

Public Finance: Introduction, Economic rationale for the government

Miroslav Palanský

Charles University, Prague



February 18, 2020, Public Finance

Course schedule

▶ Syllabus

Week	Date	Topic	Chapters	Lecturer
1	Feb 18	Economic rationale for the government	1, 2, 3, 4, 5	Miroslav Palanský
2	Feb 25	Public budgets	10, 26, 27	Natalia Li
3	Mar 3	Inequality		Marek Šedivý
4	Mar 10	Old-age pensions		Ondřej Schneider
5	Mar 17	Health economics	12	Ondřej Schneider
6	Mar 24	Public choice theory	7, 8	Miroslav Palanský
7	Mar 31	Cost-benefit analysis	6, 10, 11	Petr Janský
8	Apr 7	Externalities	9	Miroslav Palanský
9	Apr 14	Public procurement		Miroslav Palanský
10	Apr 21	Taxation, tax incidence	17, 18, 19	Miroslav Palanský
11	Apr 28	Optimal taxation, personal income taxation	20, 22	Miroslav Palanský
12	May 5	Corporate taxation	21, 23	Petr Janský
13	May 12	Tax avoidance	24, 25	Petr Janský

Course requirements

▶ Syllabus

Requirement	Maximum points	Announced	Deadline
Problem Set 1	10	Mar 24	Mar 31, 23:59
Problem Set 2	10	Apr 14	Apr 21, 23:59
Wiki Edits	20	Feb 18	Apr 28, 23:59
Final Exam	60	Exam 1 on May 19, 14:00 Exams 2, 3 in June Exam 4 in September	
Total	100		

Today's lecture

Introduction

The economic problem

Government and markets

- Market efficiency

- Market failures

- Equity vs. efficiency

What is public finance?

- ▶ Public finance/economics = study of the **role of government** in the economy
- ▶ Government is instrumental in most aspects of economic life

Two types of questions:

1. Positive: How do government policies affect the economy?
2. Normative: How should government policies be designed to maximize welfare?

Positive public economics

- ▶ Analysis of how things really are:
 - ▶ e.g. Do taxes reduce labor supply? How does government-provided healthcare affect private insurance?
- ▶ Primarily empirical
- ▶ Closely connected to behavioral economics, labor economics, political economy, international tax, ...
- ▶ Necessary first step before normative public economics

Normative public economics

- ▶ Analysis of how things should be
 - ▶ e.g. How high should taxes be? Should the government be involved in healthcare?
- ▶ Primarily theoretical
- ▶ Market failures & Individual failures/paternalism

Should the gov't intervene?

Three broad areas (goods/services):

1. Things that virtually everyone agrees should be done by the gov't
 - ▶ driver's licenses, land registry, national defense
2. Things that are up to debate whether they should be done by the gov't
 - ▶ beer brewing, train ticket subsidies, heavy redistribution of income
3. Things that virtually everyone agrees should NOT be done by the gov't
 - ▶ regulating what shirts to wear, whether to eat meat, how long to sleep

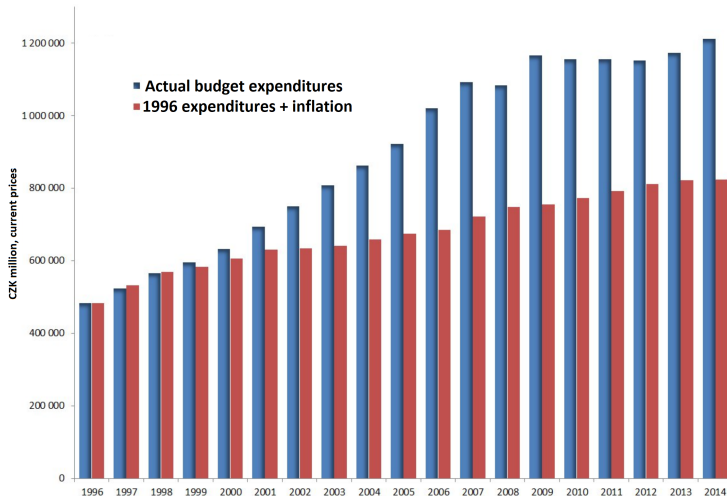
Why study public finance?

1. Practical relevance
2. Policy, impact (positivity)
3. Philosophy, politics (normativity)

Practical relevance - Czechia

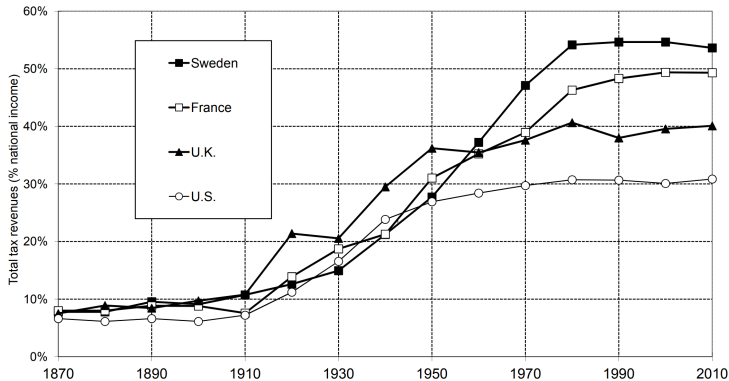
- ▶ Around 18,000 entities - schools, hospitals, municipalities, infrastructure, ...
- ▶ Many other state-owned enterprises
- ▶ Around 445,000 direct employees, 1 million altogether (**mfc2017**)
- ▶ Expenditures of the public sector: around 27% of GDP

Government expenditures, CZ



Source: <http://www.cninp.cz/?p=985>

National budget expenditures, rich countries



Total tax revenues were less than 10% of national income in rich countries until 1900-1910; they represent between 30% and 55% of national income in 2000-2010. Sources and series: see piketty.pse.ens.fr/capital21c.

