Departures from perfect competition

MARKET FAILURES AND GOVERNMENT INTERVENTION

EE 474 Health Economics

Semester 2/2021

Topics

market failure

- Economic Rationale for Government Intervention
- Forms of Government Intervention
- Government Involvement in Health Care Markets
- Government Failure

Rationale for Government Intervention

Price mechanism fails to work.

- Market failure is a situation defined by inefficient production or consumption in the free market.
- It provides justifications for government intervention.
- The principle market failures are:
  - ✓ Market power → Monopoly
  - ✓ Externalities - both +ve & -ve
  - ✓ Public goods → under provided.

Market Power/Monopoly

- Sources of market power? eg. Hospital merger. ↳ Higher mkt share.
  - Many (atomistic) sellers become a monopoly.
  - Information becomes monopolized and so perfect information becomes imperfect information.
  - Homogeneous products become heterogeneous products, conferring market power on suppliers. eg Cancer drugs – brand vs. generic

pharmaceutical industry.

- Market power means that too little is produced or purchased on the market, which produces a welfare loss.

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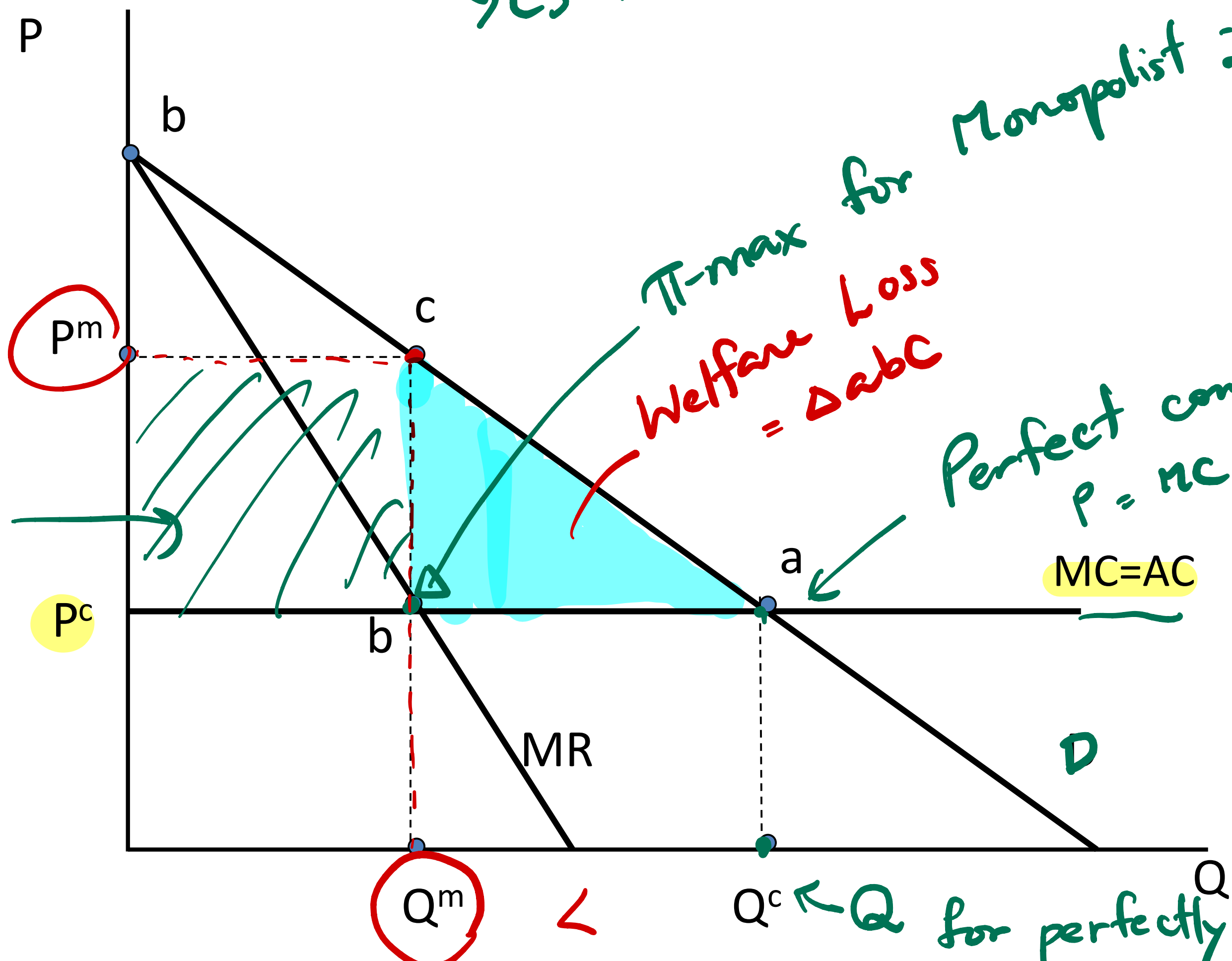
Monopoly Power

- 1 seller → price "setter"

