

## Public Economics

Course title - Intitulé du cours	Public Economics
Level / Semester - Niveau /semestre	M2 / S2
School - Composante	Ecole d'Economie de Toulouse
Teacher - Enseignant responsable	Helmuth CREMER
Other teacher(s) - Autre(s) enseignant(s)	
Lecture Hours - Volume Horaire CM	30
TA Hours - Volume horaire TD	
TP Hours - Volume horaire TP	
Course Language - Langue du cours	Anglais
TA and/or TP Language - Langue des TD et/ou TP	

### **Teaching staff contacts - Coordonnées de l'équipe pédagogique :**

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### **Course's Objectives - Objectifs du cours :**

Public economics studies the role of the government in a market economy and the implications of its actions for the citizenry. The underlying structure is one of a decentralized economy wherein economic decisions are coordinated through prices, which in turn are determined by free, but sometimes regulated, markets. Additionally, the public sector itself typically plays a significant role in these market economies. Public economics examines why and how the government may have to supplement the market mechanism. It evaluates the efficiency and equity justifications for an intervention and their ramifications for individuals' incentives and welfare. It also studies what form the interventions should take and how policies ought to be designed. The course provides an overview of some topics in public economics with an emphasis on taxation and other redistributive policies (such as in-kind transfers and social insurance). It is designed for 1st year graduate students (with a good background in microeconomic theory). We shall cover a good deal of "classical" material (you need to know the foundations) but also some more recent developments (to see some of the contemporary research in public economics). Similarly, we shall combine methodological with more applied issues. A recurrent theme is asymmetric information which is a crucial factor for the design of welfare state policies.

### **Course outline (provisional):**

#### 1. Introduction:

(a) Tax design and information

(b) The role of the government in a market economy: brief reminder

- i. Welfare theorems
- ii. Market failures
- iii. Redistribution
- iv. Paternalism

2. Taxation and efficiency (Auerbach and Hines, Section 2)

(a) Deadweight loss of taxation: definition and measurement

(b) Illustrations:

- i. Partial equilibrium, single competitive market
- ii. Single household, two goods
- iii. Labor supply, savings, etc.

3. Optimal commodity taxation (GM, Ch. 4; Atkinson and Stiglitz, Ch. 12; Auerbach and Hines, Sections 3-5)

(a) Introduction

(b) Identical individuals

(c) Heterogenous households

(d) Ramsey-Boiteux prices

(e) Application: access pricing in the postal sector

4. Optimal income taxation (MT, Ch. 2-4, Stiglitz (1987))

(a) Introduction: income tax schedules (tax functions), marginal and average tax rates, progressivity

(b) Linear income tax

(c) Non-linear income tax

(d) Applications and special cases

5. Income vs. commodity taxation (MT, Ch.12; Stiglitz (1987); Cremer, Pestieau and Rochet (2001))

(a) Introduction: the direct vs. indirect tax controversy

(b) The Atkinson and Stiglitz (AS) result (non-linear and linear commodity taxes)

(c) Attacks on AS

(d) Multi-dimensional heterogeneity and the design of tax policy: an example

(e) Other instruments: social insurance, in-kind transfers, taxation of capital, etc.

6. Taxation of families and couples and gender policies (Cremer, Lozachmeur, Maldonado and Roeder, 2016; Cremer, Lozachmeur and Roeder, 2017)

(a) Introduction: unitary vs collective couple

(b) Income taxation

(c) Commodity taxes: the tax treatment of male and female goods (Mademoiselle Coco and tampons vs. Fishing equipment)

(d) Gender wage gap, optimal taxation and child care policies

7. Externalities and optimal taxation (Salanié, Ch. 10)

(a) Introduction: First-best results

(b) Environmental taxation in second-best

(c) Linear taxation: Sandmo's analysis

(d) General taxation: Cremer and Gahvari

i. Taxation of final goods

ii. Taxation of inputs and emissions

(e) Empirical illustration: taxation of energy

8. Social insurance and optimal taxation (Rochet, 1991, Cremer and Pestieau, 1996, Cremer and Roeder, 2017)

(a) The role of social insurance with perfect private insurance markets

(b) Social insurance with adverse selection in private markets

**Prerequisites - Pré requis :**

- There will be a written examination at the end of the term. The material for the exam covers the lectures plus the required readings.
- The readings mentioned in the course outline and my slides are required for all students.
- Additional readings are optional (but strongly recommended).
- The lectures are completed by several problem sets which cover the core chapters of the material.
- Course material (slides, problem sets and solutions, most of the readings, etc.) is available on Moodle.
- Students are strongly advised to read the slides before coming to class.

**Bibliography/references - Bibliographie/références :**

The main references are Optimal Redistributive Taxation, by Matti Tuomala (MT), Oxford University Press, 2016, Public Economics by Gareth Myles (GM), Cambridge University Press, 1995 (the latter mainly for the Ramsey model), and my lecture notes (slides), available on moodle. Additional references are given below.

Textbooks:

- Atkinson, A. and J. Stiglitz, "Lectures on Public Economics", McGraw Hill : New York, 1980.
- Cornes, R and T. Sandler, "The Theory of Externalities, Public Goods and Club Goods", Cambridge University Press, Cambridge UK, 1996 (second edition).

