Eco211A: Contract Theory

M,W 9:30-10:50, BH 2249, Autumn 2008

http://www.econ.ucla.edu/sboard/teaching.html

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This is a course in contract theory. It will cover many of the tools and techniques used in models of moral hazard, screening and incomplete contracting. Applications will be drawn from industrial organisation, corporate finance, public finance, personnel economics, and many other areas. In addition to the usual topics, I also plan to spend some time on recent innovations in the theory of relational contracts and dynamic signalling.

For those enrolled, there will be three problem sets (15% each) and a final (55%). The problem sets will be due on 22nd October, 12th November and 3rd December. I encourage you to discuss the substance of the problems, but the final version should be your own. Later in the term, there may also be opportunities for students to present specific papers.

Books and Manuscripts

Bolton and Dewatripont (2005), Contract Theory, MIT Press.

Laffont and Martimort (2002), The Theory of Incentives, PUP.

Mas-Colell, Whinston and Green (1995), Microeconomic Theory, OUP.


Stole (1993), Lectures on Contracts and Organizations, Unpublished, University of Chicago.
1. Useful Techniques

**Topics:** lattices, supermodularity, monotone comparative statics, comparing equilibria, envelope theorems, stochastic orders.

Topkis (1998), *Supermodularity and Complementarity*, PUP.


2. Moral Hazard: One Agent

**Topics:** two action model, continuous action model, optimal linear contracts, comparative performance evaluation, multitasking, private evaluations, debt contracts.

Bolton and Dewatripont, *Chapters 4 and 6.2*.


3. Moral Hazard: Many Agents

**Topics:** tournaments, partnerships, comparative performance evaluation.

Bolton and Dewatripont, *Chapter 8*.


4. Moral Hazard: Dynamics

**Topics:** repeated moral hazard, justifying simple contracts, renegotiation, career concerns.

Bolton and Dewatripont, *Chapter 10*.


5. Relational Contracts

**Topics:** Bilateral contracts, multilateral contracts, embedding relational contracts in markets.


### 6. Contracting with Externalities

**Topics:** Complete information multilateral contracting.

Bolton and Dewatripont, *Chapter 13.3*.


7. Mechanism Design: One Agent

Topics: revelation principle, discrete type problems, continuous type problems, ironing, credit rationing, implicit labour contracts, regulation, insurance, labour contracts, contracts as barriers to entry, costly state verification.

Bolton and Dewatripont, Chapter 2.

Laffont and Martimort, Chapters 2 and 3.


8. Mechanism Design: Many Agents

Topics: optimal auctions, bilateral trading.

Mas–Collel, Whinston and Green, Chapter 23.

Bolton and Dewatripont, Chapter 7.


Milgrom (2004), *Putting Auction Theory to Work,* CUP.


9. Mechanism Design: Multidimensional Types

Topics: incentive compatibility, $2 \times 2$ example, separable environments, efficiency in auctions.

Bolton and Dewatripont, Chapter 6.1.


10. Mechanism Design: Dynamics

Topics: commitment solutions, no commitment, renegotiation, entry of new agents, durable goods monopoly, consumption smoothing, soft budget constraints.

Bolton and Dewatripont, Chapter 9.

Laffont and Martimort, Chapter 8.


11. Mixed Models

**Topics:** false moral hazard (optimal taxation), adverse selection and moral hazard.

Bolton and Dewatripont, *Chapter 6.3*.

Laffont and Martimort, *Chapter 7*.


12. Signalling: Dynamics

**Topics:** repeated and dynamic signalling.


13. Incomplete Contracts

**Topics:** holdup problem, ownership, message games, specific performance contracts, option contracts, strategic ambiguity, complexity, describability.

Bolton and Dewatripont, *Chapter 11 and 12*.


