

Syllabus PhD course Labor / Macro Labor

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COURSE DESCRIPTION

This course offers an overview of approaches to analyzing labor markets. It is divided in two parts: applied micro and macro. In the applied micro part (taught by Thomas Le Barbanchon), we focus on job search, on recruiting activities and matching technology, and how matching generates inequality (gender, etc.). In the macro part (taught by Antonella Trigari), we explore topics in macroeconomics fluctuations and policies with a focus on labor markets. Below are lists of topics that may be covered.

Each class will consist of one first part of lecture followed by a class discussion on a paper (see more below) The grade will be based on the production of a replication/research paper and class presentations/participation. Students are also expected to participate in the Labor talks scheduled in the DLPE or macro seminars series and to attend Labor brownbags when they are offered.

READINGS

The reading list includes papers that will be covered in class, as well as related papers of interest. It isn't necessary to read everything on the reading list, but it would be useful to pick a couple of topics that interest you and read more in depth. Any book chapters not available on the internet will be scanned and made available.

ASSIGNMENTS

Class presentation/discussion. The papers to be discussed in each class will be indicated by two asterisks in the lists below. One student will give a very short, 5 minute summary. Other students will email us one question by 5pm two days before. We will compile these questions into a sensible order and then circulate a sheet with the questions (names removed) to the class. This way, everyone will have a chance to think in advance about what they might want to say about the paper. We will then open the discussion by saying "does anyone want to raise the question that they sent in?"

Replication/research paper. Each student is required to produce either a replication paper or a research paper. It can be in either parts of the course. The replication paper must involve some forms of extension/innovation compared to the original research paper. For example, if the original paper is empirical, students can either apply the empirical design of the original paper on new datasets, or change the outcome of interest, or change the empirical design and apply it to the datasets of the published paper. If instead the original paper has a substantial theoretical or

computational component, students can explore whether the paper’s results hold if assumption A is relaxed or if assumption B is made instead. Students also need to defend why they think their extensions of the model are interesting. Students can also decide to pursue an original research idea and submit a detailed research proposal. In the case of applied proposals, some first empirical results or credible evidence of identification are required. In the case of theoretical proposals, motivating empirical (micro or macro) evidence and a first sketch of a theoretical framework are required.

GRADING

Replication/research paper: 50% Class participation and presentation: 50%

PROGRAM DETAILS

Below is a list of sessions from which 4-6 will be covered in each part of the course (applied micro and macro).

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1 Applied Labor

1.1 New Empirical Evidence on Job Search Strategy

Krueger, A. B. and A. I. Mueller (2016): "A Contribution to the Empirics of Reservation Wages," American Economic Journal: Economic Policy, 8, 142-179.

Faberman, R. J. and M. Kudlyak (2019): "The Intensity of Job Search and Search Duration," American Economic Journal: Macroeconomics, 11, 327-357.

Marinescu, I. and D. Skandalis (2021): "Unemployment Insurance and Job Search Behavior," The Quarterly Journal of Economics, 136, 887-931.

DellaVigna, S., A. Lindner, B. Reizer, and J. F. Schmieder (2017): "Reference-Dependent Job Search: Evidence from Hungary*," The Quarterly Journal of Economics, 132, 1969-2018.

DellaVigna, S., J. Heining, J. F. Schmieder, and S. Trenkle (2022): "Evidence on Job Search Models from a Survey of Unemployed Workers in Germany," The Quarterly Journal of Economics, 137, 1181-1232.

1.2 Job Seeker's Perceptions and Information Acquisition

Kroft, K., F. Lange, and M. J. Notowidigdo (2013): "Duration Dependence and Labor Market Conditions: Evidence from a Field Experiment," The Quarterly Journal of Economics, 128, 1123-1167.

Spinnewijn, J. (2015): "Unemployed but Optimistic: Optimal Insurance Design with Biased Beliefs," Journal of the European Economic Association, 13, 130-167.

*Mueller, A. I., J. Spinnewijn, and G. Topa (2021): "Job Seekers' Perceptions and Employment Prospects: Heterogeneity, Duration Dependence, and Bias," American Economic Review, 111, 324-363.

