

UCEMA International Camp in Economics  
Topics in Contract Theory  
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This is the syllabus for a five-day course in Contract Theory.

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**Readings:** In addition to the papers listed below, there are two main recommended readings for this course:

1. Segal, I. and S. Tadelis (2005), *Lectures on Contract Theory*, Parts III-IV (referred to below as S-T)  
[http://faculty.haas.berkeley.edu/stadelis/Econ\\_206\\_notes\\_2006.pdf](http://faculty.haas.berkeley.edu/stadelis/Econ_206_notes_2006.pdf)
2. Bolton, P. and M. Dewatripont (2005), *Contract Theory*, MIT Press (referred to below as B-D)

Other good readings are: Mas-Colell, Whinston, and Green (1995), *Microeconomic Theory*; Salanie (1997), *The Economics of Contracts: A Primer*; Stole (2001), *Lectures on the Theory of Contracts and Organizations*; and Laffont and Martimont (2002), *The Theory of Incentives*.

**Schedule:** This is a tentative plan.

### 1. One-Agent Moral Hazard

\*S-T, Sections 5.1-5.5.

B-D, Section 4.

\*Grossman, S. and O. Hart (1983), "An Analysis of the Principal-Agent Problem," *Econometrica*, 51:7-45.

\*Holmström, B. (1979), "Moral Hazard and Observability," *Bell Journal of Economics*, 10:74-91.

Mirrlees, J. A. (1999), "The Theory of Moral Hazard and Unobservable Behaviour: Part I," *Review of Economic Studies*, 66:3-21.

Rogerson, W. (1985), "The First-Order Approach to Principal-Agent Problems," *Econometrica*, 53:1357-1367.

Shavell, S. (1979), "Risk Sharing and Incentives in the Principal Agent Relationship," *Bell Journal of Economics*, 10:55-73.

## **2. Variations of One-Agent Problem**

\*S-T, Section 5.9.

B-D, Sections 4.6.2, 6.2.

\*Holmström, B. and P. Milgrom (1991), "Multitask Principal-Agent Analyses: Incentive Contracts, Asset Ownership, and Job Design," *Journal of Law, Economics, and Organization*, 57:25-52.

\*Innes, R. (1990), "Limited Liability and Incentive Contracting with Ex Ante Action Choices," *Journal of Economic Theory* 52:45-67.

Prendergast, C. (2002), "The Tenuous Trade-Off Between Risk and Incentives," *Journal of Political Economy*, 110:1071-1102.

## **3. Multi-Agent Moral Hazard**

\*S-T, Section 5.6.

B-D, Section 8.

\*Holmström, B. (1982), "Moral Hazard in Teams," *Bell Journal of Economics*, 13:324-340.

Lazear, E. and S. Rosen (1981), "Rank Order Tournaments as Optimal Labor Contracts," *Journal of Political Economy*, 89:841-864.

Winter, E. (2004), "Incentives and Discrimination," *American Economics Review*, 94:764-773.

## **4. Repeated Agency and Renegotiation**

\*S-T, Section 5.7.

B-D, Sections 10.1-10.3.

\*Fudenberg, D., B. Holmström, and P. Milgrom (1990), "Short-term Contracts and Long-term Agency Relationships," *Journal of Economic Theory*, 51:1-31.

Fudenberg, D. and J. Tirole (1990), "Moral Hazard and Renegotiation in Agency Contracts," *Econometrica*, 58:1279-1320.

Hermalin, B. and M. Katz (1991), "Moral Hazard and Verifiability: The Effects of Renegotiation in Agency," *Econometrica*, 59:1735-1753.

\*Holmström, B. and P. Milgrom (1987), "Aggregation and Linearity in the Provision of Intertemporal Incentives," *Econometrica*, 55:597-619.

Radner, R. (1981), "Monitoring Cooperative Agreements in Repeated Principal Agent

Relationships,” *Econometrica*, 49:1127-1148.

\*Rogerson, W. (1985), “Repeated Moral Hazard,” *Econometrica*, 53:69-76.

Sannikov, Y. (2008), “A Continuous-Time Version of the Principal-Agent Problem,” *Review of Economic Studies*, 75:957-984.

## 5. Nonverifiable Performance

### 5.1 Relational Contracts

B-D, Section 10.4.

Bull, C. (1987), “The Existence of Self-Enforcing Implicit Contracts,” *Quarterly Journal of Economics*, 102:147-159.

Fuchs, W. (2007), “Contracting with Repeated Moral Hazard and Private Evaluations,” *American Economic Review*, 97:1432-1448.

Halac, M. (2012), “Relational Contracts and the Value of Relationships,” *American Economic Review*, 102:750-779.

\*Levin, J. (2003), “Relational Incentive Contracts,” *American Economic Review*, 93:835-857.

MacLeod, B. (2003), “Optimal Contracting with Subjective Evaluation,” *American Economic Review*, 93:216-240.

MacLeod, B. and J. Malcomson (1989), “Implicit Contracts, Incentive Compatibility, and Involuntary Unemployment,” *Econometrica*, 57: 447-480.

### 5.2 Career Concerns

B-D, Section 10.5.

Dewatripont, M., I. Jewitt, and J. Tirole (1999), “The Economics of Career Concerns, Part I: Comparing Information Structures,” *The Review of Economic Studies*, 66:183-198.

Gibbons, R. and K.-J. Murphy (1992), “Optimal Incentive Contracts in the Presence of Career Concerns: Theory and Evidence,” *Journal of Political Economy*, 100:468-505.

\*Holmström, B. (1999), “Managerial Incentive Problems: A Dynamic Perspective,” *Review of Economic Studies*, 66:169-182.