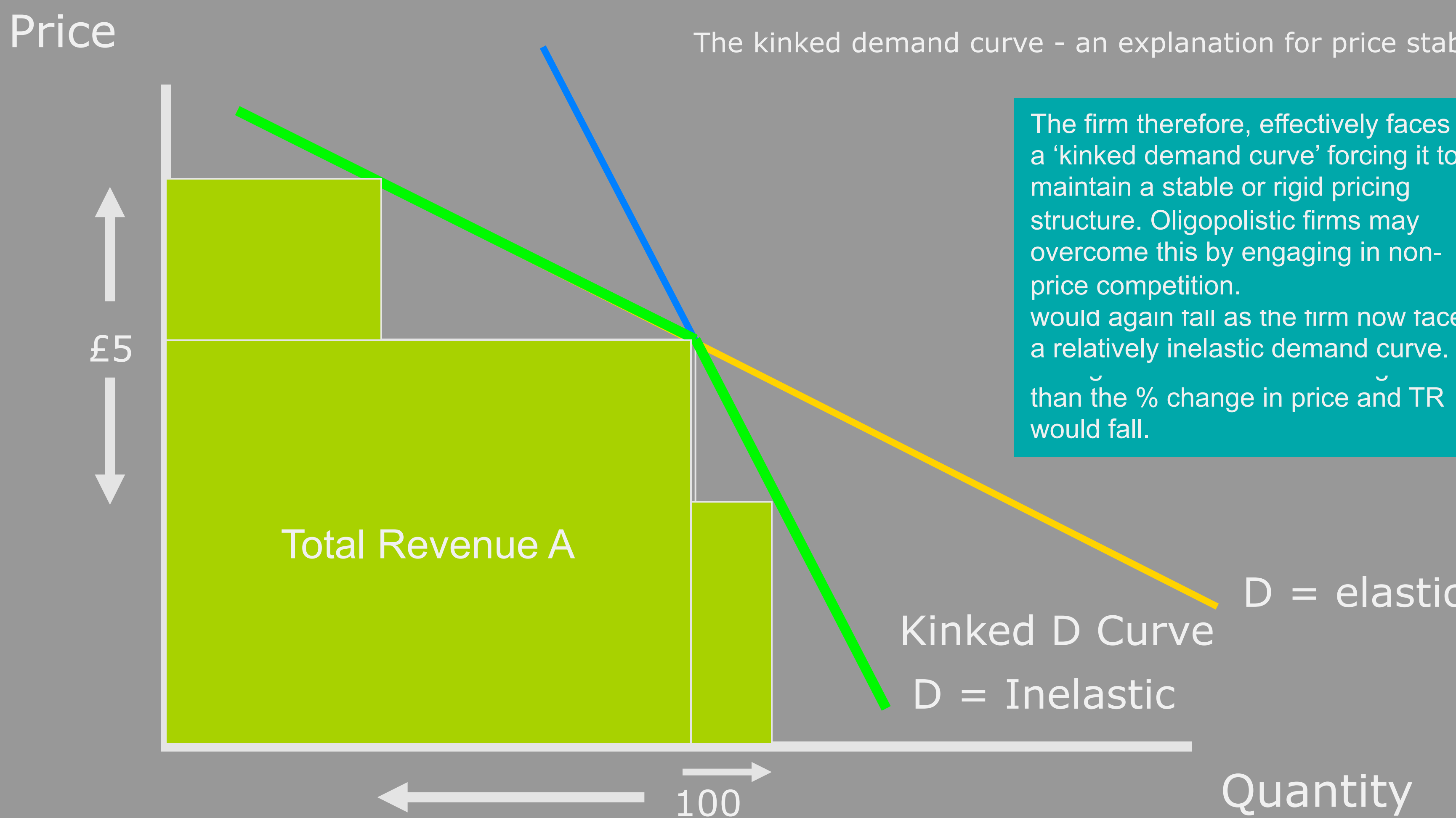
Oligopoly

The kinked demand curve - an explanation for price stability?



The firm therefore, effectively faces a ‘kinked demand curve’ forcing it to maintain a stable or rigid pricing structure. Oligopolistic firms may overcome this by engaging in non-price competition.
would again fall as the firm now faces a relatively inelastic demand curve.
than the % change in price and TR would fall.

