

Firms seek to **maximise profits** in order to have the best chance of **surviving** in a **competitive environment**.

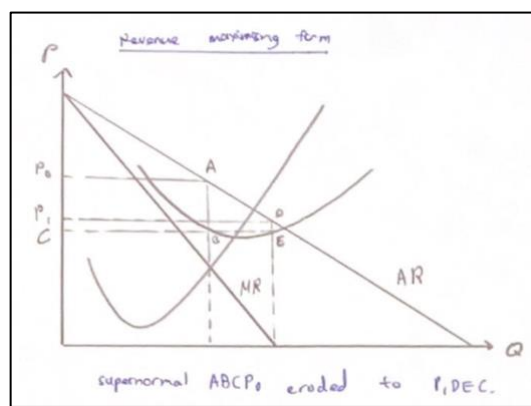
**Marginal revenue** is the additional revenue that a firm earns from the sale of 1 additional unit of output produced.

**Marginal cost** is the additional cost incurred by a firm from increasing its output produced by 1 unit.

### Revenue Maximisation (Reasons why a firm does not profit maximise)

#### Principal Agent Problem

- Objective of shareholders differs from the objective of directors and managers
- Shareholders want strong returns in dividend payments and rising share prices
- Managers have objectives such as power, bonuses, large expense accounts, prestige and status, and income is largely dependant on total revenue of firm / revenue they bring to the firms
- Sales department incentivised to maximise revenue rather than profits
- TR maximised at an output where no additional revenue can be earned from selling an extra unit of output ( $MR = 0$ )

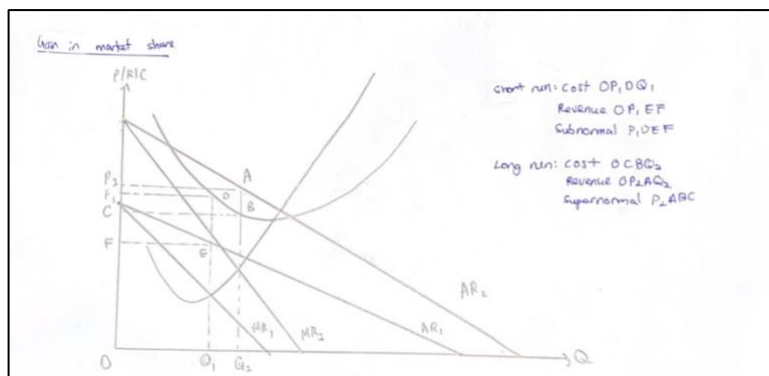


#### Profit Satisficing

- Shareholders could also be removed from operations of firms and are not actually aware of optimal decisions to be made. Hand off decisions to decision makers like regional managers, who may decide against profit maximising as they do not stand to benefit
- Managers have **discretion to pursue their own interests**
- Satisficers examine limited set of actions and choose best amongst them to avoid needless expenditure of time, energy and resources, enjoy benefits such as shorter working hours and lower levels of stress
- Less willing to take risks which could bring them more profits, instead choosing safe alternatives
- Aim for **target level of profits** or a profit level deemed acceptable by shareholders rather than absolute maximum levels
- **Eval: Jack Ma in Alibaba gives all employees shares in company so it would be in their interests to work hard to maximise profits**

Market Share Dominance (Firms aim to maximise their **long run supernormal profits**, and may sacrifice short-run profitability)

- Firms aim for market share dominance
  - Larger firms able to attract better talent as employees prefer working at bigger firms
  - Gains and loss in market dominance affect stock prices
  - Increase firms' **price setting ability** and ability to earn **supernormal profits**
  - Focus on price (predatory pricing) and non-price determinants, which could result in lower revenue and higher costs (hence lower profits) in short run, but supernormal profits in long run
  - Firm may temporarily function while incurring **subnormal profits**



- Engage in strategies to **shift demand curve outwards** and make demand **less price elastic** (but could result in higher costs and less short-run profits)
  - Entry deterrents, deter potential entrants from **lowering the market share** and potential profits for incumbent firms
  - Improve brand proliferation by investing in development of new products and advertising for consumer loyalty (**real** and **perceived** product differentiation)
  - New firms reconsider entry as they would have to match significant amount spent on advertising and R&D
- Predatory/Limit Pricing
  - Lower than profit maximising price, sometimes below COP and **incurring subnormal profits**
  - Past profits help to cope with losses incurred
  - Excess capacity in industry (as lower prices lead to increase in demand)
  - Often undertaken by firms with **largest MES** who can afford to meet excess demand while **maintaining a cost advantage**
  - Rival firms may not have past-profits to rely on to cope with losses from matching prices of firm and may be forced to surrender market share (not following price drop) or exit the market
  - Predatory-pricing firm gains market share and market power, ability to raise prices with less than proportionate fall in demand

Profit Maximisation is a LONG-RUN objective

- Twitter loss of \$80 Million in 2012 before it was able to IPO for \$18 Billion in Nov 2013

Mark-up pricing → Sell much above full cost price (up to 2.4x in UK)

**Fixed cost** is a cost that does not vary with output level and must be paid **even when production does not take place**.

