Nicolas Werquin [NW], Olivier De Groote [ODG], Augustin Tapsoba [AT] Fall 2019

TSE, DEEQA (equivalent to 2nd year PhD)

# Public Policy and Applied Economics I

## Presentation

This is a 45-hour course that spans the first semester (10 weeks). The course is intended to provide students with tools for analyzing the effects of public policies by combining economic theory with data. The course consists of three parts. The first part is joint with the Macro sequence and is taught by Nicolas Werquin. It focuses on the sufficient statistics approach for welfare and policy analysis, both from a theoretical and an empirical points of view. It will cover several topics: optimal income taxation, optimal social (in particular, unemployment) insurance, the effects of fiscal policy on economic growth and on the business cycle. A second part is taught by Olivier De Groote and covers the estimation of structural models, in particular static and dynamic discrete choice models, and how to use them for (ex ante) policy evaluation. The methods are illustrated by discussing recent papers that look at education policies, labor market policies and environmental policies. The final part is taught by Augustin Tapsoba and covers, on the one hand, models of human capital accumulation early in life (both cognitive and non-cognitive skills) with a focus on the evaluation of early childhood interventions, child care and parental leave policies. On the other hand, this part also covers standard models in political economy that are used to analyze policies such as political reservations for under-represented groups, term limits and audits.

# Course Requirements

Students will be evaluated on the basis of their contribution to classes, a written paper and assignments during the year. The paper should motivate a research proposal related to the contents of the course. It should include a critical assessment of the relevant literature, the proposal of a model to be used and, depending on its feasibility, either a first analysis of the

model and/or data, or a clear plan of action to proceed with this research. The aim is that students apply their economic knowledge and analysis to a question of their interest. Students should see this piece of work as an opportunity to advance in their dissertation work, by developing a starting point/complementary/follow up analysis of one of their thesis papers.

## Outline

- 1. Income taxation: theory [NW, 3 hrs]
  - Saez, E., 2001. Using elasticities to derive optimal income tax rates. The review of economic studies, 68(1), pp.205-229.
  - Saez, E., 2002. Optimal income transfer programs: intensive versus extensive labor supply responses. The Quarterly Journal of Economics, 117(3), pp.1039-1073.
  - Golosov, M., Tsyvinski, A. and Werquin, N., 2019. A variational approach to the analysis of tax systems. Working Paper.
- 2. Income taxation: empirics [NW, 1.5 hrs]
  - Gruber, J. and Saez, E., 2002. The elasticity of taxable income: evidence and implications. Journal of public Economics, 84(1), pp.1-32.
  - Chetty, R., 2012. Bounds on elasticities with optimization frictions: A synthesis of micro and macro evidence on labor supply. Econometrica, 80(3), pp.969-1018.
- 3. Social insurance [NW, 3 hrs]
  - Chetty, R., 2008. Moral hazard versus liquidity and optimal unemployment insurance. Journal of political Economy, 116(2), pp.173-234.
  - Einav, L., Finkelstein, A. and Cullen, M.R., 2010. Estimating welfare in insurance markets using variation in prices. The quarterly journal of economics, 125(3), pp.877-921.
  - Kolsrud, J., Landais, C., Nilsson, P. and Spinnewijn, J., 2018. The optimal timing of unemployment benefits: Theory and evidence from sweden. American Economic Review, 108(4-5), pp.985-1033.

- 4. Benevolent planner and political economy [NW, 1.5 hrs]
  - Meltzer, A.H. and Richard, S.F., 1981. A rational theory of the size of government. Journal of political Economy, 89(5), pp.914-927.
  - Lockwood, B.B. and Weinzierl, M., 2016. Positive and normative judgments implicit in US tax policy, and the costs of unequal growth and recessions. Journal of Monetary Economics, 77, pp.30-47.
- 5. Public vs. private provision of insurance [NW, 1.5 hrs]
  - Thomas, J. and Worrall, T., 1988. Self-enforcing wage contracts. The Review of Economic Studies, 55(4), pp.541-554.
  - Guiso, L., Pistaferri, L. and Schivardi, F., 2005. Insurance within the firm. Journal of Political Economy, 113(5), pp.1054-1087.
  - Krueger, D. and Perri, F., 2011. Public versus private risk sharing. Journal of Economic Theory, 146(3), pp.920-956.
- 6. Trickle-up and down, technology and growth [NW, 1.5 hrs]
  - Scheuer, F. and Werning, I., 2017. The taxation of superstars. The Quarterly Journal of Economics, 132(1), pp.211-270.
  - Jones, C.I., 2019. Taxing Top Incomes in a World of Ideas (No. w25725). National Bureau of Economic Research.
  - Sachs, D., Tsyvinski, A. and Werquin, N., 2019. Nonlinear tax incidence and optimal taxation in general equilibrium. Working Paper.
- 7. Fiscal policy and the business cycle [NW, 3 hrs]
  - Elmendorf, D.W. and Mankiw, N.G., 1999. Government debt. Handbook of macroeconomics, 1, pp.1615-1669.
  - Romer, C.D. and Romer, D.H., 2010. The macroeconomic effects of tax changes: estimates based on a new measure of fiscal shocks. American Economic Review, 100(3), pp.763-801.
  - Farhi, E. and Werning, I., 2016. Fiscal multipliers: Liquidity traps and currency unions. In Handbook of Macroeconomics (Vol. 2, pp. 2417-2492). Elsevier.

