

# Public Economics

## Lec 1: Introduction to public economics

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**LUND UNIVERSITY**

School of Economics and Management

# Organization

- **Book:** Rosen and Gayer (2010): *Public Finance*, Mc Graw-Hill
- **Lectures:** 14, 1 seminar day
- **Exam:** written, 80 points
  - 3 “big” questions (20pt), 4 “small” (5pt)
- **Seminar/essay:** in groups, 3/4 pages
  - Few topics or policy analysis, presented in seminar
  - Commented by another group
  - Will contribute to final grade for 20 points | exam  $\geq$  40
  - **Facultative**, but highly recommended
  - **Deadline:** group composition

# More organization

- **Slides & additional material**
  - Slides at [Live@Lund](#) and on [alemartinello.com/teaching](http://alemartinello.com/teaching)
  - Additional material at [Live@Lund](#)
- **Mail policy: No** content questions by email.
  - Preferred: ask during lectures
  - Second best: just walk over to  $\alpha$  4035B
- **Office hours**
  - Mondays, 10:00 - 12:00 (except Jan 25<sup>th</sup>)
- **Expectations**

# Preliminary lecture plan

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Lec. 2	22/01	RG 3	Welfare economics
Lec. 3	01/02	RG 4	Public goods
Lec. 4	05/02	RG 5	Externalities
Lec. 5	08/02	RG 14-19	Taxation (I)
Lec. 6	10/02	RG 14-19	Taxation (II)
Lec. 7	12/02	RG 9-10 +	Asymmetric information & insurance
Lec. 8	15/02	RG 8	Cost-benefit analysis & privatization
Lec. 9	18/02	RG 6	Political economics
Lec. 10	22/02	RG 12-13	Income redistribution & social transfers
Lec. 11	29/02	RG 11 +	Pensions and retirement
Lec. 13	02/02	RG 20 +	Ageing & debt
Lec. 12	03/03	RG 22	Fiscal federalism
Lec. 14	08/03	+	Fiscal competition, tax evasion

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Seminar TBA; Exam TBA

# Today's reading list

- **Rosen & Gayer** ch. 1-2

# What is public economics?

- **Wiki:** the study of government policy through the lens of economic **efficiency** and **equity**

# What is public economics?

- **Wiki:** the study of government policy through the lens of economic **efficiency** and **equity**
- **RG:** The field of economics that analyzes government taxation and spending
- Pretty much everything related to the public sector
  - **Journal of Public Economics**
    - Soothing politics
    - Made in China, sold in Norway: Local labor market effects of an import shock
    - What Will My Account Really Be Worth? Experimental Evidence on How Retirement Income Projections Affect Saving
    - The effect of school construction on test scores, school enrollment, and home prices
  - **The NBER Public Economics program**

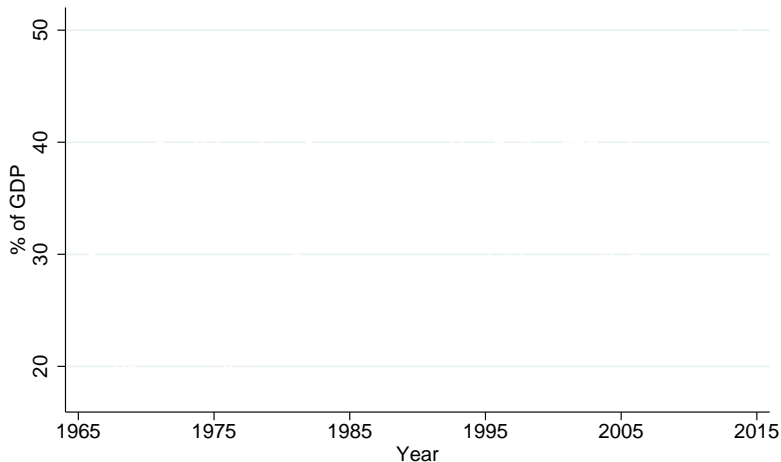
# The public sector

- **Politically** decided use of resources
  - Investments, consumption, **interventions**
  - Transfers
  - Who decides?
- Resources need to be financed
  - **Taxes**
- Public sector as a player, but
  - $\neq$  rules
  - $\neq$  size
- How to measure public sector size?