**Variable costs** are costs that vary with output level and are not incurred when production does not take place.

**Short Run** is the time period during which at least 1 factor of production is fixed

**Long run** is time period in which all inputs are varied and no fixed costs are incurred.

### Internal Economies of Scale (Explain Shape of LRAC)

Cost savings that occur as a result of **firms expansion** and have been created by firms own policies and actions.

#### Technical EoS

- Gains in productivity/efficiency from scaling up production
- Factor indivisibility: Minimum-sized units that cannot be divided into smaller units
  - Larger firms able to **spread cost of equipment over larger output** and thus lowering the **cost per unit output**
  - Large supermarkets can invest in database technology to improve stock control (or any software things)
  - Mining and agriculture – Heavy equipment like drills excavations and harvestors require large production level to spread out high sunk cost
- Container principle: Surface areas of containers grow slower than its volume
  - Containing materials – Furnaces and oil tanks cost less per unit of output if in larger size
  - Amazon has several huge warehouses at central distribution that store millions of items.
- Specialisation and division of labour
  - Specific and more repetitive jobs → become more efficient at job and develop skills
  - Workers better at each task focus solely on them
  - Less training and less time spent switching between jobs
  - Cars – Electrical wiring, engine, paintwork and windows done by different workers

#### Financial EoS

- Smaller firms like SMEs have **lower credit rating** with banks and are considered **riskier ventures**
- Larger firms can also raise capital through issuing of bonds without have to incur interest rates, or a cost to borrowing money
- Higher interest rate incurred by smaller firms → higher cost to borrow funds

#### Managerial EoS

- Specialisation and division of labour at **supervisory level**
- HR specialists increase productivity and decrease unit costs by creating cost-effective hiring and labour search processes. Lowers chance of hiring unproductive workers
- Cost of HR spread over **more employees and output** in larger firms, saving costs

#### Marketing EoS

- Bargaining advantage, dictate requirements of price, quality and delivery more effectively
- Preferential treatment by suppliers as larger firms buy raw materials and components **in bulk** and suppliers cannot/do not want to lose business
- Large price of advertising also spread out over large number of products in larger firms
  - Apple spends \$1.8 Billion dollars annually on advertising

#### Risk-Bearing EoS

- Returns on research and development highly variable and uncertain
- Large firms spread out cost of R&D over more production and have more supernormal profits to spend on R&D
  - Apple's decades of research and development has allowed it to develop its own M1 chip which has seen exceedingly high performance
  - Mergers in pharmaceutical firms to afford large costs of drug research
- Larger firms also can afford to obtain materials from different sources to guard against shortages and operate in many geographical locations in case of recession, reducing impact that unforeseen events can have on firm.

### Internal diseconomies of scale

#### High cost of monitoring and management

- Difficult to maintain effective flow of information
- Franchise firms required to monitor quality and ensure standardised experiences
- Need approval from layers of management, time lags and costlier decision making process

#### Low morale of workers

- Impersonal relationships
- Workers feel small and insignificant part of business
- Eval: See Alibaba

### External Economies of scale

#### Savings in costs occurring to all firms as a result of **expansion of industry**

##### Economies of information

- Firms may share common R&D knowledge or facilities
- Improves productivity of individual firms and reduce their average costs
- Tap on research of universities, scientific and trade journals published that could provide informations to firms about markets, sources of raw materials and latest production methods

##### Economies of concentration

- Clustering of businesses in geographical location
  - High demand for particular skill set
  - Firms can join together to develop training facilities to reduce training costs
  - Silicon Valley, attracts talent to firms and reduces skilled labour search costs
- Developed infrastructure
  - Government encouraged to invest infrastructure to cater to industry
  - Better connected roads, railway lines, airports for transport of raw materials and finished goods and services
  - Increases output per unit input, increase productivity and decreases costs

