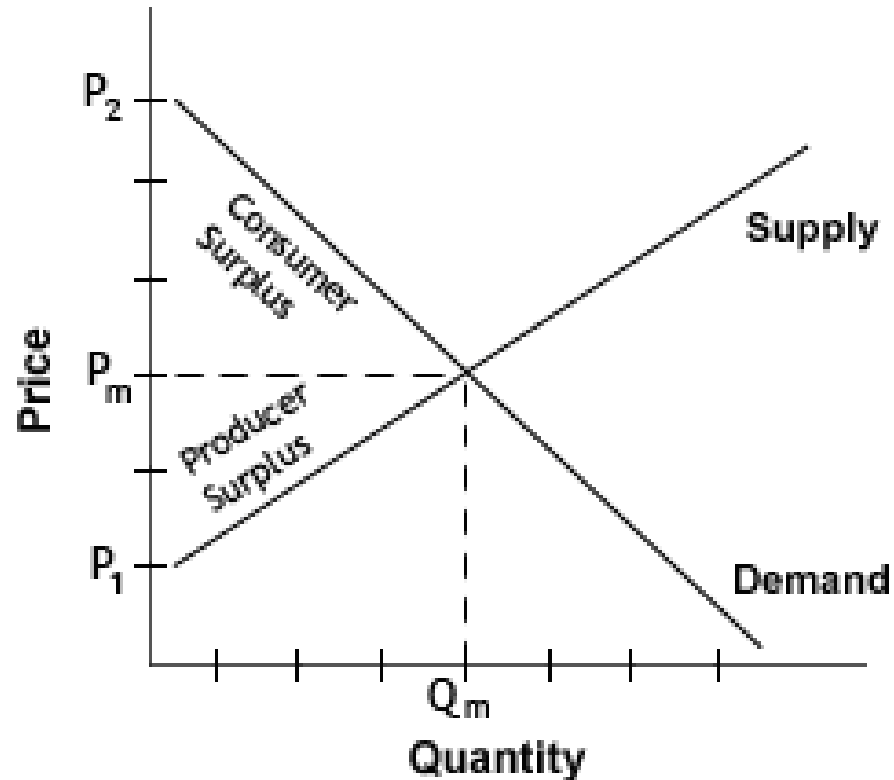# Market Failures

Ing. Marek Vyskočil

Market efficiency

- Revision:
  - The invisible hand of competitive markets
  - Price mechanism
  - Pareto efficiency
  - Individual´s welfare
  - Perfect competition

„If private markets are efficient, why should there be an economic role for government?"

Market failures

- Conditions under which markets are not efficient
- Reasons for government interventions

Causes of market failures:
1)Public goods
2)Failure of competition
3)Information asymmetry/failures
4)Externalities
5)Incomplete markets or Missing markets

6)Unemployment, inflation, disequilibrium
7)Property rights
8)Distribution of wealth
9)Public benefit

Public goods

- Goods that either will not be supplied by market or, if supplied, will be supplied in insufficient quantity
- Example: national defense, navigational aids (light house)
- These are called pure public goods
  - *Non-rival consumption* – it's not desirable to exclude anyone from the benefits (MC of providing to an additional person = 0). Private provision -> underconsumption or undersupply
  - *Non-excludability* – it's not feasible to exclude anyone from the benefits of the good (cost of exclusion is too high) -> free rider problem
- Free-rider problem
- Public goods x Publicly provided goods

Failure of competition

- For markets to result in pareto efficiency, there must be perfect competition
    - Large number of companies
    - That has no effect on prices
    - Homogeneous product
    - No barriers to enter the market
- In some industries, conditions are not valid – imperfect markets
    - Monopoly – single company
    - Oligopoly – few company
    - Monopolistic competition – many companies with slightly different goods

Monopoly

- Types of the monopoly
  - Geographic monopoly
  - Natural monopoly
  - Technological monopoly
  - Government granted monopoly

- Monopoly exists on the markets, where:
  - Exists only one company on the market
  - There are no substitutes of the goods
  - There are very high barriers to enter the market

- Monopoly solutions
  - Supporting competition
  - Regulations
  - Public ownership
  - Simply doing nothing

... pros and cons?