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Duopoly

- Market structure where the industry is dominated by two large producers
  - Collusion may be a possible feature
  - Price leadership by the larger of the two firms may exist – the smaller firm follows the price lead of the larger one
  - Highly interdependent
  - High barriers to entry
  - Cournot Model – French economist – analysed duopoly – suggested long run equilibrium would see equal market share and normal profit made
  - In reality, local duopolies may exist

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Performance Indicators

- Trends in real price levels over time
- Size of business profits – evidence of excess profits?
- How much spending on research and development – does it lead to a fast pace of technological advance and innovation?
- How much spending on human capital, does it lead to rising labour productivity in the industry?
- Does the conduct of firms give rise to efficient outcomes?

1. Allocative efficiency
2. Productive efficiency
3. Dynamic efficiency

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Monopoly

- Monopoly power – refers to cases where firms influence the market in some way through their behaviour – determined by the degree of concentration in the industry
  - Influencing prices
  - Influencing output
  - Erecting barriers to entry
  - Pricing strategies to prevent or stifle competition
  - May not pursue profit maximisation – encourages unwanted entrants to the market
  - Sometimes seen as a case of market failure

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Monopoly

- **Origins of monopoly:**
  - Through growth of the firm
  - Through amalgamation, merger or takeover
  - Through acquiring patent or license
  - Through legal means – Royal charter, nationalisation, wholly owned plc

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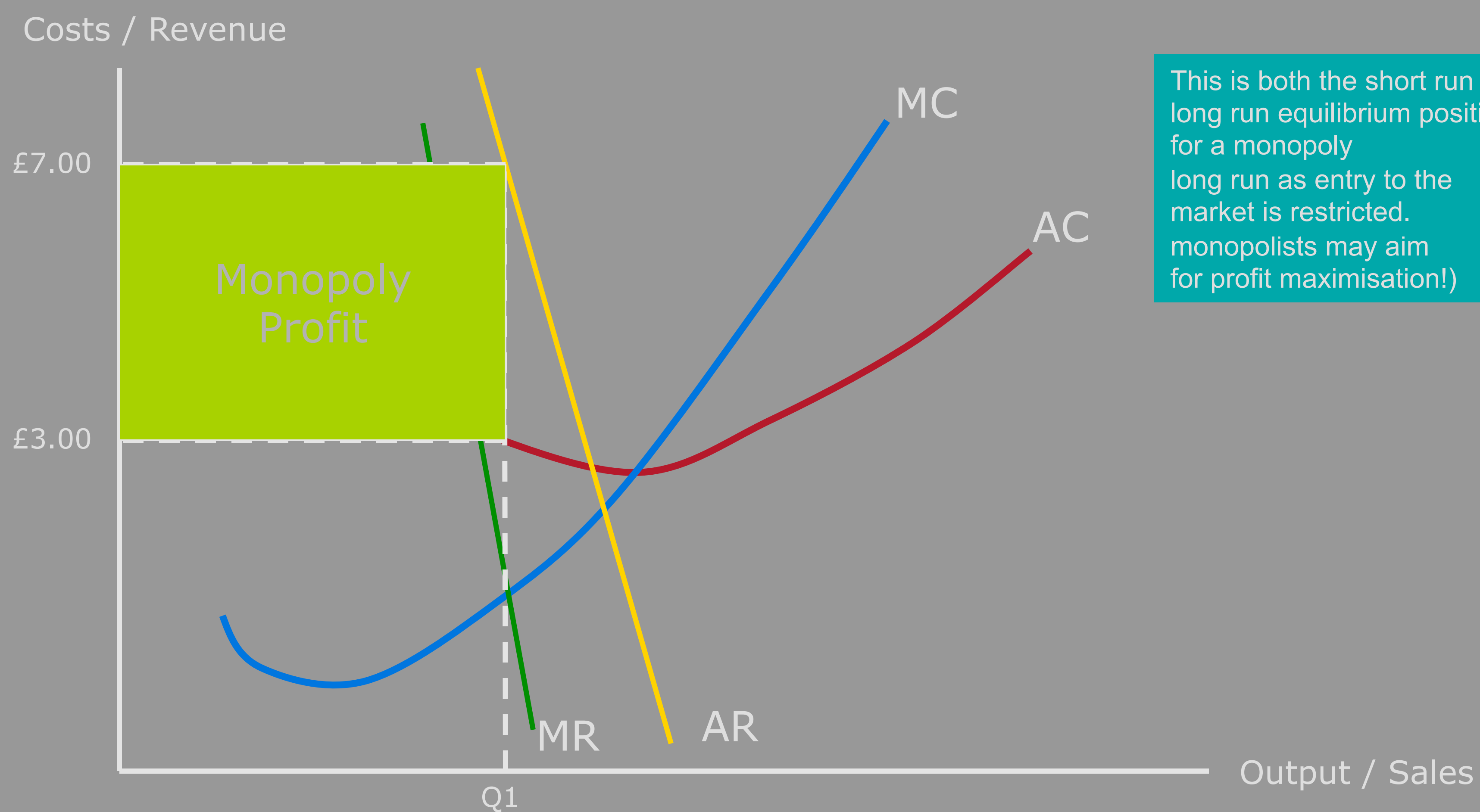
Has the telecoms industry achieved efficiency?