Kroft, K., F. Lange, M. J. Notowidigdo, and L. F. Katz (2016): "Long-Term Unemployment and the Great Recession: The Role of Composition, Duration Dependence, and Nonparticipation," Journal of Labor Economics, 34, S7-S54

*Faberman, R. J., A. I. Mueller, A. Sahin, and G. Topa (2022): "Job Search Behavior Among the

Employed and Non-Employed,” *Econometrica*, 90, 1743-1779.

Conlon, J. J., L. Pilossoph, M. Wiswall, and B. Zafar (2018): “Labor Market Search With Imperfect Information and Learning,”

Marinescu, I. and R. Wolthoff (2020): “Opening the Black Box of the Matching Function: The Power of Words,” *Journal of Labor Economics*, 38, 535-568.

Gee, L. K. (2019): “The More You Know: Information Effects on Job Application Rates in a Large Field Experiment,” *Management Science*, 65, 2077-209.

Banfi, S. and B. Villena-Roldan (2019): “Do High-Wage Jobs Attract More Applicants? Directed Search Evidence from the Online Labor Market,” *Journal of Labor Economics*, 37, 715-746

*Belot, Michèle, Philipp Kircher, and Paul Muller. 2022. “How Wage Announcements Affect Job Search—A Field Experiment.” *American Economic Journal: Macroeconomics*, 14 (4): 1-67.

1.3 Gender Differences in Job Search

Kuhn, P. and K. Shen (2013): “Gender Discrimination in Job Ads: Evidence from China *,” *The Quarterly Journal of Economics*, 128, 287-336.

Le Barbanchon, T., R. Rathelot, and A. Roulet (2021): “Gender Differences in Job Search: Trading off Commute against Wage,” *The Quarterly Journal of Economics*, 136, 381-426.

Cortes, P., J. Pan, L. Pilossoph, and B. Zafar (2021): “Gender Differences in Job Search and the Earnings Gap: Evidence from Business Majors,” .

Fluchtmann, J., A. Glenny, N. Harmon and J. Maibom (2019) “The Gender Application Gap: Do Men and Women Apply for the Same Jobs?”.

*Kuhn, P. J. and K. Shen (2021): “What Happens When Employers Can No Longer Discriminate in Job Ads?”

Card, D., F. Colella and R. Lalive (2021) “Gender Preferences in Job Vacancies and Workplace Gender Diversity”

Delfino, Alexia (2021) "Breaking Gender Barriers: Experimental Evidence on Men in Pink-Collar Jobs,"

**Rousille, N (2022) "The Central Role of the Ask Gap in Gender Pay Inequality".

1.4 Search and Matching Online

Kuhn, P. and M. Skuterud (2004): "Internet Job Search and Unemployment Durations," American Economic Review, 94, 218-232.

*Kuhn, P. and H. Mansour (2014): "Is Internet Job Search Still Ineffective?" The Economic Journal, 124, 1213-1233.

Kroft, K. and D. G. Pope (2014): "Does Online Search Crowd Out Traditional Search and Improve Matching Efficiency? Evidence from Craigslist," Journal of Labor Economics, 32, 259-303, publisher: The University of Chicago Press.

Akerman, A., I. Gaarder, and M. Mogstad (2015): "The Skill Complementarity of Broadband Internet *," The Quarterly Journal of Economics.

Hjort, J. and J. Poulsen (2019): "The Arrival of Fast Internet and Employment in Africa," American Economic Review, 109, 1032-1079.

Kircher, P. (2022): "Job Search in the 21st Century," Journal of the European Economic Association, jvac057.

**Bhuller, Ferraro, A. Kostol, and Vigtel (2022): "The Internet, Search Frictions and Aggregate Unemployment," R&R Restud.

1.5 Job Recommender Systems and Labor Market Design

*Belot, M., P. Kircher, and P. Muller (2019): "Providing Advice to Jobseekers at Low Cost: An Experimental Study on Online Advice," The Review of Economic Studies, 86, 1411-1447.

