

Econ 2060 Contract Theory, Second half

Harvard University

Syllabus update: April 15, 2022

Staff

Instructor: Prof. Bard Harstad (bardh@econ.uio.no)
Office hours: By appointment (email for time)
Teaching fellow: Ziqi Lu (ziqilu@g.harvard.edu)

Dates and locations:

1. Friday, March 25, 9-12, Robinson 222
2. Friday, April 1, 9-12, Robinson 222
3. Tuesday, April 5, 2-5pm, Littauer M42
4. Tuesday, April 19, 2-5pm, Littauer M42
5. Friday, April 22, 9-12, Robinson 222
6. Thursday, April 28, 3-6pm, Robinson 222

Description

This part of the class focuses on incomplete contracts. Incomplete contracts mean that certain things can be contracted on, while other actions cannot be contracted on. This is reasonable in many situations. The actions that cannot be contracted on will be noncooperatively chosen, but they will often depend on the contracted upon variables. The challenge, then, is to design contracts that induce the non-contractible actions to be optimal, or close to optimal. This set of problems generate predictions for institutional design, including the design of firms, organizations, political regimes, and international agreements.

Outline and Readings

BD refers to Bolton, Patrick, and Mathias Dewatripont. 2005. Contract Theory. MIT Press: Cambridge, MA.

Especially important articles are marked with *.

1. Incomplete contracts and property rights

* BD Ch. 11.1 and 11.2.

* Grossman, S. and O. Hart (1986), “[The Costs and Benefits of Ownership: A Theory of Vertical and Lateral Integration](#),” *Journal of Political Economy*

* Bolton, Patrick, and Whinston, Michael D. (1993): “[Incomplete Contracts, Vertical Integration, and Supply Assurance](#),” *The Review of Economic Studies* 60(1): 121-148.

Hart, O. and J. Moore (1990), “Property Rights and the Nature of the Firm,” *Journal of Political Economy*, 98: 1119-1158.

Hart, O. (1995), *Firms, Contracts, and Financial Structure*, Oxford University Press, Chapters 2-4.

Baker, George P., and Thomas N. Hubbard. 2003. “Make Versus Buy in Trucking: Asset Ownership, Job Design, and Information.” *American Economic Review*, 93(3): 551– 572.

Baker, George P, and Thomas N. Hubbard. 2004. “Contractibility and asset ownership: On-board computers and governance in US trucking.” *The Quarterly Journal of Economics*, 119(4): 1443– 1479.

Hortaçsu, Ali, and Chad Syverson (2007), “Cementing Relationships: Vertical Integration, Foreclosure, Productivity and Prices,” *Journal of Political Economy*, 113: 250-301.

Atalay, Enghin, Ali Hortacsu, and Chad Syverson. 2014. “Vertical integration and input flows.” *The American Economic Review*, 104(4): 1120–1148.

2. Organizations, delegation, and relational contracts

* Aghion, P., and J. Tirole (1997), “[Formal and Real Authority in Organizations](#),” *Journal of Political Economy* 105(1): 1-29. [see also Hart and Homström (2010) below]

* Baker, G., R. Gibbons, and K. Murphy (2002), "[Relational Contracts and the Theory of the Firm](#)," *Quarterly Journal of Economics*, 117(1): 39-84.

Dessein, W. (2002), "Authority and Communication in Organizations" *Review of Economic Studies*, 69: 811-838.

Newman, D, and Kirill E Novoselov. 2009. "Delegation to encourage communication of problems." *Journal of Accounting research*, 47(4): 911–942.

Levin, J. (2003), "Relational Incentive Contracts," *American Economic Review* 93(3): 835-857.

Chassang, S. (2010), "Building Routines: Learning, Cooperation and the Dynamics of Incomplete Relational Contracts," *American Economic Review*, 100(1): 448-465.

Baker, G. R. Gibbons and K. Murphy (1999). "Informal Authority in Organizations," *Journal of Law, Economics, and Organization* 15, 56-73.

3. Applications to public vs. private provision, politics, and political economics

* Hart, O., A Shleifer, and R. Vishny (1997), "[The Proper Scope of Government: Theory and an Application to Prisons](#)," *Quarterly Journal of Economics* 112: 1127–1161.

* Aghion, Philippe, and Bolton, Patrick (2003): "[Incomplete Social Contracts](#)," *Journal of the European Economic Association* 1(1): 38-69.

