

## Section 8: The market mechanism, market failure and govt intervention

### Functions of price

**Rationing function** - ↑ P rations demand to those able to afford the c/s

**Signalling function** - prices provide important info to market participants

**Incentive function** - prices create incentives for market participants to change their actions

**Allocative function** - diverts resources to where returns can be maximised

**Price mechanism** - the way the basic economic problem is resolved

### Market failure

**Misallocation of resources** - resources are not put to their best effective use

**complete market failure** - free market fails to create a market for the good/service  
(missing market)  
e.g. public good

**Partial market failure** - market leads to a misallocation of resources

### Public goods, private goods, quasi-public goods

- **Pure public good** - is both non-rival + non-excludable (missing market)
- **Non-rival** - a person's enjoyment does not diminish another person's enjoyment of the good
- **Non-excludable** - not possible to prevent non-paying customers from consuming the good
- **Free rider problem** - individuals hope to get a free ride without paying for the benefit they enjoy
  - e.g. flood defences (homeowners wait for others to fund defences)
- **Private goods** - a good that is both rival and excludable in consumption
- **Quasi public** - partially non-excludable + non rival
  - creation of these goods are due to technological change (TV broadcast, Road congestion charges)

**Externalities** - Ignoring externalities leads to market failure, true/-ve knock on effect upon 3rd parties

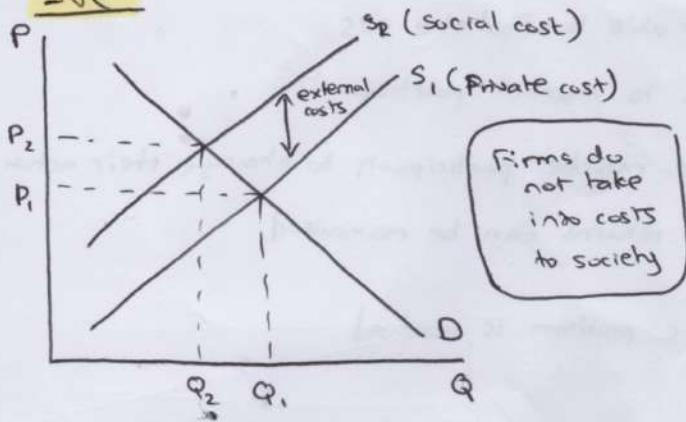
- **Private costs** - cost to an individual producer
- **Private benefit** - benefit to an individual consumer
- **social cost** = private cost + external cost
- **social benefit** = private benefit + external benefit
- **Positive externality** - positive knock on effect of economic transaction upon 3rd parties
- **Negative externality** - negative knock on effect of economic transaction upon 3rd parties



# Externality graphs (AS)

Production externalities (whether +ve or -ve) = associated with costs (supply curve)

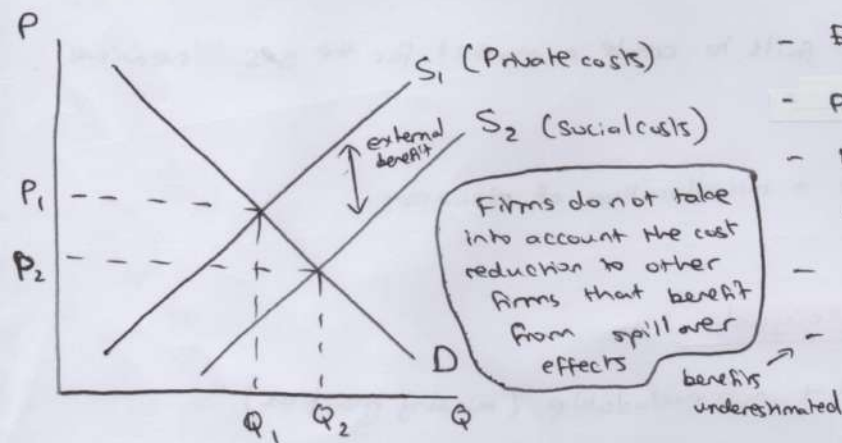
-ve



- Example pollution generated by factory

- Social costs exceed private costs
- Producers in free market <sup>only</sup> take into account private costs so produce  $(Q_1, P_1)$
- Socially optimal point  $(Q_2, P_2)$
- overproduction is shown by  $(Q_1, P_1)$  (misallocation of resources)

