



Class: MSc

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Chapter Name: Government intervention

Today's Agenda

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Today's Agenda

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1

Government intervention

Government intervention is regulatory action taken by government that seek to change the decisions made by individuals, groups and organisations about social and economic matters.

Government intervention is any action carried out by the government that affects the market with the objective of changing the free market equilibrium /outcome.

1.1

Forms of Government

Intervention

Faced with all the problems of the free market, what is a government to do?

There are several policy instruments that a government can use. At one extreme, it can totally replace the market by providing goods and services itself. At the other extreme, it can merely seek to persuade producers, consumers or workers to act differently. Between the two extremes, the government has a number of instruments that it can use to change the way markets operate.

1.1

Forms of Government

Intervention

Before looking at different forms of government intervention and their relative merits, it is first necessary to look at a general problem concerned with all forms of intervention. This is known as the problem of the second best. **The problem of the second best** is the difficulty of working out the best way of correcting a specific market distortion if distortions in other parts of the market continue to exist.

In an ideal free market, where there are no market failures of any sort (the 'first-best' world), there would be no need for government intervention at all. If in this world there did then arise just one failure, in theory its correction would be simple. In theory, the government should simply intervene to restore production to the point where $MSC = MSB$. This is known as **the first-best solution**.

As the first-best solution of a perfectly efficient, distortion-free world is obviously not possible, **the second-best solution** needs to be adopted. It is the solution to a specific market distortion that recognises distortions elsewhere and seeks to minimise the overall distortionary effects to the economy of tackling this specific distortion.

2

Taxes and subsidies

They can be used for two main microeconomic purposes:

- (a) to promote greater social efficiency by altering the composition of production and consumption: and
- (b) to redistribute incomes.

When there are imperfections in the market (such as externalities or monopoly power), Pareto optimality will not be achieved.

Taxes and subsidies can be used to correct these imperfections. Essentially the approach is to tax those goods or activities where the market produces too much, and subsidise those where the market produces too little.

2.1

Taxes and subsidies to correct externalities

The first-best solution when there is only one market imperfection is simple: the government should impose a tax equal to the marginal external cost (or grant a subsidy equal to the marginal external benefit). This is known as a **Pigouvian tax (or Pigouvian subsidy)**.

This is a general maxim of welfare economics: a distortion should be corrected at source if side-effect problems are to be avoided.

In reality, the government must tackle imperfections in a world that has many other imperfections.

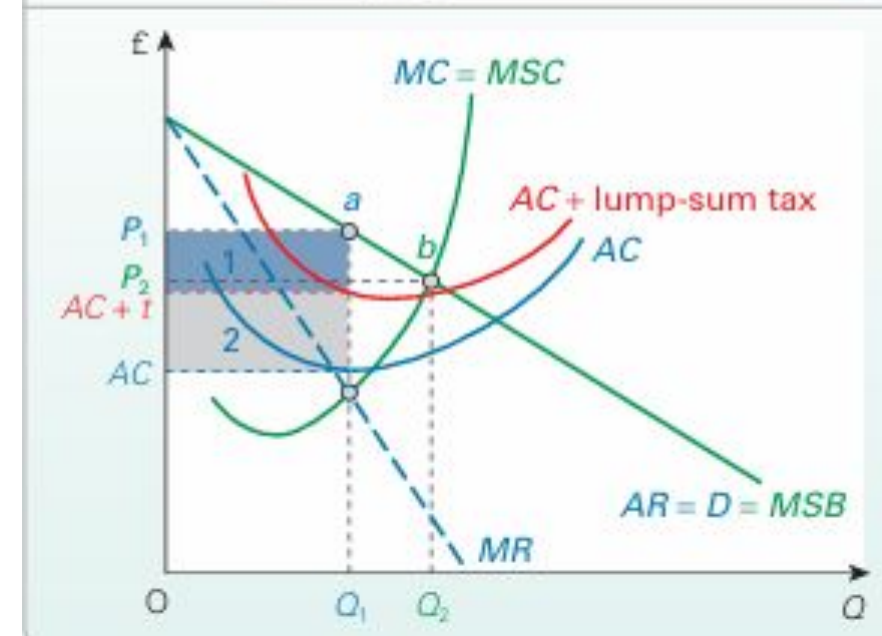
2.2 Taxes to correct for monopoly

If the government wishes to tackle the problem of excessive monopoly profits, it can impose a lump-sum tax on the monopolist. An example of such a tax was the 'windfall tax', imposed by the UK government in 1997. This was on the profits of various privatised utilities.

Being of a fixed amount, a lump-sum tax is a fixed cost to the firm. It does not affect the firm's marginal cost. It shifts the AC curve upwards.

Figure 12.14

Using a lump-sum tax to reduce monopoly profits



2.3

Advantages & Disadvantages of Taxes & subsidies

- Advantages

Economists favour the tax/subsidy solution to market imperfections because it still allows the market to operate. It forces firms to take on board the full social costs and benefits of their actions. Furthermore, once the policy is in place, taxes and subsidies can be adjusted according to the magnitude of the problem.

Moreover, if firms are taxed for polluting, they are encouraged to find cleaner ways of producing. The tax acts as an incentive over the longer run to reduce pollution.

