Microeconomic Theory III

The central topic of this course is the theory of general equilibrium and its applications and extensions. We will start with the basic theory including existence and optimality of equilibrium. We will then discuss the core; Arrow's impossibility theorem; externalities and public goods; intertemporal competitive equilibrium and insurance; and incomplete markets. We will consider some second-best issues.

Readings marked * are highly recommended and cover core topics that will be examined. Other readings are supplementary, but you should look at least some of them. When more than one of them is available, the Kreps, Mas-Colell/Whinston/Green and Varian readings are substitutes, depending on the style you prefer. Readings from these three books are <u>not</u> in the Graphic Arts package.

1. Existence and Optimality of General Equilibrium

- * D. Kreps, A Course in Microeconomic Theory, Chapters 6 and 8.
- * H. Varian, Microeconomic Analysis, 3rd Edition, Chapters 17, 18, 21.2 and 21.3.
- * A. Mas-Colell, M. Whinston, and J. Green, Microeconomic Theory, Chapters 10, 15, 16, 17.
- G. Debreu, Theory of Value.
- K. Arrow and F. Hahn, General Competitive Analysis.
- A. Mas-Colell, The Theory of General Economic Equilibrium: A Differentiable Approach.
- * P. Diamond and D. McFadden, "Some Uses of the Expenditure Function in Public Finance", <u>Journal of Public Economics</u> 3, February 1974, 3-21.
- * W. Moss, "Some Uses of the Expenditure Function in Public Finance: A Comment", <u>Journal of Public Economics</u> 5, 1976: 373-379.
- C. Blackorby, "Economic policy in a second-best environment," <u>Canadian Journal of Economics</u> 23, 1990, 748-771.
 - F. Gul and E. Stacchetti, Walrasian Equilibrium with Gross Substitutes, unpublished, 1999.

2. The Core and Convergence Theorem

- * Mas-Colell, Whinston, and Green, Chapter 18B.
- W. Hildenbrand and A. Kirman, Equilibrium Analysis, Chapter 1.
- G. Debreu and H. Scarf, "A Limit Theorem on the Core of an Economy," <u>International Economic Review</u>, 4, 1963.

3. Arrow's Impossibility Theorem

- * Kreps, Chapter 5.
- * Mas-Colell, Whinston, and Green, Chapter 21A-C.
- K. Arrow, Social Choice and Individual Values, 2nd edition.
- A. Sen, "Social Choice", in The New Palgrave, Vol 4, 1988.
- J. Geanakoplos, Three Brief Proofs of Arrow's Impossibility Theorem, unpublished.
- L. Ubeda, "Condorcet Paradox and Arrow's Impossibility Theorem," unpublished.

4. Externalities and Public Goods

- * Kreps, Chapters 6 and 8.
- * Varian, Chapters 23 and 24.
- * Mas-Colell, Whinston, and Green, Chapter 11.
- * P. Dasgupta and G. Heal, <u>Economic Theory and Exhaustible Resources</u>, Chapter 3.
- * J. Farrell, "Information and the Coase Theorem," Journal of Economic Perspectives, 1 (Fall 1987), 113-129.
- * A. Dixit and M. Olson, "Does Voluntary Participation Undermine the Coase Theorem?," <u>Journal of Public Economics</u>, 76(3), June 2000, 309-335.
- R. Coase, "The Problem of Social Cost," <u>Review of Economic</u> Studies, October 1974, 477-776.
- * P. Diamond, "Consumption Externalities and Imperfect Corrective Pricing," <u>Bell Journal of Economics and Management Science</u> 4(2), Autumn 1973, 526-538.
- J. Green and E. Sheshinski, "Direct vs. Indirect Remedies for Externalities," <u>Journal of Political Economy</u> 84, 1976, 797-808.
- E. Sheshinski, "Note on Atmosphere Externality and Corrective Taxes," Discussion Paper 84, Center for Rationality and Interactive Decision Theory, Hebrew University, Jerusalem.
 - * L. Kaplow and S. Shavell, "On the Superiority of Corrective Taxes to Quantity Regulation," <u>American Law and Economics Review</u>, 4 (1), 1-17.
 - M. Weitzman, "Prices vs. Quantities," Review of Economic Studies, October 1974, 477-492.
 - E. L. Glaeser and A. Shleifer, A case for quantity regulation, NBER WP 8184, March 2001.
 - R. Williams, "Prices vs. Quantities vs. Tradable Quantities, NBER WP 9283, October 2002.
- R. G. Lipsey and K. Lancaster, "The general theory of the second-best," <u>Review of Economic Studies</u> 24, 1956, 11-32.
- M. Weitzman, "Free Access vs. Private Ownership as Alternative Systems for Managing Common Property", Journal of Economic Theory, pp.225-234, 1974.
 - J.-J. Laffont, Fundamentals of Public Economics, Chapter 1.