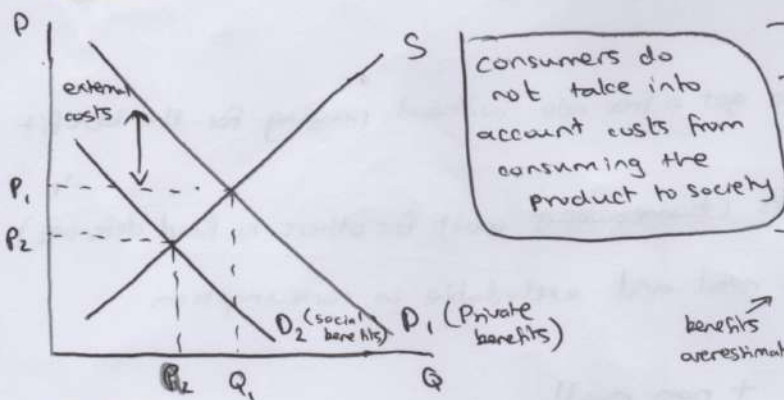
+ve



- Example: developing tech = +ve spillover effects
- Private costs exceed social costs
- Producers in free market only take into account private costs so produce at  $(Q_1, P_1)$
- Socially optimal point  $(Q_2, P_2)$
- underproduction is shown by  $(Q_1, P_1)$  (misallocation of resources)

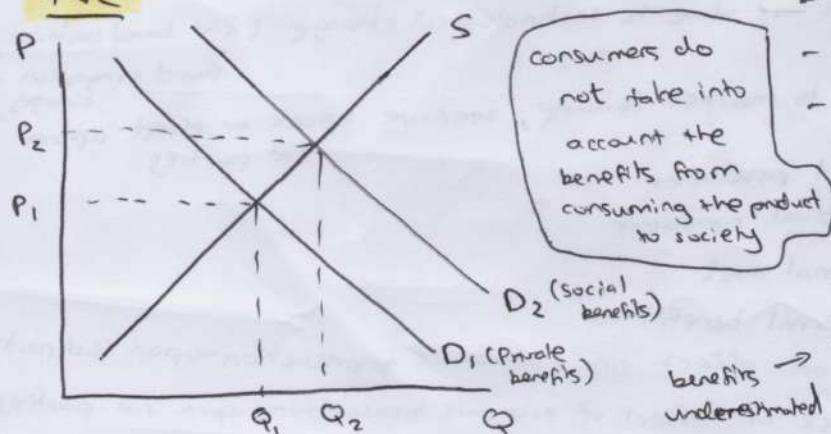
Consumption externalities (whether +ve or -ve) = associated with benefits (demand curve)

-ve



- Example: smoking
- Private benefits exceeds social benefit
- consumers in free market only take into account private benefits so consume at  $(Q_1, P_1)$
- socially optimal point  $(Q_2, P_2)$
- overconsumption is shown by  $(Q_1, P_1)$  (misallocation of resources)

+ve



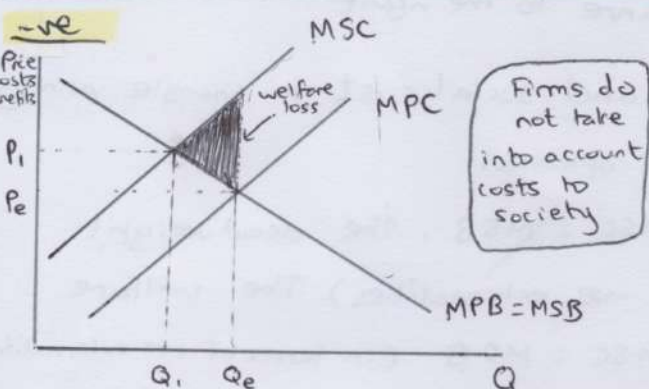
- Example: education
- Social benefits exceed private benefits
- consumers in a free market only take into account private benefits so consume at  $(Q_1, P_1)$
- socially optimal point  $(Q_2, P_2)$
- underconsumption is shown by  $(Q_1, P_1)$  (misallocation of resources)