Likewise, by subsidising *good* practices, firms are given the incentive to adopt more good practices.

- Disadvantages

Infeasibility of using different tax and subsidy rates. Each firm produces different levels and types of externality and operates under different degrees of imperfect competition. It would be very difficult and expensive to charge every offending firm its own particular tax rate.

Lack of knowledge. Even if a government did decide to charge a tax equal to each offending firm's marginal external costs, it would still have the problem of measuring those costs and apportioning blame. It is thus impossible to fix the 'correct' pollution tax on, say, a particular coal-fired power station.

3

Changes in Property

rights

One cause of market failure is the limited nature of property rights. Property rights define who owns property, to what uses it can be put, the rights other people have over it and how it may be transferred. By extending these rights, individuals may be able to prevent other people from imposing costs on them or charge them for doing so.

The socially efficient level of charge would be one that was equal to the marginal external cost (and would have the same effect as the government charging a tax on the firm of that amount). **The Coase theorem** states that when there are well-defined property rights and there are no bargaining or negotiation costs, then the socially efficient charge will be levied.

One interesting result is that the efficient solution to the problem caused by the externality does not depend on which party is assigned the property rights. All that matters is that the property rights are fully assigned to either one or the other and that there are no bargaining costs

4

Laws prohibiting / regulating undesirable structures or behaviour

Laws are frequently used to correct market imperfections. We examine three of the most common cases.

Laws prohibiting or regulating behaviour that imposes external costs –

Laws can be applied both to individuals and to firms. In the case of individuals, it is illegal to drive when drunk. Drunk driving imposes costs on others in the form of accidents and death.

In the case of firms, various polluting activities could be banned or restricted; safety standards could be imposed in the place of work; building houses or factories could be prohibited in green-belt areas.

In the case of common resources, restrictions could be placed on their use. For example, in the case of fishing grounds, governments could limit the size of fleets, impose quotas on catches or specify the types of net to be used

4

Laws prohibiting / regulating undesirable structures or behaviour

Laws to prevent or regulate monopolies and oligopolies –

Governments often introduce laws that prohibit various types of collusive activities, the misuse of market power by a dominant firm and mergers or takeovers that would result in a substantial lessening of competition.

Laws to prevent firms from exploiting people's ignorance –

Given that consumers have imperfect information, consumer protection laws can make it illegal for firms to sell shoddy or dangerous goods, or to make false or misleading claims about their products. The problem is that the firms most likely to exploit the consumer are often the ones that are most elusive when it comes to prosecuting them.

5

Regulatory Bodies

A more subtle approach than banning or restricting various activities involves the use of regulatory bodies.

Having identified possible cases where action might be required (e.g. potential cases of pollution or the abuse of monopoly power), the regulatory body would probably conduct an investigation and then prepare a report containing its findings and recommendations. It might also have the power to enforce its decisions, or this might be up to some higher authority.

The advantage of this approach is that a case-by-case method can be used and, as a result, the most appropriate solution adopted. However, investigations may be expensive and time- consuming.

6 Price controls

Price controls are government interventions in the market involving the setting of **price ceilings (maximum prices)** or **price floors (minimum prices)**, thus preventing the market from reaching a market-clearing equilibrium price.



7

Price Ceilings

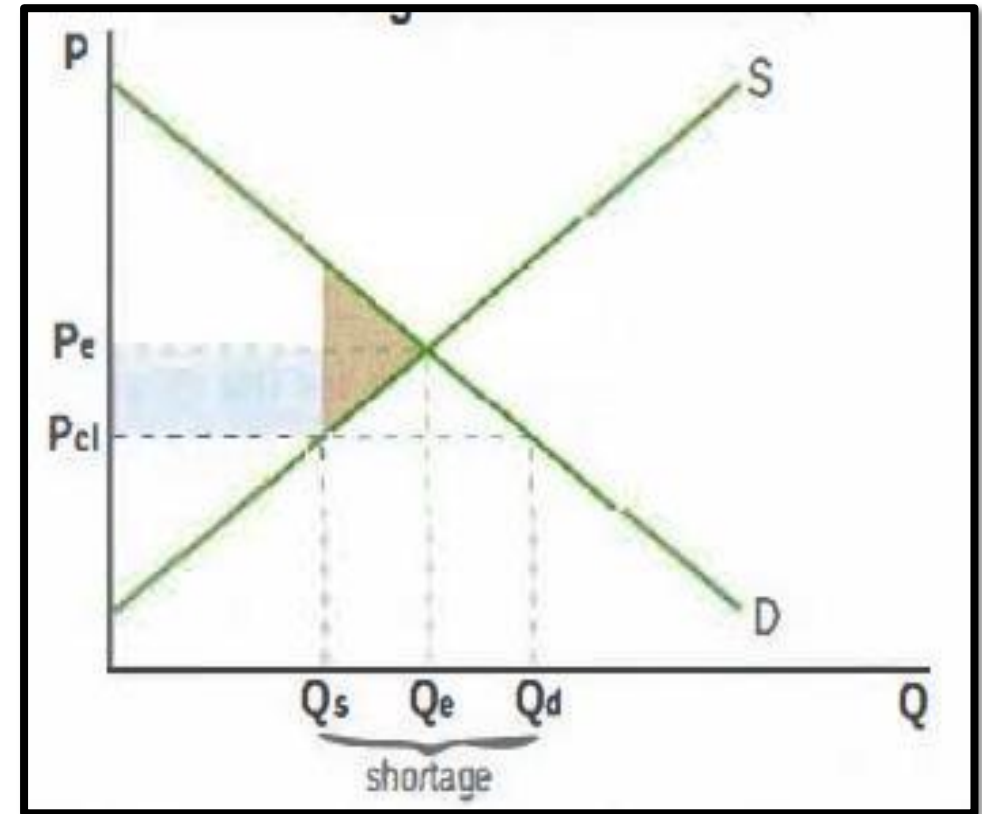
Price ceiling is a maximum price on a good set by the government that is below the equilibrium price of the market, resulting in a **shortage**.