# Size of the public sector

## Tax revenues as % of GDP



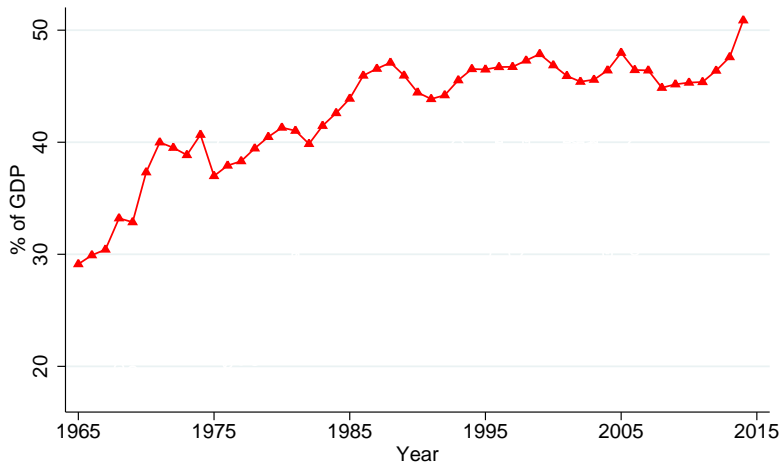
Sweden  
Greece

Italy  
Germany

US  
Denmark

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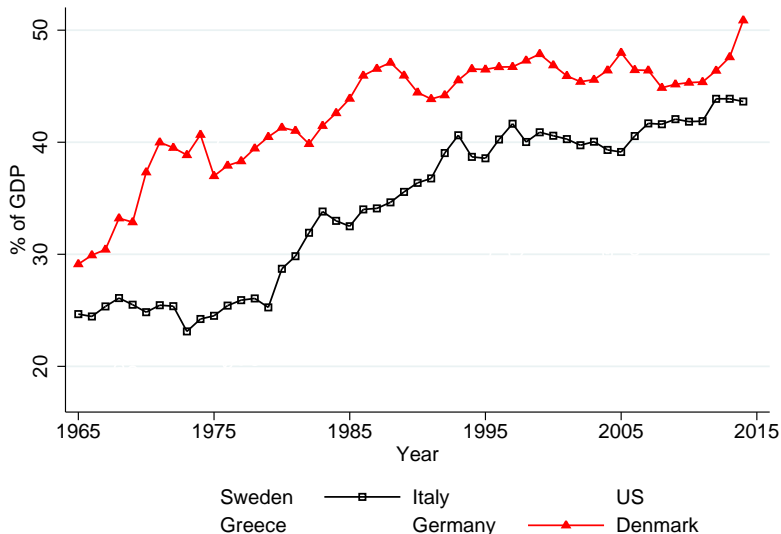
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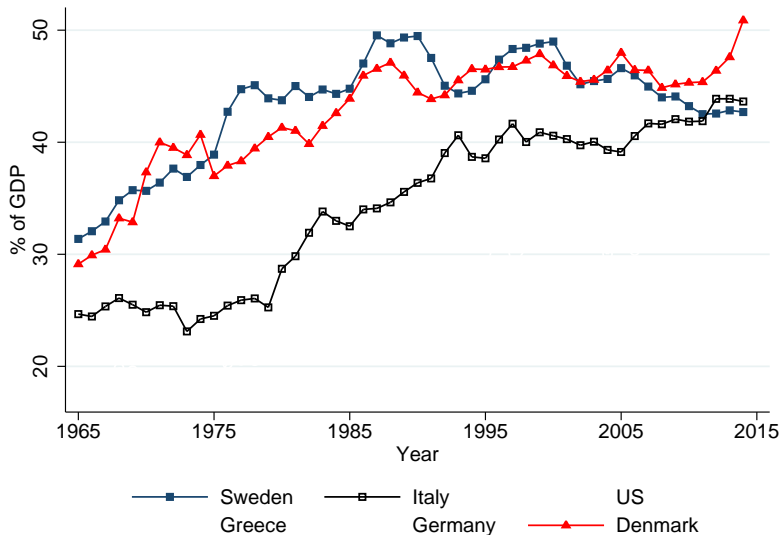
