

Public Economics

Lecture 1: Introduction

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Masaryk University
Faculty of Economics and Administration

Fall 2024

Outline of Lecture 1

1. Introduction of the Course
2. What is Public Economics?
3. The Economic Role of Government
4. Empirical Facts about the Public Sector

Who am I?

- ▶ **Position:** Assistant Professor, Masaryk University
- ▶ **Ph.D. in Economics:** University of Mannheim
 - ▶ *Title: Destructive Behavior in Competitive Settings: Motives and Mitigation Mechanisms*

Research Interests:

- ▶ **Behavioral and Experimental Economics**
 - ▶ Destructive and Fraudulent Behavior in Competition
 - ▶ Social Norms
 - ▶ Motivated Beliefs
- ▶ **Public Economics**
 - ▶ Health Economics
 - ▶ Meritocracy and Social Cohesion

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Who are you?



Course Organisation

- ▶ **Lectures:** Thu 14:00–15:50, P106
- ▶ **Seminars:** Thu 16:00–16:50 and Thu 17:00–17:50, P312
- ▶ **Office hour (by appointment via email):** Fri 12:50–13:50, Room 426 or online

Note: No lectures or seminars on Thu 7.11.

- ▶ **Midterm:** 14 November
- ▶ **Final Exam:** 19 December

No seminars on the days of the midterm and final exam.

Evaluation

You can earn up to **100 points** in total. You need **40 points** to pass the course.

- ▶ Up to **20 points** for the seminar presentation
- ▶ Up to **30 points** for the written midterm
- ▶ Up to **50 points** for the written final exam

Lectures: Expectations and Structure

Lecture structure:

- ▶ Combination of presenting facts and concepts, graphical analyses, and some math.

Preparation:

- ▶ Please come prepared to class.
- ▶ After each class, I will inform you about the readings for the next week.

Engagement:

- ▶ Ask questions whenever you want.
- ▶ There are no stupid questions.
- ▶ Interact with your classmates (if helpful for you).

Seminars: Expectations and Structure

Organization

- ▶ Please attend the seminar session for which you are registered.
- ▶ Seminars will be based on scientific paper presentations (in groups) and discussions.
- ▶ You are expected to read all papers to be able to actively participate.

Group Paper Presentations:

- ▶ You will be assigned to a group of 3 and one of the papers.
- ▶ Read and discuss the paper within your group.
- ▶ Prepare a 15-minute presentation (each student should present around 5 minutes).
- ▶ Presentation dates and groups will be provided during the seminar (3rd of October).

Lecture Syllabus

Lecture Topic	Date	Seminar Presentations
1 Introduction	26th September	-
2 Market efficiency	3rd October	Kick-off Meeting
3 Market failures	10th October	-
4 Public goods and publicly provided private goods	17th October	-
5 Externalities	24th October	-
6 Public expenditures	31st October	Groups 1 & 2
Midterm	14th November	-
<i>Economics of incentives (Lecturer: Martin Guzi)</i>	21st November	Groups 3 & 4
7 Taxation I	28th November	Groups 5 & 6
8 Taxation II	5th December	Groups 7 & 8
Guest lecture (TBA) / Revision Lecture	12th December	Groups 9 & 10
Final exam	19th December	-

Textbooks

Main textbook:

- ▶ STIGLITZ, Joseph E. & ROSENGARD, Jay K. *Economics of the public sector*

Additional textbooks:

- ▶ VARIAN, Hal R. *Intermediate microeconomics : a modern approach*
- ▶ MANKIW, N. Gregory. *Principles of economics*
- Books available at the university library (limited physical copies)
- Online available as an E-loan ([Click this link!](#))