Why governments impose price ceilings?

The maximum P that can be legally charged, P_{cl} is below equilibrium P_e (it is set by governments to make some necessities affordable to poor people).

Example

- **food price controls** (ceilings) for particular food products (bread, milk, wheat, rice and other staples).
- **rent controls** (ceilings), which specify a maximum rent that can be charged for specific housing.



7.1 Market Outcomes

Consequences of price ceilings for the market and the economy:

- **Shortages (excess demand):** The price ceiling does not let price to adjust to its equilibrium value, P_e , and results in a shortage (= excess demand), since at P_{cl} , $Q_{demanded} > Q_{supplied}$
- **Non-price rationing mechanisms:** Since price no longer fulfils its signalling and incentive functions, methods other than price are needed to ration (= distribute) the good to buyers, such as waiting lines, first-come first-served, favouritism (ex selling the good to friends).
- **Underground/parallel markets:** Since there are unsatisfied buyers at P_{cl} , some people buy the good at P_{cl} and illegally re-sell it at a higher price.
- **Inefficient resource allocation:** Underallocation of resources since less is produced than Q_e .
- **Welfare losses for society:** There is welfare loss, since only Q_s of the good is produced and consumed, rather than Q_e .

7.2

Consequences of price ceilings for stakeholders

- **Consumers:** Consumers who buy the good at the lower P gain: those who want to buy it but cannot due to the shortage lose. This can be seen from the welfare analysis, which shows the gain by consumers of a portion of producer surplus due to the lower P paid, and the loss of a portion of consumer surplus due to welfare loss.
- **Producers:** Producers lose because they sell a lower Q (Q_s) rather than Q_d , and because they receive a lower P (P_c) rather than P . This can be seen from the welfare analysis, showing the loss of producer surplus to consumers, and the loss of a portion of producer surplus due to welfare loss.
- **Government:** There are no economic gains nor losses, but the government may gain political from increased popularity.
- **Workers:** Some workers lose their jobs due to lower output produced.

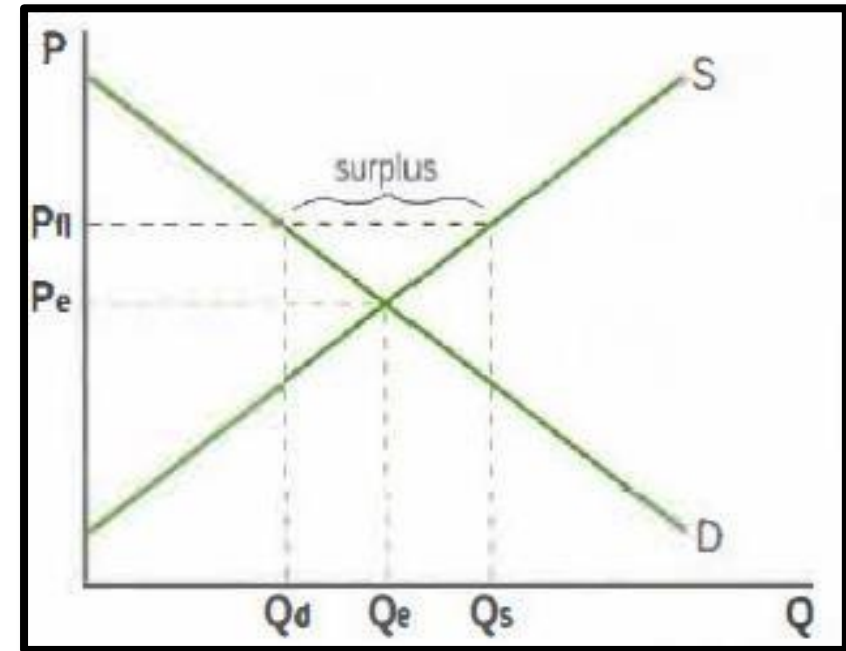
8 Price Floors

Price floor is a minimum price on a good set by the government that is above the equilibrium price of the market, resulting in a **surplus**.

Why governments impose price floors?

