

Economic rationale for the government

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Where we are

Date	Topic	Chapters ¹	Lecturer
February 21, 2018	Introduction	1, 2	Miroslav Palanský
February 28, 2018	Economic rationale for the government	3, 4, 5	Miroslav Palanský
March 7, 2018	Public goods, cost-benefit analysis	6, 11	Miroslav Palanský
March 14, 2018	Public choice theory, political economy	7, 8	Miroslav Palanský
March 21, 2018	Externalities and the environment	9	Miroslav Palanský
March 28, 2018	Expenditure programs, decentralization	10, 26, 27	Miroslav Palanský
April 4, 2018	Public investments and procurement <i>Announcement of Home Assignment 1</i>	10	Miroslav Palanský
April 11, 2018	The welfare state <i>Deadline for Home Assignment 1</i>	12, 13, 14, 16	Miroslav Palanský
April 18, 2018	Introduction to taxation, tax incidence	17, 18	Petr Janský
April 25, 2018	Optimal taxation, personal income taxation <i>Announcement of Home Assignment 2</i>	19, 20, 22	Miroslav Palanský
May 2, 2018	Corporate income taxation, tax avoidance and evasion <i>Deadline for Home Assignment 2</i> <i>Partial deadline for Wiki edits</i>	23, 24	Petr Janský
May 9, 2018	Capital taxation, inequality	21, 25	Petr Janský
May 16, 2018	Rector's day - no lecture	---	---
May 18, 2018	<i>Final deadline for Wiki edits</i>	---	---
May/June 2017	<i>Final Exam – exact dates TBA</i>	---	---

Today's lecture

The economic problem

Market efficiency

Market failures

Equity vs. efficiency

The economic problem

- ▶ Heilbroner and Milberg (2012), The Making of Economic Society
- ▶ Economic problem = the process of providing for the material well-being of society
- ▶ Economics is the study of how mankind earns its daily bread
- ▶ Scarcity (and its relativeness)
- ▶ Division of labor is obviously beneficial
→ but how to divide labor?

Production and distribution

1. Mobilizing effort

- ▶ Assuring that a large enough quantity of social effort is exerted
- ▶ Social scarcity vs. natural scarcity

2. Allocating effort

- ▶ Assuring that the human energy is used in the right places to produce the goods and services that society needs

3. Distributing output

- ▶ Assuring that the produced output is used to increase the society's welfare

Three solutions to the economic problem

1. Tradition
2. Command
3. The market

Solution 1: Tradition

- ▶ Production and distribution based on procedures devised in the distant past
- ▶ Trial and error → sustainable allocation
- ▶ “Father-to-son” policy
- ▶ Obvious negative consequences on freedom; “great brake on change”

Solution 2: Command

- ▶ Imposed authority decides how to produce, what to produce and for whom to produce
- ▶ Not only authoritarian, but also democratic (different means, but similar mechanism)
- ▶ Used today to varying extent (and success):

North Korea—China—Sweden—Germany—Estonia

Solution 3: Market

- ▶ The plan is to have no plan
- ▶ Perhaps the most paradoxical solution has now become prevalent
- ▶ As we shall see, not all of the world's problems can be solved by the market
→ **mixed economy**

Market efficiency

- ▶ Smith (1776): Competition will lead the individual in the pursuit of his private interests to pursue the public interest, as if led by **an invisible hand**.
- ▶ Supply vs. demand—reaching an efficient equilibrium
- ▶ No government needed?!

The economic problem
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Market efficiency
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Market failures
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Equity vs. efficiency
○○

Invisible hand

Pareto efficiency

- ▶ Named after Vilfredo Pareto (1848-1923), an Italian engineer and economist
- ▶ Pareto efficiency = a state of allocation of resources from which it is impossible to reallocate so as to make any one agent better off without making at least one agent worse off
- ▶ Pareto improvement = moving from the current state towards Pareto efficiency

Achieving Pareto efficiency in practice

1. Exchange efficiency: indifference curves and budget constraints
 - ▶ No more mutually beneficial trades possible
 - ▶ $MRS_{ABi} = MRS_{ABj}$ for all goods A, B and individuals i, j
 - ▶ Edgeworth(-Bowley) box
2. Production efficiency: isoquants and isocost lines
 - ▶ No more beneficial switching of resources possible
 - ▶ $MRTS_{CDk} = MRTS_{CDl}$ for all inputs C, D and firms k, l

▶ Definitions

Achieving Pareto efficiency in practice

3. Product mix efficiency: production possibilities curve

- ▶ $MRT = MRS$

▶ Definitions

The fundamental theorems of welfare economics

1. First welfare theorem: Every competitive economy is Pareto efficient.
2. Second welfare theorem: Every Pareto efficient resource allocation can be attained through a competitive market mechanism, with the appropriate initial redistributions.