Reading List Seminar Presentations 1/2

Topic	Reading List
Externalities	<p>Schmalensee, R., & Stavins, R. N. (2019). "Policy evolution under the Clean Air Act." <i>Journal of Economic Perspectives</i>, 33(4): 27-50.</p> <p>Goulder, L. H. (2013). "Markets for pollution allowances: what are the (new) lessons?" <i>Journal of Economic Perspectives</i>, 27(1): 87-102.</p>
Inequity and Inequality	<p>Hoffmann, F., Lee, D. S., & Lemieux, T. (2020). "Growing income inequality in the United States and other advanced economies." <i>Journal of Economic Perspectives</i>, 34(4): 52-78.</p>
Education	<p>Deming, D. J. (2022). "Four facts about human capital." <i>Journal of Economic Perspectives</i>, 36(3): 75-102.</p> <p>Levy, S., & Schady, N. (2013). "Latin America's social policy challenge: Education, social insurance, redistribution." <i>Journal of Economic Perspectives</i>, 27(2): 193-218.</p>

Reading List Seminar Presentations 2/2

Topic	Reading List
Health	<p>Das, Jishnu, and Quy-Toan Do. "The prices in the crises: What we are learning from 20 years of health insurance in low-and middle-income countries." <i>Journal of Economic Perspectives</i> 37.2 (2023): 123-152.</p> <p>Cutler, David M., and Dan P. Ly. "The (paper) work of medicine: understanding international medical costs." <i>Journal of Economic Perspectives</i> 25.2 (2011): 3-25.</p>
Taxation	<p>Bakija, Jon. "The US Individual Income Tax: Recent Evolution and Evidence." <i>Journal of Economic Perspectives</i> 38.3 (2024): 33-60.</p> <p>Brockmeyer, Anne, et al. "Does the Value-Added Tax Add Value? Lessons Using Administrative Data from a Diverse Set of Countries." <i>Journal of Economic Perspectives</i> 38.1 (2024): 107-132.</p> <p>Oates, Wallace E., and Robert M. Schwab. "The window tax: A case study in excess burden." <i>Journal of Economic Perspectives</i> 29.1 (2015): 163-180.</p>

Do you have questions?

Let's explore what Public Economics is about!

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What is Public Economics?

- ▶ **Public Economics** focuses on answering two key questions:
 1. How do government policies affect the economy?
 2. How should policies be designed to maximize welfare?
- ▶ Three **motivations** for studying these questions:
 1. Practical relevance
 2. Academic interest
 3. Methodology

What is Public Economics?

- ▶ **Positive analysis** – What are the observed effects of government programs and interventions?
- ▶ **Normative analysis** – What should the government do?

Example: After the introduction of a 1€-per-case tax on beer, likely effects include...

- ▶ the price of beer would rise
- ▶ beer consumption would decrease
- ▶ lower-income individuals would be affected proportionately more
- ▶ road accidents would decrease

All these aspects pertain to positive economics, which describes how the economy works without making judgments about the desirability of alternative policies.

What is Public Economics?

- ▶ **Positive analysis** – What are the observed effects of government programs and interventions?
- ▶ **Normative analysis** – What should the government do?

"Should this beer tax be adopted?" is a normative question, because the answer involves value judgments.

- ▶ The answer depends on the specific goals of the policy:
 - Should it increase tax revenue?
 - Should it improve public health?
 - Should it reduce vandalism/violence?
- ▶ Oftentimes, there are trade-offs between different goals.

Normative economics is concerned with developing systematic procedures to compare the gains of those who are better off with the losses of those who are worse off.

Motivation 1: Practical Relevance

Why Public Economics Matters:

- ▶ Public economics aims to improve economic welfare.
- ▶ It is essential for ensuring good governance.
- ▶ Public policies directly affect millions of people.

Channels of Government Intervention:

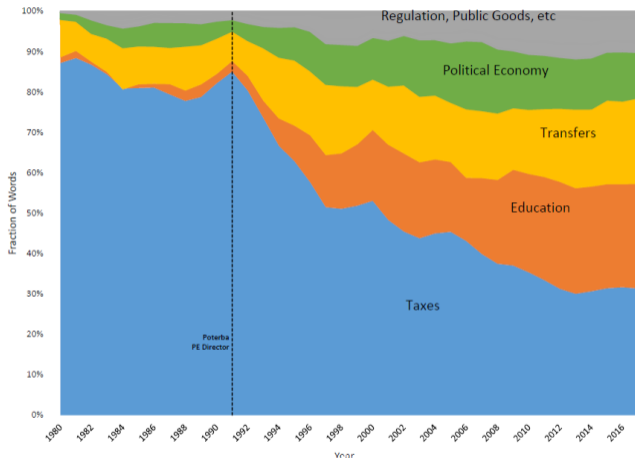
- ▶ **Price intervention:** taxes, welfare, social insurance, public goods.
- ▶ **Regulation:** minimum wages, labor laws, education laws, environmental laws, etc.

