5. COMPETITION

Introduction

- The general economists' **view of competition**: it is a good thing; and no competition – monopoly – it is a bad thing
- **Generally** speaking, it is correct, however firstly how exactly competition delivers good outcomes, secondly sometimes competition does not produce the best outcome, and this is particularly relevant in transport industries
- The **aim** of this lecture – to understand when and how competition delivers efficient outcomes and when it is not the case and the government intervention is needed (usually because of market failure)

Background

- Neo-classical economics and economic policy → **the power of competition** (remember airline deregulation)
- One of the major problems with transport markets → a general ***lack of competition***
- **Cost structure** of the industry (FC/VC) determine teh number of firms in the market and thus the level of competition

PERFECT COMPETITION (basic assumptions)

- **Many** buyers and sellers
- **No barriers** to entry or exit
- All **firms** are profit maximisers
- All **consumers** are utility maximisers
- Perfect **information**
- **Homogenous** product

Example: Road freight

Perfect competition (further assumptions)

- **Non increasing production technologies** → no economies of scale
- **Non rivalry in consumption** → consumption by one individual does not preclude consumption by other
- **Absence of externalities** → all benefits and costs are private and thus taken into account in market based decisions
- **No government intervention** → to interfere between the forces of demand and supply

Exercise: Market structures

From the following list of transport industries:

1. Long distance buses
2. Commuter rail
3. European passenger air services
4. Transatlantic passenger air services
5. Rail freight
6. Road freight
7. Urban taxi
8. Urban public transport

Place those industries on a spectrum of market structures that should look something like this:

IMPERFECT COMPETITION and BARRIERS TO ENTRY

IMPERFECT Competition

- **Breaches** one or more of the assumptions of perfect competition. The result is a market that may have some form of competition, but the competition tends to be flawed in some respect
- When left to the free market, historically most transport industries have tended towards oligopoly or monopoly. Imperfect competition has **problems** as well as potential **advantages.**
- Many **reforms** intending to introduce competitive environment were unsuccessful in the long run

Barriers to entry

- **Barriers to entry** are key to sustaining a short term monopoly into the longer term, as they stop new firms entering the market and competing with the established operator
- **Structural** barriers → there are basic industry conditions that may limit market entry
- **Strategic** barriers → organizational barriers are put in place by incumbent firms to achieve the same effect

Structural barriers

- **Firm size** → when there are significant economies of scale (rail, air)
- **High sunk costs** → cost that cannot be redeemed or reclaimed when the firm leaves the market (Channel Tunnel)
- **Product differentiation** → when strong brand loyalty is created
- **Experience** → cost advantages due to the experience of being in the industry for a long time (learner curve, market knowledge, good reputation)

Strategic barriers

- **Legal protection** → a legal right to be the only provider → e.g. winners of the tender for PSO services (rail, bus) → direct competition on the route is prevented
- **Control of the factors of production** → skilled labour (rail drivers); vertical integration (production and transport); rolling stock (rail)
- **Exclusive dealerships** → car selling → manufacturers can control the network of outlets and prevent local competition in the new car sales → variation in car prices
- **Branding** → creation of strong brands as barriers to entry