### External diseconomies of scale

#### Strain on infrastructure (traffic congestion)

#### Shortage of industry-specific resources

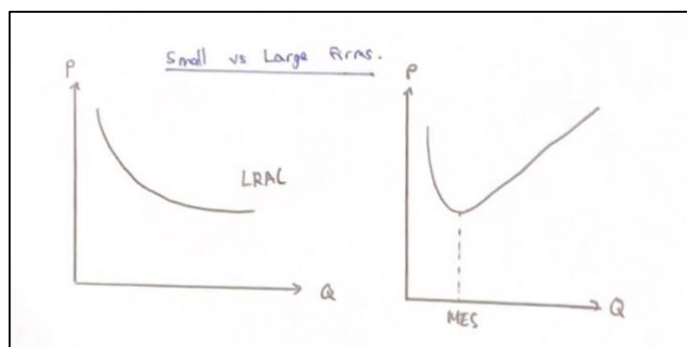
- Shortage of raw materials and skilled labour
- **Competition for scarce resources, supply bottlenecks.** Upbid prices and cost of raw materials and skilled labour increases
- Wages and cost of resources rise.

## Small vs Large Firms

MES - Minimum efficient scale, the scale of production where **IEOS have been exploited**. It is the **lowest point on LRAC curve** and the firm has achieved **productive efficiency**.

### MES at low level of output

- **Diseconomies occur at low levels of output**
- Personalised goods and services which required direct individual attention and difficult to mass produced (like **tailoring and hairdressing**)
- dEoS sets in when detail is mass-produced, resulting in high monitoring and management cost
- Vertical disintegration – Production process broken into smaller processes, where dEoS set in in each part of process. Small firms can each perform small part of whole task (i.e. specialise in single process and make parts for larger organisation)
  - **Computer manufacturing – Screen, motherboard, storage and cooling produced by different firms**
- Saucer-shaped LRAC: Small and large firms coexist
- EOS exhausted, constant unit costs over wide range of output (such as **breweries**). Small and large firms equally cost efficient and coexist in the same industry



### Banding / Joint Ventures

- Small firms band together and engage in joint venture, **exploit economies of scale of larger firms**
- Advantages of bulk buying, sourcing for raw materials, advertising and promotion
- **Small supermarkets could band together and secure joint deals for delivery (marketing EOS)**

### Market Segmentation and specialisation

- Market segmented into small markets
- Large firms focus on **mass-produced items**, smaller firms focus on **customised / niche items**, with a smaller market (sometimes due to high and restrictive prices)
- **Honda and Toyota mass car market, Porsche and Ferrari upmarket sports cars**
- Niche markets are less **price-elastic** due to a **lack of direct substitutes**. They may serve the upper classes with **more income**, price relatively insignificant as constitutes low percentage of income.
- **May not be able to fully exploit iEOS**, but can retain high revenue and profits by setting **relatively high prices** to cover higher unit costs of production

### Geographical Factors

- Great bulk in relation to value, where transport costs are high relative to its total production costs
- Markets end up being more **local** rather than **national**
- **Fresh produce like fruit and vegetables, perishables like ice cream**
- Small provision shops can distinguish themselves by placing themselves in more convenient areas where larger chains are more inaccessible.

### Business risk

- Expansion of firms requires **funds and large capital outlay**
- Firms may have to borrow money from banks or sell shares to raise money
- Risk of investment greater as firms need to pay interest and losses can be greater
- Fear future fall in prices if large increase in market supply (Maybe draw DD-SS graph)
- Lower price → lower profits of firms.

### Barriers to Entry

Shut down condition – Profit maximising firm shuts down in short run if  $TVC > TR$ . Shuts down in the long run if  $TC > TR$ . If firms shut down → could potentially lead to **structural unemployment** as the firm no longer provides employment to its employees.

Barriers to entry are market impediments that **prevent potential competitors** from **entering a market**. They give incumbent firms **greater price setting ability** due to a **less price elastic demand**.