How might you judge whether the telecommunications industry in the UK was being economically efficient?

Monopoly



This is both the short run and long run equilibrium position for a monopoly
long run as entry to the market is restricted.
monopolists may aim
for profit maximisation!)

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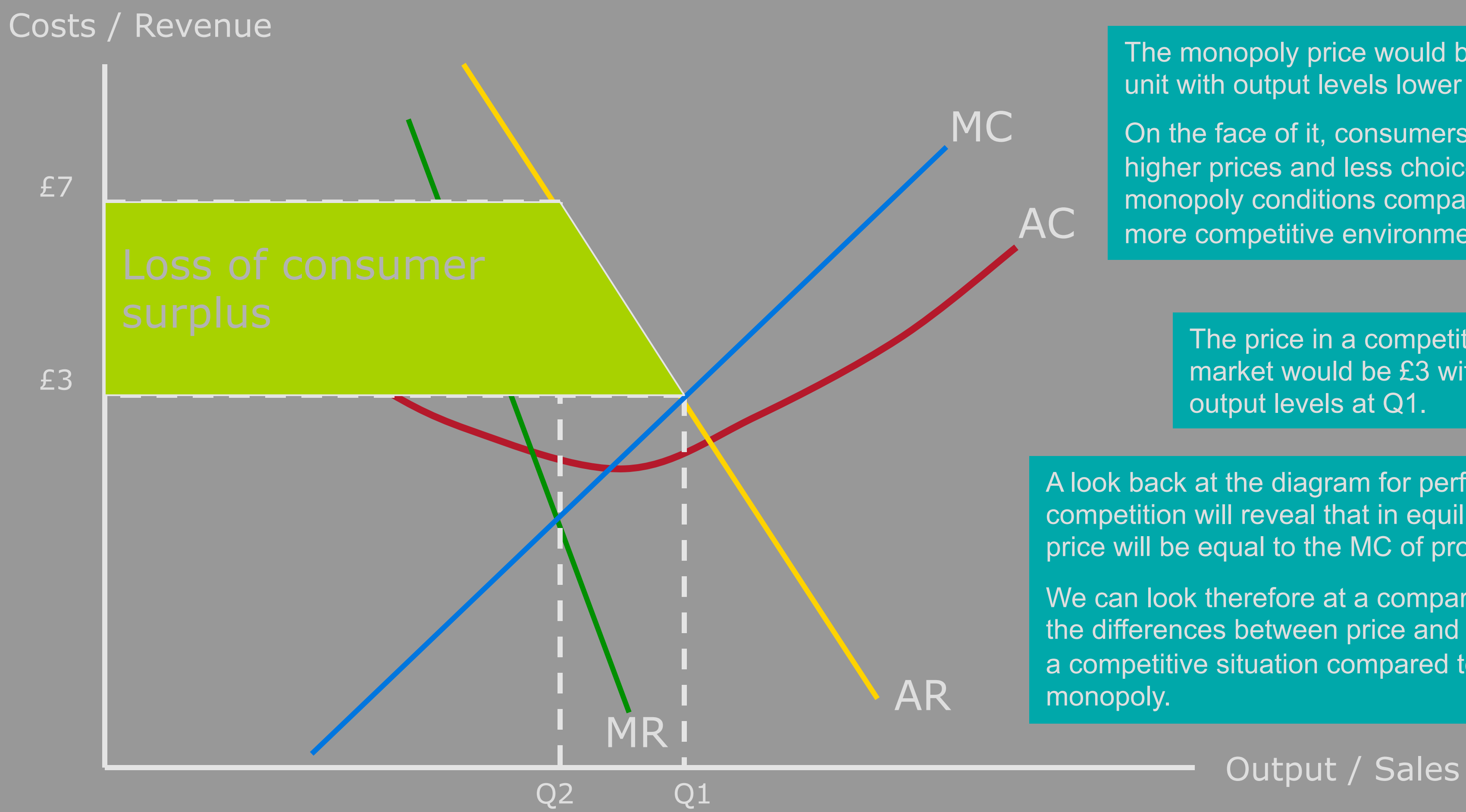
Monopoly

