Average revenue is the average recipients per unit sold. This is the same as the price. Average revenue = total revenue / unit sold

Total revenue is the total money received from the sale of any given quantity of output. Total revenue = price \* quantity sold

Marginal revenue is the addition of total revenue for each extra unit sold. Marginal revenue = New total revenue - old total revenue/quantity change

Graph for revenue at constant prices (A market of perfect competition)



Total revenue increases as output increases. This results in an upward sloping graph. This is as more units sold generates more revenue.

Average revenue and marginal revenue is constant resulting in a horizontal graph, as all units are sold for a constant price.

• The demand, average revenue and marginal revenue curves are identical.

• This horizontal graph illustrates perfectly elastic demand. No matter the quantity, the price remains unchanged.

Graph for revenue at falling prices (A market of imperfect competition)



- As the total revenue curve increases it results in elastic demand, a price fall increases total revenue.
- As the total revenue curve reaches the stationary point it is perfectly elastic and this is when revenue is maximised.
- As the total revenue curve decreases there is inelastic demand.
- The average revenue curve has the same elasticity as the demand curve,

#### Max revenue is when marginal revenue = zero

#### 3.3.2 Costs

The economic cost is the opportunity cost of an input into the production process. An imputed cost is a cost a firm does not pay money to another firm but is the opportunity cost of factors of production which the firm itself owns e.g. labour value of time lost or financial capital invested that could have earnt interest in the bank.

The total cost is the whole cost of producing any given level of output. Total cost = Total variable cost + total fixed cost and average product rises. This is only if there are constant factor costs per unit. E.g. worker price increases the more are hired.

- Marginal cost curve cuts the average cost curve at its lowest point. If the average cost curve is above the marginal cost curve the average cost curve is falling and vice versa.
- Average cost and marginal cost curve are equal for all levels of output that average and marginal cost is constant.

The law of diminishing marginal returns shows that in the short run as more resources are added to a fixed factor the output initially will begin to increase, especially with specialisation and spread fixed costs. However, as more resources are added to the fixed factor the output will begin to fall.

## 3.4.1 Efficiency

Efficiency is how well the factors of production are utilised to make goods and services. Allocative efficiency is when scarce resources are used to produce goods and services which satisfies consumer preferences and maximises their welfare.

It is found where consumers pay a price (the demand curve representing their utility) that is equal to the cost of producing the last unit (marginal cost). However the private marginal cost may differ from the social marginal cost.

Allocative efficiency = Price = Marginal Cost Average revenue = Marginal Cost

Monopoly and short run allocative efficiency



#### Short run perfect competition

This is when the firm operates at where the marginal cost = marginal revenue. However, this is also allocatively efficient as average revenue = marginal cost.



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The economies of scale are so large in a monopoly, no single firm can exploit it. Creating competition would just increase prices due to increasing production costs. No firm can produce at an allocatively efficient level where AR=MC as they would be operating at a loss (the government could subsidise this loss). The LRAC is downward sloping as the large fixed costs are spread across the production.

### 3.4.6 Monopsony

A monopsony is when there is only one buyer in the market. A monopoly is a market structure where there is one buyer whilst a monopsony has one seller.

They are <mark>profit maximisers</mark>, through paying the suppliers the lowest possible price, they are <mark>price setters</mark> as there is only one buyer in the market.

An example is state school teachers as the only buyer is the government, who wants to minimise spending. Another example is the NHS, amazon or tescos who are big buyers of their products.

Advantages and disadvantages of a monopsony:

- The consumer will experience a lower price due to monopolists being able to achieve and bargain lower costs. However, if the price is inelastic this cost reduction may not be passed on, furthermore the quality may suffer as the suppliers are not incentivised to produce a better quality product due to lower pay reducing consumer welfare. Furthermore there may be a lower quantity of a good as the monopsonist buys less than supplied at market price.
- The firms are able to profit maximise due to lower costs, increasing output and reducing the average cost thus resulting in profit maximisation. However, this may lead to negative publicity losing consumer loyalty and resulting in a bad relationship with suppliers.
- The supplier will have definite purchases with a longer contract that will allow planning ahead. They also avoid competition and may be protected by the government. They will be a set due to prices paid for their good falling and being exploited. This will lead to be cuput being produced as it is less profitable, some producers may switch cuput the market altogether due to it being less profitable and may result in denial from pairs.
- Employees will receive different outcomes with the monopsonist purchasing less of the goods at a lower price, they may be able to by the employee more body ver due to profit maximising they may not do this and clining the workers. Therefore the number of employees the monopolist hires will be uppertend. However, due to the seller providing less they will definitely decrease employment.