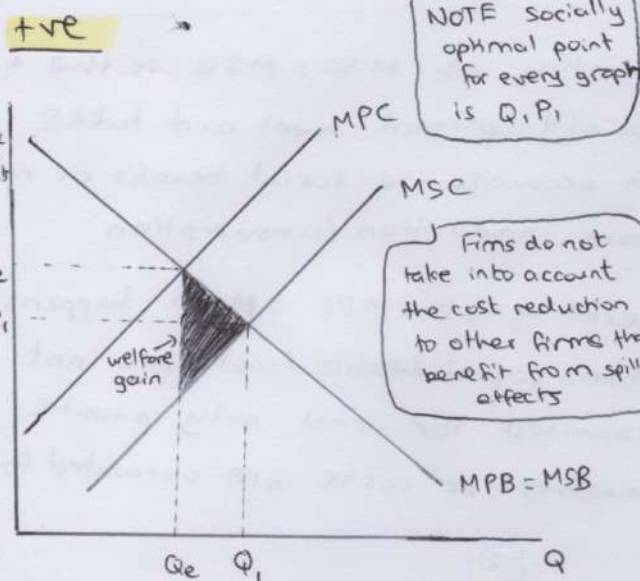
# Externality graphs (A2)

Note: curves can sometimes be diverging not always parallel

Production externalities (whether +ve or -ve) = associated with costs (supply curve) <sup>producers</sup>

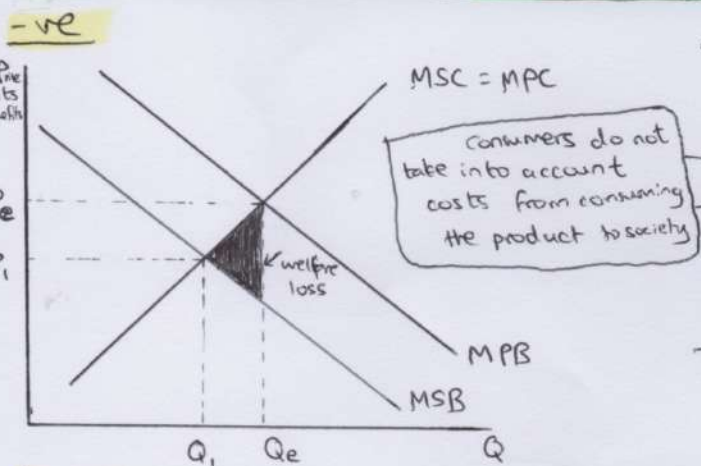


- Example: pollution generated by a factory
- $MSC > MPC$
- In a free market producers only take into account marginal private costs so they produce at  $(Q_e, P_e)$
- Results in overproduction = misallocation of resources