Ben Dhia, A., B. Crepon, E. Mbih, L. Paul-Delvaux, B. Picard, and V. Pons (2022): "Can a Website Bring Unemployment Down? Experimental Evidence from France,"

Belot, M., P. Kircher, and P. Muller (2022a): "Do the Long-Term Unemployed Benefit from Automated Occupational Advice During Online Job Search?"

**Altmann, S., A. Glenney, R. Mahlstedt, and A. Sebald (2022): "The Direct and Indirect Effects of Online Job Search Advice," .

Behaghel, L., S. Dromundo Mokrani, M. Gurgand, Y. Hazard, and T. Zuber (2022): "Encouraging and Directing Job Search: Direct and Spillover Effects in a Large Scale Experiment,"

Horton, J. J., R. Johari, and P. Kircher (2021): "Cheap Talk Messages for Market Design: Theory and Evidence from a Labor Market with Directed Search,"

1.6 Formal vs Informal Job Search: the Role of Networks

Calvo-Armengol, A. and M. O. Jackson (2004): "The Effects of Social Networks on Employment and Inequality," *American Economic Review*, 94, 426-454.

Bayer, P., S. Ross, and G. Topa (2008): "Place of Work and Place of Residence: Informal Hiring Networks and Labor Market Outcomes," *Journal of Political Economy*, 116, 1150-119.

Beaman, L. and J. Magruder (2012): "Who Gets the Job Referral? Evidence from a Social Networks Experiment," *American Economic Review*, 102, 3574-3593.

Beaman, L. A. (2012): "Social Networks and the Dynamics of Labour Market Outcomes: Evidence from Refugees Resettled in the U.S." *The Review of Economic Studies*, 79, 128-161.

Kramarz, F. and O. N. Skans (2014): "When Strong Ties are Strong: Networks and Youth Labour Market Entry," *The Review of Economic Studies*, 81, 1164-1200.

*Dustmann, C., A. Glitz, U. Schonberg, and H. Brucker (2016): "Referral-based Job Search Networks," *The Review of Economic Studies*, 83, 514-546

*Pallais, A. and E. G. Sands (2016): "Why the Referential Treatment? Evidence from Field Experiments on Referrals," *Journal of Political Economy*, 124, 1793-1828

Gee, L. K., J. Jones, and M. Burke (2017): "Social Networks and Labor Markets: How Strong Ties Relate to Job Finding on Facebook's Social Network," *Journal of Labor Economics*, 35, 485-51

**Friebel, G., M. Heinz, M. Hoffman, and N. Zubanov (2022): "What Do Employee Referral Programs Do? Measuring the Direct and Overall Effects of a Management Practice," *Journal of Political Economy*

1.7 Unemployment Insurance

Schmieder, J. F. and T. von Wachter (2016): "The Effects of Unemployment Insurance Benefits: New Evidence and Interpretation," *Annual Review of Economics*, 8, 547-581.

Schmieder, J. F., T. von Wachter, and S. Bender (2016): "The Effect of Unemployment Benefits and Nonemployment Durations on Wages," *American Economic Review*, 106, 739-777.

*Nekoei, A. and A. Weber (2017): "Does Extending Unemployment Benefits Improve Job Quality?" *American Economic Review*, 107, 527-561.

Coffman, L. C., J. J. Conlon, C. R. Featherstone, and J. B. Kessler (2019): "Liquidity Affects Job Choice: Evidence from Teach for America*," *The Quarterly Journal of Economics*, 134, 2203-2236.

*Lalive, R., C. Landais, and J. Zweimuller (2015): "Market Externalities of Large Unemployment Insurance Extension Programs," *American Economic Review*, 105, 3564-3596.

Chodorow-Reich, G., J. Coglianese, and L. Karabarbounis (2019): "The Macro Effects of Unemployment Benefit Extensions: a Measurement Error Approach*," *The Quarterly Journal of Economics*, 134, 227-279.

Jager, S., B. Schoefer, S. Young, and J. Zweimuller (2020): "Wages and the Value of Nonemployment*," *The Quarterly Journal of Economics*, 135, 1905-1963.

Lusher, L., G. C. Schnorr, and R. L. Taylor (2022): "Unemployment Insurance as a Worker Indiscipline Device? Evidence from Scanner Data," *American Economic Journal: Applied Economics*, 14, 285-319.