There is greater allocative efficiency when it is a bilateral monopoly.

# 3.4.7 Contestability

Contestability is how open a market is to competition and not how much competition exists, it measures how easy it is for firms to enter or exit the industry. A highly contestable market would have no supernormal profit in the long run, due to ease of entry to compete and exit based on profits and losses.

High contestability has low levels of concentration in the long run with low barriers to entry to join the market and compete, making it a normal competition style diagram in the long run and characteristics. Low contestability results in high barriers to entry and high concentration ratios in the long run and a monopoly style competition which is less efficient.

Contestable market characteristics;

- No barriers to entry and exit
- New firms face no competitive disadvantage to incumbents
- No sunk costs
- Firms are profit maximisers
- Firms do not collude.
- There is perfect information and homogeneous knowledge
- All firms have access to the same technology.

- → These are normally vague resulting in little behaviour change.
- → Lowering the barriers to entry such as through reducing legal, marketing barriers and financial barriers.
- $\rightarrow$  Hard to do for a natural monopoly.
- Breaking up the monopolist results in lower prices and profits and greater consumer choice.
  - → This may result in a loss of MES which occurs at high levels increasing prices. This will result in welfare losses along with high levels of lobbying from firms.
- Subsidies may increase output closer to the allocatively efficient point.
  - $\rightarrow$  It is hard to know long run costs and creates inefficiencies.

How governments can promote competition and contestability:

- Promoting small businesses are favoured by free markets as promoting competition. The government may give small grants to businesses in order to encourage entrepreneur activity. This can be further done through subsidies and the reduction of red tape. These strategies make it more contestable (new firms enter and compete) in the market encouraging investment due to the contestability in the market.
  - → This may encourage unethical decisions such as reducing benefits to stop people claiming benefit and working.
  - → Small businesses may become inefficient resulting in a misallocation of recources as they are reliant on government support.
  - → **Bigger firms may shut down** and move country.
- Deregulation is when governments remove monopoly power through removing legislation to lower barriers to entry increasing contestability, through decreasing anti competitive practices. This may be due to reducing laws and legal barriers like quality standards. This should lower prices and increase choice/output due to lowering production costs with firms may also keep to quality to please consumers.
  - → This however, arguably may result in worse products with regulation ormally being in consumer interest resulting in unsafe products reducts. Orsumer welfare and arguably this lead to the 2008 financial critics.
  - → It also creams markets as only service (i) bost profitable areas are provided resulting in missing markets
- Competitive tendering is than the government provides public goods and services, but when it is done by the provides actor, through contract good the provision. This promotes

competition when competitive terchand creates a specification for the goods and services, and protect actor firms b 2 or the contract providing proposals on costs and how they will complete the project. This would have been completed by the government anyway but it is more efficient at a lower cost and higher quality due to the firms experience.

- $\rightarrow$  This however depends as it is highly costly and time consuming to engage in this.
- → Private firms may cut corners to reduce costs thus reducing quality.
- → The principal agent problem occurs due to different aims of profit maximising firms to social welfare maximising government.
- Privatisation occurs when the government transfers assets to the private sector. This increases efficiency and competition due to the private sector having more experience with the aim of minimising costs increasing productive efficiency which often does not happen in the public sector and improving quality. The government funds can be used elsewhere and they can gain revenue from selling these firms. The wealth is in the hands of the public and can be spread through shares. There will be an increase in contestability as there is more incentive to join a market due to lower barriers, which is less rigged due to government support.
  - → Profit maximising firms will not provide these merit goods for everyone, and may increase prices, resulting in lower welfare as they profit maximise not focusing on societies welfare.
  - $\rightarrow$  This may encourage inequality as only the rich by the shares.

How governments intervene to protect suppliers and employees:

• **Restricting the monopoly power of firms** workers are no longer vulnerable to exploitation, being paid the lowest wage in an unpleasant environment. This means workers can be