

Public economics: Syllabus

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Organization of the course

Part 1: Perfect competition (sessions 1-3)

The first part of the course examines the world under perfect competition: a world where firms are numerous and do not have market power and everyone knows the quality of the goods. We will see how supply and demand are constructed in practice. We will focus in particular on commodity prices. We will show that according to welfare theorems, when markets are perfectly competitive, the state should not intervene.

Part 2: Market failures and public action

In the second part of the class, we will deconstruct the first part of the class and show that markets are generally not competitive and suffer from what is described as market failures, that warrant state intervention and public action. We will study in details the following market failures:

- Market power
- Informational asymmetries
- Externalities
- Public good issues
- Behavioral biases

We will analyze the role of the state for all these different types of market failures. To perform this analysis we will introduce the tools of game theory and the concepts of behavioral economics.

Part 3: Applications

We will study a number of applications ranging from interventions in health markets (with a special focus on the pandemic) and in education.

More detailed description of the sessions of the lecture

- **Session 1: Supply and demand model**
 - In this first session, after a general introduction to the class, we will present the supply and demand models.
 - A market trading experiment will be played in class designed to build supply and demand in practice

- **Session 2: constructing supply curves in practice and analyzing price variations**
 - In this second session, after discussing the case of the rice markets with the lens of supply and demand, we will learn in detail how to construct the supply curve
 - Case study: Alusaf aluminium case

- **Session 3: welfare theorems and market power**
 - In this session, we will show that the outcome of supply and demand forces in perfectly competitive markets is efficient. We will then move to the first departure from this result and discuss market power (a violation of the perfectly competitive markets assumption). We will conclude by examining the role of the state in designing antitrust regulations.
 - Case study: Microsoft and google antitrust cases

- **Session 4-5: tools of game theory and some elements of behavioral economics**
 - In this session, we will introduce the tools of game theory, both in simultaneous and repeated games, that will be useful for all the market failures we will study afterwards. We will also introduce notions of behavioral economics
 - A number of games will be played in class

- **Session 6: asymmetric information and health markets part 1**
 - In this session, we will focus on adverse selection, as a different type of market failure. We will apply the concepts to the question of whether the state should provide health insurance to its citizens. We will discuss how health markets work in general.

- **Session 7: health markets part 2**
 - We will pursue our analysis of health markets. We will introduce the concept of moral hazard. A special focus will be put on implications of behavioral biases for health markets.

- **Session 8: externalities part 1**
 - A different market failure arises when individuals are not induced to take into account the impact their actions have on others. We will study the ways to correct for these externalities, including command and control measures, taxes or permit markets. We will focus in particular on the issue of pollution and the construction of pollution permit markets.

- **Session 9: externalities: application to covid part 2**
 - We will pursue our analysis of externalities
 - A permit trading game will be played in class
 - We will also touch on the ongoing pandemic and discuss the Covid crisis where externalities are prevalent. SIR diffusion models will be discussed.

- **Session 10: public goods: application to innovation**
 - We discuss public goods and present them as an application of the concept of externalities. We will apply it to the question of how the state can design research policies and policies to incentivize innovation

- **Session 11: behavioral biases**
 - Public policy increasingly takes the form of interventions relying on the insights of behavioral economics. Some states have set up so called nudge units. We will study how this matters in practice.

- **Session 12: inequality / political economy**
 - In most of the course, we focused on normative issues by considering a benevolent social planner maximizing the efficiency of societies. In this concluding session, we depart from these assumptions. Political economy examines the political constraints that induce departures from the benevolent planner in reality. Finally we discuss the fact that efficient outcomes can be very unequal. We discuss the rise of inequalities over the last decades.

Detailed description of the TD sessions

TD1: Supply and demand and beyond

- Part 1: small mathematical brush up on derivatives
- Part 2: discussion of paper: **Card et Krueger** (1994). "Minimum wages and employment: a case study of the fast-food industry in New Jersey and Pennsylvania", AER

TD2: A look at taxation

- Taxation won't be covered in class. We will use this TD session to touch on some issues
- Papers discussed:
 - Fack (2006). "Are housing benefit an effective way to redistribute income? Evidence from a natural experiment in France"
 - Kleven, Henrik Jacobsen, Camille Landais, Emmanuel Saez, Esben Schultz (2014) "Migration and Wage Effects of Taxing Top Earners: Evidence from the Foreigners' Tax Scheme in Denmark"

TD3 Monopoly and oligopoly / moral hazard

- Part 1: quantitative exercises on monopoly and oligopoly pricing
- Part 2: papers on moral hazard
 - Cohen and Dehejia. 2004. « The effect of automobile insurance and accident liability laws on traffic fatalities »

- Sommers, Buchmueller, Decker, Carey, and Kronick (2013). "The Affordable Care Act Has Led To Significant Gains In Health Insurance And Access To Care For Young Adults"

TD4 Externalities

- Part 1: quantitative exercises on game theory / externalities
- Part 2: discussion "COVID-19 INFECTION EXTERNALITIES: TRADING OFF LIVES VS. LIVELIHOODS" Zachary A. Bethune Anton Korinek Working Paper 27009 <http://www.nber.org/papers/w27009>

TD5 Public goods and externalities

- Part 1: quantitative exercises on public goods and externalities
- Part 2: discussion "Do Firms Underinvest in Long-Term Research? Evidence from Cancer Clinical Trials" Eric Budish, Benjamin N. Roin, and Heidi Williams*

TD6 Group projects presentations on market failures

Evaluation

- 50%: final take home exam
 - Choice between 4 questions
 - One of those will be more quantitative
- 50%: final take home exam
 - Groups 4 members within your TD session
 - Pick a particular type of public intervention and analyze it using tools from the course
 - See examples on the moodle from previous classes

Readings

I don't use a textbook for this class, but take elements from the following sources:

Books

Myles (2008) « Public Economics », Cambridge University Press

Dixit (2001) "Thinking Strategically" Norton Professional Series

Articles

Cabral and Xu (2020) "Seller reputation and price gouging: evidence from the COVID-19 pandemic", Covid Economics, Issue 12

Dhaval and Kaestner (2006) "Health insurance and ex ante moral hazard: evidence from Medicare", NBER WP 12764

Einav and Finkelstein (2011) "Selection in insurance markets: theory and empirics in pictures", Journal of Economic Perspectives

Galbiati, Henry, Jacquemet, Lobeck (2020) "How laws affect the perception of norms: empirical evidence", CEPR WP

Gilbert and Katz (2001) "An Economist's guide to US v Microsoft", The Journal of Economic Perspectives

Jensen and Miller (2007) "Giffen Behavior: theory and evidence"; NBER WP 13243

Propper and Van Reenen (2010) "Can pay regulation kill? Panel data evidence on the effect of labor markets on hospital performance" Journal of Political Economy

White (2004) "The Arms Race on American roads: the effect of sport utility vehicles and pickup trucks on traffic safety", Journal of Law and Economics