Britto, D. G. C., P. Pinotti, and B. Sampaio (2022): "The Effect of Job Loss and Unemployment Insurance on Crime in Brazil," *Econometrica*, 90, 1393-1423.

Gerard, F. and J. Naritomi (2021): "Job Displacement Insurance and (the Lack of) Consumption-Smoothing," *American Economic Review*, 111, 899-942.

**Skandalis, D., I. Marinescu, and M. N. Massenkoff (2022): "Racial Inequality in the U.S. Unemployment Insurance System," .

1.8 Short-Time Work and other Countercyclical Policies

Pierre Cahuc, Stéphane Carcillo, Thomas Le Barbanchon, The Effectiveness of Hiring Credits, The Review of Economic Studies, Volume 86, Issue 2, March 2019, Pages 593-626.

*Giupponi, G. and C. Landais (2022): "Subsidizing Labor Hoarding in Recessions: The Employment & Welfare Effects of Short Time Work," The Review of Economic Studies, rdac069.

Giupponi, G., C. Landais, and A. Lapeyre (2022): "Should We Insure Workers or Jobs during Recessions?" Journal of Economic Perspectives, 36, 29-54.

**Kopp, D. and M. Siegenthaler (2021): "Short-Time Work and Unemployment in and after the Great Recession" Journal of the European Economic Association.

Cahuc, P., F. Kramarz, and s. Nevoux (2021): "The Heterogeneous Impact of Short-Time Work: From Saved Jobs to Windfall Effects,"

1.9 Recruiters: Recruiting Intensity and Technology, and Recruiters' bias and Hiring Diversity

*Davis, Steven J., R. Jason Faberman, John C. Haltiwanger, "The Establishment-Level Behavior of Vacancies and Hiring", The Quarterly Journal of Economics, Volume 128, Issue 2, May 2013, Pages 581-622

Le Barbanchon, Thomas, Maddalena Ronchi, and Julien Sauvagnat, 2022. "Hiring Frictions and Firms Performance"

Beaudry, P., D. A. Green, and B. M. Sand (2018): "In Search of Labor Demand," American Economic Review, 108, 2714-2757.

Pallais, A. (2014): "Inefficient Hiring in Entry-Level Labor Markets," American Economic Review, 104, 3565-3599.

Horton, J. J. (2017): "The Effects of Algorithmic Labor Market Recommendations: Evidence from a Field Experiment," *Journal of Labor Economics*, 35, 345-385

Hoffman, M., L. B. Kahn, and D. Li (2018): "Discretion in Hiring," *The Quarterly Journal of Economics*, 133, 765-800.

Barach, M. A., J. M. Golden, and J. J. Horton (2020): "Steering in Online Markets: The Role of Platform Incentives and Credibility," *Management Science*, 66, 4047-4070, publisher: INFORMS.

Barach, M. A. and J. J. Horton (2021): "How Do Employers Use Compensation History? Evidence from a Field Experiment," *Journal of Labor Economics*, 39, 193- 218

Horton, J. J., R. Johari, and P. Kircher (2021): "Cheap Talk Messages for Market Design: Theory and Evidence from a Labor Market with Directed Search,"

Behaghel, Luc, Bruno Crépon, and Thomas Le Barbanchon. 2015. "Unintended Effects of Anonymous Résumés." *American Economic Journal: Applied Economics*, 7 (3): 1-27.

**Kessler, J. B., C. Low, and C. D. Sullivan (2019): "Incentivized Resume Rating: Eliciting Employer Preferences without Deception," *American Economic Review*, 109, 3713-3744.

Kline, P., Evan K Rose, Christopher R Walters (2022), "Systemic Discrimination Among Large U.S. Employers", *The Quarterly Journal of Economics*.

1.10 Active Labor Market Policies

Card, D., J. Kluve, and A. Weber (2010): "Active Labour Market Policy Evaluations: A Meta-Analysis*," *The Economic Journal*, 120, F452-F477.

