Topics in Economic Analysis: Partial Consumption Insurance

Dr. Gianluca Violante

Course Information

The course meets for 5 weeks, every Tuesday 9-11 pm in room D209. My office hours are Tuesday 11:30-12:30 in room S680 or by appointment. To contact me, please use email <g.violante@lse.ac.uk>, and if that fails, use the phone 020-7955-6128. Course material (syllabus, lecture notes) will be posted on my website, www.ucl.ac.uk/~uctpgvi to be downloaded and printed in pdf format.

This is an advanced course in Macroeconomic Theory where the objective is to learn how to model economies where there are only incomplete risk-sharing possibilities, i.e. some of the risk faced by the individual is uninsurable. The economies we will analyze admit always a recursive representation. Such representations of macroeconomic models are useful because they are parsimonious and because they allow the computer to “understand” the model. The computer can then be used to solve for the equilibrium of the model and in this course you will also learn some useful algorithms.

The course will improve your understanding of what kind of insurance mechanisms (i.e. self-insurance) and contractual arrangements arise in absence of markets providing full insurance. We also examine the scope of public redistribution for the improvement of households’ welfare and how/when public insurance can crowd-out private risk-sharing. Finally, we analyze the problem of the optimal design of insurance, in relation to the unemployment risk.

Being an advanced course, we take as given the basic concepts of Arrow-Debreu general equilibrium theory and some standard concepts of dynamic programming and recursive methods. For a quick refreshment on dynamic programming, you can use my Notes on Discrete Time Stochastic Dynamic Programming, downloadable at www.ucl.ac.uk/~uctpgvi. For an infinitely deeper treatment of the subject (and more), you should refer to: Stokey, Nancy-Robert E. Lucas-Edward Prescott, Recursive Methods in Economic Dynamics, Harvard University Press (1989)

The main textbooks for the course are:


Course Outline

Lecture 1: Idiosyncratic Risk and Exogenous Borrowing Constraints

The class of economies we start to look at are populated by heterogeneous agents with access to insurance markets that are exogenously incomplete: normally, households face a borrowing constraints and can save in a non-contingent bond. We define the equilibrium of this economy in recursive form, and learn how to compute the equilibrium through a fixed-point algorithm. We characterize the allocations and study when aggregate precautionary savings arise, even in absence of assumptions on the convexity of marginal utility.

4. MS, chapter III.11 (by Victor Rios-Rull)
5. LS, chapter 14

Lecture 2: Public Insurance in Economies with Exogenous Borrowing Constraints

In the economies described above, what is the role for government transfers in providing insurance and, possibly, improve agents' welfare?

Lecture 3: Idiosyncratic Risk and Endogenous Borrowing Constraints

We generalize the economies analyzed so far to the case where liquidity constraints arise endogenously because contracts are not fully enforceable: risk-sharing contracts arise in equilibrium only if they are sustainable, i.e. if both parties involved have the incentive to maintain their promise. We look at the equilibrium of economies with limited enforcement and learn how to compute the equilibrium and characterize the allocations.

1. Albert Marcet, Ramon Marimon, “Recursive Contracts”, mimeo 1999
3. R. LS, chapter 15

Lecture 4: Private vs. Public Insurance in Economies with Endogenous Borrowing Constraints

In this lecture we analyze how the provision of public insurance could affect the degree of endogenous market incompleteness and consequently the amount of private risk-sharing.


Lecture 5: Optimal Unemployment Compensation

We review the empirical evidence on the affects of unemployment on the level of consumption, which are the basis for motivating the existence of unemployment benefits schemes. Next, we analyze the theoretical problem of the optimal design of an unemployment insurance scheme by a government who cares about the welfare of the agents (hence it wants to provide insurance), but at the same time faces an asymmetric information problem, so it needs to provide the agents with the right incentives to search for a job.


7. LS, chapter 15