

Economics 750A

Public Economics

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Fall, 2019

This is a graduate course in public economics. Economics 701 and 703 are prerequisites; you cannot take the course for credit if you have not taken these courses. The class will meet Tuesday and Thursday 1:30 - 3:00 in PCPSE 101.

Econ 750A begins where the welfare theorems from Econ 701 end. Those theorems provided sufficient conditions under which markets might be expected to generate efficient outcomes. This course deals with important economic problems in which those theorems don't apply. The topics we cover and the main papers on those topics are listed below. Several more recent papers will likely be discussed; information on them will be provided later.

Course requirements include presentations of papers and a short paper at the end of the course.

- My office: Room 515 PCPSE, phone: 898-7350, office hours: Friday 1:30-2:30 or by appointment.
- There will be several problem sets for 750A.
- The topics we will cover are listed below in more or less the order in which we will cover them.
- Much of the lectures are from journal articles. There are notes on Canvas that are edited from notes taken some time ago by Hanming Fang and others. These notes have been edited and expanded substantially and the responsibility for anything in the notes is mine.

- The following books contain material that is occasionally useful background for some topics.

Salanie, B., *Microeconomics of Market Failures*, Cambridge MA: MIT Press, 2000.
(MWG) Mas-Colell A., M. D. Whinston, and J. R. Green, *Microeconomic Theory*, New York & Oxford, Oxford University Press, 1995.

- The list of papers for presentation is at the end of this syllabus. Most papers can be found on Canvas.

It is intended that material marked * will be discussed in the lectures.

Most papers on this syllabus can be downloaded from the Canvas site for this course.

1. Public Goods

Reading:

Public Economics Notes, Sections 1.1–1.6. The overlaps substantially with the sections on public goods in the notes from 701.

(MWG) Chapter 11.C and example 16.G.3

2. Implementation and Mechanism Design

In our first look at public goods, we discussed the problems with relying entirely on markets for decisions within society. In this section we develop tools that are useful in analyzing how well societies can determine public decisions according to fixed criteria.

2.1. Implementation with Complete Information

Reading:

* Jackson, M. “A Crash Course in Implementation”, *Journal of Social Choice and Welfare*, 2001; Section 1-3.

Moore, J., “Implementation, contracts, and renegotiation in environments with complete information,” in *Advances in Economic Theory*, ed, J-J Laffont, Cambridge, 1992, pp. 182-282.

Hurwicz, L., E. Maskin and A. Postlewaite, "Feasible Implementation of Social Choice Correspondences by Nash Equilibria," in *Essays in Honor of Stanley Reiter*, Kluwer Academic Publishers, 1995; pp 367-433. This paper deals primarily with questions of feasibility when the set of alternatives is not presumed to be known at the time the mechanism is chosen.

2.2. Implementation with Incomplete Information

Reading:

* MWG, Chapter 23.

* Jackson, M. "Mechanism Theory".

Palfrey, T. (1990), "Implementation in Bayesian Equilibrium," in *Advances in Economic Theory: Sixth World Congress*, vol. I, edited by J.-J. Laffont. Cambridge, U.K.: Cambridge University Press.

McLean, R. and A. Postlewaite, "Informational Size and Efficient Auctions," *Review of Economic Studies* 71, 2004: 809-827.

Moulin, Herve, "Serial Cost-Sharing of Excludable Public Goods," *Review of Economic Studies*, 61(2), April 1994, pages 305-325.

Cremer, Jacques and Richard P. McLean, "Optimal Selling Strategies under Uncertainty for a Discriminating Monopolist When Demands Are Interdependent", *Econometrica*; 53(2), March 1985, pages 345-61.

Cremer, Jacques and Richard P. McLean, "Full Extraction of the Surplus in Bayesian and Dominant Strategy Auctions", *Econometrica*; 56(6), November 1988, pages 1247-57.

Olszewski, Wojciech, "Serial Mechanisms for Provision of Excludable Public Goods", mimeo, Princeton University, December 1999.

Gul, F. and A. Postlewaite, "Asymptotic Efficiency in Large Exchange Economies with Asymmetric Information," *Econometrica*, 1992, Vol. 60, pp. 1273-1292.

McLean, R. and A. Postlewaite, "Informational Size and Incentive Compatibility," *Econometrica* 70, 2002, 2421-2454.

Postlewaite, A. and D. Schmeidler, "Implementation in Differential Information Economies," *Journal of Economic Theory*, June 1986, Vol. 39, No. 1, pp. 14-33.