↳ $CS^m = \Delta bcP^m$

π-max for Monopolist : $MC = MR$

→ Q^m & P^m



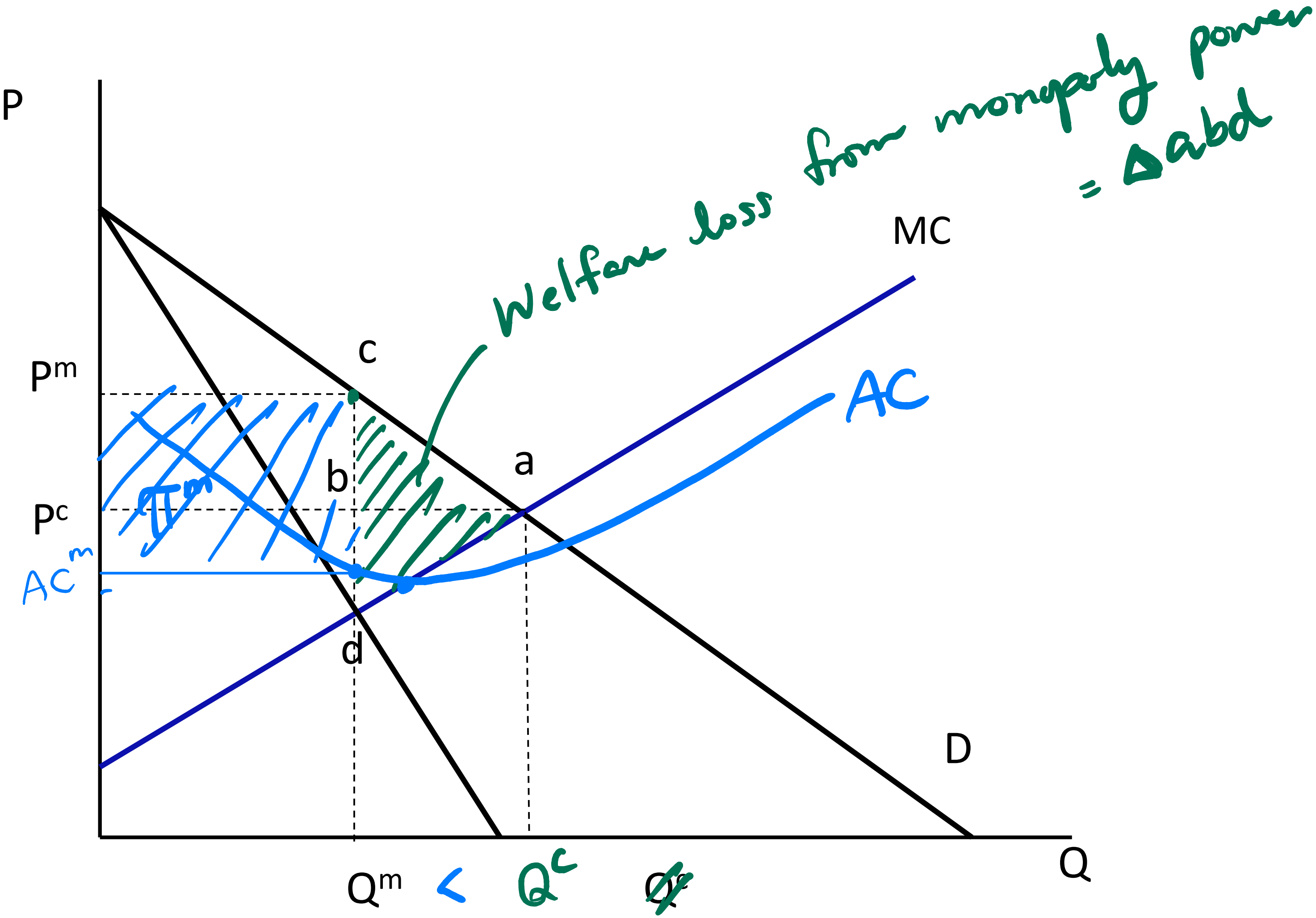
Welfare Loss $= \Delta abc$

Perfect competition : $P = MC$

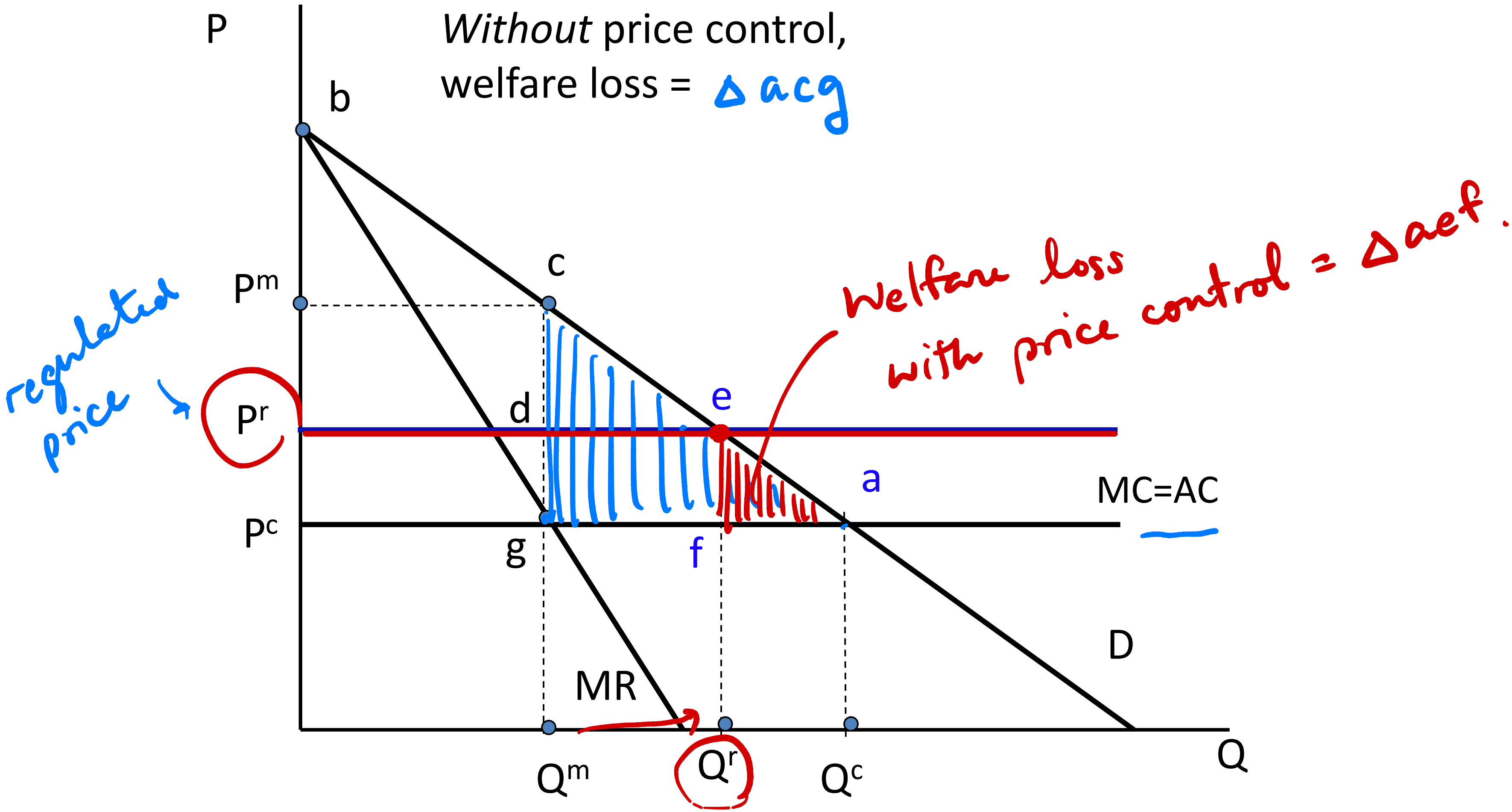
↳ $CS = \Delta baP^c$

← Q for perfectly comp've mkt.

Monopoly Power (Increasing MC)



Monopoly Power: Price Control



② # Public Goods

- Public goods have 2 characteristics:
  - * Non-rivalry: More than one consumer can simultaneously receive benefits, and
    2+ consumers can consume at the same time.
  - * Non-excludability: It is difficult (unable) to exclude consumers from benefiting from the good once it exists
    eg street lights
- Examples: National defense, a (non-toll) bridge, basic medical research, public internet, TV 3-5-7-9
  free TV.
  toll road is excludable.
- Why are public goods inefficient?
  - Because it is difficult to exclude others from benefiting, public goods are not typically provided by the market
  - Too few would be produced privately b/c of "free-rider" problem.
- Instead, government steps in to provide them.