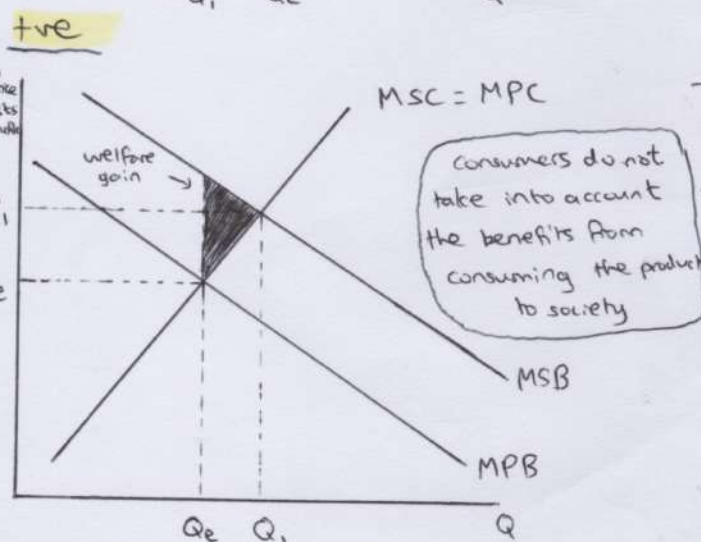


- For each good produced above  $Q$ ,  $MSC > MSB$
- Example: developing tech = +ve spillover effects
- $MPC > MSC$
- In a free market producers only take into account marginal private costs so they produce at  $(Q_e, P_e)$
- Results in underproduction = misallocation of resources
- Between  $Q_e$  and  $Q_i$ ,  $MSB > MSC$

Consumption externalities (whether +ve or -ve) = associated with benefit (demand curve) <sup>consumers</sup>



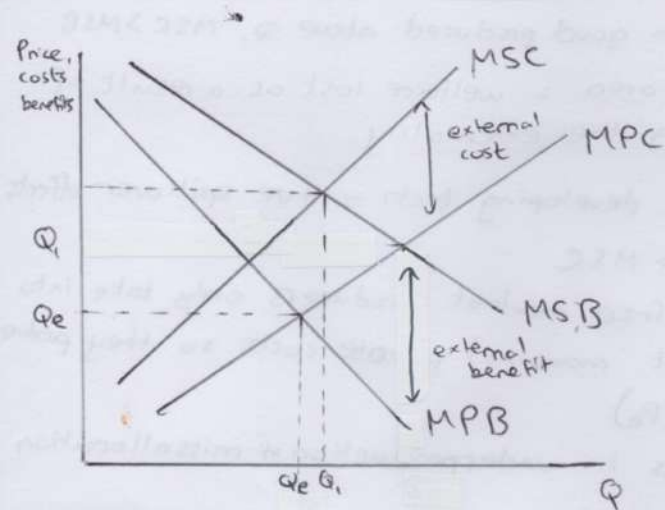
- Example: consumption of demerol leads to adverse consequences for third party e.g. smoking
- $MPB > MSB$
- In a free market consumers only take into account marginal private benefits so they consume at  $(Q_e, P_e)$
- Results in overconsumption = misallocation of resources



- For each good consumed above  $Q$ ,  $MSC > MSB$
- Example: consumption of ment good generates benefits for 3rd parties e.g. vaccinations
- $MSB > MPB$
- In a free market consumers only take into account marginal private benefits so they consume at  $(Q_e, P_e)$
- Results in underconsumption = misallocation of resources
- Between  $Q_e$  and  $Q_i$ ,  $MSB > MSC$

## Rules.

- For negative externalities move social curve to the left
- For positive externalities move social curve to the right
- Vertical distance between social benefit and social cost + shade in the triangle that points towards the social optimal
- For all the graph operating at  $MSC = MSB$ , the deadweight welfare loss is eliminated (in terms of -ve externalities). The welfare gain is obtained from operating at  $MSC = MSB$  (in terms of +ve externalities)



- Operating at  $MSC = MSB$  is the socially optimal level and takes in account the social benefit or cost from production/consumption
- operating at  $MPC = MPB$  happens when social benefits/costs are not accounted for and only private benefits or costs are accounted for



## Ment goods

- underconsumed <sup>why?</sup>
  - expensive
  - don't realise benefits (imperfect info)
- Results in positive externalities

## Merit goods

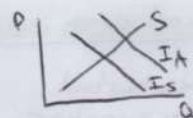
- overconsumed <sup>why?</sup>
  - don't realise the costs (imperfect info)
  - cheap and affordable
- Results in negative externalities

## Market imperfections

Imperfect information - don't know everything needed to make informed decisions

Asymmetric information - one economic agent knows more than the other

Symmetric / perfect info - info equally available to all participants in the market



## Monopoly

- Have no incentive to be productively/allocatively efficient due to ↑ power and ↑ barriers to entry (market failure)