3. Positive Models of Public Good Provision

3.1. Positive Models of Private Provision of Public Goods

3.1.1. Static Models of Private Provision

Public Goods Notes, Section 4.1

* Bergstrom, T., L. Blume and H. Varian (1986), "On the Private Provision of Public Goods," *Journal of Public Economics*, 29, 25-49. (I will discuss this only briefly; the notes cover the material in detail but this is of limited interest to us.)

* Morgan, J. (2000), "Financing Public Goods by Means of Lotteries," *Review of Economic Studies* 67:761-784.

Bernheim, D. (1986), "On the Voluntary and Involuntary Provision of Public Goods," *American Economic Review*, 76, pp.789-793. This is a short critique of the basic model of voluntary provision.

Bramouille, Y. and R. Kranton (2007), "Public Goods in Networks," *JET* 478-494. This paper analyzes public good provision when agents are on a network and care about the contributions of those players with whom they are linked.

Bramouille, Y., R. Kranton and M. D'Amours (2014), "Strategic Interaction and Networks," *AER* 898-930. This paper is an extension and generalization of the previous paper.

3.1.2. Dynamic Models of Voluntary Provision

* Admati, A. and M. Perry (1991), "Joint Projects without Commitment," *Review of Economic Studies* 58, pp. 259-276.

* Marx, L. and S. Matthews, "Dynamic Voluntary Contributions to a Public Project," *Review of Economic Studies*, v 62(2), 2000, 327-58.

These two are the classic papers on the subject. Two recent papers on the topic are:

Cvitanic, Jaksic and G. Georgiadis (2016), "Achieving Efficiency in Dynamic Contribution Games," forthcoming, *AEJ Micro*. This paper takes a mechanism design approach to eliminating the free rider effect.

Battaglini, M., S. Nunnari and T. Palfrey, "Dynamic Free Riding with Irreversible Investments," *AER* 2014, 2858-2871. This paper discusses the issue of reversibility (that is, the possibility of decreasing the accumulated contributions) and irreversibility.

3.2. Provision of Public Goods with Private Information

Public Goods Notes Section 5

* Mailath, G. and A. Postlewaite, "Asymmetric Information Bargaining Problems with Many Agents," *Review of Economic Studies*, 1990. (I list this as required but the notes cover nearly all the relevant material.)

3.3. Voting

MWG, Chapter 21D. This section deals with the median voter model and its limitations.

* Jackson, M. "Mechanism Theory" Sections 1,2 and 3.4.

4. Social Arrangements

* Postlewaite, A., "Social Norms and Preferences," in *Handbook for Social Economics, Vol. 1A*, ed J. Benhabib, A. Bisin and M. Jackson, The Netherlands: North-Holland, 2011, pp 31-67.

* Postlewaite, A., "Social Norms and Social Assets," *Annual Reviews*, (2011) pp 239-259.

* Postlewaite, A., "The Social Basis of Interdependent Preferences," *European Economic Review*, 1998, v42; easy reading.

* Mailath and Postlewaite, 2002 "The Social Context of Economic Decisions," *Journal of the European Economic Association* (April-May 2003), 354-362.

* Postlewaite, A., "Social Arrangements and Economic Behavior," *Annales d'Économie et de Statistique*, 63-64, 2001, pp. 67-87; easy reading.

* Cole, Mailath and Postlewaite "Social Norms, Savings Behavior and Growth," *Journal of Political Economy*, 1992, Vol. 100, pp. 1092-1126. First real paper.

* Mailath and Postlewaite "Social Assets," *International Economic Review*, 47 (November 2006), 1057-1091.

Bhaskar, V. "Sex Selection and Gender Balance" *AEJ Micro*, 2011.

Charles, Kerwin, Erik Hurst and Nick Roussanov (2007), "Conspicuous Consumption and Race," *QJE* 2009.

Cole, Mailath and Postlewaite "Class Systems and the Enforcement of Social Norms," *Journal of Public Economics*.70, 1998, pp. 5-35.

Corneo, G. and Olivier Jeanne "Social Organization in an Endogenous Growth Model," *International Economic Review* 40 (3), 711–726. This paper incorporates

relative wealth concerns in a more manageable model than that in Cole et al. (1992).

Corneo, G. and Olivier Jeanne "Conspicuous consumption, snobbism and conformism," *Journal of Public Economics* Volume 66, Issue 1, October 1997, Pages 55-71. This paper presents a model generating conspicuous consumption similar to the model in Cole et al. in the *Quarterly Review* listed above.

Corneo, G. and Olivier Jeanne "Status, the Distribution of Wealth, and Growth," *Scand. J. of Economics* 103(2), 283-293, 2001. This paper takes a fairly standard endogenous growth model and incorporates relative wealth concerns.