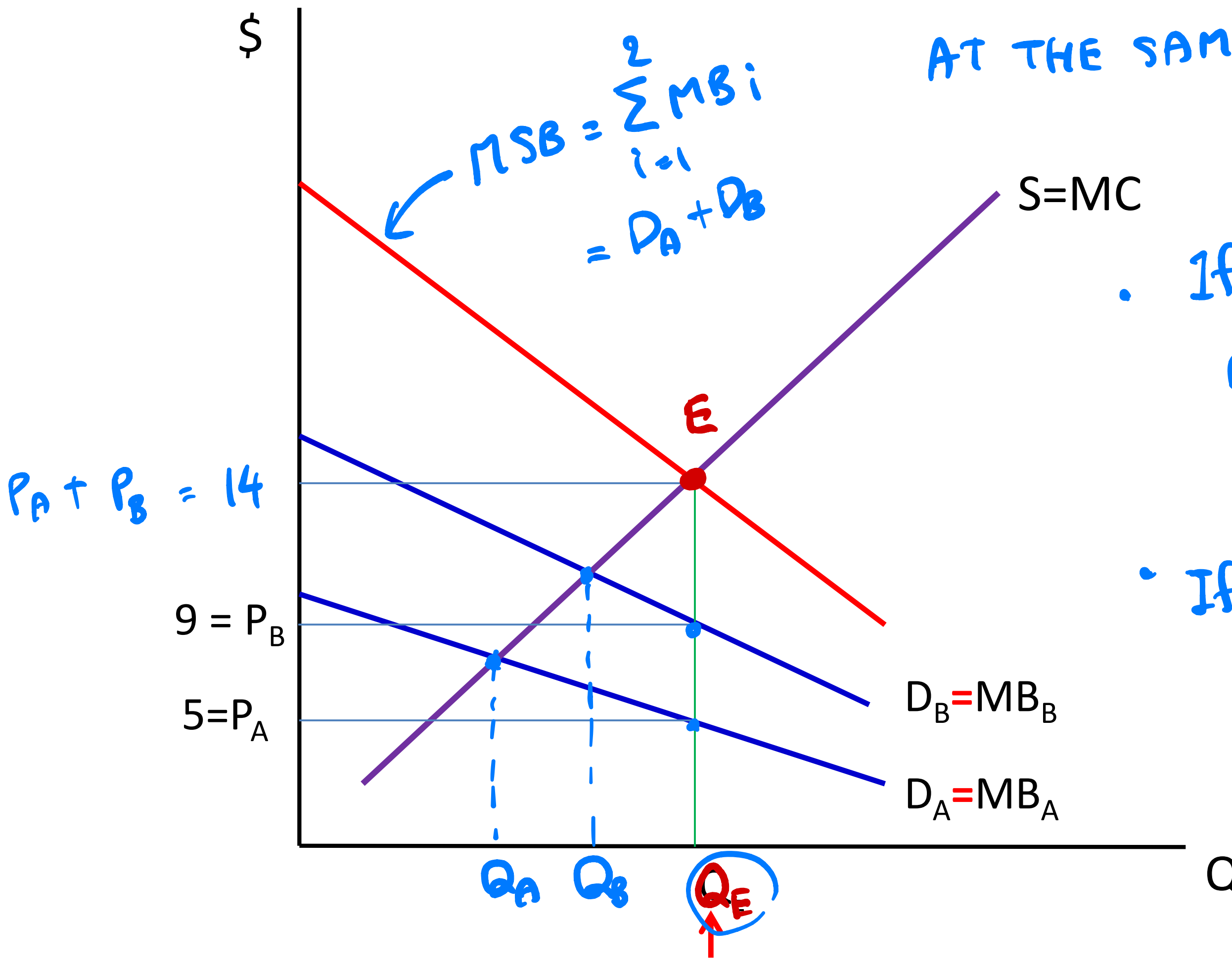
Examples of Public Goods

	Non- Rival	Rival
Non-Excludable	'Pure public goods' - National Defense - Public radio - TV 3-5-7-9	'Common pool' - Roads in Bangkok on Monday morning / no lockdown. - congested consⁿ.
Excludable	'Club goods' -Satellite TV -Sport club -Non-congested Elite card parking	'Pure private goods' - Food - Books - Health care - congested toll road.

- toll road

Optimal Quantity of a Public Good

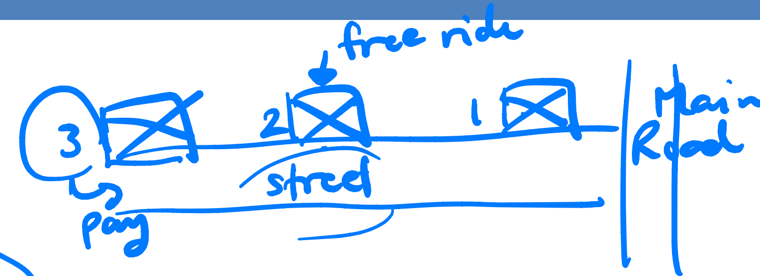
More than 1 person can benefit AT THE SAME TIME



- If A pays for the good, B can also benefit w/o paying; $Q = Q_A$
- If B pays, A can benefit w/o paying.

Is this quantity Q_E always reached? → No!

Public Goods



- Public goods are underprovided for 2 reasons:
- First, the marginal willingness to pay (sum of all MBs) is likely to exceed the marginal cost of producing the public good at the level at which it is produced.
  - Voluntary contributions for public good results in a quantity smaller than the optimal quantity.

B/c of free rider problem

- Second, when taxing to pay for public goods, individuals have an incentive to be free riders and understate the benefit they receive from a public good.
  - Even if they do, they would pay less but it wouldn't affect the amount of the public good provided

Is Health Care a Public Good?

- Is health care non-rival?
  - No! HC services cannot be consumed at the same time.
    eg. Pills, vaccine. ∴ HC is rival.
- Is health care non-excludable?
  - No! eg Vaccine from private sector
- Relevance of public goods to health care issues:
  - Information: can be thought of as an economic good with a large public content (eg knowledge)
  - Redistribution: may need mandatory programs to correct the undersupply of voluntary giving (which has a public dimension) (use tax to subsidize.) access to health care.