- Blanchard, O., 2019. Public Debt and Low Interest Rates. American Economic Review, 109(4), pp.1197-1229.
- 8. Structural Models and Policy Evaluation [ODG, 1.5 hrs]
  - Keane, Michael P. 2010. "Structural vs. Atheoretic Approaches to Econometrics". Journal of Econometrics 156 (1): 3-20.
  - Low, Hamish, and Costas Meghir. 2017. "The Use of Structural Models in Econometrics". *Journal of Economic Perspectives 31* (2): 33-58.
  - Todd Petra E. and Kenneth I. Wolpin (2006). "Assessing the Impact of a School Subsidy Program in Mexico: Using a Social Experiment to Validate a Dynamic Behavioral Model of Child Schooling and Fertility," American Economic Review, vol. 96(5), pages 1384-1417, December.
- 9. Static discrete choice models [ODG, 3hrs]

#### Individual data

- Train, K., 2009. Discrete Choice Methods with Simulation. Cambridge University Press.
- Abdulkadiroğlu, A., Agarwal, N., Pathak, P., 2017. The Welfare Effects of Coordinated Assignment: Evidence from the New York City High School Match. *American Economic Review* 107 (12): 3635-3689.

## Aggregate data

- Berry, S., 1994. Estimating Discrete-Choice Models of Product Differentiation. *The RAND Journal of Economics 25 (2):* 242.
- Grigolon, L., Reynaerts, M., Verboven, F., 2018. Consumer valuation of fuel costs and tax policy: Evidence from the European car market. American Economic Journal: Economic Policy. 10 (3): 193-225.
- 10. Dynamic discrete choice models [ODG, 10.5hrs]

#### Full solution methods

Rust J., 1987. Optimal Replacement of GMC Bus Engines: An Empirical Model of Harold Zurcher. *Econometrica*, 55 (5): 999-1033.

- Keane, M.P., Wolpin, K.I., 1997. The Career Decisions of Young Men. *Journal of Political Economy*, 105, 473–522.
- Arcidiacono P., 2005. Affirmative Action in Higher Education: How Do Admission and Financial Aid Rules Affect Future Earnings? *Econometrica*, 73 (5): 1477–1524.

#### CCP methods

- Arcidiacono P., Ellickson, P., 2011. Practical Methods for Estimation of Dynamic Discrete Choice Models. *Annual Review of Economics*, 3: 363-394.
- Arcidiacono, P., Aucejo E., Maurel A., Ransom T., 2016. College Attrition and the Dynamics of Information Revelation. Mimeo.
- Scott, P., 2013. Dynamic Discrete Choice Estimation of Agricultural Land Use. Mimeo
- De Groote O., Verboven F., 2019. Subsidies and Time Discounting in New Technology Adoption: Evidence from Solar Photovoltaic Systems. *American Economic Review*.
- State transition probabilities as choice variables
  - Paserman, M.D., 2008. Job search and hyperbolic discounting: Structural estimation and policy evaluation. *The Economic Journal*, 118, 1418–1452.
  - De Groote O. 2019. A Dynamic Model of Effort Choice in High School. Mimeo.