Corneo, G. and Hans Gruner, "Social Limits to Redistribution," *American Economic Review*, Vol. 90, No. 5. (Dec., 2000), pp. 1491-1507. This is a nice application of a model in which a concern for relative ranking is taken to data.

DellaVigna, Stefano, "Psychology and Economics: Evidence from the Field," *Journal of Economic Literature* 47:2, 315-372, 2009. This is a nice survey of behavioral economics that discusses deviations from standard models in the preferences, beliefs and decision making process employed by individuals.

Du, Q. and S. Wei (2010) "A sexually unbalanced model of current account imbalances" NBER WP 16000.

Dufwenberg, M., P. Heidhues, G. Kirchsteiger, F. Riedel and J. Sobel, "Other-Regarding Preferences in General Equilibrium," *Review of Economic Studies* 2011. This is a recent paper that incorporates preferences that take into account other people's welfare (other-regarding preferences) and addresses the question of when one can identify other-regarding preferences from market behavior, and when the conclusion of the First Welfare Theorem continues to be true.

Heller, D. "Insuring Against Risk through Social Assets", mimeo, undated. A variant of the Social Asset paper we discussed in class.

Hopkins, E. and Tatiana Kornienko, "Running to Keep in the Same Place: Consumer Choice as a Game of Status", *American Economic Review*, September, 2004, 94(4), 1085-1107.

Hopkins, E. and Tatiana Kornienko, "Inequality and Growth in the Presence of Competition for Status," *Economics Letters* 93 (2006) 291-296. This is a short note that integrates a concern for relative position into a simple endogenous growth model. The authors show that redistribution to reduce inequality may increase inefficient conspicuous consumption.

* Persico, Postlewaite and Silverman, "The Effect of Adolescent Experience on Labor Market Outcomes: The Case of Height", 112, 2004: 1019-1053.

Postlewaite and Silverman, "Noncognitive Skills, Social Success, and Labor

Market Outcomes," mimeo, 2006.

Neumark and Postlewaite, "Relative Income Concerns and the Rise in Married Women's Employment," *Journal of Public Economics* 70, 1998, pp. 157-183. This paper is an empirical exercise that argues that sisters compete on family income: If the sister of one woman earns more than she does, she is more likely to be in the workforce.

Okuno-Fujiwara, M. and A. Postlewaite, "Social Norms in Matching Games," *Games and Economic Behavior*, 1995, Vol. 9, pp79-109. This paper examines the role of status in supporting cooperation in a repeated game with random matching.

Sobel, J. "Interdependent Preferences and Reciprocity," *JEL* 93, 2005, pp 392-436. This is a very nice survey of work that aims at understanding the limits of the joint assumptions of rationality and individual greed in economics models.

Wei, Q. and X. Zhang (2009) "The competitive saving motive: Evidence from rising sex ratios in China" *JPE* 2011

4.1. Applications

4.1.1. Labor Supply

* Cole, Mailath and Postlewaite "Incorporating Status Concerns in Economic Models," *Quarterly Review of the Minneapolis Federal Reserve Bank*, Fall, 1995.

4.1.2. Investment

* Cole, Mailath and Postlewaite, "Investment and Concern for Relative Position," *Review of Economic Design* 6, 2001, pp. 241-261.

DeMarzo, P., R. Kraniel and I. Kremer (2004), "Diversification as a Public Good: Community Effects in Portfolio Choice," *Journal of Finance* 54, pp 1677 - 1713.

DeMarzo, P., R. Kraniel and I. Kremer (2007), "Relative Wealth Concerns and Financial Bubbles," *Review of Financial Studies* 21:19-50.

Roussanov, N., "Diversification and its Discontents: Idiosyncratic and Entrepreneurial Risk in the Quest for Social Status," *Journal of Finance*, 2010. This paper builds on the idea in Cole Mailath and Postlewaite "Investment and Concern for Relative Position" that investors may prefer idiosyncratic risk to systematic risk when there is a concern about relative position.

5. Public Choice

5.1. Models of Political Competition

Reading:

* MWG Chapter 21

* Notes, Part III Public Choice

Downs, A., (1957) *An Economic Theory of Democracy*, New York, Harper and Row, 1957.

Black (1948)

* Besley, T. and S. Coate (1997), "An Economic Model of Representative Democracy," *QJE* pp 85-114.

Osborne, M and A. Slivinski (1996) "A Model of Political Competition with Citizen-Candidates," *QJE* pp 65-96.

Börgers, T. (2004): "Costly Voting," *American Economic Review*, 94, 57–66.