## Immobility factors

### Immobile FOP's

- Land / Large capital is immobile, therefore underused
- Results in inefficiency / misallocation of resources / market failure

### Labor immobility

- geographical immobility due to
  - varying house prices
  - imperfect info on job opportunity
  - occupational immobility
- Results in inefficiency / misallocation of resources

## Inequitable distribution of income and wealth

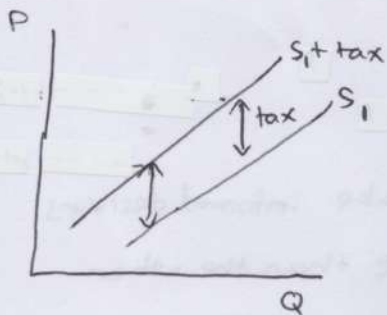
- Free market leads to inequitable / uneven distribution of income + wealth
- The poor cannot afford access to vital resources / services while rich can = ↑ inequality gap
- ↑ resources allocated to people who can afford leaving poor in low living standards

## Govt intervention

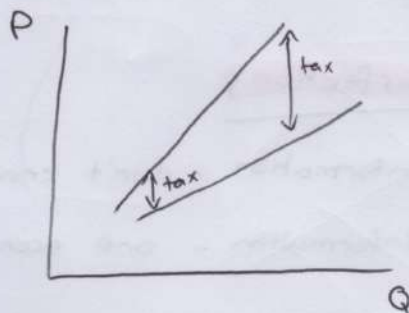
- Reason for intervention, free market fails to achieve equitable allocation of resources
- Govt: corrects market failure
  - achieve equitable distribution of income + wealth
  - achieve gov't macroeconomic objectives

## Indirect taxation

Specific tax - tax per unit



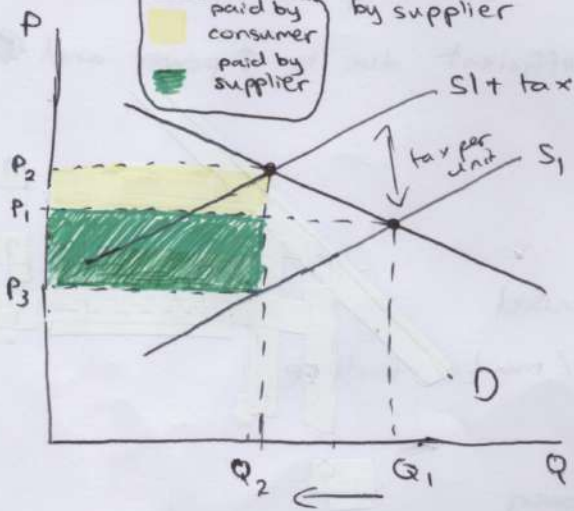
Ad-valorem tax - percentage tax



biggest impact  
on higher  
priced goods

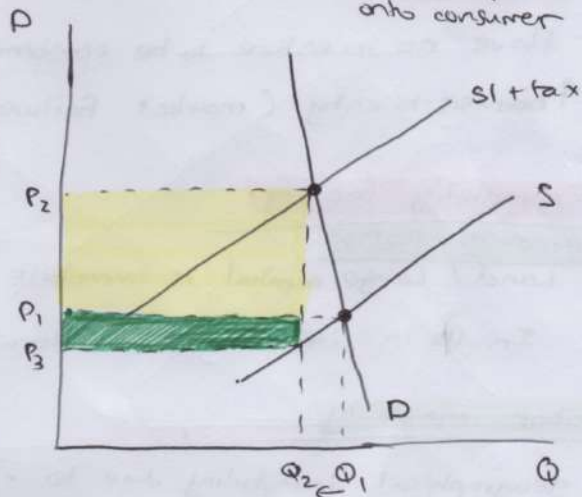
## Elasticities of demand on indirect taxation

