

Economics 211A and 271A: Contract Theory

M,W 10:00-11:15, BH 9294, Autumn 2012

<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 organization, corporate finance and personnel economics. The class builds on 201B and 201C, covering both static and dynamic models of contracting.

For those enrolled, there will be three problem sets (15% each) and a final (55%). The problem sets will be due on Weds 17th October, Wed 14th November and Wed 5th December. We encourage you to discuss the substance of the problems, but the final version should be your own.

[* = essential reading]

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.

Salanie (1997), *The Economics of Contracts: A Primer*, MIT Press.

Segal and Tadelis (2002), *Lectures on Contract Theory*, Unpublished, Stanford University.

Stole (1993), *Lectures on Contracts and Organizations*, Unpublished, University of Chicago.

1. 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*.

Milgrom and Roberts (1992), *Economics, Organization and Management*, Prentice Hall.

*Holmstrom (1979), "Moral Hazard and Observability," *Bell Journal*.

Rogerson (1985), "The First-Order Approach to Principal-Agent Problems," *Econometrica*.

Mirrlees (1999), "The Theory of Moral Hazard and Unobservable Behaviour: Part I," *Review of Economic Studies*.

*MacLeod (2003), "Optimal Contracting with Subjective Evaluation," *American Economic Review*.

*Innes (1990), "Limited Liability and Incentive Contracting with Ex-ante Action Choices," *Journal of Economic Theory*.

Holmstrom and Milgrom (1991), "Multitask Principal-Agent Analyses: Incentive Contracts, Asset Ownership, and Job Design," *Journal of Law, Economics, & Organization*.

2. Moral Hazard: Many Agents

Topics: tournaments, partnerships, types of implementation.

Bolton and Dewatripont, *Chapter 8*.

Lazear and Rosen (1981), "Rank-Order Tournaments as Optimum Labor Contracts," *Journal of Political Economy*.

*Holmstrom (1982), "Moral Hazard in Teams," *Bell Journal*.

Winter (2004), "Incentives and Discrimination," *American Economics Review*.

Winter (2006), “Optimal Incentives for Sequential Production Processes,” *Rand Journal of Economics*.

3. Moral Hazard: Dynamics

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

Bolton and Dewatripont, *Chapter 10*.

*Rogerson (1985), “Repeated Moral Hazard,” *Econometrica*.

*Fudenberg, Holmstrom and Milgrom (1990), “Short-term Contracts and Long-term Agency Relationships,” *Journal of Economic Theory*.

*Holmstrom and Milgrom (1987), “Aggregation and Linearity in the Provision of Intertemporal Incentives,” *Econometrica*.

Radner (1985), “Repeated Principal-Agent Games with Discounting,” *Econometrica*.

*Sannikov (2008), “A Continuous-Time Version of the Principal-Agent Problem,” *Review of Economic Studies*.

Fudenberg and Tirole (1990), “Moral Hazard and Renegotiation in Agency Contracts,” *Econometrica*.

4. Reputation

Topics: reputation, signal jamming, exit, endogenous and exogenous types.

*Holmstrom (1999), “Managerial Incentive Problems: A Dynamic Perspective,” *Review of Economic Studies*.

Mailath and Samuelson, (2001) “Who Wants a Good Reputation?,” *Review of Economic Studies*.

*Bar-Isaac (2003), “Reputation and Survival: Learning in a Dynamic Signalling Model,” *Review of Economic Studies*.

Board and Meyer-ter-Vehn (2011), “Reputation for Quality”, Working paper.

5. Relational Contracts

Topics: bilateral contracts, multilateral contracts, embedding relational contracts in markets.

Abreu, Pearce and Stacchetti (1986), “Optimal Cartel Equilibria with Imperfect Monitoring,” *Journal of Economic Theory*.

Shapiro and Stiglitz (1984), “Equilibrium Unemployment as a Worker Discipline Device,” *American Economic Review*.

Macleod and Malcolmson (1989), “Implicit Contracts, Incentive Compatibility, and Involuntary Unemployment,” *Econometrica*.