Externalities

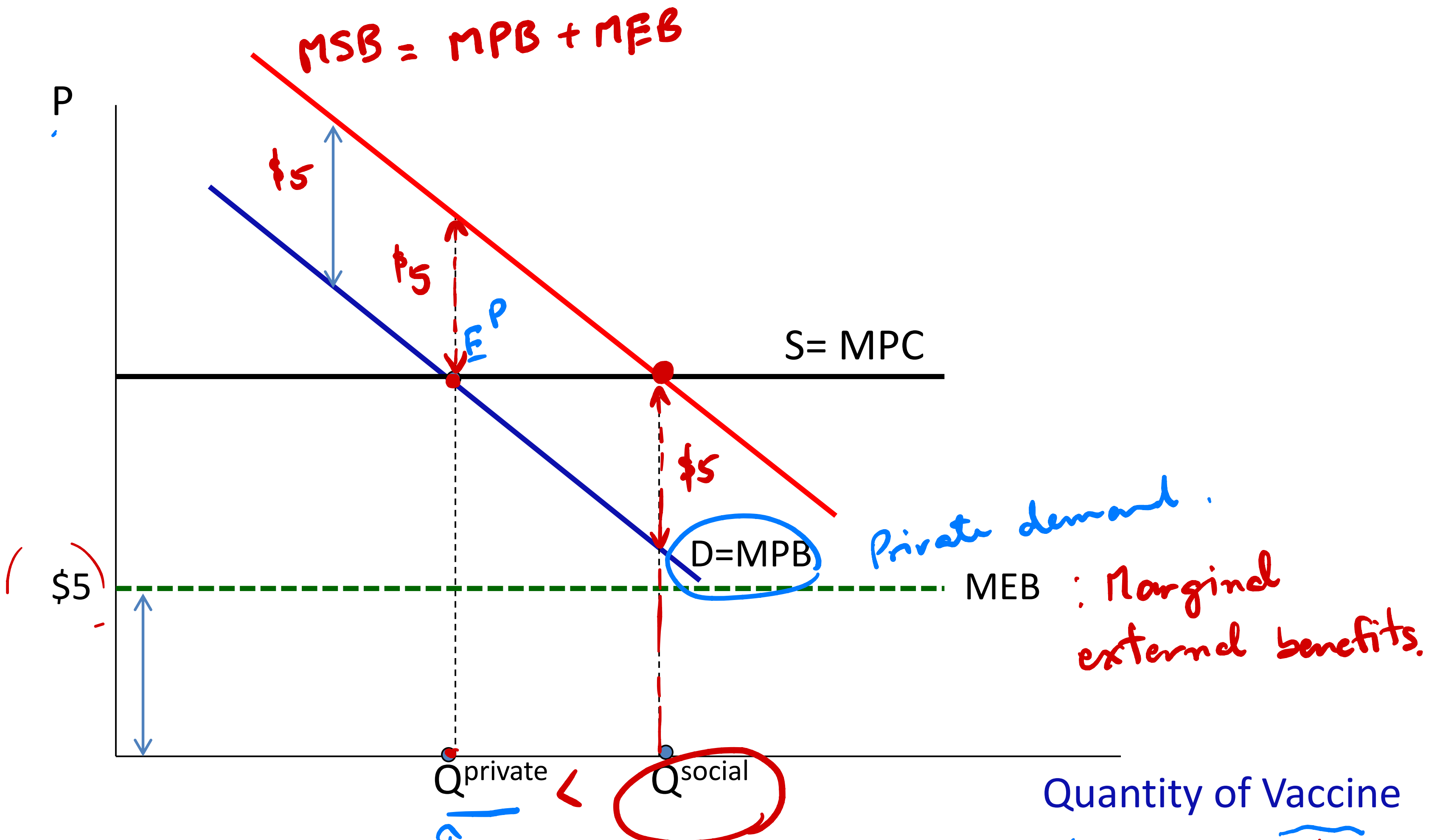
- What are externalities?
  - "An unpriced byproduct of production or consumption that adversely or beneficially affects another party not directly involved in the market transaction" 3rd party
- Recall:

Positive ext. Negative ext.

cons^{n}	External economy of consumption e.g. Immunization, Covid-19 vaccine.	External *dis*economy of consumption e.g. Antibiotic use, alcohol consumption
product^{n}	External economy of production e.g. R&D from teaching universities	External *dis*economy of production e.g. Dumping of hospital waste into the river → water pollution PM 2.5

Positive Demand-Side Externalities:

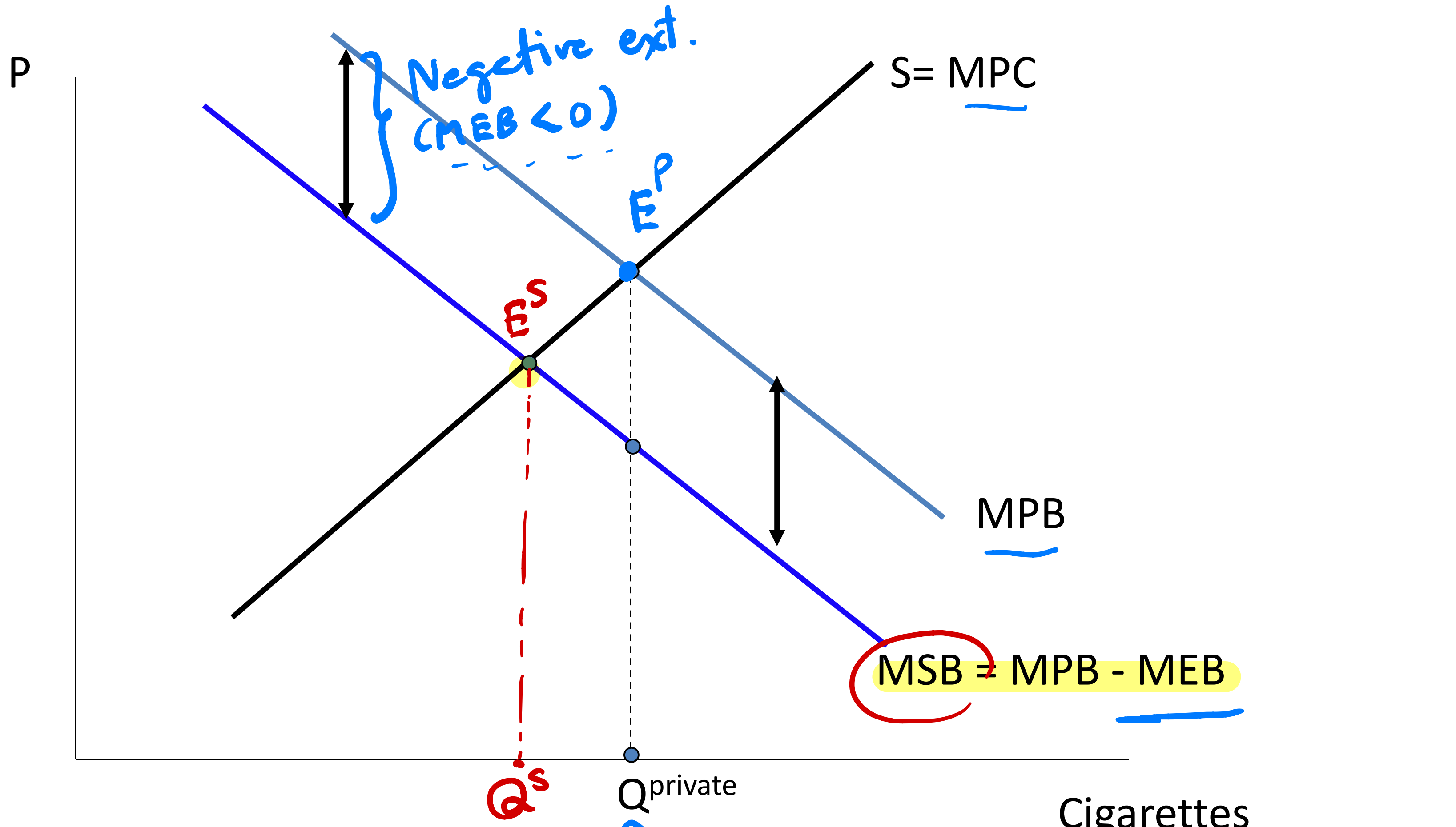
Vaccine Externality



If left to mkt, vaccine is under consumed!