elastic demand = tax absorbed  
by supplier



area of  
both shaded  
is tax revenue

inelastic demand = most of tax passed onto consumer



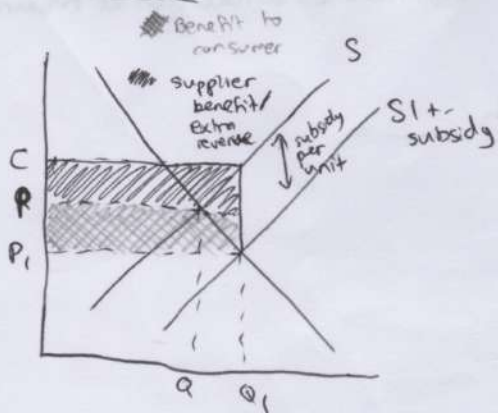
### Advantages

- Costs of -ve externalities are internalised
- Revenue from tax used to offset externalities if tax does not reduce demand

### Examples (current)

- tax on petrol, tobacco, alcohol - <sup>specific tax</sup> excise duty + ad valorem tax
- Landfill tax - environmental tax

## Subsidies



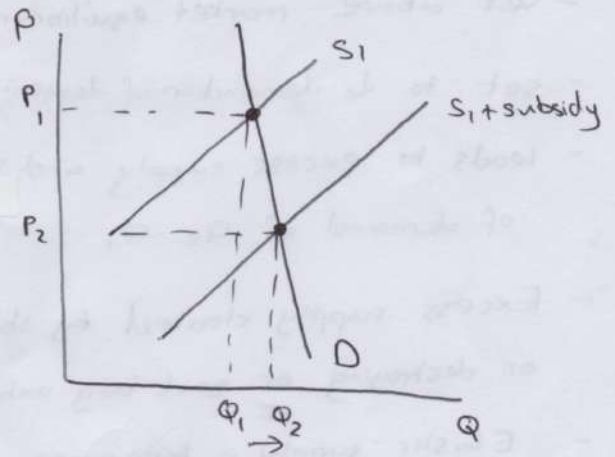
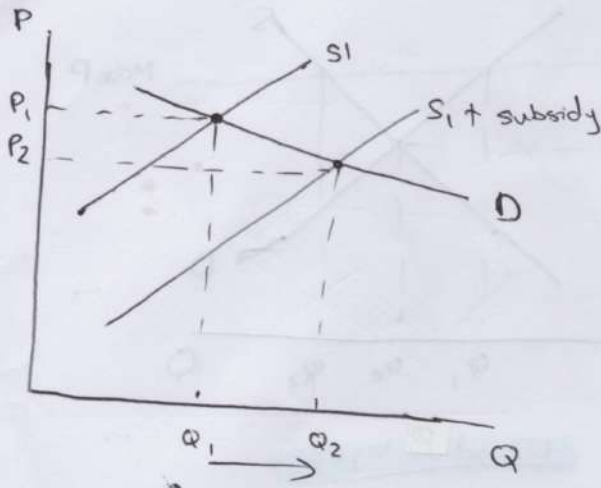
- Total area = cost of subsidy to govt
- encourages production / consumption of goods / services with +ve externalities
- A grant given by govt to <sup>producers to</sup> ↑ output and consumption of good due to lower prices



Elastic demand = large  $\uparrow$  in demand

Elasticities of demand on subsidies

Inelastic demand = low  $\uparrow$  in demand



### Advantages

- Benefits are internalized (cost of the externality covered by govt so  $\downarrow$  P of good)
- $\uparrow$  incentive to supply goods with the
- Make goods/services more affordable
- Subsidies can support a domestic industry until it grows and achieves economies of scale = internationally competitive
- Subsidies used to fund investment/research

