

Topics in Economic Theory III: Labor Markets

2019-2020 Academic Year
Master of Research in Economics, Finance and Management

1. Description of the subject

- Topics in Economic Theory III
 - Total credits: 3 ECTS
 - Type of subject: Optative
 - Department of Economics and Business
 - Teaching team: Jan Eeckhout
- Code: 32076
Workload: 75 hours
Term: 2nd

2. Teaching guide

🌟 Introduction

Labor markets are the principal ingredient in much of the applied research in economics. Even the simplest model of the macro economy has labor demand/supply and wages. The main aspects of labor markets are the determination and distribution of wages, the allocation of workers to jobs, and unemployment. We study the essential theoretical underpinnings for analyzing labor markets: 1. The allocation process of skilled workers to jobs of different productivity (matching) to explain wages; and 2. The presence of market frictions (search) as an equilibrium phenomenon to explain unemployment. The objective of this course is to provide you with a set of ideas and tools that you can use in your research, whatever you study: macro economics, applied micro, micro theory, organizations, public finance, political economy, development, family economics,... Hopefully this will be helpful in writing a chapter of your thesis.

🌟 Course Outline

Below is a list of 4 topics, with an extensive list of papers. In the lectures we will cover a selection in detail. Covering much of the material on these 4 topics is two recent review article written for the *Journal of Economic Literature* and the *Annual Review of Economics*:

Chade, Hector, Jan Eeckhout, and Lones Smith, "Sorting Through Search and Matching Models in Economics," *Journal of Economic Literature* **55(2)**, 2017, 493-544.

Eeckhout, Jan, "Sorting in the Labor Market," *Annual Review of Economics* **10**, 2018, 1-29.

1 Frictionless Matching

Roth, Alvin and Marilda Sotomayor, *Two-sided Matching. A Study in Game Theoretic Modelling and Analysis*, (1990), Cambridge University Press, Cambridge, Chapters 1, 2, 7, 8.

Gale, David and Lloyd Shapley, "College Admission and the Stability of Marriage", *American Mathematical Monthly*, **69**, (1962), 9-15.

Becker, Gary, "A Theory of Marriage: Part I," *Journal of Political Economy* **81**, (1973), 813-846.

Mortensen, Dale T. "Finding a Partner for Life or Otherwise," *American Journal of Sociology* **194** (1985): S215-S240.

Roth, Alvin, Tayfun Sönmez, and Utku Ünver "Kidney Exchange", *Quarterly Journal of Economics*, May 2004.

Koopmans, Tjalling C., and Martin Beckmann, "Assignment Problems and the Location of Economic Activities," *Econometrica* **25(1)**, 1957, 53-76.

- Kantorovich, L.V., “On the Translocation of Masses”, (Translated into English and reprinted in *Management Science* **5**(1), 1-4 (1958)) *Comptes Rendus (Doklady) de l’Académie des Sciences de L’URSS* **37**, 199-201 (1942).
- Eeckhout, Jan, “On the Uniqueness of Stable Marriage Matchings”, *Economics Letters* **2000**, 1-8.
- Legros, Patrick and Andrew F. Newman, “Beauty is a Beast, Frog is a Prince: Assortative Matching with Nontransferabilities,” *Econometrica* **75**(4), 2007, 1073-1102.
- Eeckhout, Jan, and Philipp Kircher, “Assortative Matching in Large Firms,” mimeo 2011.
- Kelso, Alexander S., Jr. and Vincent P. Crawford, “Job Matching, Coalition Formation, and Gross Substitutes”, *Econometrica* **50**, 1483-1504.