Strategic barriers – Any move made by incumbent firms to keep potential firms out

### Predatory Pricing

#### Intense advertising

- Persuade consumers that there are **no close substitutes** by creating **perceived product differences** or by drawing consumers' attention to **real differences**
- Induces **consumer loyalty**, which makes demand **less price elastic** (habituality)
- More difficult for potential entrants to enter market and gain a sufficient market share to earn normal profits
- Coca-cola and Pepsi, strong advertising created consumer loyalty despite most people being unable to distinguish the 2 brands of drinks

Gaining control of supplies of essential raw materials (sometimes through hostile takeovers and acquisitions)

- **Diamond industry, De Beers buying over all diamond mines in 1870s**
- Control of production process, new firms cannot enter market without gaining control of factor of production
- Can control smaller amount of diamonds, shortage in global supply, consumers upbid prices (illusion of exclusivity also created, i.e. **Chanel bags**)

### Research and development

- LR supernormal profits to finance R&D
- Develop **new and differentiated products** or improve on **production process** to lower costs
- Apple spends 8% of revenue, of \$16 Billion annually, on research and development on products (i.e. M1 chip), that allows it to maintain demand despite high price

### Statutory barriers – Forces of law

- Government licences required for firms to operate
  - **Telecommunications industry, Telco firms require government permit (only a few firms like Singtel and Starhub)**
- Patents, copyrights and trademarks: Exclusive rights to produce and sell product
  - Forbidding use of formula/technology/production methods by other manufacturers
  - No competition, **no substitutes** for buying goods from incumbent firm
  - Demand high and **relatively price inelastic** → high prices until competition can enter market
  - Results in income inequality → Production cannot occur in developing countries where the products like medicine are needed → firms do not sell in those countries due to lower purchasing power → lack of societal welfare.
  - **Insulin market (5800% mark-up rate)**

Nature of the industry leads to barriers to entry for potential entrants

#### High sunk costs

- Purchasing equipment and hiring expertise to use equipment
- Significant losses incurred if exit market (high risk)
- Large amount of capital needed for new firm to enter market
- Incumbent firms enjoy **substantial EOS**, LRAC falls over very large output (hard for new firm to gain such large demand and production levels)

- Fracking for oil, need to construct oil drills and hire skilled technicians operate the oil drills.



## Monopolistic Competition (MPC)

Large number of small buyers and sellers relative to market size

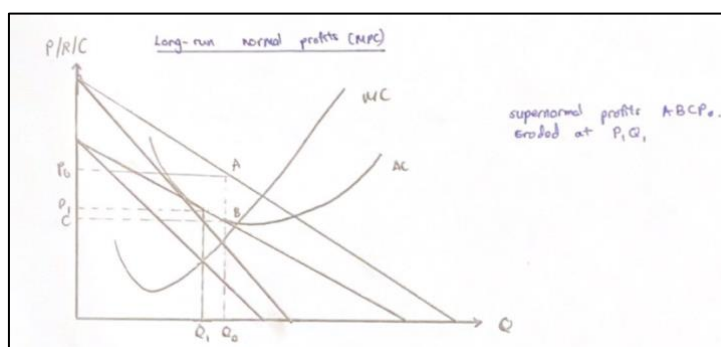
- Each firm has **relatively small share of total market**
- Market power is limited, ability to **set price about marginal cost** is limited
- Each firm **acts independent** of other firms, firms do not take into account reaction of rival firms
- Firms prefer to engage in non-pricing competition to **differentiate products, maintaining customer loyalty** which provides firm with **certain degree of market power**

Differentiated Products

- Real physical differences: Goods differ in some minor ways
  - Tuition: quality of teachers, teacher:student ratios, quality of notes
- Imaginary differences
  - Design, packaging, branding and method of production (environmentally friendly)
  - Achieved through non-price competitive techniques such as marketing techniques → draw attention to real differences or create illusion of better quality products
- Conditions of sale
  - Locations of shops
  - Customer service, ambience
- Increase demand and make demand less price elastic to give firms **more leeway to raise prices without market share loss**
- However, demand is still **relatively price elastic** due to the large number of **close substitutes**

Low barriers to entry and exit

- Low start up cost, leading to large number of small firms
- Long run normal profits only: **potential entrants easily enter market** when attracted to potential supernormal profits, **erode supernormal profits of incumbent firms**



- Original  $P_0Q_0$  equilibrium, revenue  $P_0AQ_0O$  and cost  $CBQ_0O$ , leading to supernormal profits  $ABCP_0$ . Potential entrants enter, reducing market share (demand at every price level) and increasing price elasticity. Assuming total market demand unchanged, demand for each firm's product falls.
- Average revenue, which is equal to demand decreases from  $AR_0$  to  $AR_1$ , and so does marginal revenue from  $MR_0$  to  $MR_1$ . Firms continue to enter market until all supernormal profits have been eroded at new equilibrium  $P_1Q_1$  with revenue = cost =  $P_1DQ_1O$ , at which point no new firms enter market and normal profits are maintained.
- Inability to **retain LR supernormal profits** → restricts ability to engage in large scale advertising or invest large sums in R&D
  - Engage in small scale – flyers, off-peak time on TV, social media advertisements

