17P030

Public Economics II: Incentives and Equity

Winter Term - 3 ECTS

Mandatory Course

Prof. Jordi Massó and Prof. Xavier Ramos

Prerequisites to Enroll

None.

Overview and Objectives

This course has two distinct parts. The first one looks at equity issues, while the second one deals with incentives.

Equity

Social and economic inequalities are high in the political agenda. Inequality dampens economic development, prevents an optimal accumulation of human capital, and exerts a deleterious effect on basic social indicators such as health, life satisfaction or social trust.

Proper description and diagnosis is key to informing and designing public policy. Global absolute poverty, for instance, has decreased over the last years, while global relative poverty continues increasing. Is global poverty then increasing or not? The Equity block of the course will look at measurement and conceptual issues to provide answers to these questions. We will then use empirical applications to illustrate the relevance of these issues for policy recommendations.

Incentives

Societies want to take social decisions based on the preferences that its members have over the set of social alternatives. But members' preferences are idiosyncratic and private information and, to be used to choose the social alternative, they have to be elicited. A social choice function is a systematic procedure that collects individual preferences and selects a social alternative for each declared preference profile. The content of this part of the course is to study the strategic incentives induced by social choice functions to members of the society when revealing their preferences.

The first objective is to present the general difficulties of aggregating individual preferences and eliciting them truthfully. The second objective is to present alternative ways of overcoming these difficulties when preferences are naturally restricted, and to study examples of social choice functions that are satisfactory from the point of view of the strategic incentives they induce on the members of the society.

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Course Outline

Part I: Equity

1. The measurement of income inequality

Equality of what? Inequality and Distributive justice.

Some basic tools to measuring inequality. Graphical representations (Pen's parade, distribution functions and Lorenz curve) and composite indices (rang, mean relative deviation, coefficient of variation, variance, Gini coefficient and Generalized Entropy Family). Axiomatic approach. Inequality decomposition. Inequality and welfare. Dominance approach. Social welfare functions and its relation to distributive justice. Empirical choices that matter: defining welfare, equivalence scale and unit of analysis.

2. The measurement of economic poverty

Key issues in the measurement of poverty: identification and aggregation. Approaches to setting the poverty threshold: absolute and relative poverty. Poverty indices: the FTG family. TIP Curves and poverty dominance. Subjective poverty. Relative deprivation and social exclusion.

3. Economic mobility

Relationship between static (inequality) and dynamic (mobility) approaches. What do we mean by mobility? The many facets of mobility. The many ways to measuring income mobility.

4. Equality of Opportunity

Equality of Outcome vs. equality of opportunity. Responsibility, Circumstances and Luck. Measuring approaches: direct vs. indirect, and ex-ante vs. ex-post. Revisiting the inequality-growth relationship.

5. Redistributive Effects and Progressivity

Vertical equity and progressivity of income tax systems and benefits. Concepts and tools to measure progressivity. Distance to proportionality. Redistributive effects of taxes and transfers.

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Part II: Incentives

1. Social Welfare Functions

Social Choice: Aim and Properties. The Condorcet Paradox. The Borda Count. Arrow's Impossibility Theorem.

2. Social Choice Functions

Incentives: Strategy-proofness. Gibbard-Satterthwaite Impossibility Theorem. Possibilities: Domain Restrictions.

3. Domain Restrictions: The Public Good Case

Single-peakedness and Median Voters. Separability and Voting by Committees.

4. Domain Restrictions: The Private Good Case

Single-peakedness and the Division Problem. The Assignment of Indivisible Objects: The Top-trading Cycles Algorithm. Stability in Two-sided Matching Problems: Deferred Acceptance Algorithm. Quasi-linear Preferences: Auctions and Pivotal Methods.

Required Activities and Evaluation

Assignments (30%) and Final Exam (70%)

Competences

☒ To (be able to) communicate with determination and in the English Language, the results and implications of the required analytical study using a language that the receiver can relate to.

☒ To work within a heterogeneous team of researchers as economic analyst using specific group techniques.

☒ To fit in diverse professional environments and varied types of collaborations in different professional projects.

☒ To possess and understand the knowledge that provides a basis or opportunity to be original in the development and / or application of ideas, often in a research context.

☒ That students know how to apply the acquired knowledge and their ability to solve problems in new or unfamiliar environments within broader (or multidisciplinary) contexts related to their field of study.

☒ That the students be able to integrate knowledge and face the complexity of making judgments based on information that, being incomplete or limited, include reflections on the social and ethical responsibilities linked to the application of their knowledge and judgments.

☒ That students possess the learning skills that allow them to continue studying in a way that will be largely self-directed or autonomous.

☒ Understand and apply the Economic Theory and statistical models of the design of the evaluation of public policies.

☒ Understand and apply the quantitative methods used to solve complex problems of the economy.

☒ Evaluate, with theoretical and quantitative instruments, complex realities of the economy to understand its functioning.

Learning Outcomes

☒ Knows rigorously the economic theory of design and evaluation of public policies.

☒ Applies the empirical tools of economic analysis to evaluate public policies.

☒ Knows the institutional frameworks in which public policies are designed and implemented.

Main References

Additional references for each topic will be provided during the course. Main sources of reference are:

Part I: Equity

Atkinson, A.B. and F. Bourguignon (eds.) (2000 and 2010). *Handbook of Income Distribution*. North Holland.

Cowell, F. (2011). *Measuring Inequality*. Oxford University Press. 3rd edition.

Lambert, P.J. (2001). *The Distribution and Redistribution of Income.* Manchester University Press, 3rd edition.

Ravallion, M. (2016). The Economics of Poverty, Oxford University Press.

Salvedra, W., B. Nolan and T. Smeeding (2009). *The Oxford Handbook of Economic Inequality*, Oxford University Press.

Part II: Incentives

Salvador Barberà (2001). “An introduction to strategy-proof social choice functions,” *Social Choice and Welfare* 18, 619-653.

Salvador Barberà, Hugo Sonnenschein and Lin Zhou (1991). “Voting by committees,” *Econometrica* 59, 595-609.

David Gale and Lloyd Shapley (1962). “College admissions and the stability of marriage,” *American Mathematical Monthly* 69, 9-15.

Jordi Massó (2015). "Alvin E. Roth and Lloyd S. Shapley, Nobel prizes in Economics 2012 for the theory of stable allocations and the practice of market design, *Contributions to Science* 11, 103-112.

Hervé Moulin (1980). “On strategy-proofness and single peakedness,” *Public Choice* 35, 437-455.

Alvin Roth (2015). *Who Gets What-and Why: The Economics of Matchmaking and Market Design*, Houghton Mifflin Harcourt, Boston, New York.

Alvin Roth, Tayfun Sönmez and Utku Ünver (2004). “Kidney exchange,” *Quarterly Journal of Economics* 119, 457-488.

Yves Sprumont (1991). “The division problem with single-peaked preferences: a characterization of the uniform allocation rule,” *Econometrica* 59, 509-519.

Yves Sprumont (1995). “Strategy proof collective choice in economic and political environments,” *Canadian Journal of Economics* 28, 68-107.