Welfare implications of monopolies



The higher price and lower output means that consumer surplus is reduced, indicated by the grey shaded area.

The monopoly price would be £7 per unit with output levels lower at Q2.

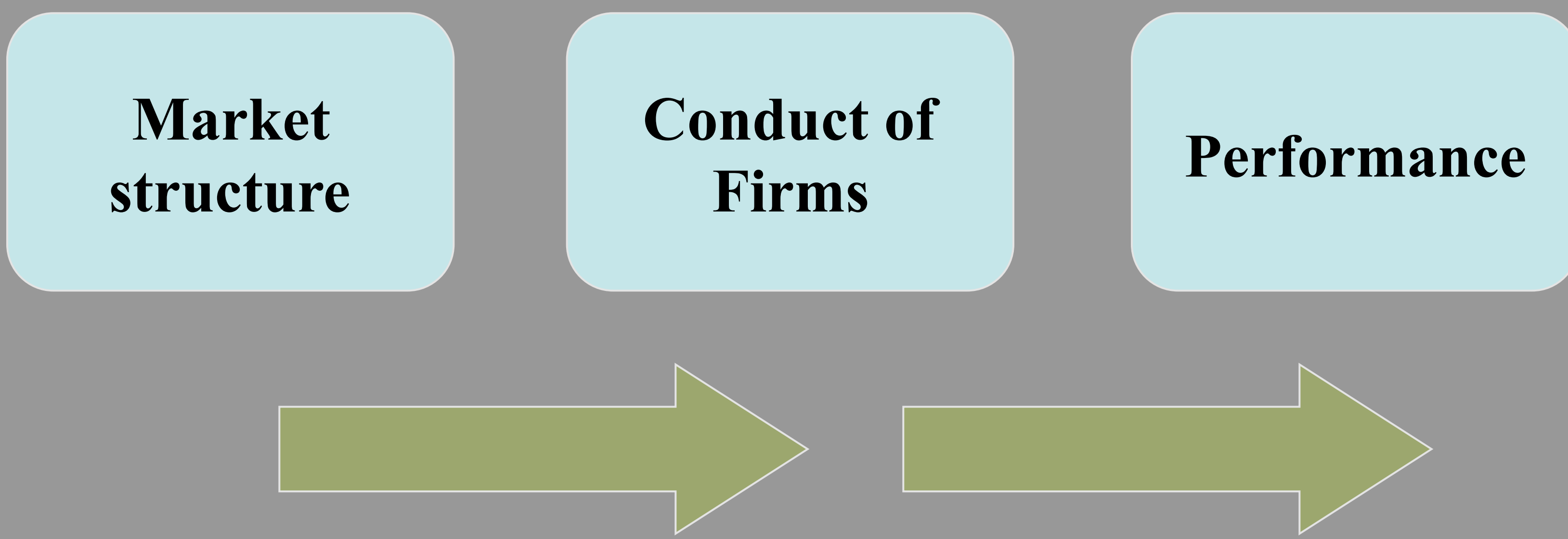
On the face of it, consumers face higher prices and less choice in monopoly conditions compared to more competitive environments.