Imperfect knowledge

- Imperfect information regarding production methods and prices
- Hawker stalls: No complete information regarding all ingredients, recipes used and prices offered by different stalls
- Leads to small degree of product differentiation and price-setting ability of firms

Oligopoly

Few dominant firms relative to market size

- High degree of interdependence and **rival consciousness**
- Rivals actions cannot be ignored as likely to result in significant effects on firms' profits
- If McDonalds starts new promotion, BurgerKing's profits may decrease as people switch to cheaper alternative McDonalds

Products can be homogenous or differentiated

- Homogenous – perfect oligopoly. Each firm price setter with control over its own pricing policy
- Differentiated – Imperfect oligopoly
  - Less fears of immediate reactions from rivals as they may perceive change in price due to modifications made to products
  - Product differentiation occurs on larger scale due to **huge funding in R&D** and very **very large scale advertising** (firms can afford due to **LR supernormal profits**)
  - Apple and Samsung R&D, Apple spend \$16 Bn annually, or 8% of revenue on R&D

High Barriers to entry

### Cooperative model – Collusion

- Aim to **reduce uncertainty** in demand and actions of rival firms
- Limit competition amongst firms through agreed output quotas, fixed prices, limits in extent of product promotion and agreements not to poach each others' markets
- Cartels – **maximise joint/industry profits**
- Members agree to charge  $P_0$  and restrict output level to  $Q_0$ , at point
- Production quota, firms agree to divide market between themselves
- Incentive to cheat in order to increase profits above their share of joint profits as **individuals' profits not maximised**, production quota could fall short of members' profit maximising output (especially if member has MES at high output level)

When do cartels work

- Fewer firms, easier to be monitored and prevent cheating
- Significant BTEs, no risk of competition from new firms. This is especially true if firms agree to refrain from R&D (maximising profits) → new firms threaten combined monopoly
- Homogenous product – similar production methods, cost conditions, MES likely around same area, easier to agree to quotas
- Market demand **predictable** rather than **cyclic**, not subject to volatile fluctuations. If demand falls unpredictably, there will be excess capacity, may be need to keep amending agreements

### Price Leadership model

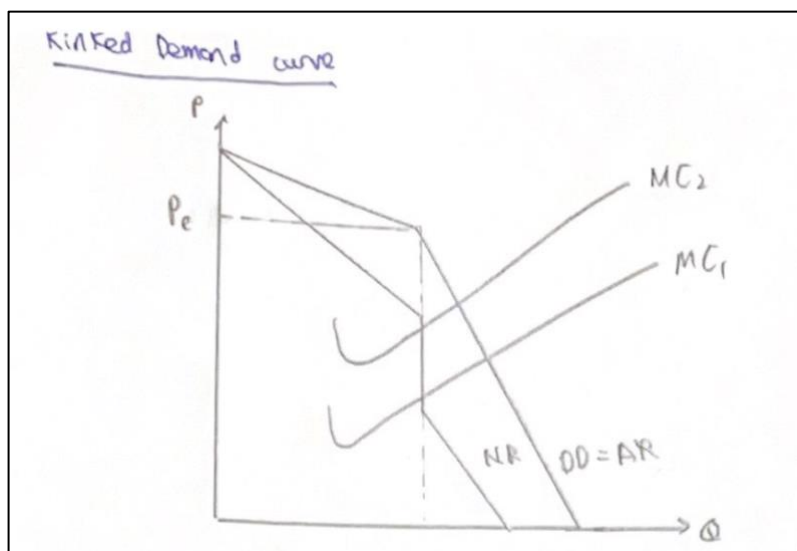
Price set by market leader followed by other firms

- Market leader seen to be best at identifying changes in market conditions
- Barametric model – firms assume market leader is aware of something they have yet to realise
- Dominant firm model – firm has vast majority of market share, must follow price changes to maintain market share

### Kinked Demand Curve (Price Rigidity)

Competitive model (Especially true with homogenous products)

- Oligopolist wants to **protect its own market share**
- Follow price decreases (Does not lose market share to cheaper substitute) but does not follow price increases (does not lose market share to other firms who did not increase price)
- If oligopolist A raises price and competitors do not follow suit, presence of cheaper substitutes lead to price elastic ( $PED > 1$ ). Consumers more easily switch prices to cheaper substitutes and price increase leads to more than proportionate decrease in  $Q$ .  $TR$  falls.
- If oligopolist A lowers prices and competitors follow suit, oligopolist A **will not gain market share**. Sales expand in proportion to **expansion of industry's sales**. Quantity demanded at each price level increases less than proportionately to the price decrease, price inelastic demand with  $PED < 1$ .  $TR$  falls.