Motivation 2: Academic Interest

Key Aspects of Public Economics:

- ▶ A dynamic and evolving academic field.
- ▶ Combines theoretical modeling and analysis of (big) data.
- ▶ Strongly interacts with other disciplines:
 - Labor economics
 - Behavioral economics
 - Industrial organization
 - Macroeconomics

Motivation 2: Research Trends in Public Economics



Notes: The graph shows the frequency of words within different topics as a fraction of all words across topics. The sample comprises all NBER working papers 1975–2018 tagged “public economics” (4676 papers).

Source: Kleven (2018), “Language Trends in Public Economics.”

Motivation 3: Methodology

▶ Theoretical Economic Modeling and Simulations

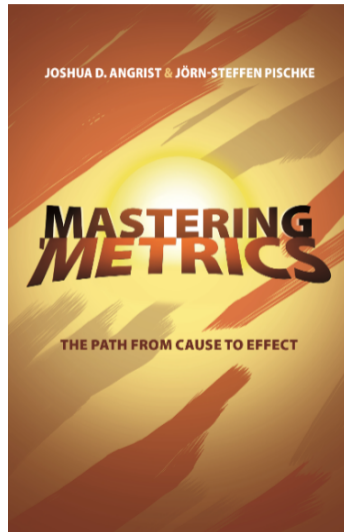
- ▶ Models simplify complex economies, focusing on essential features.

▶ Empirical Data Analysis

- ▶ Use econometric methods to establish causality (see *Mastering Metrics*):
 - Differences-in-Differences
 - Regression Discontinuity Designs
 - Natural Experiments
 - Event Studies

▶ Laboratory, Online, and Field Experiments

- ▶ Ideal for isolating the causal effect of one variable while holding others constant.



Do you have any questions?

After getting to know what Public Economics is about,
let's explore the economic role of government
(*Chapter 2 in Stiglitz & Rosengard*)

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The Economic Role of Government

- ▶ The role of government varies across countries and over time, shaped by
 - ▶ The degree of market failures
 - ▶ Societal expectations/ trends
- ▶ Most countries have a mixed economy:
 - ▶ In the U.S., private firms and government both play significant roles.
 - ▶ Contrast with economies like the former Soviet Union, or North Korea, government activities dominate.

Historical Perspectives on Government Involvement

- ▶ **Mercantilism (18th Century):** Government actively promotes trade and industry.
- ▶ **Adam Smith (Late 18th Century):** Advocated for a limited government role; competition leads to efficient markets (invisible hand): *[watch video]*
"It is not from the benevolence of the butcher, the brewer, or the baker, that we expect our dinner, but from their regard to their own interest. We address ourselves, not to their humanity but to their self-love, and never talk to them of our own necessities but of their advantages." (The Wealth of Nations, 1776)
- ▶ **Laissez-faire (19th Century):** Emphasis on non-intervention in the economy.

Historical Perspectives on Government Involvement

The **Great Depression** (1929–1939): severe global economic crisis led to the Post-Great Depression shift:

- ▶ Recognition of market failures led to increased government involvement (e.g., New Deal).
- ▶ Introduction of safety nets and poverty alleviation programs (e.g., War on Poverty).
- ▶ Programs help to alleviate market failures, however there may also be unintended negative consequences of such programs (*government failures*).

Economic crises of today (e.g., Financial Crisis 2008) highlight government's essential role in stabilizing markets.

- ▶ Market failures such as excessive volatility of asset prices and growing inequality.
- ▶ Need for regulation (especially financial markets) and other government interventions.