The price in a competitive market would be £3 with output levels at Q1.

A look back at the diagram for perfect competition will reveal that in equilibrium, price will be equal to the MC of production.

We can look therefore at a comparison of the differences between price and output in a competitive situation compared to a monopoly.

The usual causal view



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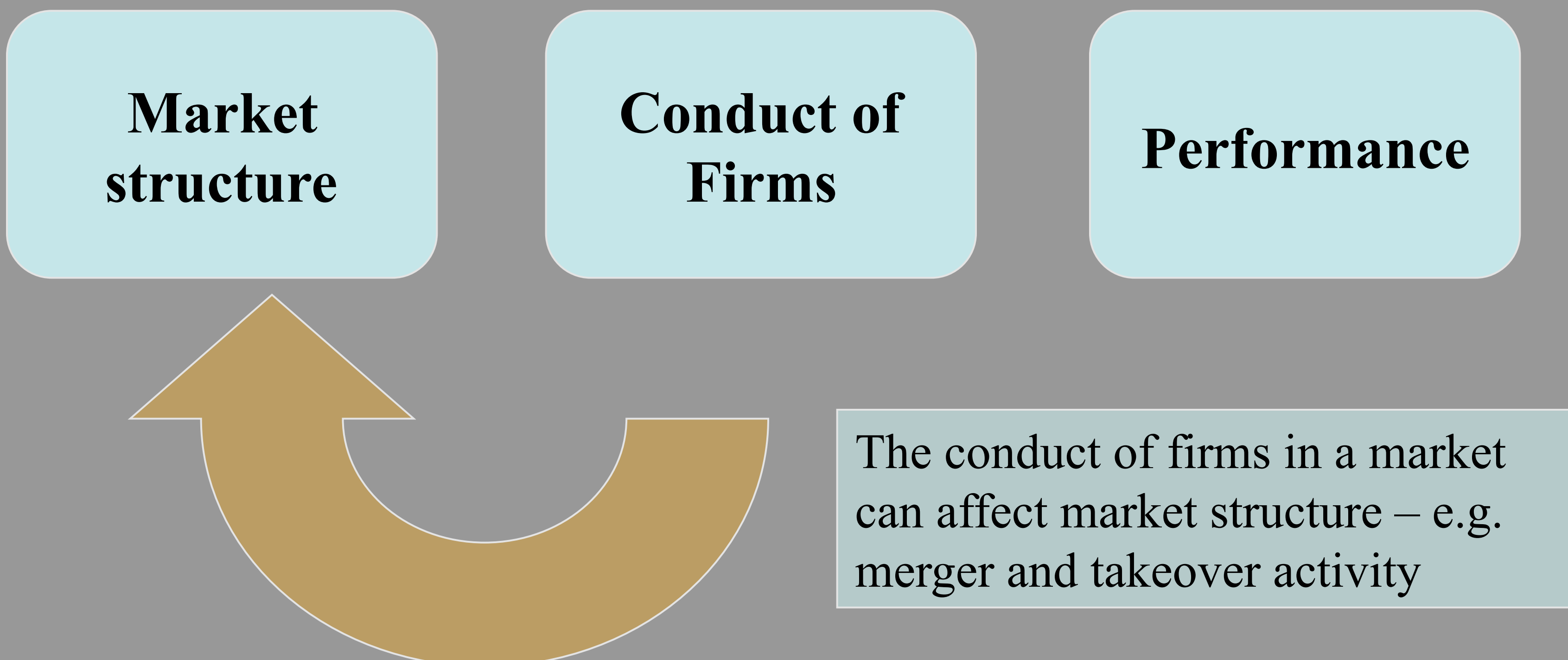
Conduct and market structure