### Maximum price (price ceiling)

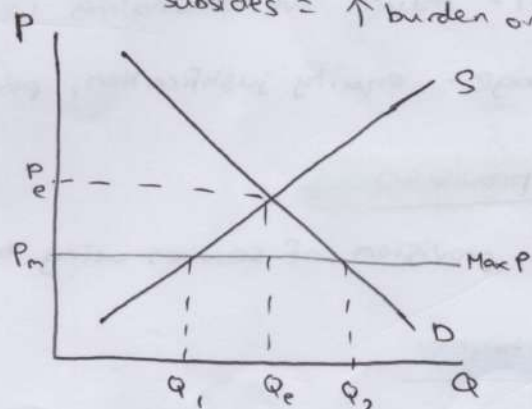
- set below market equilibrium
- set to  $\uparrow$  consumption of merit good
- Leads to excess demand and shortage of supply of  $Q_2 - Q_1$
- Excess demand cleared by rationing
- Elastic supply =  $\uparrow$  excess demand (vice)
- Elastic demand =  $\downarrow$  excess demand (vice)

### Advantages

- $\uparrow$  affordability (promotes equity)
- $\uparrow$  consumer welfare ( $\downarrow$  consumer exploitation by monopolies)
- $\uparrow$  competition (businesses cut costs to maintain profits)

### Disadvantages

- Difficult to determine size of subsidy
- Subsidies may not be used by firms to fund production
- May be used to fund environmentally damaging methods
- Has an opportunity cost
- They make producers inefficient and reliant on this aid so  $\downarrow$  allocative efficiency =  $\downarrow$  productivity
- Effectiveness depend on elasticity of demand
- Subsidized goods may not be as good as imported goods
- subsidies =  $\uparrow$  burden on taxpayers



### Disadvantages

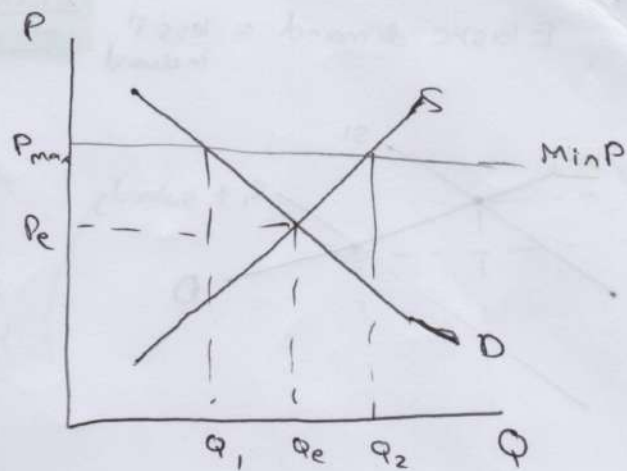
- too much demand = creation of shortage
- creation of black market
- Market distortion
- Depends on elasticity of demand and supply

### Examples

- Maximum rents (reduce costs on rents)

## Minimum price (price floors)

- set above market equilibrium
- set to make sure suppliers get a fair price
- leads to excess supply and shortage of demand of  $Q_2 - Q_1$
- Excess supply cleared by stockpiling or destroying or govt buy extra stock
- Elastic supply = big excess supply (vice)
- Elastic demand = big excess supply (vice)



## Disadvantages

- Consumers pay higher price than equilibrium price
- Inefficient allocation of resources used to produce excess supply
- opportunity cost of govt spending on min price schemes
- Destroying goods = waste
- Price high reducing competitiveness
- Reduces affordability of merit goods = seek cheaper more harmful alternative
- Depending on price elasticity of demand and supply

## Advantages

- Producers have guaranteed min income
- Encourage production of essential foodstuff
- Stockpile can be used when there is shortage (due to bad weather)
- Restricts monopsony power (reduces firms negotiation power)

## Examples

CAP - guarantees min price paid to farmers

Alcohol - reduce -ve externalities in consumption

Min wage - equity justification, poverty reduction, Training, ↑ incentives to work

## State provision

- Govt provision of services using tax e.g. NHS, state education, public goods

## Advantages

- ↑ consumption of merit goods
- Free provision = ↓ inequality = ↑ distribution of income
- Allows goods to be free to the point of consumption

## Disadvantages

- Reduces incentive to operate efficiently due to absence of price mechanism
- state provision fail to respond to demand as it lacks profit motive
- Opportunity cost
- Reduce individuals self reliance

## Example

- Healthcare - healthier population = ↑ productivity



## Regulation

- Controlling the activity of producers/consumers to change their undesirable behavior (correct market failure) backed by fines