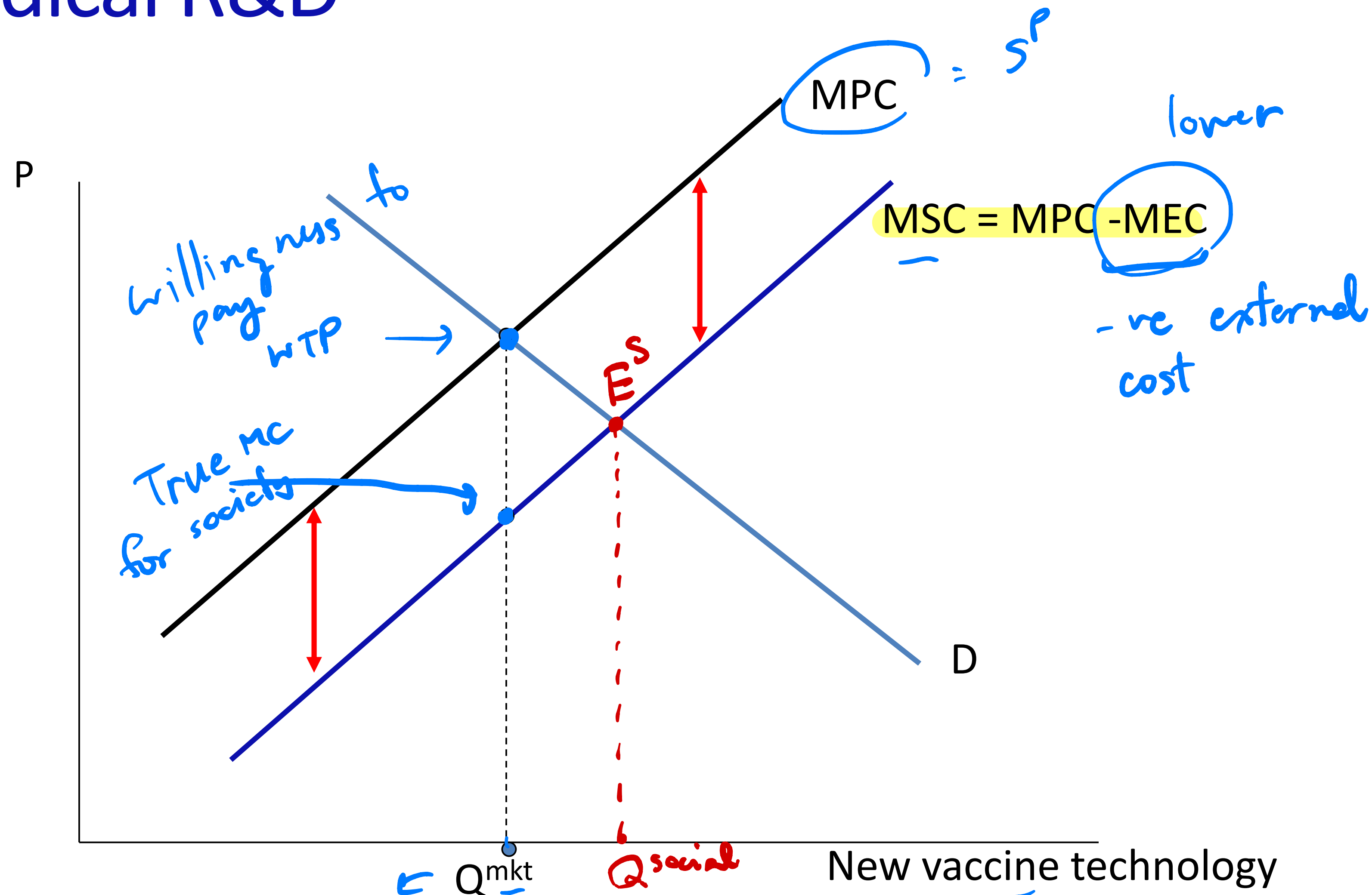
Negative Demand-Side Externalities:

Cigarette Externality



If left to mkt, cigarette is over consumed!

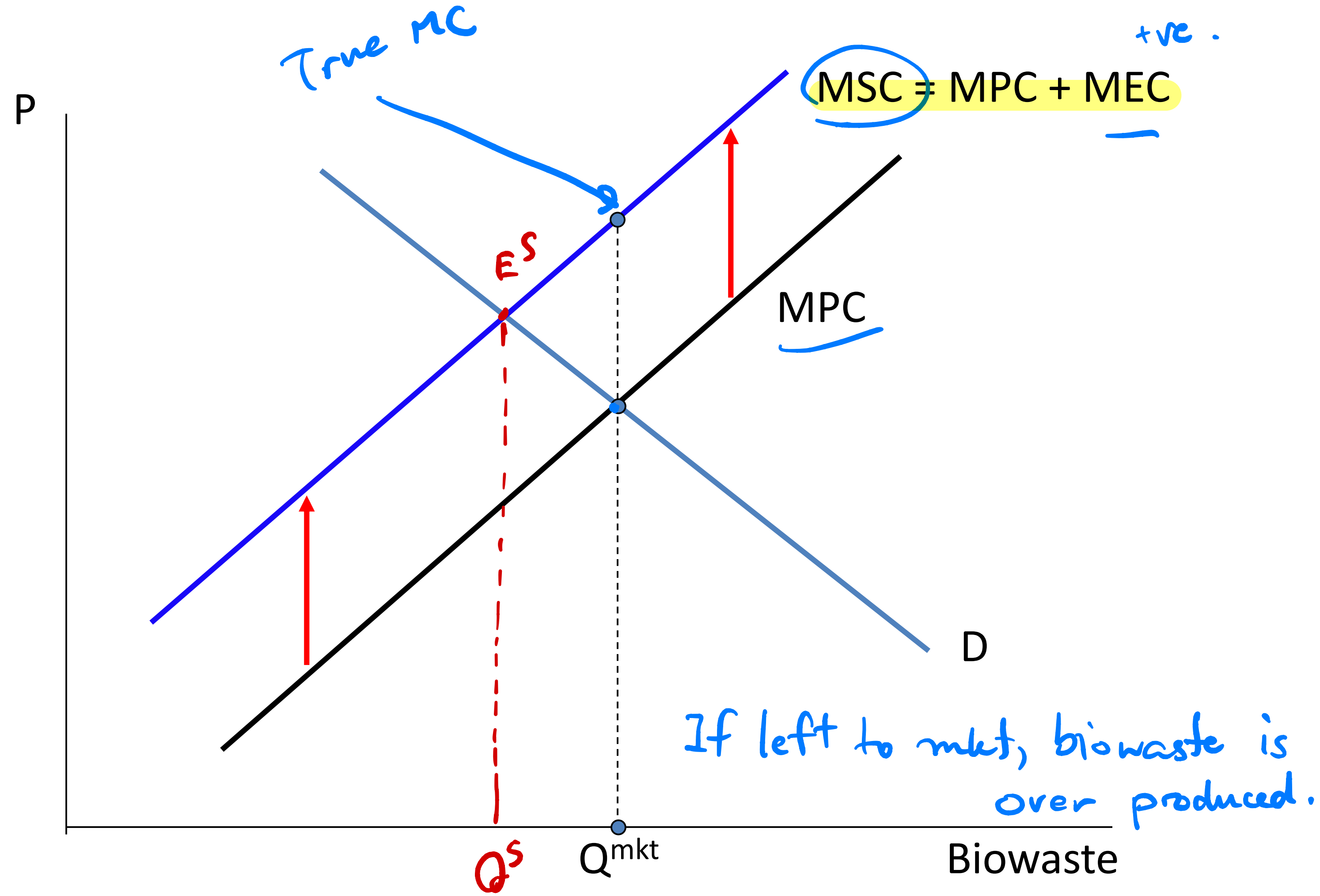
Positive Supply-Side Externalities: Medical R&D



If left to mkt, vaccine is under produced.