The minimum P that can be legally charged, the price floor which is above the equilibrium P . This is done by governments to:

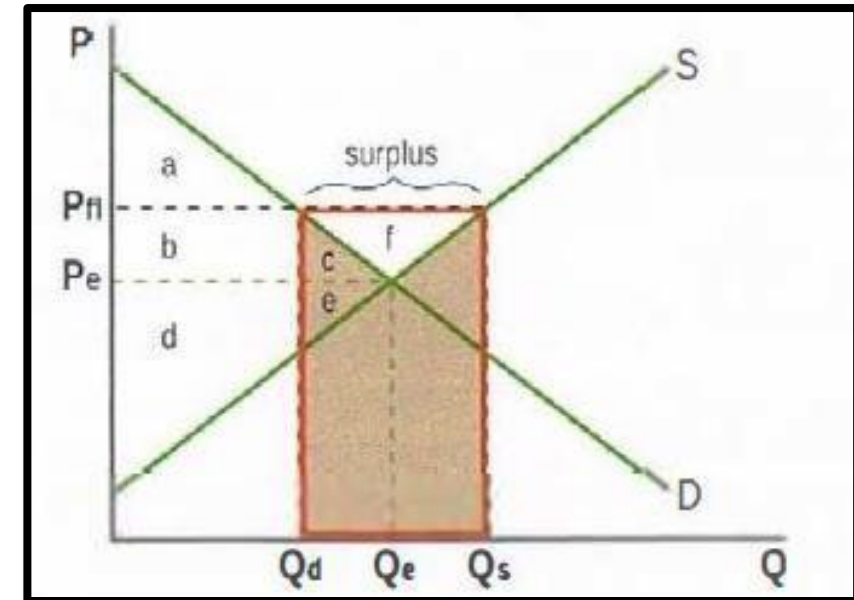
- **support farmers'** incomes by increasing the price they receive for their products
- **support the wages of low-skilled workers** by increasing them above their market equilibrium level.



8.1

Consequences for the economy

- **Surpluses** (excess supply): The price floor does not let P adjust to its equilibrium value, and results in a surplus (= excess supply), since at price floor, Q demanded $<$ Q supplied.
- **Inefficient resource allocation** More is produced than consumers want, so there is resource overallocation.
- **Governments buy the surplus**, as this is the only way the price floor can be maintained at the higher than equilibrium price; this involves budget expenditures with opportunity costs.
- **Welfare losses for society** is shown by the shaded area. After the price floor is imposed, consumer surplus is reduced and producer surplus increases. Social surplus appears to have increased, however from this total it is necessary to subtract government spending to buy the excess supply, equal to the rectangle. The net welfare loss is the green shaded area.



8.2 Consequences for stakeholders

- **Consumers** lose as they pay a higher price for a lower quantity purchased.
- **Producers** gain because they receive a higher price and sell a larger quantity.
- **Workers** gain because more output is produced therefore there will be an increase in employment.
- **The government** loses as it must pay for the purchase of the surplus out of its budget, and may additionally have to pay storage costs or subsidies on exports of the surplus quantity.
- **Stakeholders in other countries** lose if the excess supply is exported, leading to increased global supply and hence lower global prices, hurting farmers in countries where there are no price floors

9

Provision of information

When imperfect information is a reason for market failure, the direct provision of information by the government or one of its agencies may help to correct that failure.

An example is the information on jobs provided by job centres to those looking for work. This will speed up the 'matching process' between the unemployed and employers. It helps the labour market to work better and increases the elasticity of supply of labour.

10

The direct provision of goods and services

In the case of public goods and services, such as streets, pavements, national defence, etc the market may completely fail to provide the socially efficient amount because of free-riding.

Government may have to finance the optimal provision of the public good by requiring compulsory payments from members of society. One way of obtaining the compulsory payments is through the central/local tax system.

Once the compulsory payments have been collected, the central government, local government or some other government agency could then manage the production of the goods or services directly.

There are four reasons why such things are provided free or well below cost. They are social justice, large positive externalities, dependants, imperfect information.

10.1 Four reasons

The government provides goods and services directly which are *not* public goods. Examples include health and education. There are four reasons why such things are provided free or well below cost

- **Social justice.** Society may feel that these things should not be provided according to ability to pay. Rather, as merit goods, they should be provided according to need.
- **Large positive externalities.** People other than the consumer may benefit substantially. If a person decides to get treatment for an infectious disease, other people benefit by not being infected. A free health service thus helps to combat the spread of disease.
- **Dependants.** If education were not free, and if the quality of education depended on the amount spent, and if parents could choose how much or how little to buy, then the quality of children's education would depend not just on their parents' income, but also on how much they cared. A government may choose to provide such things free in order to protect children from 'bad' or 'foolish' parents.
- **Imperfect information.** Consumers may not realise how much they will benefit. If they had to pay, they might choose (unwisely) to go without. Providing health care free may persuade people to consult their doctors before a complaint becomes serious.

11

Fixing the market failures

How do we fix the various market failures that arise?