- $DD$  kinked slope
- Higher and flatter  $MR$  curve before  $Q_E$  corresponds to higher and flatter demand curve. Lower and steeper  $MR$  after  $Q_E$  corresponds to steeper demand curve after  $Q_E$ .
- Produces at  $Q_E$ , point where  $MC_1$  crosses  $MR$  curve
- Should  $MC$  rise from  $MC_1$  to  $MC_2$ , firm has to **absorb higher costs** instead of passing on to consumers. Leaves price-output combination unchanged.

## Price Discrimination

When a producer sells **same good at different prices** whereby price difference does not reflect **different in cost** of supplying the consumer. Often used to **capture consumer surplus** and earn higher total revenue, higher total profits.

Firm must have market power

- Price setting ability (ability to raise or lower prices without losing market share)

Firms must be able to distinguish between buyers willing to pay different prices, or identify and segment market into separate groups based on **differences in PED**.

- Charge groups with less elasticity a higher price, less than proportionate decrease in demand, TR increases.

Prevent **resale and arbitrage** to prevent consumers able to buy at low price from reselling to other consumers

First degree price discrimination – All consumer surplus used (Staircase graph)

- Each consumer charged what he is willing and able to pay
- All consumer surplus is transferred to firm
- **Auction sites**, maximum price that each rational consumer is W&A to pay

Second degree price discrimination (Explain why cannot segregate + why are PED different)

- Firm charges different price to different groups of consumers buying the same product by **offering various pricing choices and allowing them to choose different options**.
- Undertaken when firms unable to segregate consumers based on observable characteristics, unable to observe their PED **before transaction**
- **Quantity discounts: discounts when items bought in bulk (because those who buy larger quantities have higher PED as it makes up larger proportion of income).**
- **Concert ticket pricing: Zones closer to stage more as less elastic demand for die-hard fans, or for wealthier fans**

Third degree price discrimination (Explain why can segregate)

- Firm charges **different price to different groups of consumers** buying same product by **segmenting market based on identifiable characteristics** of groups with different PED
- Directly identify specific consumers with different price sensitivities
- **Consumer characteristics: Train firms able to segment market for travel between students and adults (%Y). Verify using identification cards.**
- **Location – Train fares, central areas charged lower fees because more alternative transport options**
- **Early bird discounts: Early bird plan and compare prices, would have better information to more substitutes offered, while those last-minute could have imperfect information. By offering early bird discounted rates, hope for more than proportionate increase in quantity**
- **Past purchase behaviour – first time customers discount (existing customers tend to be relatively less price elastic as they are less willing to spend time and effort in searching for better deals)**

Antithesis – cost of production not actually different

- Price of having train station in less central area more expensive due to lower technical economies of scale in hiring workers.

## Price discrimination in public interest

- First degree price discrimination can help price setting firm surviving a recession
- Greater equity – can benefit consumers from lower income groups that tend to be more price sensitive i.e. lower purchasing powers to afford good that it otherwise would not be able to afford. **Law firms can practice third-degree price discrimination because to charge lower-income consumers lower price, or drug firms practice by selling products at inflated prices in higher-income countries.**
- Higher profits can facilitate R&D

## Mergers and Acquisitions

Horizontal integration – combines with/takes over a similar firm at **same stage of production** to form a single entity.

- Reduction of competition, new firm enjoys increased market share and market power
- Revenue advantage (Draw graph of rising demand)
- **More fully exploit iEOS**

### Antithesis

- Might not gain a cost advantage due to iEOS, such as high cost of monitoring and management and lower morale of workers; cost incurred when streamlining production processes, otherwise limits iEOS
- Cross border mergers may run into issues (tariffs, local employment requirements) that made erode their profits due to the need to comply with local laws

Vertical integration – Combines with another firm at different stage of production