Negative Supply-Side Externalities:

Hospital Dumping Biowaste into Ocean



Forms of Government Intervention

- Commodity Taxes and Subsidies reduce -ve externalities.

  Examples: Cigarettes and alcohol taxes, vaccine subsidization → increase goods w/ +ve externalities.

- Public Provision → "Public goods"

  Examples: Garbage collection, public provision of basic health care and education

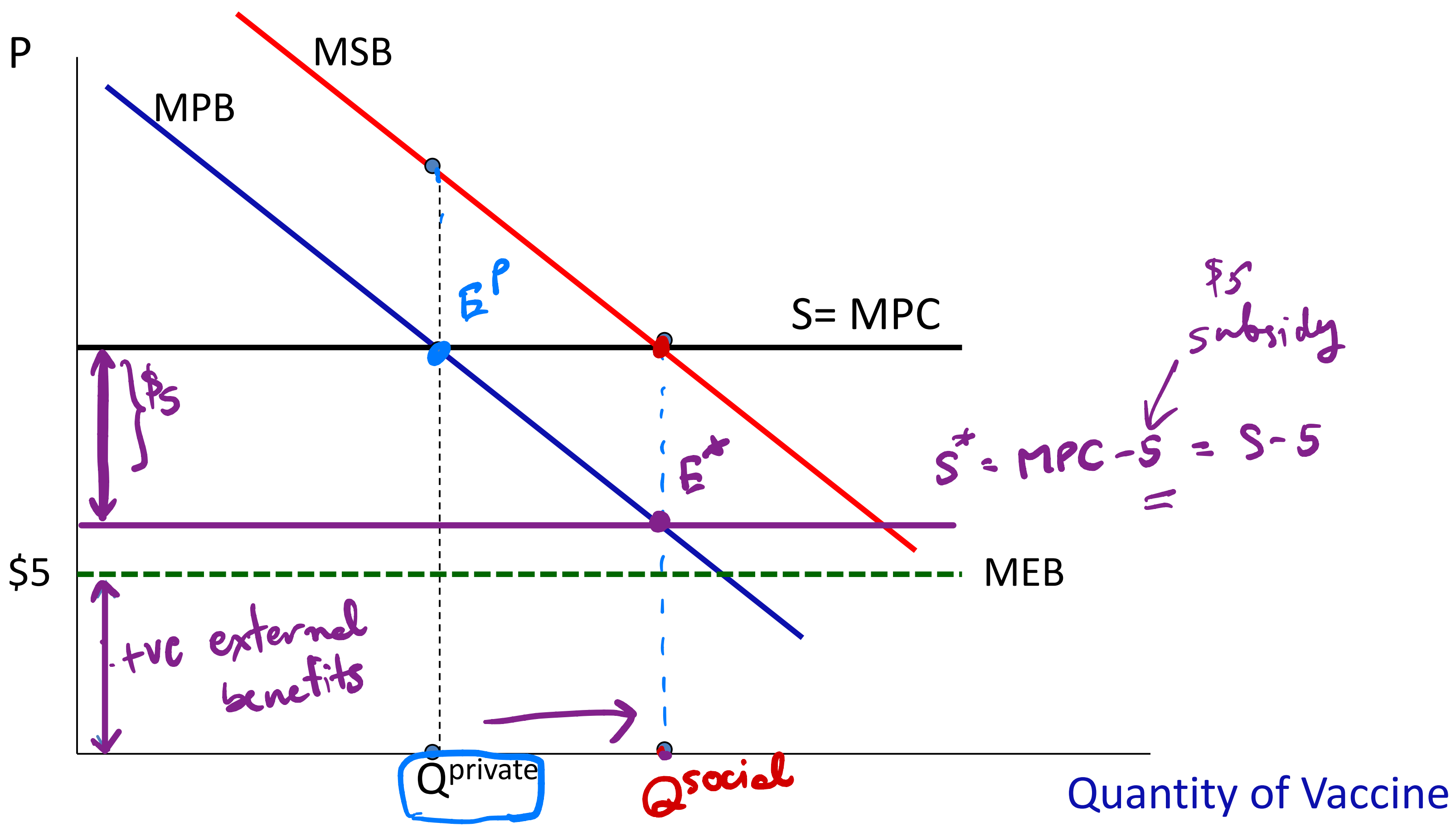
- Transfer program (redistribution) → "Public goods"