Externalities

- Government command approaches – government authority to make decisions
- Market-based policies such as indirect taxes and subsidies

Common access resources

- Legislation and regulations – Ex Carbon taxes
- Funding for clean technologies – Subsidies

Public Goods

- Direct provision of public goods by the government

Monopoly powers

- Legislation may include anti-monopoly laws
- Trade liberalization – removal of barriers to trade

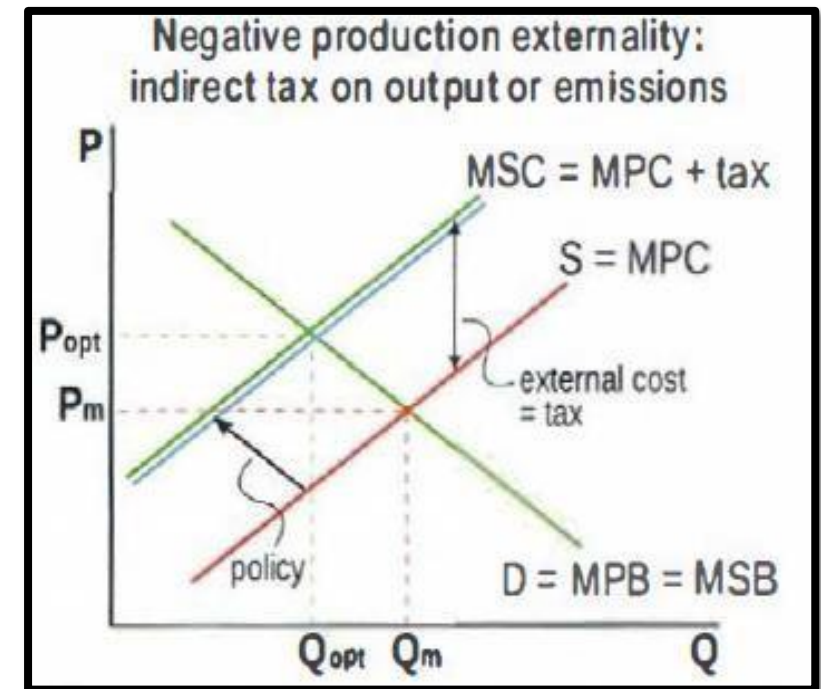
11.1 Fixing – Negative Production Externality

Command approaches include legislation, regulations and advertising that aim at directly reducing emissions and/or environmental damage:

Ex: Impose restrictions on emissions, Limit the amount of output produced, Force firms to install non-polluting technologies, Ban dangerous substances (ex Asbestos), Negative advertising to influence consumers to avoid purchasing products of highly polluting firms.

Market-based policies change the price incentives faced by firms:

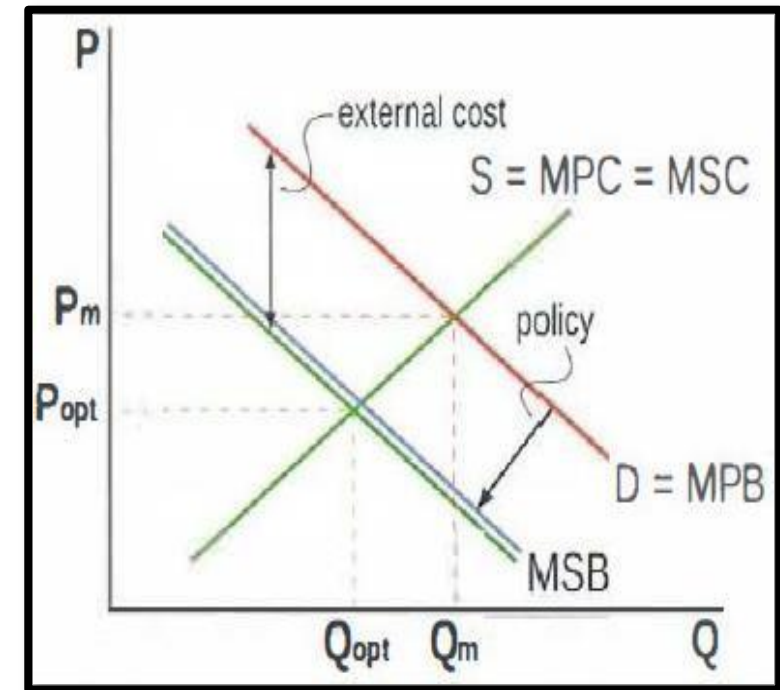
An indirect tax on emissions (pollutants) causes the supply curve to shift from MPC toward MSC, leading to Q_{opt} and P_{opt} ; this works by creating incentives for firms to reduce emissions and shift to clean technologies(= technologies that reduce negative environmental effects) in order to avoid paying the tax. The more the pollutants emitted, the greater the tax, therefore the greater the incentives to switch to clean technologies. Ex the carbon tax = tax on carbon emissions of fossil fuels.