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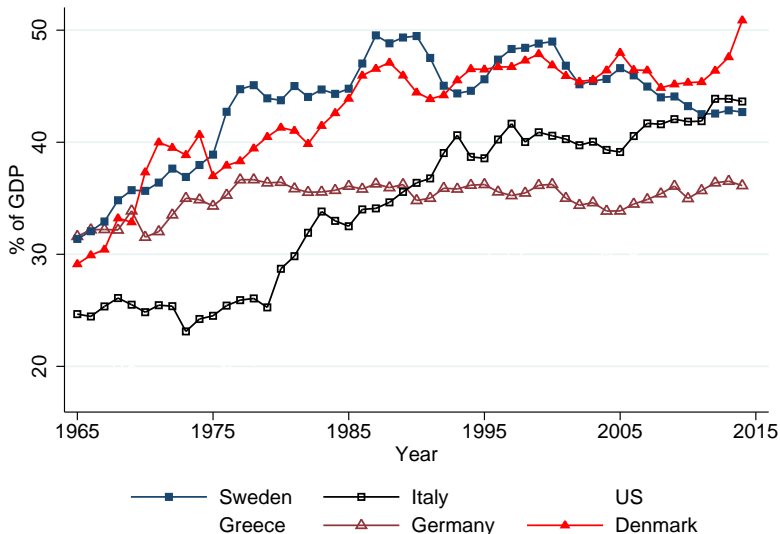
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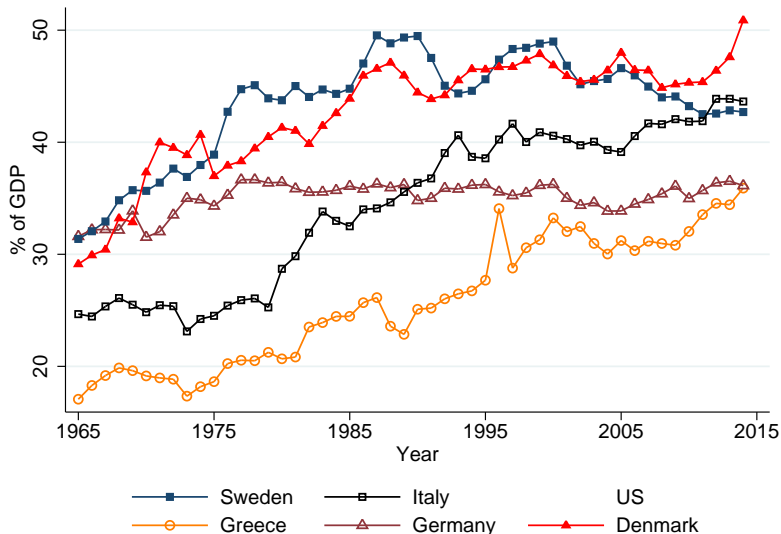
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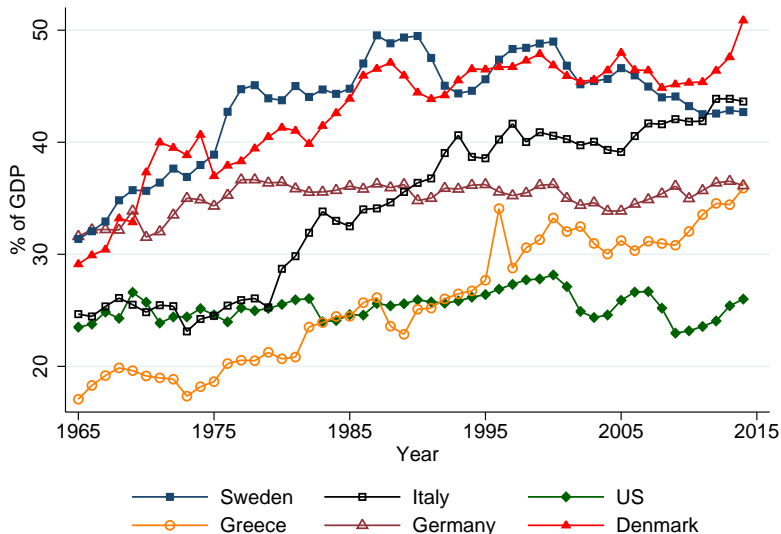
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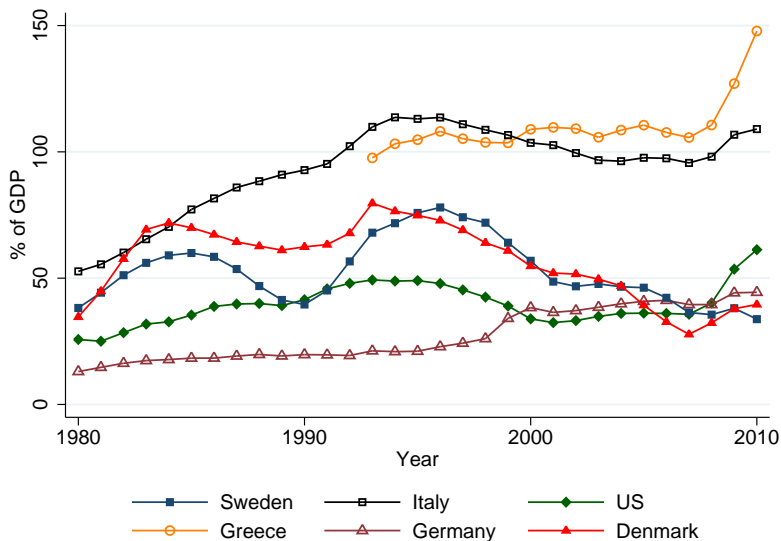
# Size of the public sector