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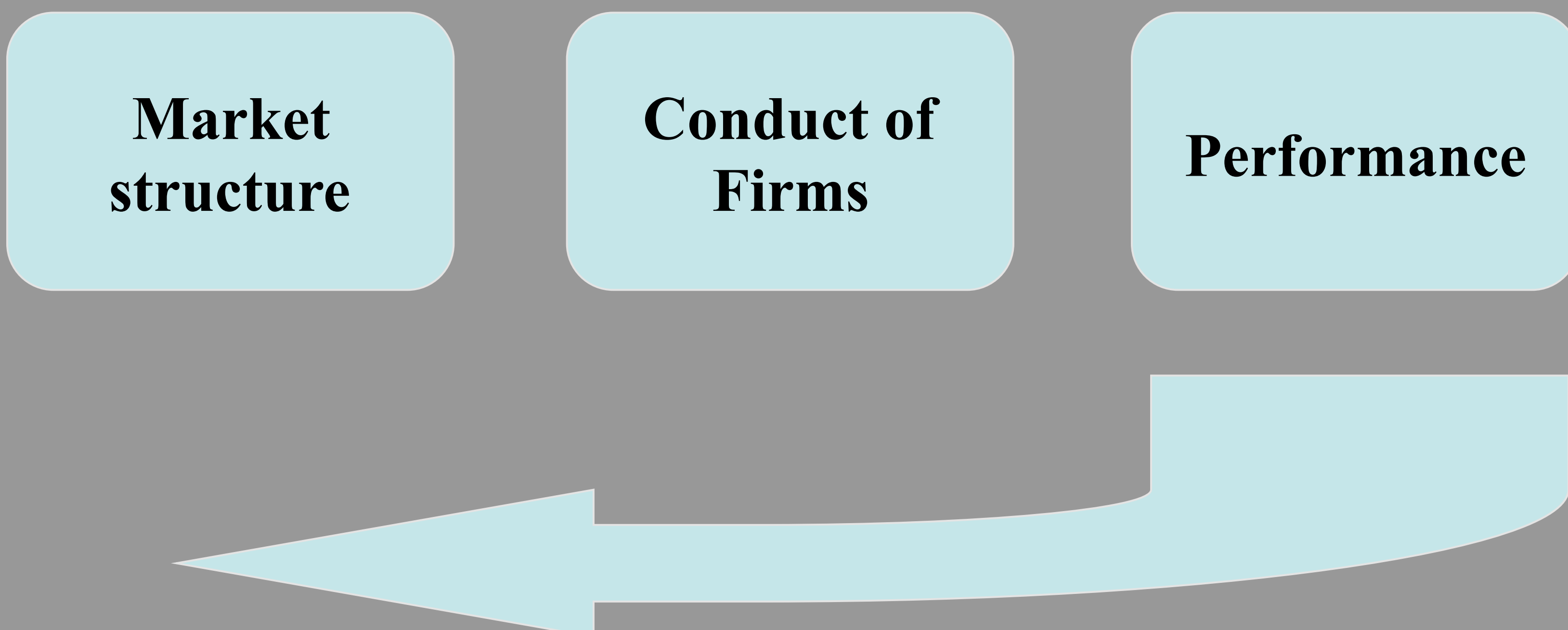
Price and non-price competition?

Outline some of the ways in which petrol retailing companies compete with each other for market share

Performance and changing markets

The actual performance of firms in the market affects market structure – e.g. rising dominance of best performing businesses – examples: pharmaceuticals, food retailing



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Performance can affect market structure

- Performance can affect structure
  - Top performing firms will gain market share at expense of rivals
  - This gives them more market power
  - Fine line between market dominance and economic efficiency?
- Market conduct affects structure
  - E.g. decisions about research and development and marketing
- Strategic behaviour of firms especially in oligopoly makes it difficult to rely on the structure conduct performance model
- The theory of contestable markets stresses the dynamic nature of competition especially when a market is open

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Contestable Markets

- Theory developed by William J. Baumol, John Panzar and Robert Willig (1982) Baumol defined contestable markets as existing where "an entrant has access to all production techniques available to the incumbents, is not prohibited from wooing the incumbent's customers, and entry decisions can be reversed without cost"
- Helped to fill important gaps in market structure theory
- **Perfectly contestable market** – the pure form – not common in reality but a benchmark to explain firms' behaviours

- **Key characteristics:**
  - Firms' behaviour influenced by the threat of new entrants to the industry
  - No barriers to entry or exit
  - No sunk costs
  - Firms may deliberately limit profits made to discourage new entrants – entry limit pricing
  - Firms may attempt to erect artificial barriers to entry – e.g…