- Jha, R. "Modern Public Economics", Routledge, London, 1998.
- Kaplow, L., The Theory of Taxation and Public Economics, Princeton University Press, 2008.
- Laffont, J.-J., "Fundamentals of Public Economics", MIT Press, Cambridge Massachusetts, 1988.
- Mas-Colell, A., M. Whinston and J. Green, "Microeconomic Theory" Oxford University Press, 1995.
- Salanié B., "The Economics of Taxation", MIT Press, 2011.
- Varian, H, "Microeconomic Theory", Norton (third edition).

#### Surveys:

- Auerbach, A. The Theory of Excess Burden and Optimal Taxation, in
- Auerbach, A. and M. Feldstein, eds., Handbook of Public Economics, Vol.1, 1985, 61-86.
- Auerbach, A. and J. Hines "Taxation and Economic Efficiency, in Auerbach, A. and M. Feldstein, eds., Handbook of Public Economics, Vol.3, 2002, 1347-1422.
- Boadway, R. and M. Keen, Redistribution, in Atkinson, A. and F. Bourguignon, eds., Handbook of Income Distribution, Vol.1, 2000, 677-790.
- Cremer, H. and P. Pestieau, Wealth transfer taxation: a survey of the theoretical literature, in: Handbook on the Economics of Giving, Reciprocity and Altruism, Editors: L.-A. Gerard-Varet, S.C. Kolm and J. Mercier-Ythier, North-Holland, 2004, 1108-1134.
- Sandmo, A. The Effects of Taxation on Saving and Risk-Taking, in A. Auerbach and M. Feldstein, Eds., Handbook of Public Economics, Vol.1, Amsterdam: North Holland, 1985, 265-293.
- Stiglitz, J. Pareto Efficient and Optimal Taxation and the New Welfare Economics, in Auerbach, A. and M. Feldstein, Eds., Handbook of Public Economics, Volume 2, Amsterdam : North Holland, 1987, 991-1041.

#### Papers:

- Atkinson, A. and J. Stiglitz, The Design of Tax Structure: Direct Versus Indirect Taxation, Journal of Public Economics, 1976, 6, 55-75.
- Atkinson, A. Optimal Taxation and the Direct Versus Indirect Tax Controversy, Canadian Journal of Economics, 1977, 590-606.
- Atkinson, A. and A. Sandmo, "Welfare Implications of the Taxation of Savings, Economic Journal, 90, 1980, 529-549.
- Cremer, H. and F. Gahvari, 2017, Atkinson-Stiglitz and Ramsey reconciled: Pareto efficient taxation and pricing under a break-even constraint, Social Choice and Welfare, 49, 11-35.
- Cremer, H. and F. Gahvari, Uncertainty, optimal taxation and the direct versus indirect tax controversy, Economic Journal, 105, 1995, 1165-79.
- Cremer, H., F. Gahvari and JM Lozachmeur, Tagging and income taxation: theory and an application, American Economic Journal: Economic Policy, 2, 2010, 31-50.
- Cremer, H. and F. Gahvari, Second-best taxation of emissions and polluting goods, Journal of Public Economics, 80, 2001, 169-197.
- Cremer, H., N. Ladoux and F. Gahvari, Externalities and optimal taxation, Journal of Public Economics, 70, 1998, 343-364.
- Cremer, H., N. Ladoux and F. Gahvari, Tax reform versus tax design in the presence of consumption and production externalities (with Applications to France), Journal of Environmental Economics and Management, 59, 2010, 82-93.

- Cremer, H, D. Maldonado, JM Lozachmeur and K. Roeder, Household bargaining and the design of couples income taxation, *European Economic Review*, 89, 2016, 454-470.
- Cremer, H, JM Lozachmeur and K. Roeder, Household bargaining, spouses consumption patterns and the design of commodity taxes, 2017, TSE WP 17-767.
- Cremer, H. and P. Pestieau, Redistributive taxation and social insurance, *International Tax and Public Finance*, 3, 1996, 281-295.
- Cremer, H., P. Pestieau and J.C. Rochet, Direct versus indirect taxation: the design of the tax structure revisited", *International Economic Review*, 42, 2001, 781-799.
- Cremer, H., P. Pestieau and J.C. Rochet, Capital income taxation when inherited wealth is not observable, *Journal of Public Economics*, 87, 2003 2475-2490.
- Cremer, H. and K. Roeder, Social Insurance with Competitive Insurance Markets and Risk Misperception, *Journal of Public Economics*, 146, 2017, 138-147.
- Diamond, P., Optimal income taxation: an example with a U-shaped pattern of optimal marginal tax rates, *American Economic Review*, 1998, 83-95.
- Diamond, P. and J. Mirrlees, Optimal Taxation and Public Production: I, *American Economic Review*, 1971, 8-27.
- Goulder, L. Environmental taxation and the double dividend: A reader's guide, *International Tax and Public Finance*, 2, 1995, 157-183.
- Mirrlees, J. An Exploration in the Theory of Optimum Income Taxation, *Review of Economic Studies*, April 1971.
- Rochet, J.-Ch., 1991, Incentives, Redistribution and Social Insurance, *The Geneva Papers on Risk and Insurance Theory*, 16, 143-165.