The Economic Role of Government

Summing up: markets often fail, but governments often do not succeed in correcting the failures of the market.

Today there is **agreement** that ...

- ▶ ... there are many problems that the market does not adequately address
- ▶ ... limited government interventions could alleviate (but not solve) the worst problems

There is **disagreement** about ...

- ▶ ... how serious the failures of the market are
- ▶ ... how active the government should be
- ▶ ... how effective the government is in remedying such market failures

Achieving Balance Between the Public and Private Sectors

- ▶ **Market and Government Limitations:** Trade-off between market failures and government failures.
- ▶ **Government's Role:** Support of limited intervention targeting significant market failures, while maintaining the central role of private enterprise in the economy.
- ▶ **Political Perspectives:** Views on government intervention vary, influenced by political ideologies.
- ▶ **Emerging Consensus:** There is greater alignment today on the necessity of regulation and privatization while ensuring effective government intervention without creating additional problems.

What are your questions now?

Let's now look at empirical facts about the public sector

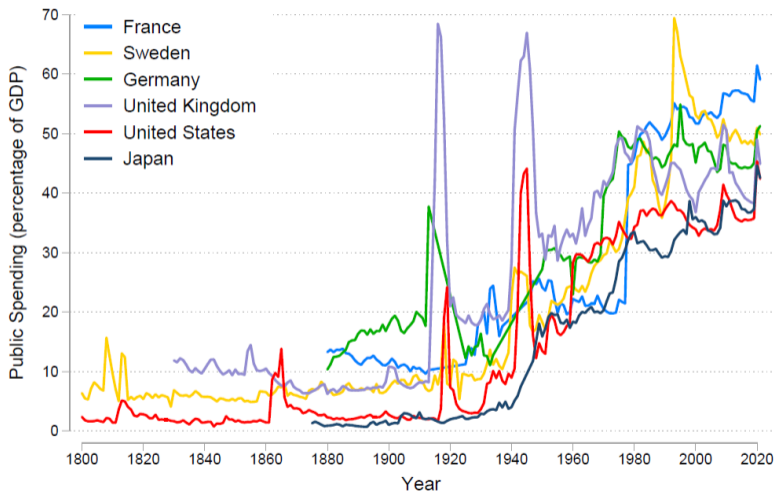
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Growth of the Public Sector

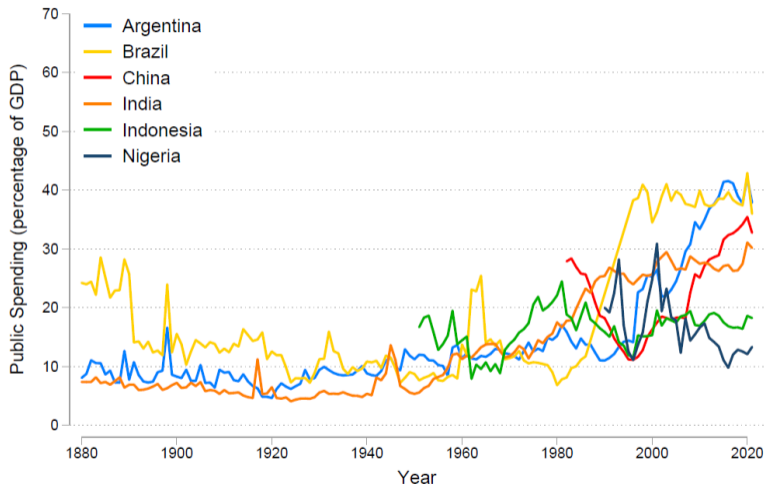
- ▶ Minimal state in the 19th century
 - ▶ Public spending $\approx 10\%$ of GDP
 - ▶ Almost no social spending
- ▶ Huge growth in the 20th century in developed countries
 - ▶ 1920s: Public sector doubled in size
 - ▶ Strong acceleration during the period 1960-1980
- ▶ High level today, with some heterogeneity
 - ▶ Public spending today $\approx 45\%$ of GDP
 - ▶ Heterogeneity in the total level:
 - ▶ France, Sweden $\approx 55\%$ of GDP
 - ▶ U.S. and Japan $\approx 40\%$ of GDP
 - ▶ China and India $\approx 30\%$ of GDP
 - ▶ Developing countries $\approx 20\%$ of GDP
 - ▶ Czechia $\approx 45\%$ of GDP

Public Spending (% of GDP), 1800-2021



Source: IMF, Public Finances in Modern History Database.