Card, D., J. Kluve, and A. Weber (2018): "What Works? A Meta Analysis of Recent Active Labor Market Program Evaluations," *Journal of the European Economic Association*, 16, 894-931.

Escudero, V., J. Kluve, E. Lopez Mourelo, and C. Pignatti (2019): "Active Labour Market Programmes in Latin America and the Caribbean: Evidence from a Meta-Analysis," *The Journal of Development Studies*, 55, 2644-2661

*Crepon, B., E. Duflo, M. Gurgand, R. Rathelot, and P. Zamora (2013): "Do Labor Market Policies have Displacement Effects? Evidence from a Clustered Randomized Experiment *," *The Quarterly Journal of Economics*, 128, 531-580.

Altmann, S., A. Falk, S. Jager, and F. Zimmermann (2018): "Learning about job search: A field experiment with job seekers in Germany," *Journal of Public Economics*, 164, 33-49.

**Cheung, M., J. Egebark, A. Forslund, L. Laun, M. Rodin, and J. Vikstrom (2019a): "Does Job Search Assistance Reduce Unemployment? Experimental Evidence on Displacement Effects and Mechanisms,"

Gelber, A., A. Isen, and J. B. Kessler (2016): "The Effects of Youth Employment: Evidence from New York City Lotteries *," *The Quarterly Journal of Economics*, 131, 423-460.

Abebe, G., A. S. Caria, M. Fafchamps, P. Falco, S. Franklin, and S. Quinn (2021a): "Anonymity or Distance? Job Search and Labour Market Exclusion in a Growing African City," *The Review of Economic Studies*, 88, 1279-1310.

Abebe, G., A. S. Caria, and E. Ortiz-Ospina (2021b): "The Selection of Talent: Experimental and Structural Evidence from Ethiopia," *American Economic Review*, 111, 1757-1806.

*Alfonsi, L., O. Bandiera, V. Bassi, R. Burgess, I. Rasul, M. Sulaiman, and A. Vitali (2020): "Tackling Youth Unemployment: Evidence From a Labor Market Experiment in Uganda," *Econometrica*, 88, 2369-2414.

Caria, S., G. Gordon, M. Kasy, S. Quinn, S. Shami, and A. Teytelboym (2020): "An Adaptive Targeted Field Experiment: Job Search Assistance for Refugees in Jordan," .

2 Macro Labor

2.1 Facts about labor market flows and business cycles

Blanchard, O. J., and P. Diamond (1989): "The Beveridge Curve," *Brookings Papers on Economic Activity*, 20(1), 1-76.

Davis S. J., J. C. Haltiwanger, and S. Schuh (1996): "Job Creation and Destruction," *The MIT Press*.

Davis S. J., R. J. Faberman, and J. C. Haltiwanger (2006): "The Flow Approach to Labor Markets: New Data Sources and Micro-Macro Links". *Journal of Economic Perspectives*, 20(3), 3–26.

Elsby M. W. L., B. Hobijn, and A. Sahin (2010): "The Labor Market in the Great Recession," *Brookings Papers on Economic Activity*, 41(1), 1–69.

Elsby M. W. L., B. Hobijn, and A. Sahin (2013): "Unemployment Dynamics in the OECD," *Review of Economics and Statistics*.

Elsby M. W. L., B. Hobijn, and A. Sahin (2015): "On the Importance of the Participation Margin for Labor Market Fluctuations," *Journal of Monetary Economics*, 72, 64–82.

Elsby M. W. L., B. Hobijn, A. Sahin, and R. Valletta (2011): "The Labor Market in the Great Recession: An Update to September 2011," *Brookings Panel on Economic Activity*.

Hobijn, B., and A. Sahin (2021): "Maximum Employment and the Participation Cycle," *Proceedings of the 2021 Jackson Hole Symposium*.

Petrongolo, B., and C. A. Pissarides (2001): "Looking into the Black Box: A Survey of the Matching Function," *Journal of Economic Literature*, 39(2), 390–431.

Shimer, R. (2012): "Reassessing the Ins and Outs of Unemployment," *Review of Economic Dynamics*, 15(2), 127–148.