11.2 Fixing – Negative Consumption Externality

Command approaches include legislation, advertising and educating the public in order to influence the behaviour of consumers and reduce demand so that the **MPB** curve shifts toward **MSB**, leading to Q_{opt} and P_{opt} :

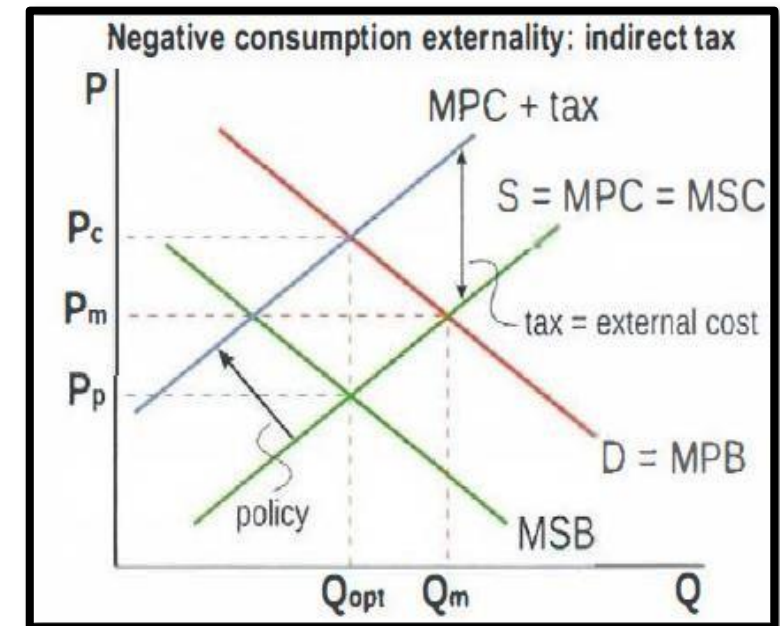
Ex Legislation, ex no smoking in public places; no drinking and driving, Education of consumers, ex encouraging the use of public transportation rather than cars (to reduce fossil fuel emissions).



11.2 Fixing – Negative Consumption Externality

Market-based policies change price incentives of firms and consumers:

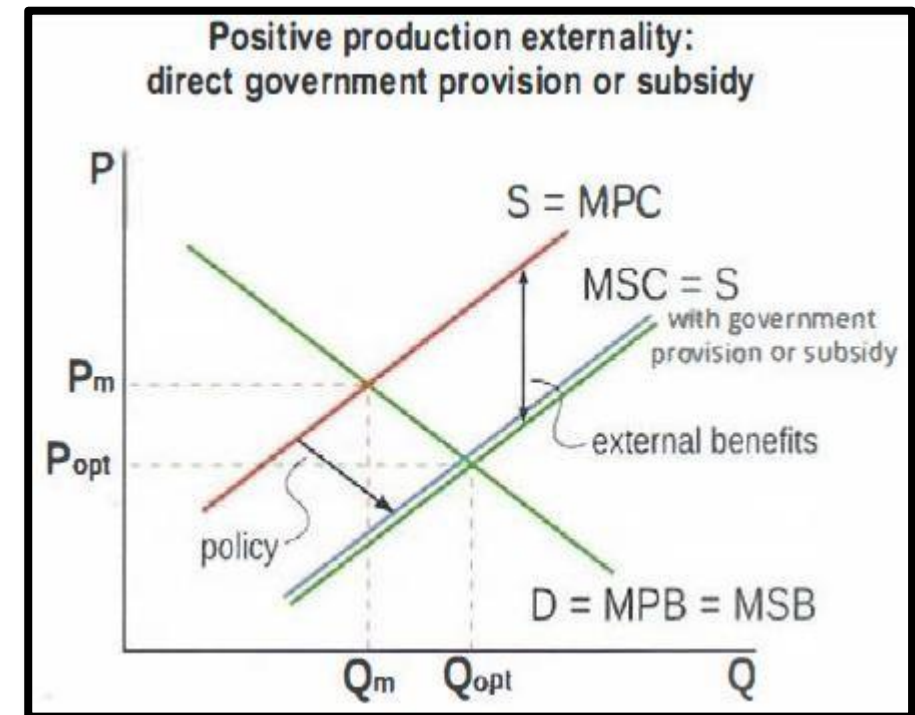
Ex. An indirect tax on the good causing the negative externality causes the supply curve to shift from MPC to MPC+tax, causing P to increase and Q to fall. If the tax is exactly equal to the value of the external cost, "MPC + tax" will intersect MPS at the level of Q_{opt} ; the externality and welfare loss are eliminated, and a higher price, P_c is charged.



11.3 Fixing – Positive Production Externality

Command approaches aim at directly increasing provision: Direct government provision, such as in the case of research and development (R&D) for the development of new scientific knowledge new technologies, new products; this has the effect of shifting the MPC curve toward the MSC curve(= "S with government provision or subsidy"), reaching the socially optimum quantity Q_{opt} and price P_{opt}