## Tax revenues as % of GDP



# Size of the public sector

## Central government debt as % of GDP





# Size of the public sector

## No unique financial measure of size

- **Financial measures**

- Taxes  $\neq$  revenues (contributions, grants)
- $\neq$  **levels**: states, regions, municipalities

- **Other measures**

- Ratio of public workers on total employment?
- Per capita?
  - Comparisons: price adjusted and in single currency

- Sources?

- <http://stats.oecd.org/>
- <http://data.oecd.org/>
- Eurostat

## How to treat public regulations?

- E.g. labor market restrictions

# Scope of public economics

- ① **When, where** and **why** should governments intervene
  - **Efficiency VS equity**
  - Market failures
  - Social preferences
  - Welfare economics (normative), (micro)econometrics (positive)
  - Cost-benefit analyses
- ② **What** can they do?
  - Public insurance, retirement schemes
  - Delegation? Federalism and privatization.
- ③ **How** should we do it and finance it?
  - Optimal implementation
  - Optimal tax scheme
- ④ **Who** decides?
  - Political economics

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# Tools of public economics

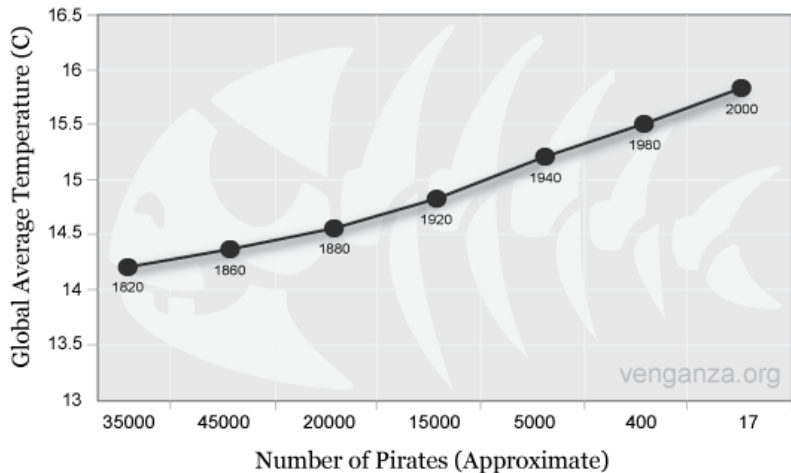
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  - How things **should be**
  - Main focus of this course
  
- **Positive** analysis
  - How things **are**
  - Applied econometrics: using data to understand effectiveness of programs, individual choices, extent of inefficiencies
  - No experimental data (some exceptions), inference is complex