### Advantages

- Reducing use of demerit goods (banning)
  - Reducing power of monopolies (price caps)
  - Solving asymmetric info (protects consumers)
- Difficult to work out acceptable level
  - ↑ cost of production / operation of firms
  - Monitoring compliance of regulation is expensive

### Examples

- Renewable energy - (ROCs) (renewable obligation certificates)
- Correcting information failure - labelling on food, health warning on cigarettes

## Nationalizing

### Advantages

- Ensures the industry provides the goods & services the country needs (operate in best interest of society)
- Govt can set price and output that benefits society
- Govt pay public sector fair wages
- Govt pay suppliers fair price

### Disadvantages

- No profit motive = inefficient
- Nationalised firms could act prudently leading to moral hazard as they rely on the govt to bail them out

## Privatisation

- Transfer of ownership of a firm/industry from public sector to private sector
- characteristics sale of public firm, govt contracting out services to private firms, competitive tendering, PPP (public private partnerships) where govt contracts private firms to run a project e.g. build hospital/school

### Advantages

- ↑ competition = ↑ resource allocation = ↓ X-inefficiency = ↑ allocative efficiency
- Enables building of facilities the govt cannot afford (in SR don't have to pay much)
- Govt gains revenue from selling the firm
- Efficiency incentive = drive dynamic efficiency

### Disadvantages

- Public monopoly could become a private monopoly = ↓ productive + allocative efficiency
- Loss of natural monopoly and economies of scale benefits = ↓ productive capacity
- Private firms have less focus on safety and quality
- Private firms ignore externalities as it does not align with profit goals

private finance initiative → PFI needs to be paid back in LR so ↑ budget deficit = ↑ taxes



## Deregulation

- Removing/reducing regulation
- used alongside privatisation to remove legal barriers

## Advantages

- ↑ resource allocation = ↑ efficiency
- Markets become more contestable
- Prevents privatised public monopoly from becoming a private monopoly

## Disadvantages

- Difficult to deregulate natural monopolies
- Doesn't fix other market failures e.g. neg externalities, consumer inertia, immobile FOPs
- Less safety and protection for workers

Govt Failure - when govt intervention leads to missallocation of resources

## Causes

- Market distortions (min/max price create shortage/surpluses)
- Subsidies disincentivise firms to be efficient
- Excessive regulation slows down processes = ↓ efficiency = time lags (cannot to respond to consumer demand quickly)
- Conflicting objectives • stricter emissions regulation = firms have reduced output = ↓ employment  
• ↑ road capacity = ↑ road usage in LR = environmental conflict to reduce congestion
- Inadequate information • Taxes + subsidies not set at efficient level  
• Govt does not have perfect info on how the population wants resources to be allocated
- Administrative costs - govt intervention have high costs
- Regulatory capture - a regulated industry may influence/pressure their regulatory body into making decisions that benefit them rather than consumers

## Examples

min price

- CAP (common agricultural policy) • leads to distortions in agricultural markets as encourages supply  
• Subsidies have high opportunity cost
- Housing market • leads to distortions in housing market  
• Development in black market
- Road congestion schemes • Too high charge = reduced efficient trade/business = underutilisation  
• Too low charge = low impact on traffic levels
- Fishing quotas • when quotas exceeded dead fish is thrown overboard = wasteful and damages fish stocks  
• Fish stocks are still depleting



## How market forces allocate resources / price (explanation to use in essay)

With any good or service, production and consumption should be left to the free market if there is an absence of a significant failure in the market. This is because the market mechanism is the most efficient way of allocating scarce resources and any intervention in the market could cause a misallocation of resources. Market forces work to allocate resources through the functions of the market. The market will head towards equilibrium as higher or lower prices will send incentives to suppliers to move into or out of a market thus increasing or reducing supply and the rationing function will influence demand. Both producers and consumers will act depending on the signals the price in a market sends. This leads the market to be an efficient way of determining the equilibrium price and output in a market.