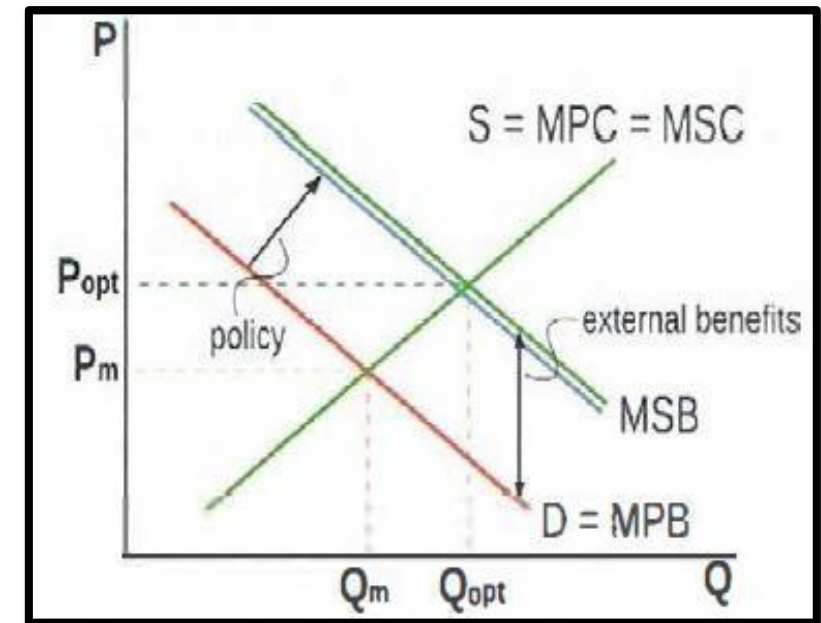
Market-based policies change incentives faced by producers: Provision of subsidies by the government to private firms, universities and other organizations involved with research and development (R&D); this also has the effect of shifting the MPC curve toward the MSC curve(= "S with government provision or subsidy") and the socially optimum quantity Q_{opt} .



11.4 Fixing – Positive Consumption Externality

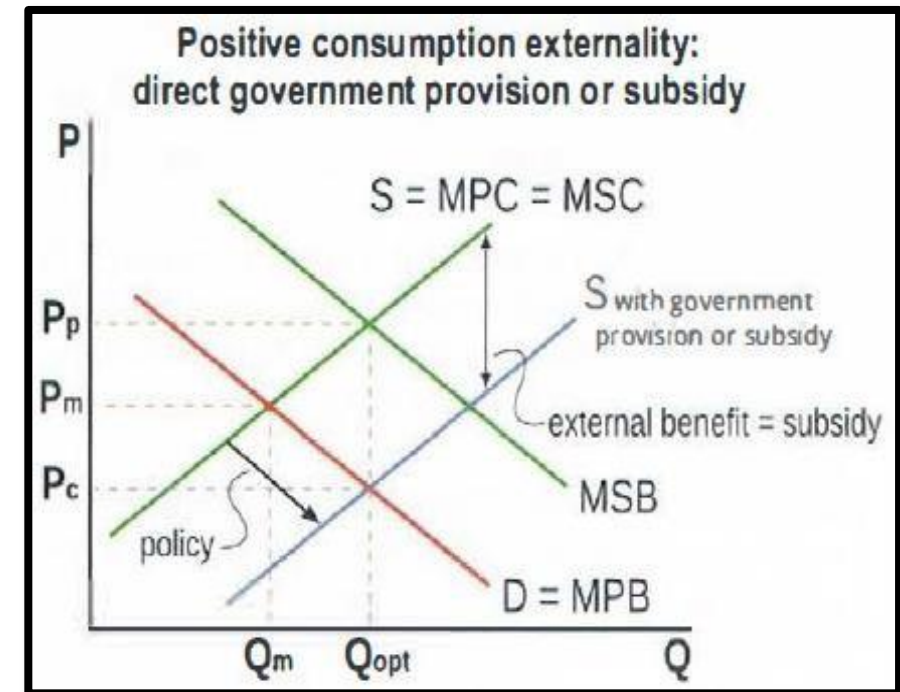
Command approaches include legislation, advertising and education that aim at influencing the behaviour of consumers to increase demand so that the MPB curve shifts toward MSB, reaching Q_{opt} and P_{opt} :

Ex. Legislation forcing increased consumption, ex making primary school education compulsory for all children, Direct government provision, ex education, health care, infrastructure (clean water supplies, sewerage systems).



11.4 Fixing – Positive Consumption Externality

Market-based policies change price incentives of firms and consumers: Ex. Provision of subsidies by the government, with the effect of shifting the S curve to "S with government provision or subsidy", resulting in the socially optimum quantity Q_{opt} and the lower price, P_c for consumers



12

Drawbacks of government intervention

- **Shortages and surpluses.** If the government intervenes by fixing prices at levels other than the equilibrium, this will create either shortages or surpluses. If the price is fixed below the equilibrium, there will be a Shortage. If the price is fixed above the equilibrium price, there will be a surplus. Such surpluses are wasteful, and high prices may protect inefficient producers
- **Poor information.** The government may not know the full costs and benefits of its policies. It may genuinely wish to pursue the interests of consumers or any other group, and yet may be unaware of people's wishes or misinterpret their behaviour.
- **Bureaucracy and inefficiency.** Government intervention involves administrative costs. The more wide-reaching and detailed the intervention, the greater the number of people and material resources that will be involved. These resources may be used wastefully and the effect on welfare may not be an improvement on the free-market situation.
- **Lack of market incentives.** If government intervention removes market forces or reduces their effect it may remove certain useful incentives. Ex. Subsidies may allow inefficient firms to survive.