Solon G., R. Michaels, and M. W. L. Elsby (2009): "The Ins and Outs of Cyclical Unemployment," *American Economic Journal: Macroeconomics*, 1(1), 84–110.

2.2 Equilibrium search models and business cycles

Andolfatto, D. (1996): "Business Cycles and Labor-Market Search," *American Economic Review*, 86(1), 112–32.

Hagedorn, M., and I. Manovskii (2008): "The Cyclical Behavior of Equilibrium Unemployment and Vacancies Revisited," *American Economic Review*, 98(4), 1692–1706.

Hall, R. (2005): "Employment Fluctuations with Equilibrium Wage Stickiness," *American Economic Review*, 98(4), 1692–1706.

Hall, R. E. , and P. R. Milgrom (2008): "The Limited Influence of Unemployment on the Wage Bargain," *American Economic Review*, 98(4), 1653–74.

Hornstein, A., P. Krusell, and G. L. Violante (2005): "Unemployment and Vacancy Fluctuations in the Matching Model: Inspecting the Mechanism," *Economic Quarterly*, (Summer), 19–50.

Merz, M. (1995): "Search in the Labor Market and the Real Business Cycle," *Journal of Monetary Economics*, 36(2), 269–300.

Mortensen, D. T., and C. A. Pissarides (1994): "Job Creation and Job Destruction in the Theory of Unemployment," *The Review of Economic Studies*, 61(3), 397–415.

Pissarides C. A. (1985): "Short-run Equilibrium Dynamics of Unemployment, Vacancies, and Real Wages," *American Economic Review*.

Pissarides C. A. (2000): "Equilibrium Unemployment Theory". MIT Press, Cambridge, MA, 2nd edition.

Ramey, G., W. J. den Haan, and J. Watson (2000): "Job Destruction and Propagation of Shocks," *American Economic Review*, 90(3), 482–498.

Rogerson, R., and R. Shimer (2011): "Search in Macroeconomic Models of the Labor Market," *Handbook of Labor Economics*.

Shimer, R. (2005): "The Cyclical Behavior of Equilibrium Unemployment and Vacancies," *American Economic Review*.

2.3 Wage rigidities in search models

Bils, M. (1985): "Real Wages over the Business Cycle: Evidence from Panel Data," *Journal of Political Economy*, 93(4), 666–689.

Bils, M., M. Kudlyak, and P. Lins (2023): "The Quality-Adjusted Cyclical Price of Labor," *Manuscript*.

Davis, S. J., and P. M. Krolikowski (2023): "Sticky Wages on the Layoff Margin," *Manuscript*.

Fukui, M. (2022): "A Theory of Wage Rigidity and Unemployment Fluctuations with On-the-Job Search," *Technical report*, Boston University.

Gertler, M., and A. Trigari (2022): "Unemployment Fluctuations with Staggered Nash Wage Bargaining," *Journal of Political Economy*, 117 (1), 38-86.

Gertler, M., C. Huckfeldt, and A. Trigari (2009): "Unemployment Fluctuations, Match Quality and the Wage Cyclical of New Hires," *Review of Economic Studies*, 7(4), 1876–1914.

Grigsby, J., E. Hurst, and A. Yildirmaz (2021): "Aggregate Nominal Wage Adjustments: New Evidence from Administrative Payroll Data," *American Economic Review*, 111(2), 428-71.

Haefke C., M. Sontag, and T. van Rens (2013): "Wage Rigidity and Job Creation," *Journal of Monetary Economics*, 60(8), 887-899.

Hagedorn, M., and I. Manovskii (2013): "Job Selection and Wages over the Business Cycle," *American Economic Review*, 103(2), 771-803.

Hazell, J., and B. Taska (2022): "Downward Rigidity in the Wage for New Hires," Manuscript.

Hazell, J., C. Patterson, H. Sarsons, and B. Taska (2022): "National Wage Setting," Manuscript.

Kudlyak, M. (2014): "The Cyclical of the User Cost of Labor," *Journal of Monetary Economics*, 68, 53-67.

Ljungqvist, L. and T. Sargent (2017): "The Fundamental Surplus," *American Economic Review*, 107(9), 2630-65.