Exercise: Barriers to entry

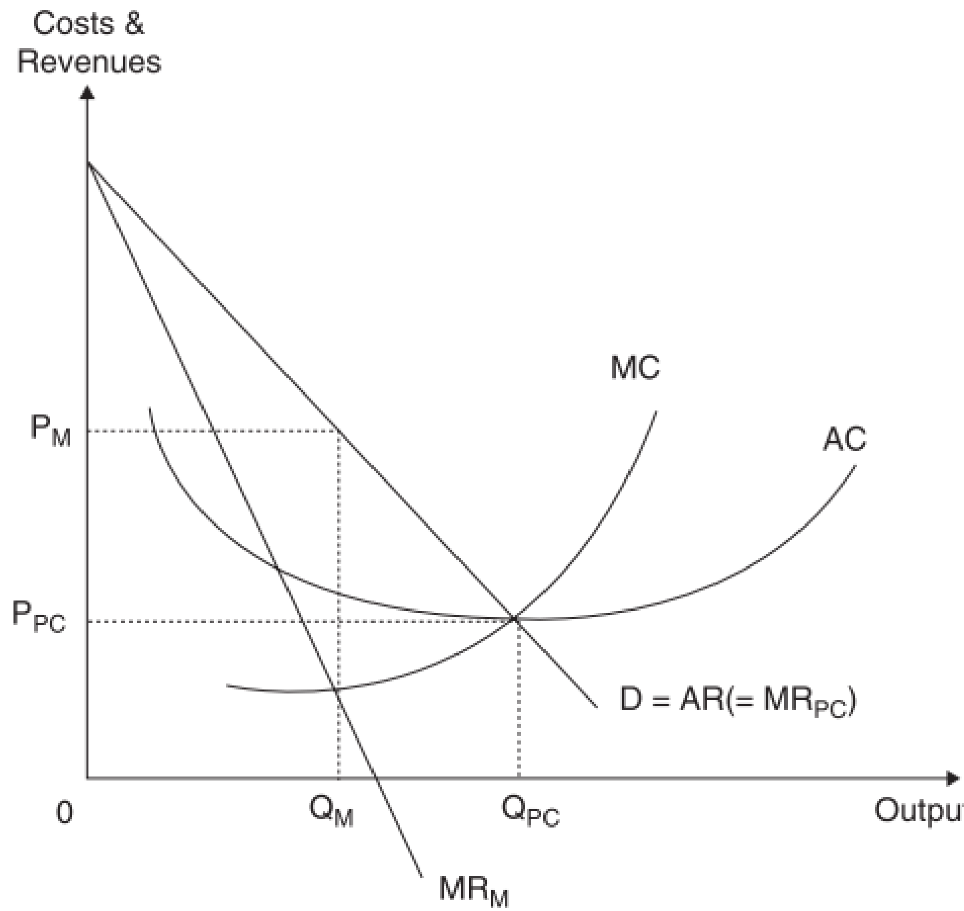
For the following transport industries:

- Bus production
- Provision of rail services
- Provision of the rail infrastructure
- Road haulage
- Air services
- Parcels market

Identify the main barriers to entry into each of these markets for a potential market entrant under the headings of structural and strategic barriers. Then place these industries on a scale, where 1 represents the industry with the lowest barriers to entry and 6 the industry with the highest. What does this tell you?

MONOPOLY

Monopoly versus perfect competition



Disadvantages of MONOPOLY (1)

- **Production inefficiencies** → the monopoly is not forced to produce with the minimal long run average cost → resources are being used inefficiently → mainly because scale inefficiency → restriction of supply
- **Higher prices charged** → monopoly restricts supply in order to induce high prices → public ownership (or introduction of competition) may try to increase output and decrease prices
- **Reduction of consumer surplus** → consumer surplus is changed into producers surplus. This transfer is potentially regressive as users of transport system are usually poorer than shareholders of the monopoly

Disadvantages of MONOPOLY (2)

- **Net welfare loss** → reduction of the total benefits from the exchange (consumers who no longer use the service)
- **X – inefficiency** → costs are higher than they should be due to general management slack (state ownership, no competition, no threat of bankruptcy)
- **The market no longer regulates itself** → accumulation of previous points; external intervention needed to provide regulation; emergence of regulatory bodies (not producing anything)

ADVANTAGES of MONOPOLY

1. A higher level of expenditure on **research and development** → when there is only one single large firm, it may have more resources and higher confidence to invest (TGV)
2. Market size – a natural monopoly
3. Wasteful competition
4. Hotelling's law

2) Market size – a natural monopoly

- Market is of such small size, that **only one firm** can achieve all economies of scale
- This argument normally applies where there is some form of **network** used in the production (rail infrastructure)