Source: **piketty2014**

Policy, impact

- ▶ What can policymakers do to increase the welfare of society?
 - ▶ How to measure social welfare?
- ▶ Policy may directly affect millions of people
- ▶ Fundamental questions related to direct welfare: social transfers, unemployment benefits, taxes, ...

Philosophy, politics

- ▶ To what extent should the government be involved?
- ▶ Laissez-faire vs. regulation
- ▶ Social welfare functions: redistribution, inequality
- ▶ How to best collectively decide what the government should do?

The economic problem

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

Production and distribution

1. Mobilizing effort
 - ▶ Assuring that a large enough quantity of social effort is exerted
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. 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, the economic problem cannot always be solved by the market
→ **mixed economy**

Musgrave's branches of government

- ▶ Musgrave (1939): There are three main branches of government
 1. Stabilization branch
 2. Allocation branch
 3. Distribution branch
- ▶ Each branch with its own independent purpose and aim

Stabilization branch

- ▶ Problem: Business cycles, economic crises, unemployment, inflation
- ▶ Goal: High employment, price stability, income stability
- ▶ Tools: fiscal and monetary policy, public budgets
- ▶ Mostly a matter of study of macroeconomics

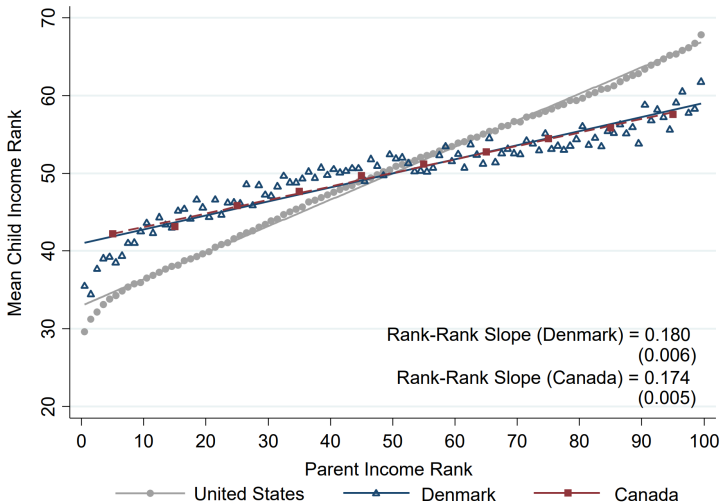
Allocation branch

- ▶ Problem: Markets sometimes fail to allocate scarce resources efficiently
- ▶ Goal: Restoring efficient allocation of resources
- ▶ Tools: public goods (roads, defense, justice, ...), dealing with externalities (climate change, housing, savings, ...)

Distribution branch

- ▶ Problem: The distribution of welfare or opportunities resulting from a market economy may not be optimal
- ▶ Goal: Equitable distribution of welfare and opportunities
- ▶ Tools: Merit goods, specific egalitarianism, taxation + social transfers, unemployment benefits, pensions, welfare programs

Income rank is hereditary



Source: chetty2014

Market efficiency

- ▶ **smith1776**: 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?!

Two general rules for gov't intervention

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

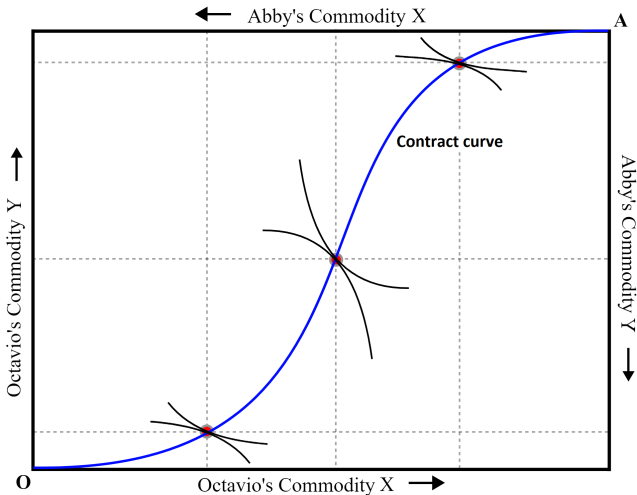
First welfare theorem

- ▶ Competitive market: assumptions
 - ▶ Large number of buyers and sellers → homogenous goods, all agents price-takers, free entry & exit
 - ▶ No transaction costs → perfect information
 - ▶ 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. Inequality, vicious circles
 7. Unemployment and other macroeconomic disturbances
- 1.-3. briefly covered now, 4.-7. 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 in order 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!

Miroslav Palanský

miroslav.palansky@fsv.cuni.cz

miroslavpalansky.cz



References I



Heilbroner, R. L. and Milberg, W. (2012). *The Making of Economic Society*. Pearson Education Company (cited on p. 15).



Musgrave, R. A. (1939). "The Voluntary Exchange Theory of Public Economy". *The Quarterly Journal of Economics*, 53(2) (cited on p. 21).