Monopoly
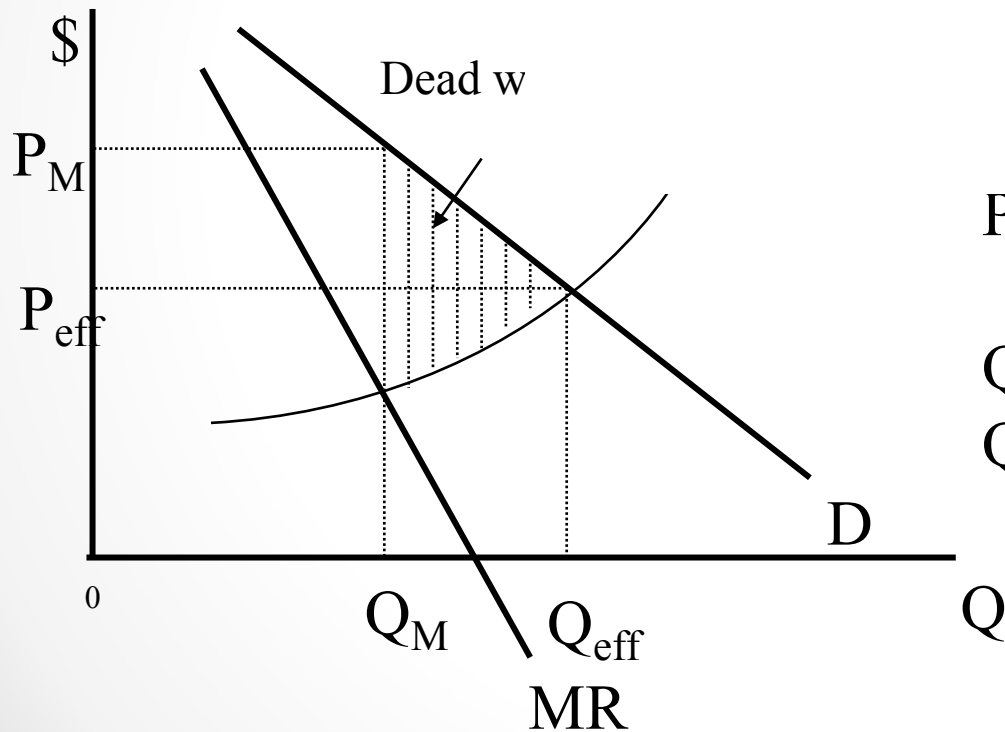
P_{eff} = efficient price

Q_M = monopoly quantity
Q_{eff} = efficient quantity

Information asymmetry

- Imperfect information – situation when one party of the trade doesn´t have all information needed to make proper decision
- Content of products, used car markets, medicine
- Solution: government interventions, NGOs initiatives, regulations(labelling content) and certificates (of quality or education).

- **Moral hazard** - if a party that is insulated from risk has more information about its actions than the party paying for the negative consequences of the risk.
- **Adverse selection** - market process in which undesired results occur when the "bad" products or services are more likely to be selected.

The Market for Lemons:

- Market of used cars
- There are good used cars ("cherries") and defective used cars ("lemons")
- Many important mechanical parts and other elements are hidden from view and not easily accessible for inspection, the buyer of a car does not know beforehand whether it is a cherry or a lemon
- Buyer will be willing to pay for it only the price of a car of known average quality (average price between lemon and cherry).
- This means that the owners of cherries will be unable to get a high enough price to make selling that car worthwhile.
- Therefore, owners of cherries will not place their cars on the used car market. The withdrawal of cherries reduces the average quality of cars on the market, causing buyers to revise downward their expectations for any given car.
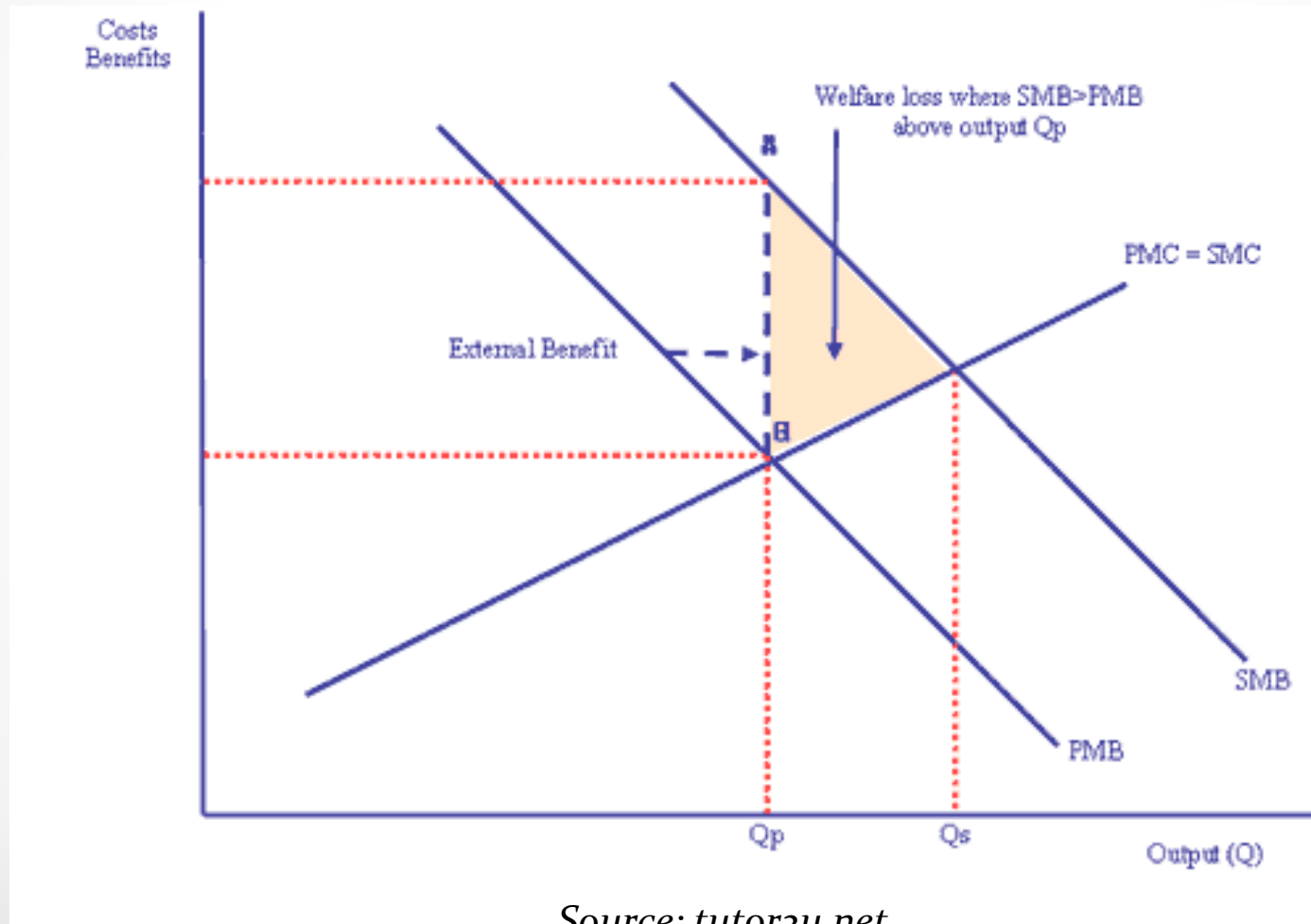
Externalities and markets

- *Whenever an individual or firm undertakes an action that has an effect on another individual or firm, for which the latter doesn't pay or is not paid*

- Types:
  - Positive and negative externalities
  - In production and in consumption

- Undersupply of goods - positive externalities
- Overproduction of goods - negative externalities