  Examples: Donations, food stamps

- Regulation → Monopoly power

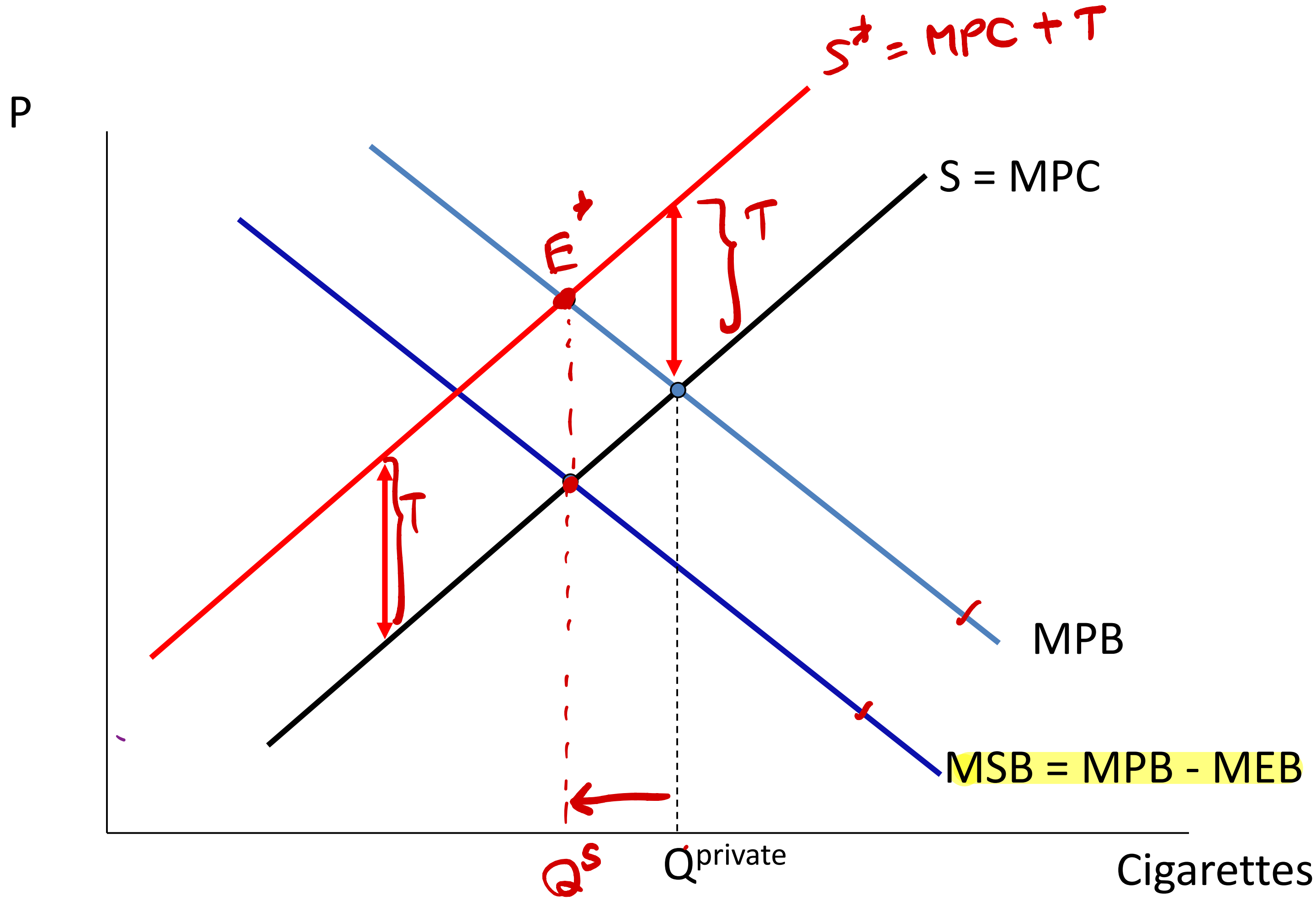
  Examples: Regulations on food and drug

Commodity Subsidies to Correct Vaccine Externality



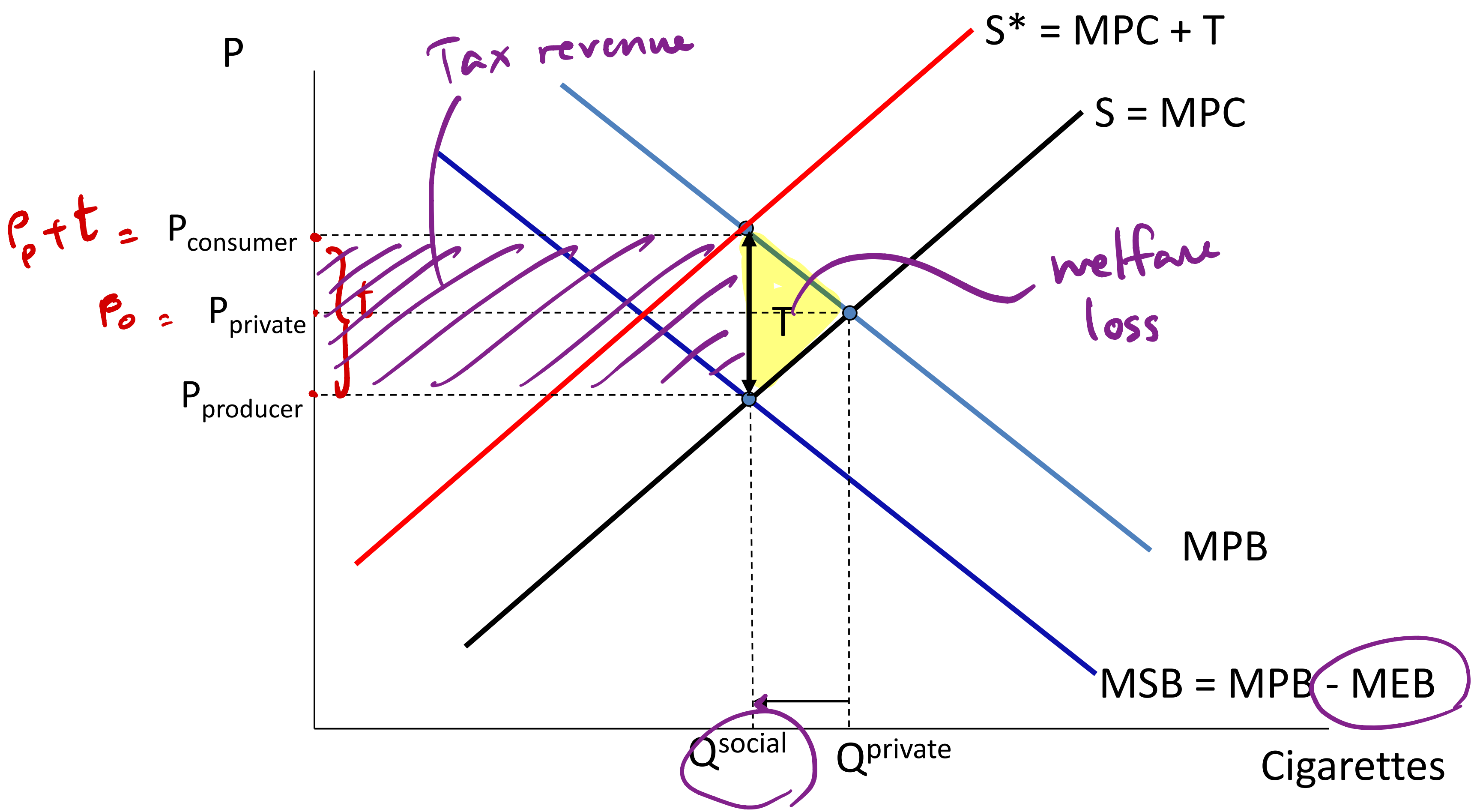
Commodity Taxes to Correct

Cigarettes Externality



Commodity Taxes to Correct

Cigarettes Externality



Government Intervention: Public Provision

"Public goods":

- Certain private goods have some 'public' elements – they may generate positive externalities.
  - Examples: clean water, education, health care
- These are known as 'publicly-provided' goods. eg HC services in public hospitals.
- Public provision of health care involves a decision making process:
  - What? → produce what, how much, at what quality
  - How? → government produces themselves or hire others
  - For whom? → who are the target group

Case of covid-19 treatment

↳ home isolation, hospitel, etc.