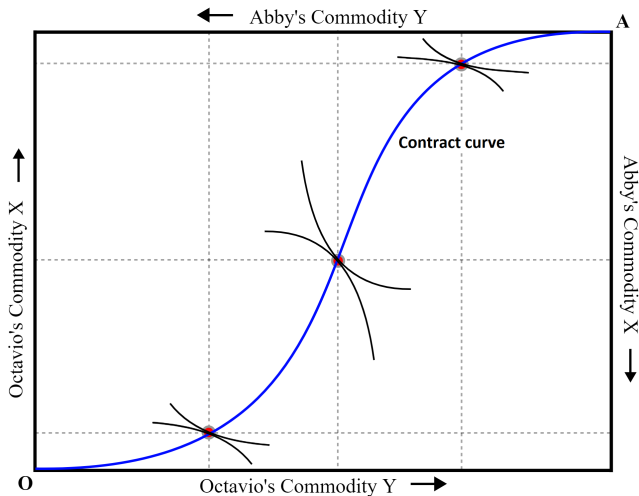
First welfare theorem

- ▶ Competitive market: assumptions
 - ▶ No transaction costs → perfect information
 - ▶ Large number of buyers and sellers → homogenous goods, all agents price-takers, free entry & exit
 - ▶ Local nonsatiation of preferences
- ▶ A competitive market outcome is a benchmark by which policymakers can judge actual market outcomes

Second welfare theorem

- ▶ Allows for a separation of efficiency and distribution matters
- ▶ Edgeworth(-Bowley) box

The Edgeworth(-Bowley) box



Source: https://en.wikipedia.org/wiki/Edgeworth_box

Market failures

1. Failure of competition
2. Incomplete markets
3. Imperfect information
4. Public goods
5. Externalities
6. Unemployment and other macroeconomic disturbances

1.-3. briefly covered now, 4.-6. covered later in the course

Failure of competition

- ▶ Perfect competition: there are so many firms that produce a homogenous good that none of them think they can affect the market price
- ▶ Too few firms
 - ▶ Monopoly: one single firm controls the market
 - ▶ Oligopoly: several firms control the market
 - ▶ Natural monopoly: it is cheaper for a single firm to produce the entire output than for each of several firms to produce parts of it
- ▶ Slightly heterogenous goods
 - ▶ Monopolistic competition: Each firm produces a slightly different good and can thus set its own price

Incomplete markets

- ▶ Perfect competition: Each good or service whose value is higher than its cost is produced
- ▶ Reality: Transaction costs, no free entry and exit, risk, enforcement costs
- ▶ Adverse selection, moral hazard

Imperfect information

- ▶ Perfect competition: All agents have all information and make decisions accordingly
- ▶ Reality: Disclosure is costly, non-disclosure may be beneficial
- ▶ Information as a public good (suboptimal supply by private markets)
- ▶ Rational inattention

Equity vs. efficiency

- ▶ This will be a central theme to our study
- ▶ If we are to depart from the most efficient outcome to reduce inequality, where do we stop?
- ▶ Two major issues:
 1. How big should the pie be? (efficiency)
 2. How do we divide the pie? (equity)

Social utility function

- ▶ Utility possibilities curve
 - ▶ Costly transfers
- ▶ Utility functions
 - ▶ Diminishing marginal utility
- ▶ Social indifference curves
 - ▶ Utilitarian, Rawlsian, mixed

Thank you! Questions?

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References

Heilbroner, R. L. and Milberg, W. (2012). *The making of economic society*. Pearson Education Company.

Smith, A. (1776). *An inquiry into the nature and causes of the wealth of nations*. London: George Routledge and Sons.

Some definitions

1. MRS = marginal rate of substitution = amount of good A that an individual is willing to give up in exchange for one unit of good B
2. MRTS = marginal rate of technical substitution = amount of input A required to compensate for a decrease in the amount of input B by one unit
3. MRT = marginal rate of transformation = amount of extra units of output A we can have if we reduce the production of output B by one unit