*Levin (2003), “Relational Incentive Contracts,” *American Economic Review*.

*Thomas and Worrall (1988), “Self-Enforcing Wage Contracts,” *Review of Economic Studies*.

*Harris and Holmstrom (1982), “A Theory of Wage Dynamics,” *Review of Economic Studies*.

*Thomas and Worrall (1994), “Foreign Direct Investment and the Risk of Expropriation,” *Review of Economic Studies*.

6. 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*.

Myerson (1982), “Optimal Coordination Mechanisms in Generalized PrincipalAgent Problems,” *Journal of Mathematical Economics*.

*Maskin and Riley (1984), “Monopoly with Incomplete Information,” *RAND Journal of Economics*.

Mussa and Rosen (1978), “Monopoly and Product Quality,” *Journal of Economic Theory*.

Baron and Myerson (1982), “Regulating a Monopolist with Unknown Costs,” *Econometrica*.

Philippon and Skreta (2012), “Optimal Interventions in Markets with Adverse Selection”, *American Economic Review*.

7. Mechanism Design: Many Agents

Topics: optimal auctions, bilateral trading.

Mas-Collel, Whinston and Green, *Chapter 23*.

Bolton and Dewatripont, *Chapter 7*.

Krishna (2002), *Auction Theory*, Academic Press.

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

*Myerson (1981), “Optimal Auction Design,” *Mathematics of Operations Research*.

*Myerson and Satterthwaite (1983), “Efficient Mechanisms for Bilateral Trading,” *Journal of Economic Theory*.

McAfee and McMillan (1987), “Competition for Agency Contracts,” *RAND Journal of Economics*.

Cremer and McLean (1988), “Optimal Selling Strategies under Uncertainty for a Discriminating Monopolist when Demands are Interdependent,” *Econometrica*.

Neeman (2004), “The Relevance of Private Information in Mechanism Design”, *Journal of Economic Theory*.

8. Mechanism Design: Dynamics with Commitment

Topics: changing types, entry of new agents, revenue management, consumption smoothing.

Bolton and Dewatripont, *Chapter 9*.

Laffont and Martimort, *Chapter 8*.

*Bergemann and Valimaki (2010), “The Dynamic Pivot Mechanism”, *Econometrica*.

*Stokey (1979), “Intertemporal Price Discrimination,” *Quarterly Journal of Economics*.

Baron and Besanko (1984), “Regulation and Information in a Continuing Relationship,” *Information Economics and Policy*.

*Courty and Li (2000), “Sequential Screening,” *Review of Economic Studies*.

Board (2008), “Durable-Goods Monopoly with Varying Demand,” *Review of Economic Studies*.

Pavan, Segal and Toikka (2008), “Dynamic Mechanism Design: Revenue Equivalence, Profit Maximization, and Information Disclosure”, Working Paper, Stanford University.

Thomas and Worrall (1990), “Income Fluctuation and Asymmetric Information: An Example of a Repeated Principal-Agent Problem,” *Journal of Economic Theory*.

Bolton and Scharfstein (1990) “A Theory of Predation Based on Agency Problems in Financial Contracting”, *American Economic Review*.

Board and Skrzypacz (2010), “Revenue Management with Forward Looking Buyers”, Working Paper, UCLA and Stanford.

9. Mechanism Design: Dynamics without Commitment

Topics: durable goods monopoly, behavioural pricing, renegotiation.

*Bulow (1982), “Durable-Goods Monopolists,” *Journal of Political Economy*.

Gul, Sonnenschein and Wilson (1986), “Foundations of Dynamic Monopoly and the Coase Conjecture,” *Journal of Economic Theory*.

Ausubel and Deneckere (1989), “Reputation in Bargaining and Durable Goods Monopoly,” *Econometrica*.

Fuchs and Skrzypacz (2010), “Bargaining with Arrival of New Traders or New Information,” *American Economic Review*.

Hart and Tirole (1988), “Contract Renegotiation and Coasian Dynamics,” *Review of Economic Studies*.

Laffont and Tirole (1988), “The Dynamics of Incentive Contracts,” *Econometrica*.