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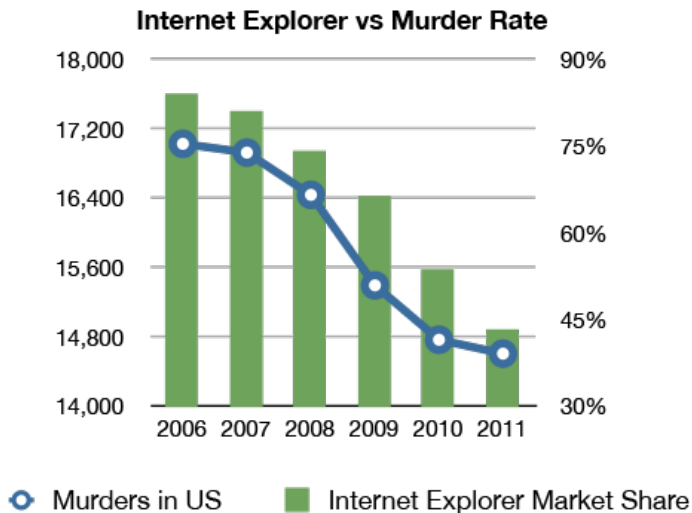
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  - **CORRELATION IS NOT CAUSATION!**

# Positive: correlation is not causation

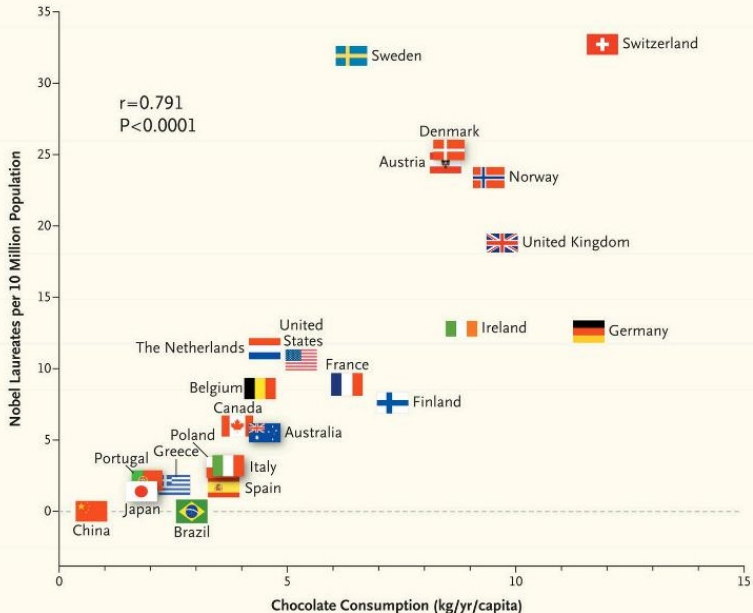
## Global Average Temperature Vs. Number of Pirates



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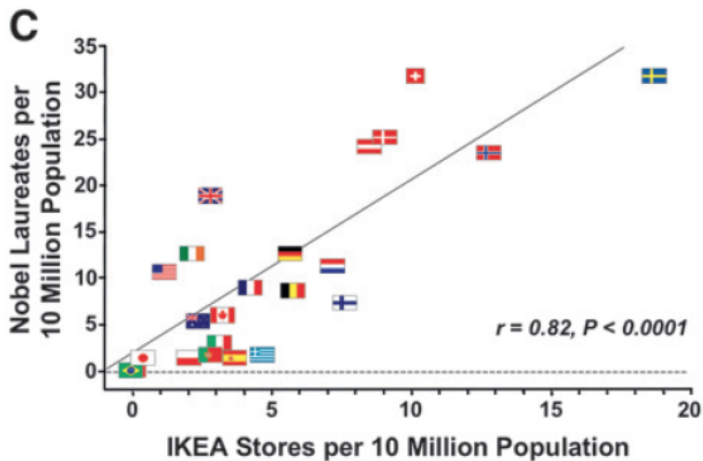


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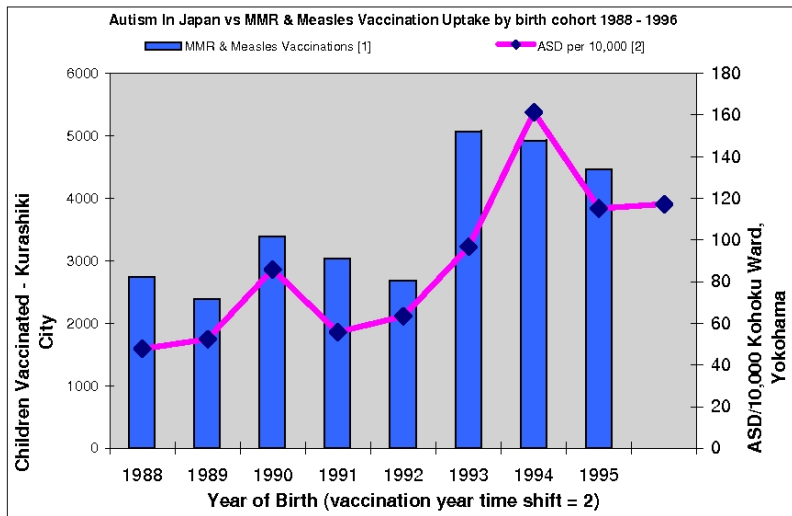