12

Drawbacks of government intervention

- **Shifts in government policy.** Industrial performance may suffer if government intervention changes too frequently. It makes it difficult for firms to plan if they cannot predict tax rates, subsidies, wage controls, etc. Shifts in policy are also likely to involve costs for both business and public-sector providers. This may result in wasted resources.
- **Lack of freedom for the individual.** Government intervention may involve a loss of freedom for individuals to make economic choices. The argument is not just that the pursuit of individual gain is seen to lead to the social good, but that it is desirable in itself that individuals should be as free as possible to pursue their own interests with the minimum of government interference, and with that minimum being largely confined to the maintenance of laws consistent with the protection of life, liberty and property.

13

Advantages of the free market

Although markets in the real world are not perfect, even imperfect markets can be argued to have positive advantages over government provision or even government regulation.

- **Automatic adjustments.** Government intervention requires administration. A free-market economy, on the other hand, leads to the automatic, albeit imperfect, adjustment to demand and supply changes.
- **Dynamic advantages of the free market.** The chances of making high monopoly/oligopoly profits will encourage capitalists to invest in new products and new techniques. Prices may be high initially, but new firms will sooner or later break into the market and competition will ensue.
- **A high degree of competition even under monopoly/oligopoly.** Even though an industry at first sight may seem to be highly monopolistic, competitive forces may still work for the following reasons: to attempt to break into the industry. Competition from closely related. The threat of foreign competition. Countervailing powers, etc.

Should there be more or less intervention in the market?

14

No firm conclusions can be drawn in the debate between those who favour more and those who favour less government intervention, for the following reasons:

- The debate involves normative issues that cannot be settled by economic analysis. For example, it could be argued that freedom to set up in business and freedom from government regulation are desirable *for their own sake*.
- In principle, the issue of whether a government ought to intervene in any situation could be settled by weighing up the costs and benefits of that intervention. Such costs and benefits, however, even if they could be identified, are extremely difficult, if not impossible, to measure, especially when the costs are borne by different people from those who receive the benefits and when externalities are involved.
- Often the effect of more or less intervention simply cannot be predicted: there are too many uncertainties.

15 Competition Policy

Most markets in the real world are imperfect, with firms having varying degrees of market power. But will this **power be against the public interest?**

This question has been addressed by successive governments in framing legislation to deal with monopolies and oligopolies.

A lack of competition removes the incentive to become more efficient. Competition policy could ban various structures.

Even if firms make large supernormal profits, they may still charge **a lower price than more competitive sectors** of the industry because of their economies of scale. Finally, they may **use profits for research and development and for capital investment**. The consumer might then benefit from **new or improved products at lower prices**.

The targets of competition

15.1 policy

There are three possible targets of competition policy.

1) Abuse of the existing power of monopolies and oligopolies:

Monopoly policy – Monopoly policy seeks to prevent firms from abusing a dominant market position: i.e. misusing their economic power. Although it is referred to as ‘monopoly’ policy, it also applies to large oligopolists facing very limited competition.

Exploitative abuse – A business practice that directly harms the customer. Examples include high prices and poor quality.

Exclusionary abuses – Business practices that limit or prevent effective competition from either actual or potential rivals. More frequently cited examples of exclusionary abuses in competition cases include:

Predatory pricing, Tying (Where a firm is only prepared to sell a first product (the tying good) on the condition that its consumers buy a second product from it (the tied good)), **Margin squeeze** (Where a vertically integrated firm with a dominant position in an upstream market deliberately charges high prices for an input required by firms in a downstream market to drive them out of business), **Vertical restraints** (Conditions imposed by one firm on another which is either its supplier or its customer.)

The targets of competition

15.1 policy

2] The growth of power through mergers and acquisitions:

merger policy – The aim of merger policy is to have **oversight of prospective mergers**. The authorities will weigh up gains and losses to the public and the impact on the broader economy, and prevent or modify those that are considered to be against the public interest.

There are **various benefits and cost savings that apply to all types of merger**: horizontal, vertical and conglomerate. Central services such as finance and human resources (HR) can be merged and rationalised.

However, **mergers inevitably lead to a greater concentration of economic power**, which could be used against the consumer's interests.

In deciding how tough to be with mergers, the government must consider how this will affect firms' behaviour. Government policy towards corporate control will need to ensure that potential mergers encourage competition rather than reduce it.

The targets of competition

15.1 policy

3) Oligopolistic collusion: restrictive practice policy

Restrictive practices Where two or more firms agree to adopt common practices to restrict competition. These are also prohibitive. There is a much smaller chance that agreements to restrict, limit or prevent competition will ever be in the interests of society. The most likely outcome is higher joint profits for the firms and higher prices for the customer.

Examples of restrictive practices that are commonly cited in competition cases include

- **Horizontal price fixing.** These are direct or indirect agreements between rival firms to fix prices above competitive levels.
- **Market sharing.** These are agreements on how to distribute markets or customers between the firms.
- **Limit production.** Firms agree quotas on how much each should produce.

The targets of competition

15.1 policy

- **Bid rigging.** In response to a call for tenders, firms agree to discuss bids with one another rather than submitting them independently.
- **Information sharing.** Firms share sensitive information with one another, such as future plans on pricing, product design and output.