#### 11. Early Childhood Development [AT, 6 hrs]

- Cunha, F., J. J. Heckman, and S. M. Schennach (2010). Estimating the Technology of Cognitive and Noncognitive Skill Formation. *Econometrica* 78(3), 883–931
- Heckman, J. J. and L. K. Raut (2016). Intergenerational Long-term Effects of Preschool: Structural Estimates from a Discrete Dynamic Programming Model. *Journal of econometrics* 191(1), 164–175
- Heckman, J. J. and S. Mosso (2014). The Economics of Human Development and Social Mobility. *Annu. Rev. Econ.* 6(1), 689–733

- Attanasio, O., C. Meghir, and E. Nix (2015). Human Capital Development and Parental Investment in India. Technical report, National Bureau of Economic Research
- Bernal, R. and M. P. Keane (2010). Quasi-structural Estimation of a Model of Childcare Choices and Child Cognitive Ability Production. *Journal of Econometrics* 156(1), 164–189
- Bernal, R. (2008). The Effect of Maternal Employment and Child Care on Children's Cognitive Development. *International Eco*nomic Review 49(4), 1173–1209
- Heckman, J., R. Pinto, and P. Savelyev (2013). Understanding the Mechanisms Through which an Influential Early Childhood Program Boosted Adult Outcomes. *American Economic Review* 103(6), 2052–86
- Bernal, R. and M. P. Keane (2011). Child Care Choices and Children's Cognitive Achievement: The Case of Single Mothers. *Journal of Labor Economics* 29(3), 459–512

## 12. Political Economy [AT, 9 h]

#### Political Agency Models and Policy Evaluation

Term limits

- Besley, T. (2007). Principled Agents?: The Political Economy of Good Government. Oxford University Press
- Dal Bo, E. and M. A. Rossi (2011). Term Length and the Effort of Politicians. *The Review of Economic Studies* 78(4), 1237–1263
- Besley, T. and A. Case (1995). Does Electoral Accountability Affect Economic Policy Choices? Evidence from Gubernatorial Term Limits. *The Quarterly Journal of Economics* 110(3), 769–798
- List, J. A. and D. M. Sturm (2006). How Elections Matter: Theory and Evidence from Environmental Policy. *The Quarterly Journal of Economics* 121(4), 1249–1281
- Alt, J., E. Bueno de Mesquita, and S. Rose (2011). Disentangling Accountability and Competence in Elections: Evidence from US Term Limits. The Journal of Politics 73(1), 171–186

Audits

- Avis, E., C. Ferraz, and F. Finan (2018). Do government Audits Reduce Corruption? Estimating the Impacts of Exposing Corrupt Politicians. *Journal of Political Econ*omy 126(5), 1912–1964
- Ferraz, C. and F. Finan (2011). Electoral Accountability and Corruption: Evidence from the Audits of Local Governments. *American Economic Review* 101(4), 1274–1311

### Monetary Incentives

- Gagliarducci, S. and T. Nannicini (2013). Do Better Paid Politicians Perform Better? Disentangling Incentives from Selection. Journal of the European Economic Association 11(2), 369–398
- Ferraz, C. and F. Finan (2009). Motivating Politicians: The Impacts of Monetary Incentives on Quality and Performance. Technical report, National Bureau of Economic Research

## Gender Quotas, Political Competition and Policy Outcomes

- Besley, T., O. Folke, T. Persson, and J. Rickne (2017). Gender Quotas and the Crisis of the Mediocre Man: Theory and Evidence from Sweden. *American economic review* 107(8), 2204–42
- Chattopadhyay, R. and E. Duflo (2004). Women as Policy Makers: Evidence from a Randomized Policy Experiment in India. *Econometrica* 72(5), 1409–1443
- Voting Methods, Political Responsiveness and Electoral Outcomes
  - Fujiwara, T. (2015). Voting Technology, Political Responsiveness, and Infant Health: Evidence from Brazil. *Econometrica* 83(2), 423–464
  - Baland, J.-M. and J. A. Robinson (2008). Land and Power: Theory and Evidence from Chile. *American Economic Review* 98(5), 1737–65

### Accountability and Performance of Bureaucracy

- Banerjee, A. V. (1997). A Theory of Misgovernance. Quarterly Journal of Economics 112, 1289–1332
- Bandiera, O., A. Prat, and T. Valletti (2009). Active and passive waste in Government Spending: Evidence from a Policy Experiment. *American Economic Review* 99(4), 1278–1308

Fredriksson, A. (2014). Bureaucracy Intermediaries, Corruption and Red Tape. *Journal of Development Economics* 108, 256–273

Iyer, L. and A. Mani (2012). Traveling Agents: Political Change and Bureaucratic Turnover in India. *Review of Economics* and Statistics 94(3), 723–739

# Contacts

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