Negative externality in production
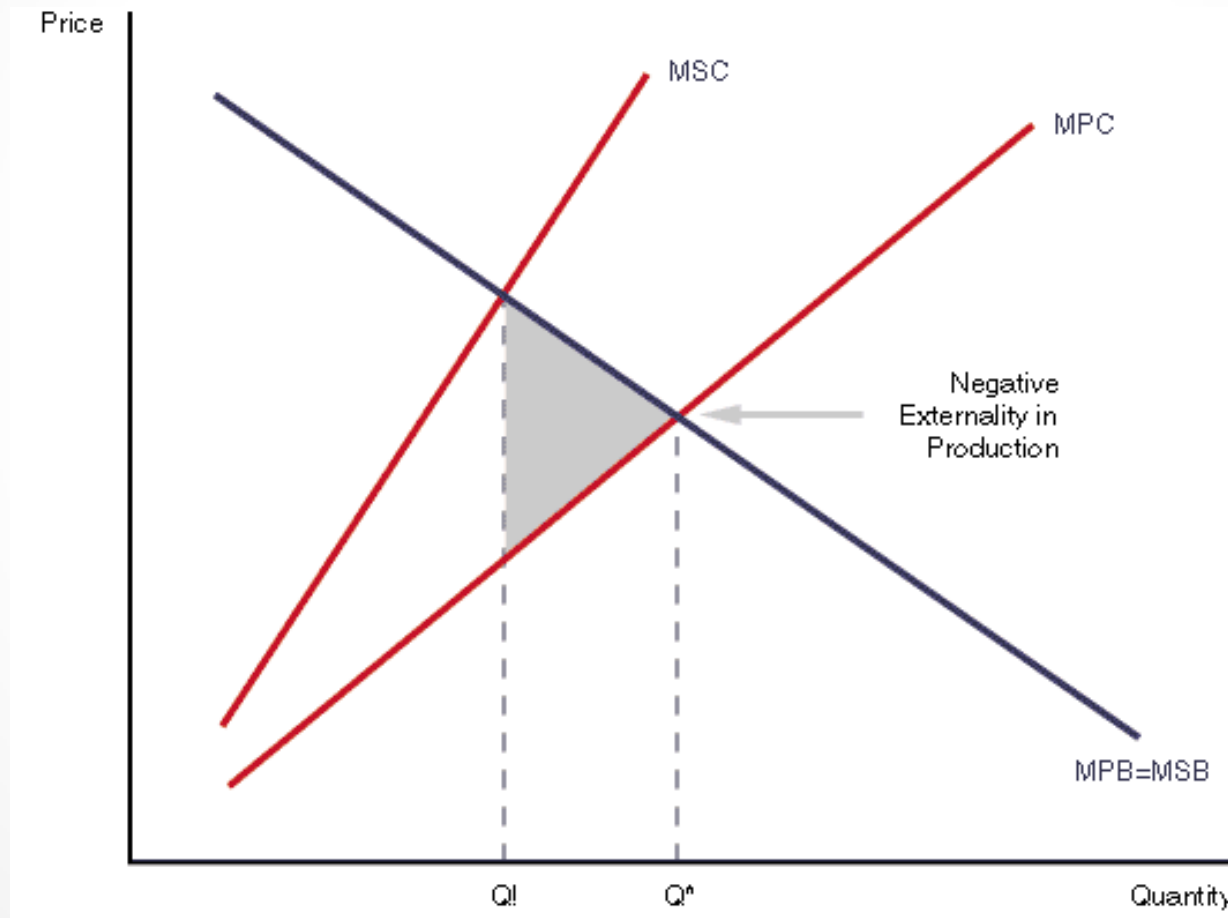
Source: thestudentroom.co.uk

Positive externality in consumption

Source: tutor2u.net

Externality solutions

- Public solutions
  - Fines and taxes – corrective tax (Pigouvian tax)
  - Subsidies
  - Regulations
  - Marketable permits

- Private solutions
  - **Internalizations** (joining two companies in one (where one of the companies is producer of the externality and the other one is accepter of the externality))
  - **Coase Theorem** (assign property rights)

Pigouvian tax

- A Pigouvian tax is a tax applied to a market activity that is generating negative externalities. The tax is intended to correct an inefficient market outcome, and does so by being set <u>equal</u> to the negative externalities