2 Random Search and Sorting

- Pissarides, Christopher, *Equilibrium Unemployment Theory*, 2000.
- Stigler, George, “Information in the Labor Market,” *Journal of Political Economy* **70** (1962): 94-105.
- McCall, J.J., “Economics of Information and Job Search,” *Quarterly Journal of Economics* (1970): 113-126.
- Rothschild, Michael, “Searching for the Lowest Price When the Distribution of Prices Is Unknown”, *Journal of Political Economy* **82**, (1974), 689-711.
- Stole, Lars, and Jeffrey Zwiebel, “Organizational Design and Technology Choice under Intrafirm Bargaining”, *American Economic Review* **86**(1) 1996.
- Postel-Vinay, Fabien, and Jean-Marc Robin, “Equilibrium Wage Dispersion with Heterogeneous Workers and Firms”, *Econometrica* **70**, 2002, 1295-1350.
- Shimer, Robert, and Lones Smith, “Assortative Matching and Search,” *Econometrica* **68**, 2000, 343-369.
- Burdett, Ken and Melvyn G. Coles : “Marriage and Class”, *Quarterly Journal of Economics*, **CXII**, (1997) 141-168.
- Eeckhout, Jan, “Bilateral Search and Vertical Heterogeneity”, *International Economic Review*, **40**, 1999, 839- 888.
- Smith, Lones, “The Marriage Model With Search Frictions,” *Journal of Political Economy* **114**, 2006, 1124- 1144.
- Atakan, Alp, “Assortative Matching with Explicit Search Costs”, *Econometrica* **74**, 2006, 667-680.
- Eeckhout, Jan, and Philipp Kircher, “Identifying Sorting – In Theory,” (with Philipp Kircher), *Review of Economic Studies* **78**, 2011, 872-906.

3 Directed Search and Sorting

Moen, Espen, “Competitive Search Equilibrium”, *Journal of Political Economy* **105(2)**, 1997, 385-411.

Montgomery, James D., “Equilibrium Wage Dispersion and Inter-Industry Wage Differentials” *Quarterly Journal of Economics*, **CVI** (1991), 163-180.

Burdett, Ken, Shouyong Shi and Randall Wright, “Pricing with Frictions”, *Journal of Political Economy* (2002).

Eeckhout, Jan, and Philipp Kircher, “Sorting and Decentralized Price Competition,” *Econometrica*, **78(2)**, 2010, 539-574

Shi, Shouyong, “Frictional Assignment. 1. Efficiency,” *Journal of Economic Theory*, 98, 2001, 232-260.

Shimer, Robert, “The Assignment of Workers to jobs in an Economy with Coordination Frictions,” *Journal of Political Economy* **113(5)**, 2005, 996-1025.

Eeckhout, Jan, and Philipp Kircher, “Sorting vs Screening: Search Frictions and Competing Mechanisms,” *Journal of Economic Theory* **145**, 2010, 1354-1385.

Jacquet, Nicolas, and Serene Tan, “On the Segmentation of Markets”, manuscript, 2004.

Kaas, Leo and Philipp Kircher, “Efficient Firm Dynamics in a Frictional Labor Market”, mimeo, 2011.

4 Further Topics

Matching and Uncertainty

Akerberg D., and M. Botticini, “Endogenous matching and the empirical determinants of contract form,” *Journal Political Economy* **110(3)**, 2002, 564-591.

Chiappori, Pierre-André, and Philip Reny, “Matching to Share Risk,” Chicago mimeo 2006.

Chade, Hector, and Jan Eeckhout, “Stochastic Sorting,” mimeo 2015.

Serfes K., “Risk sharing vs. incentives: contract design under two-sided heterogeneity,” *Economics Letters* **88(3)**, 2005, 343-349.

Eeckhout, J., and I. Lindenlaub, “Unemployment Cycles,” *American Economic Journal: Macroeconomics*, forthcoming, 2018.

Search and Risk Aversion

Acemoglu, D., and R. Shimer “Efficient Unemployment Insurance”, *Journal of Political Economy*, 107(5), 1999, 893-928.

Golosov, M., P. Maziero, and G. Menzio, "Taxation and Redistribution of Residual Income Inequality," University of Pennsylvania mimeo, 2012.

Eeckhout, Jan, and Alireza Sephasalari "Unemployment Risk and the Distribution of Assets," UCL mimeo 2012.

Matching with Externalities

Eeckhout, J., and H. Chade, "Competing Teams," mimeo, 2018.

Pycia, M., and B. Yenmez, "Matching with Externalities," UCLA mimeo, 2017.

Sasaki, H., and M. Toda, "Two-Sided Matching Problems with Externalities," Journal of Economic Theory, 70, 1996, 93-108.

• Teaching methodology

Lecture format with small group discussion

• Assessment

Short Paper

• Grading system

0-10:

0-4.5	Fail
5-6	C
6.5-7.5	B
8-9	A
9.5-10	A+