

New Economic School

Contract Theory

2nd Module, 2008-2009

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Summary

This course is designed to expose the students to the basic concepts and most important issues in the modern contract theory. Contract theory comprises a number of different approaches and topics, enough for a yearlong course, and since it is only taught for one module at NES this year, some important topics will inevitably be omitted and interested students are advised to study available literature on their own. Topics such as property rights theory, moral hazard in teams, multi-tasking, career concerns, incomplete contracts, economics of organizations and, time permitting, financial contracting, will be covered.

Prerequisites

There are no prerequisites for Contract Theory except the basic course of Microeconomic Theory. The Contract Theory course is a prerequisite for Corporate Finance courses offered in modules 3 and 4.

Grading

There will be three problem sets, each counting for 10% of the final grade and a final exam that will count for 50% of the grade. In addition, each student will be assigned a small section from Williamson's (or another informal/descriptive) book and asked to model the argument contained in it; this task will count for the rest 20% of the grade. Preliminary, a student gets a passing grade if (s)he does not fail the final exam and gets at least 50% of the total grade.

Literature

The main reference for the course is Bolton and Dewatripont. *Contract Theory*. MIT Press, 2005. The respective chapters for each topics are provided in the syllabus below.

The other textbooks that are helpful in selected topics are listed below.

- Salanie. *The Economics of Contracts: A Primer*. MIT Press 1997.
- Hart and Holmstrom. *The Theory of Contracts*. In *Advances in Economic Theory*, Fifth World Congress, ed. by Truman Bewley. Cambridge University Press, 1987.
- Mas-Colell, Whinston and Green. *The Microeconomic Theory*. Chapters 13,14.
- Hart. *Firms, Contracts and Financial Structure*. Oxford University Press, 1995.
- Williamson. *The Economics Institutions of Capitalism*. NY: Free Press, 1985.

Most of the course is also covered by the teaching materials in Russian:

- “Lecture notes on contract theory” by Bremzen and Guriev (http://www.nes.ru/~sguriev/lec_contracts.pdf),
- “Problems in contract theory” by Golovan, Guriev, and Makrushin (<http://www.nes.ru/~sguriev/PROBLEM.pdf>)
- “Problems and solutions in contract theory” by Golovan, Guriev, and Makrushin (<http://www.nes.ru/~sguriev/Contract.pdf>).

Syllabus

[The allocation of topics among lectures is preliminary and is subject to change]

Lectures 1-2. Adverse selection: screening and signaling. Moral hazard. Sufficient statistic. Insurance vs incentives. Models with liquidity constraints. Limitations of the first order approach.

Chapters 1-4.

Lecture 3. Disclosure of private certifiable information.

Chapter 5.

Lectures 4-5. Multitasking. Moral hazard in teams.

Chapter 6.2, 8.1, 8.2

B.Holmstrom and P.Milgrom (1991) Multitask principal-agent analysis: Incentive contracts, asset ownership and job design. *Journal of Law, Economics and Organization* 7: 24-51.

B.Holmstrom (1982) Moral hazard in teams. *Bell Journal of Economics*, Autumn 1982.

Lecture 6-7. Dynamics of complete contracts. Dynamic adverse selection. Repeated moral hazard. Ratchet effect. Career concerns. Commitment and renegotiation.

Chapter 9-10.

B. Holmstrom (1999) Managerial Incentive Problems: A Dynamic Perspective. *Review of Economic Studies*, 66 (1): 169-182

M.Dewatripont, I.Jewitt, J.Tirole (1999) “The Economics of Career Concerns: Part I: Comparing Information Structures” *Review of Economic Studies*, 66 (1): 183-198

Lecture 8. Relational Contracts

C. Bull, (1987). The Existence of Self-Enforcing Implicit Contracts, *Quarterly Journal of Economics* 102:147-59.

Bentley MacLeod, and James Malcomson. (1998). Motivation and Markets. *American Economic Review* 88:388-411.

George Baker, Robert Gibbons, and Kevin J. Murphy (1994). Subjective Performance Measures in Optimal Incentive Contracts. *Quarterly Journal of Economics* 109:1125-56.

Rachel Hayes, and Scott Schaefer (2000). Implicit contracts and the Explanatory Power of Top Executive Compensation for Future Performance. *RAND Journal of Economics* 31: 273-93.

Lectures 9-12. Incomplete contracts and Property Rights. Foundations of incomplete contracts. Financial contracting.

[1], Chapter 11-13.

Lectures 13-14. Economics of Organization.

Chapter 8.3-8.4.

P.Aghion and J. Tirole (1997) Formal and real authority in organizations. *Journal of Political Economy*, 105(1): 1-29.

B.Bernheim and M.Whinston (1986), Common Agency. *Econometrica*, 54(4): 923-942.

O.Hart and J.Moore (2005) On the Design of Hierarchies: Coordination Versus Specialization, *Journal of Political Economy* 113(4) (2005) 675-702.