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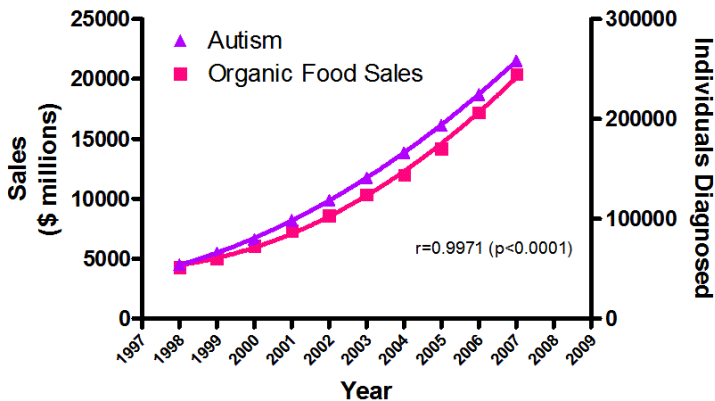
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This is a comparison of Measles and MMR vaccination uptake in Kurashiki City [1] with ASD rates in a district of Yokohama [2]. The close correspondence indicates this is unlikely to be coincidental. NB. 1993 births cohort vaccine uptake blue bar is unadjusted. It represents 114% vaccine uptake compared to birth rate and requires adjustment down. The uptake indicates catch-up vaccinations in 1995/6 for those born 1993/4. ([1] Terada [2] Honda/Rutter).

# Positive: correlation is not causation

The real cause of increasing autism prevalence?



Sources: Organic Trade Association, 2011 Organic Industry Survey; U.S. Department of Education, Office of Special Education Programs, Data Analysis System (DANS), OMB# 1820-0043: "Children with Disabilities Receiving Special Education Under Part B of the Individuals with Disabilities Education Act

# The goal of this course



... conditional on causal effect intuition  
and a good grasp of **public economics**

# Positive analysis: key to decent policy-making

**Question statistical facts:** correlations only part of the story

- **Schooling reforms:** should we make more schooling compulsory?
  - Data: college graduates earn more on average
- **Mobility:** should we finance exchange study programs?
  - Data: exchange students suffer lower unemployment rates
- **Public health/unemployment insurance**
  - Extent of adverse selection? Extent of moral hazard?
- **Important role of statistics/econometrics**

# Normative analysis: enables policy making

- **How big should the public sector be?**
  - Hint at **optimality**
- **Best** measures to achieve **goal**
- **Welfare** analysis of policies
- **Role of public sector**
- **Important role of economic theory/models**
  - **This course:** Intuitions, input-output, conclusions, graphical representations, concepts

# How big should the public sector be (naive)

- What about Adam Smith's **invisible hand**?
  - Better: 1<sup>st</sup> theorem of welfare economics
- Government should just make sure that the market works
  - Police, protect individual rights, enforce contracts
- Everything else is (costly) **redistribution**

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**Libertarianism**



**VS**

**Welfare**





# How big should the public sector be

- **Efficiency:**

- What if **markets don't work**/#?
- What if people are miopic / not rational?

- **Equity:**

- How can we tax/redistribute efficiently?
- Equity is more complicated than it sounds
  - **Intergenerational equality**

- **Who's in charge?**

# The role of the economist

- 1 Understand mechanisms (normative)
  - Public intervention can  $\nearrow$  efficiency
  - Deadweight losses from taxation can be minimized
- 2 Quantify benefits and costs (positive)
- 3 Balance the trade-off
  - **Welfare analysis**
    - **Optimal policy:** marginal benefits of public intervention equal to the marginal cost of public financing