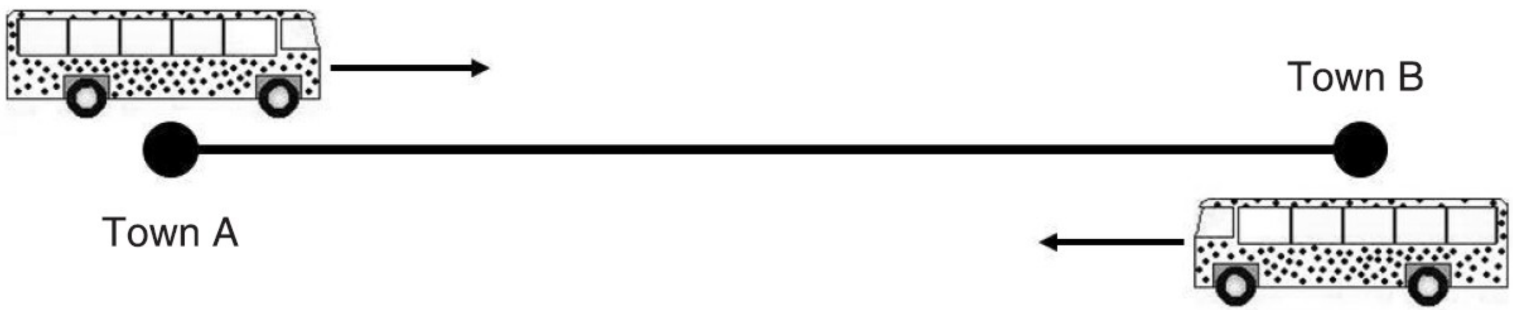
3) Wasteful competition

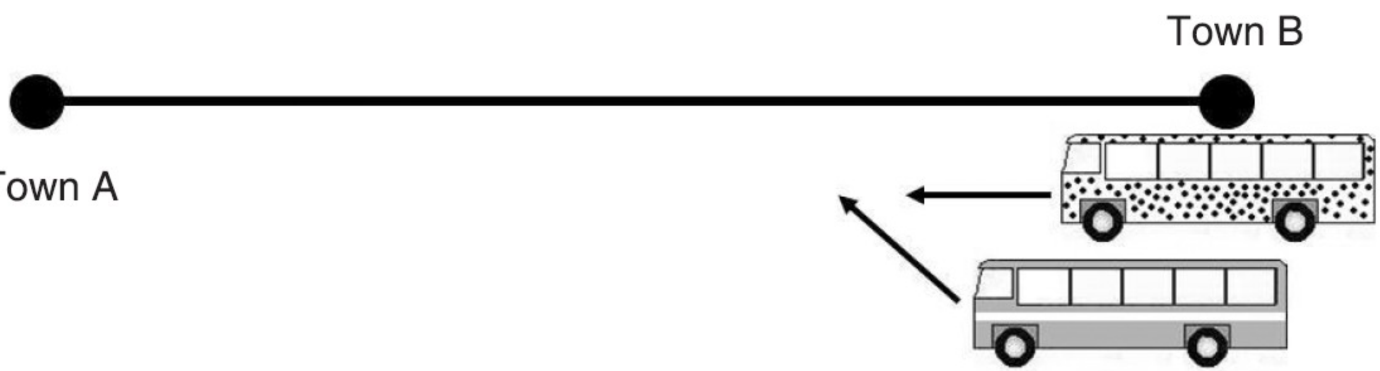
- Closely related to the natural monopoly argument
- It occurs when effectively **double or treble** the production resources are used to provide a service
- **Nash (1982)** explains that wasteful competition happens when competition leads to the bidding down the average loads and consequently average costs rise.
- Economies of scale (natural monopoly) x **economies of density** (wasteful competition)

4) Hotelling's law

- Hoteling's theory (1929) of **location competition** – ice cream sellers on the beach
- Non - optimal equilibrium, overcrowding **in the middle**
- Application to transport – competition in the timetables → Can lead to disruptions due to constant changes in departure times

4) Hotelling's law applied to buses (competition in departure times)





Contestable markets

- **Baumol (1982)** – it is unnecessary for the market to be in perfect competition in order to produce economically efficient results. It is enough to be a contestable market.
- If a **new** market **entrant** could enter the market and compete with the incumbent, then the threat of this potential competition would force the incumbent to act as if under (a perfect) competition
- **Contestable market** = entry to the market is free and exit is costless
- *Q: Examine the extent to which you believe that the low cost airline market meets the conditions of the contestable market.*

Contestable markets

- **Very few** contestable markets seem to exist in reality; assumptions are highly restrictive
- Low cost airlines may be close to this model
- Contestable markets suffer from **hit and run** entry (cream off profits and run away)
- They can also suffer from **cherry – picking** (concentration on the highest return's part of the market)

Case: Contestability in airlines

The sector is becoming more contestable because:

- Control over **landing slots** is lower (demise of airlines, regional airports)
- The **spread of information** through Internet (expanded access to information)
- The **frequent flyer** initiative is on retreat (is now a less of a benefit to passengers)
- The growth of **low cost** airlines (it is possible to compete against established operators)

Q: Are railways contestable markets?