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- Contestable markets are imperfectly competitive markets in which firms face real **<u>and</u>** potential competition
- The threat of "**<u>hit and run entry</u>**" from new rivals may be sufficient to keep the industry operating at a competitive price and output
- The key requirement for a contestable market is the **<u>absence of sunk costs …</u>** Sunk costs are those costs which are **irrecoverable** to the owners of the firm should it decide (a) to close down or (b) leave the market
- A sunk cost is a past expense or loss that cannot be altered by current or future actions e.g. advertising or goodwill. Sunk costs represent a **barrier to entry** in an industry because they scare potential entrants from entering – i.e. if they fail then these costs will be wasted. When sunk costs are high a market is more likely to behave like a monopoly. Same if there are high barriers to entry.
- A perfectly contestable market occurs only when entry and exit into is perfectly costless

Contestable Markets

virtually every market is contestable ***to some degree***

Hit and Run' tactics – enter the industry, take the profit and get out quickly (possible because of the freedom of entry and exit).

Short run entry into a contestable market seeking to take some of the monopoly profits available and then get out quickly
Possible when the entry and exit costs are low
Possible when the existing firms are charging high prices relative to cost

Cream-skimming – identifying parts of the market that are high in value added and exploiting those markets.

- **If** an industry is contestable **then** incumbent firms may be forced to act *as if* they are in competition and be satisfied with making only normal profits because of the threat of hit and run tactics.

The ability and or legal right to use the best available technology – production techniques. So new entrants would have the same costs as existing firms.
Legal freedom to enter a market
The relative absence of sunk costs / exit costs – barriers to enter and exit. Fewer barriers mean greater contestability

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Contestable Markets

- Examples of markets exhibiting contestability characteristics:
  - Financial services
  - Airlines – especially flights on domestic routes
  - Computer industry – ISPs, software, web development
  - Energy supplies
  - The postal service?

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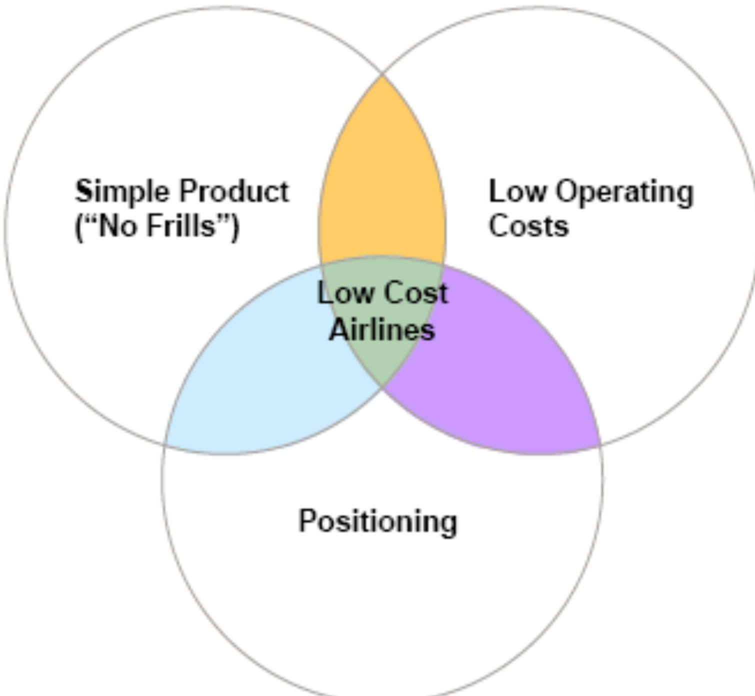
Business Design for Low-Cost Airlines

The “low-cost carrier” business design is defined by three key elements:



Explanations

Simple Product

- No meals; drinks and snacks for free
- Narrow seating (greater capacity)
- No seat reservation; free-seating
- No frequent-flyer programs

Positioning

- Non-business passengers, leisure traffic, price-conscious business passengers
- Short-haul point-to-point traffic with high frequencies
- Aggressive marketing
- Secondary airports
- Competition with all transportation carriers