5. <u>Intertemporal Competitive Equilibrium</u>

- * Kreps, Chapter 6, Section 5.
- * Varian, Chapter 19.
- * Mas-Colell, Whinston, and Green, Chapter 20.

6. <u>Uncertainty with Complete Markets</u>

- * Kreps, Chapter 6, Section 5.
- * Varian, Chapter 20.
- * Mas-Colell, Whinston, and Green, Chapter 19, Parts A-E.
- K. Arrow, "The Role of Securities in the Optimal Allocation of Risk-Bearing," <u>Review of Economic Studies</u> 31 (1963-1964), 91-96.
- G. Debreu, Chapter 7. Reprinted in Diamond and Rothschild, <u>Uncertainty in Economics: Readings and Exercises</u>.
 - P. Dasgupta and G. Heal, Chapters 4 and 6.
 - J. Hirshleifer and J.G. Riley, The Analytics of Uncertainty and Information.
- E. Malinvaud, "The Allocation of Small Risks in Large Markets," <u>Journal of Economic Theory</u> 4 (1972), 312-328.
 - J.J. Laffont, The Economics of Uncertainty and Information, MIT Press, Fourth Edition, 1993.
- L. H. R. Alvarez and E. Koskela, "On the Tree-Cutting Problem under Interest Rate and Forest Value Uncertainty, CESifo WP 870, 2003.

7. <u>Incomplete Markets</u>

- * P. Diamond, "The Role of a Stock Market in a General Equilibrium Model with Technological Uncertainty," <u>American Economic Review</u> 57 (1967), 759-776. Reprinted in Diamond and Rothschild.
 - * Mas-Colell, Whinston, and Green, Chapter 19, Parts F and G.
- * P. Diamond, "Efficiency with Uncertain Supply," <u>Review of Economic Studies</u>, XLVII, July 1980, 645-651.
 - * J. Hirshleifer, "The Private and Social Value of Information and the Reward to Inventive Activity",

American Economic Review, LXI, No.4, 1971. Reprinted in Diamond and Rothschild.

Michael Magill and Martine Quinzii, Theory of Incomplete Markets, MIT Press, 1996.

O. Hart, "On the Optimality of Equilibrium When the Market Structure Is Incomplete," <u>Journal of Economic Theory</u>, December 1975, 418-443.

- L. H. Loong and R. Zeckhauser, "Pecuniary Externalities do Matter When Contingent Claims Markets are Incomplete, Quarterly Journal of Economics 47, 1982, pp.171-186.
- J. Stiglitz, "The Inefficiency of Stock Market Equilibrium, Review of Economic Studies 49, 1982, pp.241-261.
- J. Geanakoplos, "An Introduction to General Equilibrium with Incomplete Asset Markets," <u>Journal of Mathematical Economics</u>, 19 (1990), 1-38.
- L. Makowski, "Perfect Competition, The Profit Criterion, and the Organization of Economic Activity," Journal of Economic Theory, 22, 1980, pp. 222-242.
- D. Acemoglu and F. Zilibotti, "Was Prometheus Unbound by Chance? Risk, Diversification and Growth," Journal of Political Economy, 105(4), 1997, pp. 709-751.
- A. Bisin, "General Equilibrium and Endogenously Incomplete Financial Markets," MIT Working Paper, October 1994.
- G-M Angeletos and L. E. Calvet, Idiosyncratic Production Risk, Growth and the Business Cycle, unpublished, March 2002.
 - E. Sheshinski, Optimum and Risk-Class Pricing of Annuities, CESifo WP 873, 2003.