OLIGOPOLY

1) Few sellers, many buyers

- When making market conduct decisions (fares, services), firms will take into account rivals' likely reactions to their market conduct
- This contrasts both with perfect competition and monopoly

2) Barriers to entry are significant

- With significant barriers to entry, firms within industry have a degree of protection from new entrants
- When considering market conduct decisions, little account needs to be taken of any potential competition
- Contestability of the market is thus limited

3) Non price competition

- When there are very few sellers, **price wars** tend to damage all firms in the industry and benefit none
- What tends to happen is that firms compete on factors other than price, thus all charge similar prices but **differentiate the product** or service that is offered
- The idea of **kinked demand curve** → all firms will charge the same price, **price leadership**
- Non price competition is generally regarded as a characteristic of oligopolistic markets, some markets have pretty **vicious price competition** (parcels, energy providers…)

4) Product differentiation

- The differentiation can take the form of the differences in the **frequency** of service patterns, the **flexibility** of tickets sold, role of **special offers**
- Degree of brand loyalty starts to exist → **advertising** and branding become important
- Advertising → perception of difference → **brand loyalty** → degree of market power → more flexibility in setting the price

5) Tacit collusion

- Tacit collusion = **hidden** degree of **cooperation**
- There is a strong incentive for firms to **cooperate** than compete
- Open **cartels** are illegal
- However, tacit collusion means unspoken, **passive cooperation** in order to relax competitive pressures
- **Examples:** buses in the UK, rail in CZ: the period of price wars, followed by consolidations and the emergence of large operators with home markets