- Controls more than one stage of supply chain, **lower uncertainty** with regards to access to markets and **securing FOPs**.
- Can enjoy some iEOS like managerial (recruitment) or marketing (advertising)
- Forward – Moves into succeeding stages of productions and gains ownership over companies that were once customers
  - Lower uncertainty by **controlling distribution** and reducing **dependency on middlemen** who might charge high fees to distribute end products
  - **Tour operator who owns its own hotels, no need to pay hotels profits and keep costs and prices down**
- Backward – firms involved in previous/earlier stages of production
  - Greater control over quantity and quality of **scarce FOPs** and greater security with regards to delivery
  - Less likely to face disruptions (i.e. strikes, labour disputes), and could acquire FOP for lower unit costs, which reduces COP and increases profits
  - Could also have aim of **entry deterrence** to restrict supply of critical FOPs to competitors

Coglomerate – unrelated businesses

- Diversification, reduce uncertainty and risks
- **Sony, involved in TV, telephones, and movie industry (Spiderman)**

**Eval: Could buy into related market and combine the market (Apple buying up Siri in 2010, incorporating Siri into it's own product to **differentiate product**)**

### Franchise

- Selling right to use firms' business model and brand, quickly expand or build chain stores while **avoding risk of investing huge capital**
- Improve **brand presence**, reducing search costs for consumers and increase revenue
- Marketing economies (greater bargaining power for FOP and advertising)
- **McDonalds, 15,000 restaurants**

Advantages – iEOS and gaining market share

Disadvantages – Cost of monitoring and quality control

## Society's Point of view

### Negative

- More market share and price setting ability (fewer substitutes), able to price good closer to profit maximising point where  $PR=MC$ . This results in loss of consumer welfare (graph) as well as the occurrence of allocative inefficiency and deadweight loss due to underconsumption
- Able to enjoy more LRAC, higher barriers to entry for new firms as they are unable to enjoy cost advantages could lead to natural monopoly. No incentive to undergo R&D, dynamic inefficiency
- Less consumer choice

### Positive

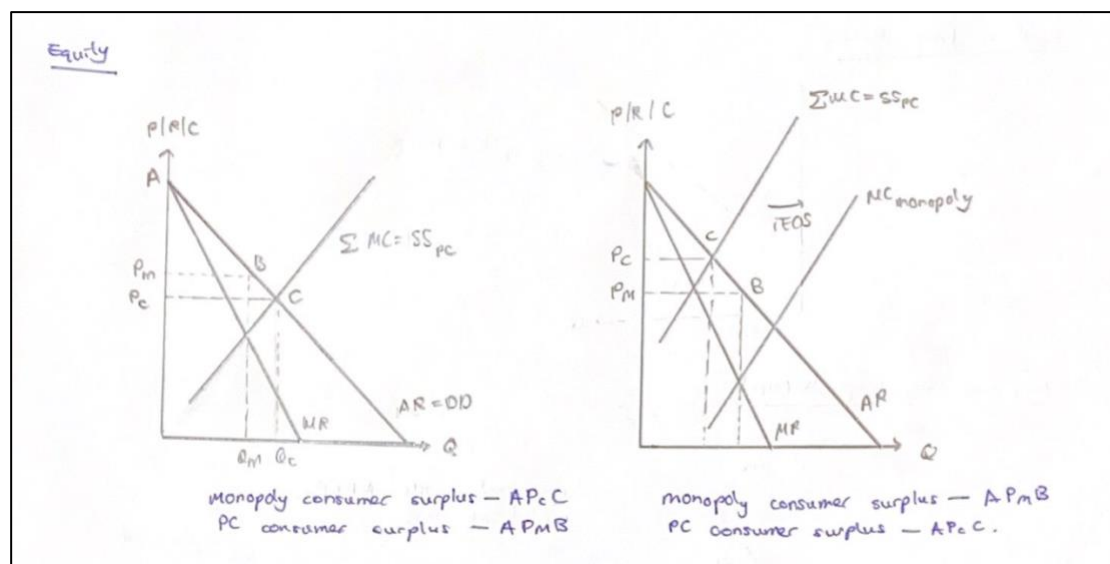
- Reduction of inequity due to passing on cost savings to consumers (Shift in graph of cost in consumer welfare graph)
- Higher supernormal profits → More able to do research and development and improve product, improving consumer's welfare in the long run by improving technology (increases marginal benefit) or by improving methods of production (decreases marginal costs). Also helps with macroeconomic goals by helping to expand the productive capacity in the long run.
- Could help firm expand overseas, improving balance of trade through exports and improving AD through the multiplier effect

EV: Points about globalisation and free trade agreements to preserve competition from overseas firms