* Harstad, Bård: "[Majority Rules and Incentives](#)," *Quarterly Journal of Economics* 120(4), 2005: 535-68.

McLaren, John, "[Size, Sunk Costs, and Judge Bowker's Objection to Free Trade](#)," *American Economic Review*, LXXXVII (1997), 400–420.

Grossman, Gene M. and Helpman, Elhanan. (1994): "[Protection for Sale](#)," *The American Economic Review* 84 (4): 833-50.

Bernheim, Douglas and Whinston, Michael D. (1986): "Menu Auctions, Resource Allocation, and Economic Influence," *Quarterly Journal of Economics* 101 (1): 1-31.

Bernheim, Douglas and Whinston, Michael D. (1986): "Common Agency," *Econometrica* 54 (4): 923-42.

4. Applications to Finance and renegotiation design

Finance:

* BD Ch. 11.3.

* Aghion, P. and P. Bolton (1992), “[An ‘Incomplete Contracts’ Approach to Financial Contracting](#),” *Review of Economic Studies* 59:473-494.

* Dewatripont, M. and J. Tirole (1994), “[A Theory of Debt and Equity: Diversity of Securities and Manager-Shareholder Congruence](#),” *Quarterly Journal of Economics* 109(4): 1027-1054.

Kaplan, Steven N, and Per Stromberg. 2003. “Financial contracting theory meets the real world: An empirical analysis of venture capital contracts.” *The Review of Economic Studies*, 70(2): 281–315.

Renegotiation design (if time):

* AGHION, P., DEWATRIPONT, M. and REY, P. (1994), “[Renegotiation Design with Unverifiable Information](#)”, *Econometrica*, 62, 257–282

* CHUNG, T.-Y. (1991), “[Incomplete Contracts, Specific Investment, and Risk Sharing](#)”, *Review of Economic Studies*, 58, 1031–1042

* EDLIN, A. S. and REICHELSTEIN, S. (1996), “[Hold-ups, Standard Breach Remedies, and Optimal Investment](#)”, *American Economic Review*, 86(3), 478–501.

GURIEV, S. and KVASOV, D. (2005), “Contracting on Time”, *American Economic Review*, 95, 1269–1385

SEGAL, I. and WHINSTON, M. D. (2002), “The Mirrless Approach to Mechanism Design with Renegotiation”, *Econometrica*, 70, 1–45.

Segal, I., and M. Whinston: “Property Rights,” Chapter 3 in R. Gibbons and J. Roberts, eds., *Handbook of Organizational Economics*, Princeton University Press, 2013.

Segal, I., and M. Whinston: “Robust Predictions for Bilateral Contracting with Externalities,” *Econometrica* (71), May 2003, 757-91.

Segal, I., and M. Whinston: “Property Rights and the Efficiency of Bargaining,” *Journal of the European Economic Association*, December 2016, 1287-1328.

5. Applications to environmental economics

* [Lecture notes posted HERE](#).

6. Foundations

* BD Ch 12.

* Hart, Oliver, and John Moore. 1988. "[Incomplete contracts and Renegotiation](#)." *Econometrica*, 755–785.

* Segal, Ilya (1999): "[Complexity and Renegotiation: A Foundation for Incomplete Contracts](#)," *The Review of Economic Studies*, Volume 66, Issue 1, January 1999, Pages 57–82.

* Tirole, Jean (1999): "[Incomplete Contracts: Where Do We Stand?](#)" *Econometrica* 67(4): 741–81.

Nöldeke, G. and K. Schmidt (1995), "Option Contracts and Renegotiation: A Solution to the Hold-Up Problem." *Rand Journal of Economics* 26(2): 163-79.

Che, Y.-K. and D.B. Hausch (1999), "Cooperative Investments and the Value of Contracting," *American Economic Review*, 89(1): 125-147.

Maskin, E., and J. Tirole (1999), "Unforeseen Contingencies and Incomplete Contracts," *Review of Economic Studies* , 66: 83-114.

_____ (1999), "Two Remarks on the Property Rights Literature," *Review of Economic Studies* , 66: 139-149

Aghion, P. D. Fudenberg, R. Holden, T. Kunitomo, and O. Tercieux (2012), "Subgame Perfect Implementation under Information Perturbations," *Quarterly Journal of Economics*, 127(4): 1843-1881.