Krishna, V. and J. Morgan (2011): "Overcoming Ideological Bias in Elections," *Journal of Political Economy*, 119, No. 2, 183–221.

Krishna, V. and J. Morgan (2012): "Voluntary Voting: Costs and Benefits," *Journal of Economic Theory*, 147, No. 2, 2083-2123.

* Lizzeri, Alessandro and Nicola Persico (2001), "The Provision of Public Goods under Alternative Electoral Incentives," *American Economic Review*, XC (2001), 225-239.

Diermeier, D., H. Eraslan and A. Merlo (2003), "A Structural Model of Government Formation," *Econometrica* 71, pp 27-70.

Aragones, E. and A. Postlewaite, "Ambiguity in Election Games," *Review of Economic Design* 7(3), 2002: 233-255.

* Aragones, E., T. Palfrey and A. Postlewaite, "Reputation and Rhetoric in Elections," *Journal of the European Economic Association*, 5: 846-884.

Casella, Alessandra, Aniol Llorente-Saguer and Thomas R. Palfrey, "Competitive Equilibrium in Markets for Votes", *JPE*, 2012.

Abstract: We develop a competitive equilibrium theory of a market for votes. Before voting on a binary issue, individuals may buy and sell their votes with each other. We define the concept of ex ante vote-trading equilibrium and show by construction that an equilibrium exists. The equilibrium we characterize always results in dictatorship if there is any trade, and the market for votes generates welfare losses, relative to simple majority voting, if the committee is large enough or the distribution of values is not very skewed. We test the theoretical implications in the laboratory using a continuous open-book multiunit double auction.

6. Discrimination

* Phelps, E. (1972). "The Statistical Theory of Racism and Sexism," *American Economic Review*, Vol. 62, 659–661.

* Arrow, Kenneth J., "The Theory of Discrimination," in Orley Ashenfelter and Albert Rees, eds., *Discrimination in Labor Markets*, Princeton, NJ: Princeton University Press, 1973, pp. 3-33.

Chan, J. and E. Eyster (2003), "Does Banning Affirmative Action Lower College Student Quality?" *American Economic Review*, Vol. 93, No. 3, 858-872.

* Coate, S. and Glenn Loury (1993). "Will Affirmative Action Eliminate Negative Stereotypes?" *American Economic Review*, Vol. 83, No. 5, 1220-40.

* Fang, H. (2001), "Social Culture and Economic Performance", *American Economic Review*, Vol. 91, No. 4, 924-937.

Fang, H. and P. Norman (2006), "Government-mandated discriminatory policies", *International Economic Review*, Vol. 47, No. 2, 361-189.

* Fang, H. and Andrea Moro (2011), "Theories of Statistical Discrimination and Affirmative Action: A Survey." Chapter 5 in *Handbook of Social Economics*, Vol IA, edited by Jess Benhabib, Alberto Bisin, and Matthew Jackson, North-Holland, 2010, pp. 133-200.

Mailath, G., L. Samuelson and A. Shaked (2000), "Endogenous Inequality in Integrated Labor Markets with Two-Sided Search." *American Economic Review*, Vol. 90, No. 1, 46-72.

* Moro, A. and P. Norman (2004), "A General Equilibrium Model of Statistical Discrimination." *Journal of Economic Theory*, 114 (1), 1-30.

Roland G. Fryer, Jr. "Racial Inequality in the 21st Century: The Declining Significance of Discrimination", mimeo Harvard University June 18, 2011.

7. Papers for presentation

Basu "Discrimination as a Coordinating Device," mimeo, 2015.

* Bhaskar Hopkins "Marriage as a Rat Race," *JPE* 2016.

* Bhaskar "Parental Choice," *AEJ Micro* 2011.

* Booth and Coles Education, Matching and Allocative Value," *Journal of the European Economic Association* 2010.

Bramouille and Kranton "Public Goods in Networks," *JET*, 2007.

- * Demarzo Kaniel Kremer "Community Effects in Portfolio Choice," *J of Fin.* 2004.
- Feltovich et al "Too Cool for School," *RAND* 2002.
- * Hopkins "Job market signaling, *Journal of the European Economic Association*, 2012.
- * Kets Sandroni "Challenging Conformity," mimeo 2016.
- * Levy and Szentes "An Alternative to Signaling" *AEJ Micro* 2016 .
- Moro_Norman_ *JET* 2014.
- * Peski Szentes "Spontaneous Discrimination," *AER* 2013.
- Ray "Public Goods," *JPE* 2001
- * Ray and Robson "Status Intertemporal Choice and Risk Taking," *Econometrica* 2012.