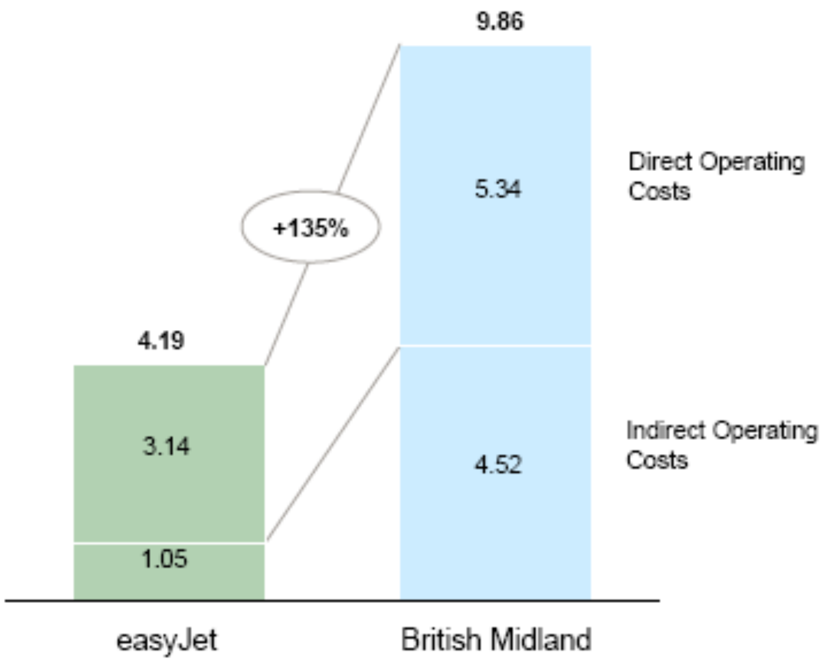
Low Operating Costs

- Low wages, low airport fees
- Low costs for maintenance, cockpit training and standby crews due to homogeneous fleet
- High resource productivity: short ground waits due to simple boarding processes, no air freight, no hub services, short cleaning times
- Lean sales (high percentage of online sales)

Comparison of Unit Costs

The cost advantages of low-cost airlines are not primarily the result of radical cost management, but rather a natural offshoot of their business design

Operating Costs (pence per seat-km)



Advantage for Low-Cost Carriers

- Narrower seating (higher capacity: 148 vs. 126)
- Higher plane utilization (10.7h vs. 8.4h) due to shorter turnaround times
- Lower staff costs due to greater productivity, generally lower wages and smaller staff (no service)
- Lower airport fees at secondary airports
- No sales commissions due to web sales
- Low station costs due to simpler handling and more efficient processes

British Midland's unit costs are more than twice as high as easyJet's

Data: operation of Boeing 737-300 fleet, cost comparison 1998; source: Airline Business, CAA, Doganis

Comparison of European Low-Cost Airlines

The degree to which the low-cost concept has been implemented can be shown using the predefined strategic success factors

Criteria	Ryanair	easyJet	Go	Buzz	Virgin Express	Debonair[1]
Simple product ("no frills")	● ▪ Genuine no-frills offerings	● ▪ Genuine no-frills offerings	● ▪ Genuine no-frills offerings	◕ ▪ Use of KLM lounges, reservations possible	◔ ▪ Hybrid business design (low-cost, charter, wet lease)	◔ ▪ Two-class product ▪ FFP ▪ "High frills"
Low operating costs	● ▪ Sec. airports ▪ Homog. fleet ▪ Minimum cost base	◕ ▪ Services major airports, hence higher turnaround times and fees	◕ ▪ Services major airports, hence higher turnaround times and fees	◐ ▪ Major airports: higher turnaround times and fees ▪ 2 types of plane	◐ ▪ Services major airports, hence higher turnaround times and fees	◔ ▪ Complex processes ▪ No cost advantages
Positioning	● ▪ Straightforward, aggressive low-cost positioning	◕ ▪ Low-cost position except for major airports	◕ ▪ Low-cost position except for major airports	◐ ▪ Major airports ▪ Bulk customers ▪ Business focus	◔ ▪ Unclear position (low cost, code share SN, charter)	◔ ▪ Unclear position with "low cost, high frills"

Only Ryanair and to a lesser extent easyJet and Go operate in Europe as genuine low-cost airlines

1 Bankruptcy of Debonair in 1999

Degree of implementation: ● high ◐ medium ◔ low