Lorenzoni, G., and I. Werning (2023): "Wage Price Spirals," Tech. rep., Technical Report.

Pissarides, C. (2009): "The Unemployment Volatility Puzzle: Is Wage Stickiness the Answer?" *Econometrica*, 77(5), 1339-1369.

Schoefer, B. (2022): "The Financial Channel of Wage Rigidity," Manuscript.

Shimer, R. (2012): "Wage Rigidities and Jobless Recoveries," *Journal of Monetary Economics*.

Shimer, R. (2013): "Job Search, Labor Force Participation, and Wage Rigidities," *Advances in Economics and Econometrics: Theory and Applications*.

2.4 Wage posting and directed search

Hornstein, A., P. Krusell, and G. L. Violante (2011): "Frictional Wage Dispersion in Search Models: A Quantitative Assessment," *American Economic Review*.

Burdett, K., and D. T. Mortensen (1998): "Wage Differentials, Employer Size, and Unemployment," *International Economic Review*, 39(2), 257-73.

Burdett, K., and M. Coles (2003): "Equilibrium Wage-Tenure Contracts," *Econometrica*, 71(5), 1377-1404.

Postel-Vinay, F., and J.-M. Robin (2002): "Equilibrium Wage Dispersion with Worker and Employer Heterogeneity," *Econometrica*, 70(6), pp. 2295-2350.

Lise, J., and J.-M. Robin (2013): "The macro-dynamics of sorting between workers and firms," IFS Working Papers W13/22, Institute for Fiscal Studies,.

Moen, E. R. (1997): "Competitive Search Equilibrium," *Journal of Political Economy*, 105(2), 385–411.

Menzio, G., and S. Shi (2010): "Block recursive equilibria for stochastic models of search on the job," *Journal of Economic Theory*, 145(4), 1453–1494.

Menzio, G., and S. Shi (2011): "Efficient Search on the Job and the Business Cycle," *Journal of Political Economy*, 119(3), 468-510.

2.5 Aggregate demand and unemployment risk

Gorn, A. and A. Trigari (2020): "Assessing the Stabilizing Effects of Unemployment Benefit Extensions," *American Economic Journal: Macroeconomics*, forthcoming.

Kekre, R. (2022): "Unemployment Insurance in Macroeconomic Stabilization," *Review of Economic Studies*, forthcoming.

Krusell, P., Mukoyama, T., Rogerson, R., and Sahin, A. (2008): "Aggregate Implications of Indivisible Labor, Incomplete Markets, and Labor Market Frictions," *Journal of Monetary Economics*, 55(5), 961-979.

Ravn, M. O., and V. Sterk (2017): "Job Uncertainty and Deep Recessions," *Journal of Monetary Economics*, 90, 125–141.

Ravn, M. O., and V. Sterk (2021): "Macroeconomic Fluctuations with HANK & SAM: An Analytical Approach," *Journal of the European Economic Association*, 19(2), 1162–1202.

2.6 Unemployment insurance and stabilization

Boone, C., A. Dube, L. Goodman, and E. Kaplan (2021): "Unemployment Insurance Generosity and Aggregate Employment," *American Economic Journal: Economic Policy*, 13(2), 58–99.

Chodorow-Reich, G., J. Coglianesi, and L. Karabarbounis (2019): "The Macro Effects of Unemployment Benefit Extensions: a Measurement Error Approach," *The Quarterly Journal of Economics*, 134, 227-279.

Dieterle, S., O. Bartalotti, and Q. Brummet (2020): "Revisiting the Effects of Unemployment Insurance Extensions on Unemployment: A Measurement-Error-Corrected Regression Discontinuity Approach," *American Economic Journal: Economic Policy*, 12(2), 84–114.

- Farber, H. S., and R. G. Valletta (2015): "Do Extended Unemployment Benefits Lengthen Unemployment Spells? Evidence from Recent Cycles in the US Labor Market," *Journal of Human Resources*, 50(4), 873–909.
- Ganong, P., and P. Noel (2019): "Consumer Spending During Unemployment: Positive and Normative Implications." *American Economic Review*, 109(7), 2383–2424.
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