Public Spending (% of GDP), 1800-2021

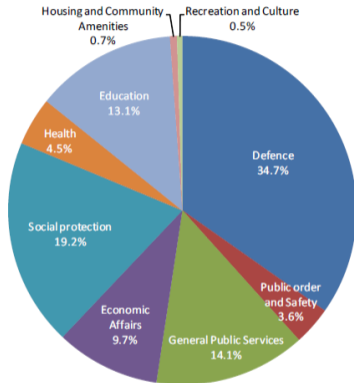


Source: IMF, Public Finances in Modern History Database.

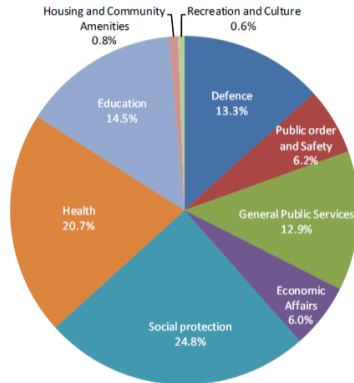
Distribution of Public Spending

- ▶ United Nations' **Classification of the functions of government** (COFOC):
 - ▶ General public services
 - ▶ Defence
 - ▶ Public order and safety
 - ▶ Economic affairs
 - ▶ Environmental protection
 - ▶ Housing and communities amenities
 - ▶ Health
 - ▶ Recreation, culture and religion
 - ▶ Education
 - ▶ Social Protection

Government Spending by Function in the U.S. 2010



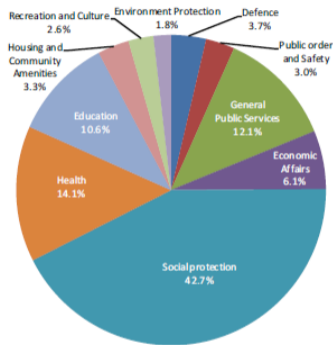
(a) 1960



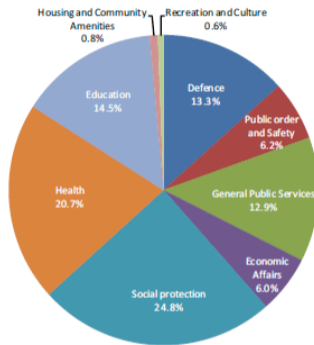
(b) 2010

Source: Bureau of Economic Analysis, NIPA Table 3.16

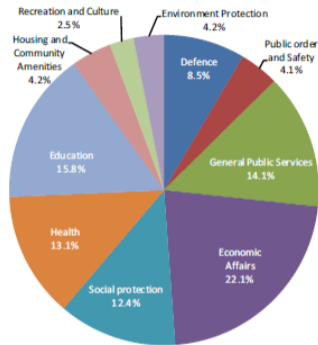
Government Spending by Function 2010



(a) France



(b) U.S.



(c) South Korea

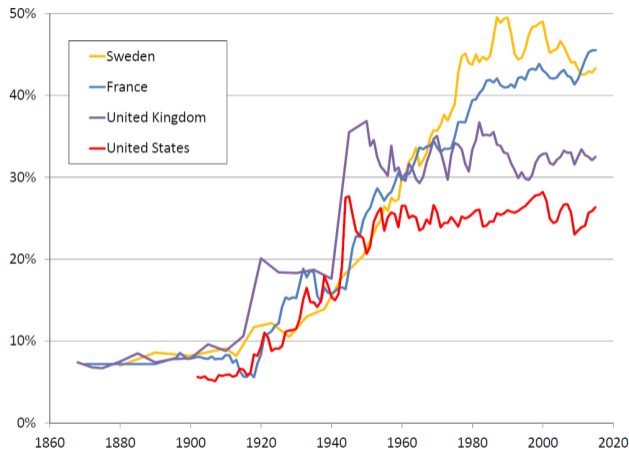
Source: Bureau of Economic Analysis (NIPA Table 3.16), Eurostat (COFOG), OECD.stat (COFOG)

Background Facts on Taxation

Governments use taxation to finance their public sector expenses and for redistributive purposes.