## Economic goals

- Allocative efficiency
  - Combination of goods and services to maximise society welfare, achieved when **marginal benefit from consumption of good is equal to marginal cost of producing that good**
  - Oligopoly also result in wasteful use of resources due to engaging in large scale advertising. Opportunity cost of **producing more goods and services forgone**. Persuasive advertising is waste of resources could have been put to productive use → allocatively inefficient
    - AT/Eval: Wasteful competition (identical cup final being streamed twice), or advertising providing better consumer information
  - Oligopoly and MPC with price setting capability results in underproduction  $Q_m Q_c$  as profit-maximising monopolist produces at output  $Q_m$  instead of  $Q_c$ . Each unit underproduced, society values the last unit of good more than the opportunity cost of producing the unit, meaning society would benefit from more units of good produced. **loss of opportunity for mutually beneficial trades**. Deadweight welfare loss
    - Oligopoly more allocatively inefficient due to **huge price-setting ability**
- Productive efficiency
  - Society point of view – Firm's long run average cost is at its minimum, hence at MES
    - MPC: '**excess capacity**' theorem: Attempts at product differentiation results in firms producing at higher average cost than necessary without necessarily improving consumer welfare (may or may not be worth it, eval)
    - Monopolies or oligopolies could produce closer to MES as output of firm sufficiently large to reap **significant economies of scale** than would be the case if many small firms in economy
  - Firms point of view – all points on LRAC productively efficient as represent **lowest possible average cost** at each level of output
    - Price-taker firms have to be **as cost efficient as possible** to maximise profits. As only **long-run normal profits** available, has to operate on point along LRAC or else would be making subnormal profits and have to leave the industry in LR. Monopolies and oligopolies can afford to be productively inefficient and still retain supernormal profits
    - AT: Globalisation (removal of protectionist barriers, rise of online sales) – oligopolies and monopolies have to experience overseas competition and thus still have to face competition from big foreign conglomerates that vie for share of market → local firm has to reduce productive inefficiency to remain profitable with foreign competition
- Dynamic efficiency – firms technologically progressive by investing in R&D for product and process innovation in order to **reduce average COP** or to **meet changing needs and wants of consumers**.
  - PC (and MPC) limited willingness and ability to be dynamically efficient
    - Perfect information: innovations quickly replicated by competitor firms or new firms. Discourages R&D as will not be able to gain supernormal profits from investment (no returns in investment)
    - Long-run normal profits → limits PC firms' ability to undertake R&D → costs generally very high
  - Monopoly – No incentive to attain dynamic efficiency
- Equity – equality of distribution
  - Great equity under PC and MPC as they spread opportunities and wealth widely. Only normal profits in LR and shared by many small firms in market.
  - Monopolies and oligopolies tend to exacerbate inequity in economy as **supernormal profits concentrated at hands of select few monopolies**. Ability to block potential new entrants at expense of consumers who pay higher prices for limited quantity of goods (especially goods with low elasticity of demand with respect to price). Easier to have anti-competitive behaviour.





- Reduction in consumer surplus from ABC to ADE, hence loss in area BCDE.
  - Counter argument: need not necessarily be reduced if monopoly enjoys substantial EOS, cost reduction (draw shifted version of graph)
- Consumer choice/sovereignty – choice to choose from various goods and services
  - PC – no consumer choice given that products are homogenous (however, provide consumers with choice of many producers and react to consumer demand responsively. Hence changed in demand result in changes in eqm price level and **re-allocation of resources** to meet consumers wants
  - Oligopolies could engage in multiple branding (firm produces same products but packaged under different brand names like cigarettes) and extensive advertising (which makes consumers unaware about the other choices they have)

#### Extra eval points

Contestable markets – market perfectly contestable when entry into/exit from market can be made very rapidly (for example, **coach company may open up service on route previously operated, if does not survive can use coaches purchased for different route or different purpose**). Low consumer loyalty (allows new firm to gain market share) and perfect information (use of best available production method and technology available in market)

- Moment it becomes possible to earn supernormal profits, new firms enter and drive profits down to normal level
- Firm keep prices down to extent of making only normal profits and produce as efficiently as possible, moving towards LRAC
- If capital equipment cannot be transferred to other uses (power stations), losing firm left with depreciating capital equipment that it cannot use. Deterred from entering and established firm continues to make supernormal profits.
- Hit and run competition – enter market for short period when profits are high and quickly withdraw. Particularly useful when there are large fluctuations in **seasonal demand**, for example **small delivery company may set up parcel delivery service during Christmas to take advantage of increased demand. Fear of competition prevents national postal service from charging high prices.**