- Problem: determination of the tax, measurement of social cost is almost impossible
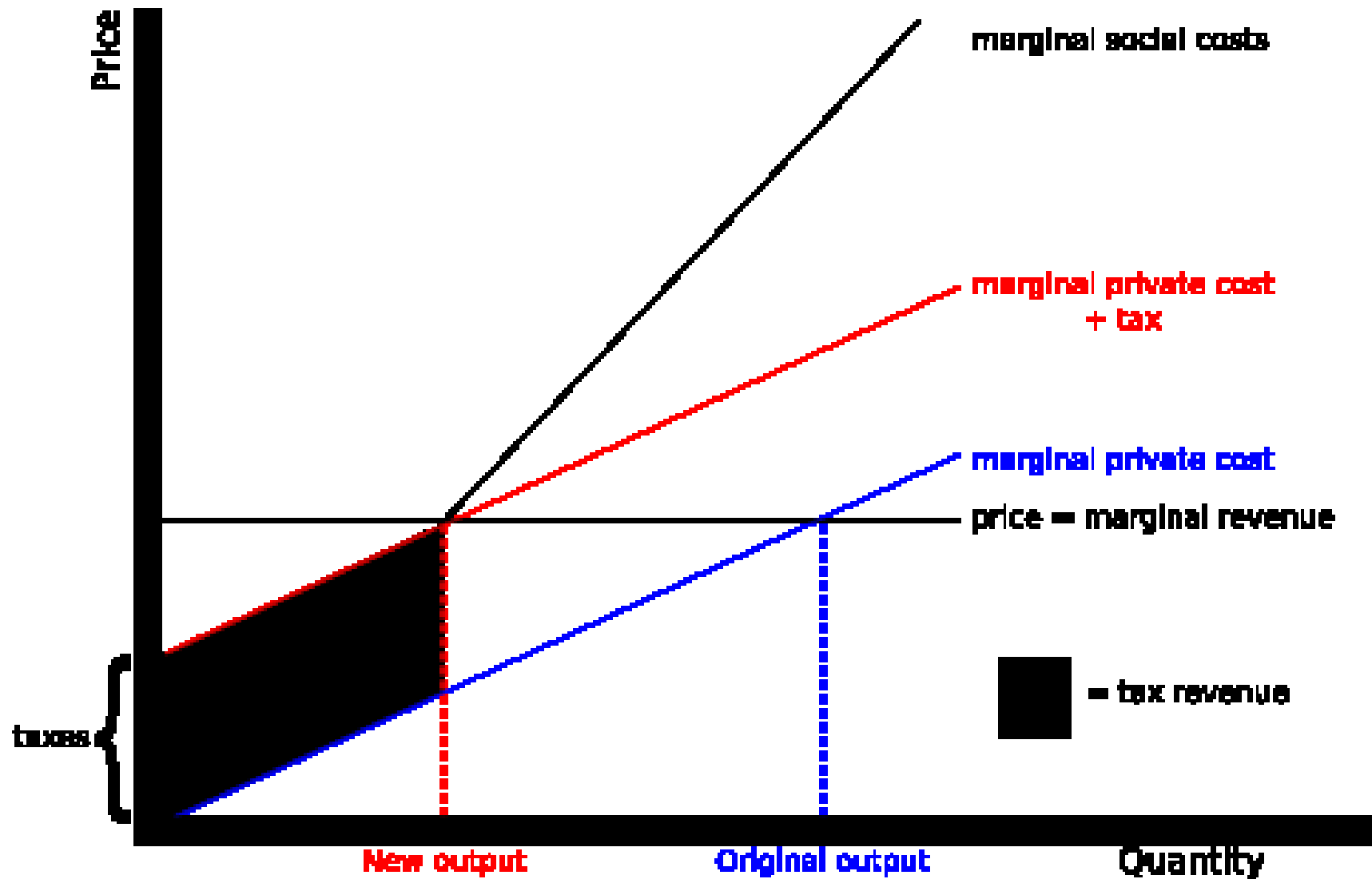
Coase Theorem

- If trade in an externality is possible and there are no transaction costs, bargaining will lead to an efficient outcome regardless of the initial allocation of property rights

- There is an assumption of
  o Zero transaction costs
  o Clearly defined property rights

Examples in lecture (loud party next door, doctor and barber)

Incomplete markets

- Are markets that fail to provide adequately good or service even thought the cost of providing it is less than what individuals are willing to pay.

- Some economist believe that private markets have done a poor job of providing insurance and loans

- Private market does not provide insurance for many important risks that individuals face

- Causes: transactions costs , asymmetries of information, enforcement costs

- Solution: government undertake a number of initiatives, insurance programs, loans and guarantees

Unemployment, inflation, disequilibrium

- Widely recognized symptoms of market failure
- Periodic episodes of high unemployment or high inflation
- Periods of recessions and depressions
- For most economists -> evidence that _something_ is not working well.

- Economic cycles (growth, recession of GDP)
- Stabilization policy (solution and even possible cause)

Property rights

- Problem of Open-access property, property that is not owned by anyone.
- Open-access property may exist because ownership has never been established, because the state has legislated it, or because no effective controls are in place, or feasible.
- Ocean fisheries, atmosphere (over consumption)

- Example: Cows x Elephants, unowned land and sheep

- Solution: convert types of property, gov.regulations
- proposed by Ronald Coase that clearly defineding property rights would resolve environmental problems by internalizing externalities

Two other reasons for government intervention..

Distribution of wealth

- Not market failure per se
- The fact that economy is pareto efficient says nothing about the distribution of income
- Competitive markets may give rise to a very unequal distribution, may leave individuals with insufficient resources
- Solution: government redistribution of wealth
- Solution as part of problem – inefficiency of redistribution

Public benefit

- Argument for government intervention
- Even in pareto efficient economy individuals may not act in their own best interest, even full informed consumers may make „bad" decisions.
- Examples: smokers, seat belts
- Solution: regulations (seat belts), taxes (cigarettes)

- Paternalism: government know best interest of individuals better than they do themselves

- May be connected with externalities (smokers)

Interrelationships of market failures

- Market failures are not mutually exclusive

- Information problems – missing markets (inexistent supply)
- Property rights- missing markets (market with fishing rights)
- Public benefit – externalities (smoking)

Literature

- Recommended:

STIGLITZ, Joseph E. *Economics of the public sector.* 3rd ed. New York: W. W. Norton, c2000, xxiii, 823 p. ISBN 03-939-6651-8.

Chapters 4 and 9 (market failures and externalities)

Thank you for your attention!