- ▶ Growing share of government revenue
 - ▶ From less than 10% in 1880 to 25-30% in 1960
 - ▶ Between 1965 and 2010 in the OECD area as a whole, the tax burden has risen from 25.5% to 33.8% of GDP
- ▶ But large dispersion in 1970s-80s
 - ▶ Stabilization of low tax countries \approx 25% GDP (US, Japan)
 - ▶ Mid-level for UK, Germany \approx 35%
 - ▶ Higher level for Nordic and France \approx 45%

Tax Revenue (as % of GDP), 1870-2014

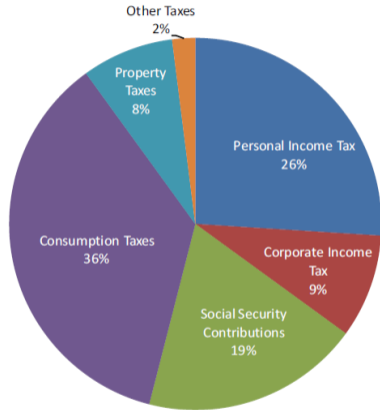


Source: Piketty (2013) for France; Kleven, Kreiner and Saez (2014), Fig.2 for UK, US, and Sweden, based on Flora (1983); OECD Revenues Statistics since 1965

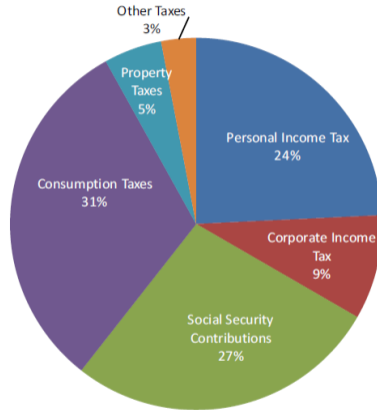
Structure of Tax Revenue

- ▶ Five **main components** of government revenue:
 - ▶ Personal income tax
 - ▶ Corporate income tax
 - ▶ Social security contributions
 - ▶ Consumption taxes
 - ▶ Property taxes
- ▶ Since the early 1960s, declining share of consumption and property taxes vs. growing share of social security contributions
- ▶ Tax structure varies widely across countries

Structure of Government Revenue: OECD Average, 1965 vs. 2010



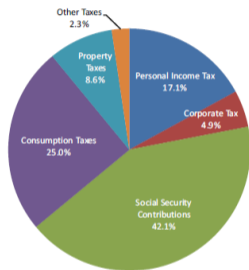
(a) 1965



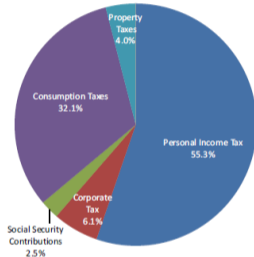
(b) 2010

Source: OECD Revenue Statistics (2012), Table C

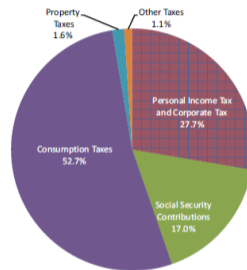
Structure of Government Revenue 2010



(a) France



(b) Denmark



(c) Mexico

Source: OECD Revenue Statistics (2012), Tables 6, 10 and 12

What are your questions now?

Readings for Next Week

2 Market Efficiency

- ▶ 1st Welfare Theorem
- ▶ 2nd Welfare Theorem

Main Reading: Stiglitz & Rosengard Chapter 3: Market Efficiency

Additional Reading: Mankiw Chapter 4: The Market Forces of Supply and Demand

Thank you and see you next week!
Jonathan.Stabler@econ.muni.cz