Government Intervention: Transfer Programs

2nd Welfare Theorem: Any PE can be achieved by competitive mkts, given appropriate initial endowm't

- The motivation for transfer programs (or redistribution of income) generally comes from the realization that many consumers are altruistic and benefit from giving money to those who are less fortunate.
- From an economic perspective, people in the donor group would benefit if they could see the poor made better off *at no cost* to them. Donation can be a "public goods".
  - Donors have an incentive to free ride on the charity of others. → lower donation
  - The standard justification for government redistribution is that it prohibits free riding—all must pay. → tax everyone

Government Intervention:
Transfer Programs

- 2 types of transfers:

1. Cash transfer: ฟ
   - Redistribute income, with recipients free to spend their income in any way they want.
   - E.g. Lump-sum transfer ; child allowance ; elder allowance
2. In-kind transfers (benefits other than cash) non-monetary benefits,
   - Redistribute income by increasing recipients' consumption of specific goods or services.
   - e.g. Free (or subsidized) health care, food stamps.

from UC scheme (30 baht), free-housing

Government Intervention: Regulation

- Governments influence the allocation of resources by establishing rules and regulations.
- Regulation refers to the use of nonmarket means to affect the quality, price, or ~~quality~~ quantity of a good or services. eg. quota
- Main categories of regulation:
  - Fee controls
  - Rate regulation

  "price" eg. Regulated price of covid-19 vaccine is ≤ ฿1,600
  - Quantity and capacity control : Quota Taiwan case.
  - Quality control

  → eliminate asymmetric info. eg. approval of safe drug / vaccines.

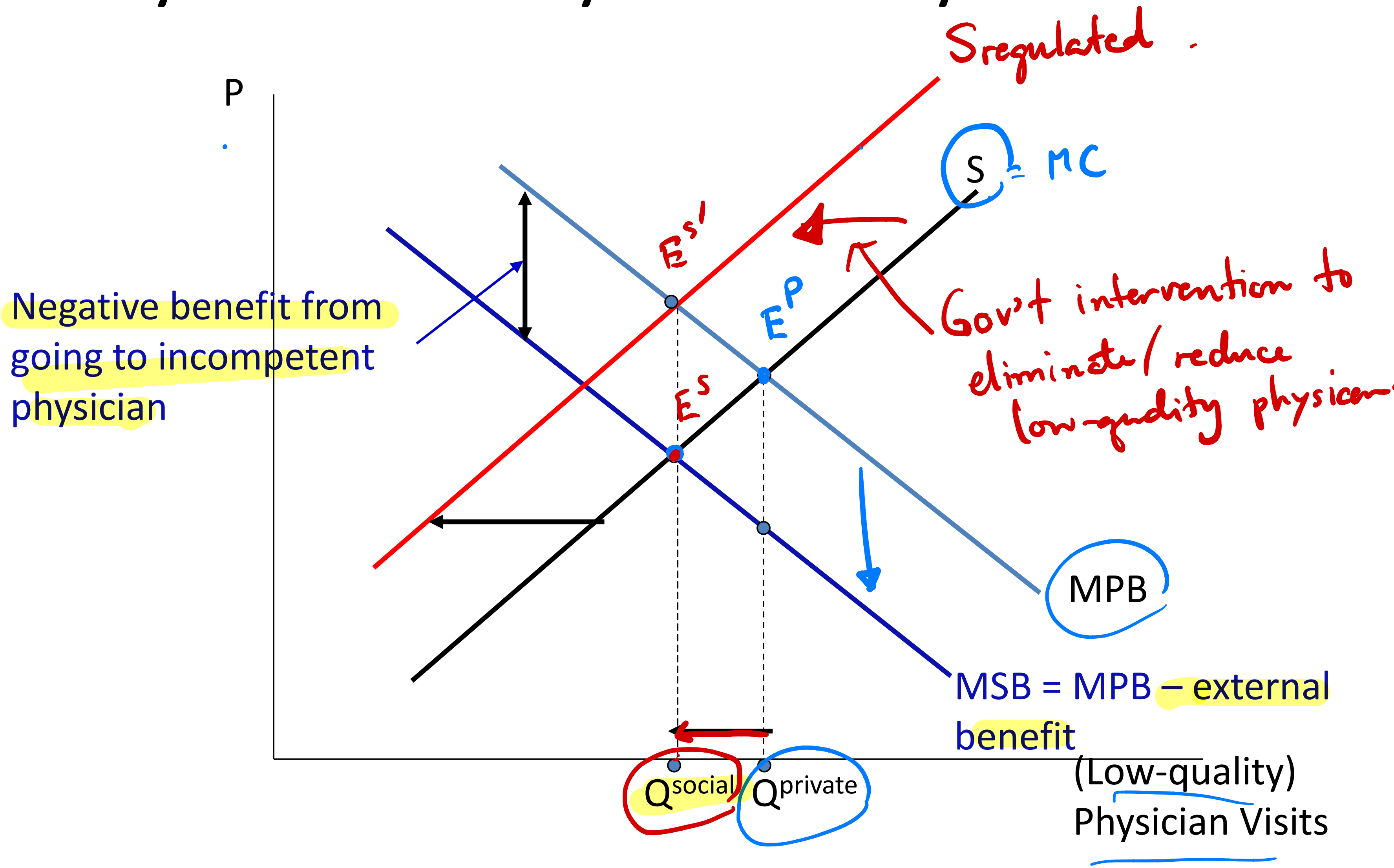
Direct Regulation: Quality Control

not licensed.

Example:

- There are negative externalities from low-quality health care provided by incompetent (but cheap) physicians.
- Others may contract a communicable disease as a result of this health care service.
  - This is a negative demand-side externality, or external diseconomy of consumption.
- Government can set a regulation to reduce or eliminate this negative externality.

Physician Quality Externality



Government Involvement in Health Care Markets

- Direct provision of health care → Public goods.
  - Example: Support of hospitals
- Subsidizing the production of health care
  - Example: Subsidizing medical education, R&D support
- Provision of social insurance
  - tax to subsidize.
  - Example: the 30 baht scheme aka UCS (Universal coverage scheme).
- Regulation of health care products and providers:
  - Licensure
  - FDA

Government Failure

- Market failure is a justification for government intervention, in order to improve efficiency and equity.
  - ➢ Public interest theory
- But, can government in practice improve efficiency and better meet society's equity objectives? Not always!
- Government failure occurs when government intervention creates more *inefficient* allocation of goods and resources (than it would be the case without intervention).
  - Example: Rice pledging program, first-car tax exempted policy, etc. price ceiling for diesel

    ⇒ "Market distortions"

Public Choice Theory

- Public choice theory addresses the government failure issue .
- Public choice attempts to model how decisions are made through the political process.
- We will limit our discussion to the models related to efficiency:
  - ✓ Special interest groups
  - ✓ Bureaucratic behavior

Special Interest Theory

- According to this theory, government intervention is influenced by special interest groups , who have incentives to lobby government to implement specific policies that benefit them.
  - Demanders : Various special interest groups e.g. private hospitals
  - Suppliers: Politicians and other elected officials
- This creates inefficiency, but they get away with it because the costs are often small and unnoticeable to all consumers (despite the large benefit).

- rent-seeking behavior
- market distortion

Bureaucracy and Efficiency

- Lawmakers pass legislation, but government bureaucrats are responsible for implementing programs.
- But, the bureaucrats may not necessarily minimize the costs of the programs.
  - This creates technical inefficiency.
- Besides, too much or too little produced could be produced (especially if there are special interest groups).
  - This creates allocative inefficiency.
- Thus, government intervention may not always improve social welfare, particularly when there is government failure.

Forms of rent-seeking behavior.

Market failures → Gov't intervention

→ Gov't failures ?