The process of competition in oligopolistic markets

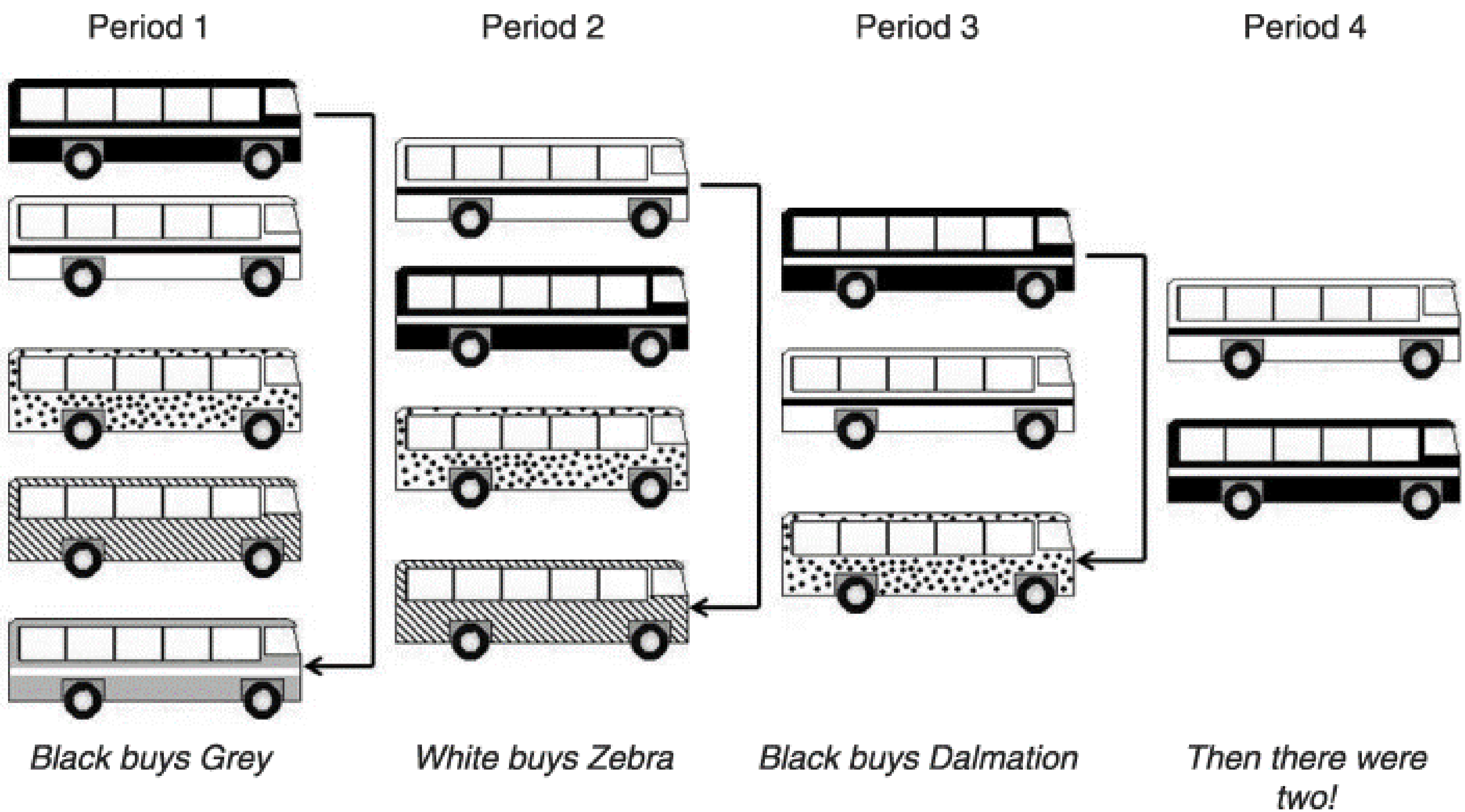
Introduction

- **Why** some markets have significant degree of **competition** and others have not?
- Many transport market evolve over time towards **oligopoly**, even if the deregulatory design was to produce competitive industry (US air, freight rail; UK bus, rail freight, EU air)
- **Anti-competitive nature** of many transport markets? → A major concern in the reform of public transport markets

Downie process of competition

- Downie‘s **little known** theory of the competitive process (Downie, 1958)
- This theory examines the competitive process over time and is primarily based upon the ethos of the **survival of the fittest**
- The fittest in this case being the **most efficient** firms
- Further theoretical perspectives to explain the tendency towards **supply side consolidation**

Downie competitive process applied to buses



Downie competition

- Less efficient operators are vulnerable to **takeovers**. This process diminishes the actual level of competition
- The motivation to purchase other companies is primarily driven by the **desire for growth** (of revenues not profit!)
- **Downie model** of competition → consolidation (and less competition) makes industry more efficient (as operations of less efficient operators are taken over and rationalized by the more efficient ones)
- This is more likely to occur in markets where there is **wasteful competition**
- This is **not consistent with neo-classical** micro (less competition should lead to lower efficiency)

Further development

- Efficiency improvements will be spread into other industries through **horizontal acquisitions.** E.g. in period 5, Black Bus may purchase a train operator, and transform into the Black Group
- The **definition of the market** may change (bus x PT x transport services; national x international)
- Example: **British buses** after deregulation: mergers and acquisitions occurred; efficiency improved; competition declined
- **Conclusion**: competition based on market forces is unattainable, the market tends to oligopoly with higher prices and lower capacity → market no longer regulates itself → regulation needed!

Case: British bus reform

Before 1980

- **Regulation** of bus services regarding market entry, the level of service, frequency, fares and qualitative regulation
- On the **supply** side →state-controlled monopoly (National Bus Company) + local operators
- **Local monopolies**, exclusive rights, very little direct competition
- **Prices and frequencies strictly controlled**

1980

- **Deregulation** of long distance bus market
- Any operator was **free to compete** with NBS on LD routes and charge whatever price they wished
- **Results** → increased patronage; reduced prices, significantly increased network of services

1986

- **Deregulation of all** bus services (except in London)
- **Re-organization** of supply → 150 new bus companies
- **NBS** → transformed into 72 regionally based operators
- **Local authorities** should separate their bus operations from local authority
- **Local** authority **powers** in the planning and control of bus routes was severely **limited**
- **No** industry **regulator**
- **Belief in** the power of **competition**

Results

- All bus services outside London were deregulated on **23 October 1986**
- Massive **disruptions** in most major cities
- **Bus wars** → cut-throat competition to gain market shares
- Constant **changes in timetables**, wasteful competition in duplication of well-served routes, withdrawal of rural services, dangerous driving, dubious business practices

Conclusion

- **Concentration** in the industry → mergers; emergence of teritorries and local monopolies again
- **Costs → downward** pressure
- More **focus on customer**, increased investment in the rolling stock; what customers want?
- Move to the **competition for** the market from the competition on the market