

Professor

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Overview

In this half course we will study business cycles on the labor market. Recently, there has been a spur of attention in the literature for this topic, of which economists still have remarkably poor understanding. Hall (2007) reviews the type of questions we are interested in for this course:

“Modern recessions hit the U.S. economy in 1990 to 1991 and in 2001. A modern recession is one occurring in an economy with well-executed monetary policy and a low fraction of the labor force on the factory floor. I review the facts about modern recessions and compare them to earlier recessions, with primary emphasis on the labor market. The facts are perplexing - the modern economy undergoes recessions at least as severe as the earlier ones, without any measurable driving forces. Economists' understanding of the modern causeless recession is at an early stage, but progress has occurred and the future of this area of research seems promising.”

The recent interest was spurred by a paper by Robert Shimer in the American Economic Review in 2005, which argues that search and matching models can not explain more than 5% of fluctuations in unemployment. This left the profession with no reasonable model at all of business cycles on the labor market. In 2008, Rob Shimer came to Barcelona to teach the CREI lectures in Macroeconomics, offering his view on the current state of affairs on this important question. In this half course, we will study the CREI lectures in detail and discuss some additional research on empirical evidence, wage rigidity and the Great Moderation.

Course outline and preliminary reading list

1. Introduction

Robert E. Hall (2007). How Much Do We Understand about the Modern Recession?
Brookings Papers on Economic Activity, 2007, 2, pp. 13-28

2. Fluctuations in labor input and Real Business Cycle models

Robert Shimer (2009), Labor Markets and Business Cycles, CREI lectures in Macroeconomics, robert.shimer.googlepages.com, chapter 1
King, Robert G. and Sergio T. Rebelo (1999). Resuscitating Real Business Cycles. In: John B. Taylor and Michael Woodford (eds), *Handbook of Macroeconomics*, volume 1B, pp.927-1007.

- Rogerson, Richard (1988). Indivisible labor, lotteries and equilibrium. *Journal of Monetary Economics*, 21(1), pp.3-16.
- Hansen, Gary D. (1985). Indivisible Labor and the Business Cycle. *Journal of Monetary Economics*, 16(3), pp.309-327.

Cyclicalities of the labor wedge

- Parkin, Michael (1988). A Method for Determining Whether Parameters in Aggregative Models Are Structural, *Carnegie-Rochester Conference Series on Public Policy*, 29, pp.215-252.
- Rotemberg, Julio J. and Michael Woodford (1999). The Cyclical Behavior of Prices and Costs, NBER Working Paper 6909.
- Hall, Robert E. (1997). Macroeconomic Fluctuations and the Allocation of Time. *Journal of Labor Economics*, 15(1), pp.S223-S250
- Mulligan, Casey B. (2002). A Century of Labor-Leisure Distortions, NBER Working Paper 8774.
- Chari, V.V., Patrick J. Kehoe and Ellen R. McGratten (2007). Business Cycle Accounting, *Econometrica*, 75(3), pp.781–836.

Elasticity of labor supply

- Richard Rogerson & Johanna Wallenius (2007). Micro and Macro Elasticities in a Life Cycle Model With Taxes, NBER Working Papers 13017
- Francois Gourio and Pierre-Alexandre Noul (2007). The Marginal Worker and the Aggregate Elasticity of Labor Supply, mimeo.

Technology shocks as the driving force of business cycles

- Galí, Jordi and Pau Rabanal (2004). Technology Shocks and Aggregate Fluctuations: How Well Does the Real Business Cycle Model Fit Postwar U.S. Data? NBER Macroeconomics Annual
- Galí, Jordi, Mark Gertler and J. David López-Salido (2007). Markups, Gaps, and the Welfare Costs of Business Fluctuations, *Review of Economics and Statistics*, 89(1), pp.44–59

3. Fluctuations in (un)employment, models with search frictions

- Robert Shimer (2009), Labor Markets and Business Cycles, CREI lectures in Macroeconomics, robert.shimer.googlepages.com, chapter 2 and 3
- Richard Rogerson, Robert Shimer and Randall Wright (2005). Search Theoretic Models of the Labor Market. *Journal of Economic Literature*, 43 (4): 959-988.
- Olivier Blanchard and Jordi Galí (2008). Labor Markets and Monetary Policy: A New Keynesian Model with Unemployment, CREI working paper.
- Petrongolo, Barbara and Christopher A. Pissarides (2001). Looking into the Black Box: A Survey of the Matching Function, *Journal of Economic Literature*, 39(2), pp. 390-431

Unemployment volatility puzzle

- Robert Shimer (2005). The Cyclical Behavior of Equilibrium Unemployment and Vacancies, *American Economic Review*, 95(1): 25-49.
- Michael Reiter and James S. Costain (2008). Business Cycles, Unemployment Insurance, and the Calibration of Matching Models, *Journal of Economic Dynamics and Control*, 32, pp.1120–1155

- Marcus Hagedorn and Iourii Manovskii (2008). The Cyclical Behavior of Equilibrium Unemployment and Vacancies Revisited, *American Economic Review*, 98(4), pp.1692-1706
- Andreas Hornstein, Per Krusell and Gianluca Violante (2005). Unemployment and Vacancy Fluctuations in the Matching Model: Inspecting the Mechanism, *Economic Quarterly* (Federal Reserve Bank of Richmond), 91(3), pp.19-51
- Dale Mortensen and Eva Nagypal (2007). More on Unemployment and Vacancy Fluctuations, *Review of Economic Dynamics*, 10(3), pp. 327-347
- Farmer, Roger E. A. and Andrew Hollenhorst (2006). Shooting the Auctioneer, NBER Working Paper 12584
- Yashiv, Eran (2006). Evaluating the performance of the search and matching model, *European Economic Review* 50, pp.909–936

Explanations

- Mortensen, Dale and Éva Nagypál (2007). Labor-market Volatility in Matching Models with Endogenous Separations, *Scandinavian Journal of Economics*, 109(4), pp.645-665
- Guerrieri, Veronica (2007). Heterogeneity, Job Creation and Unemployment Volatility, *Scandinavian Journal of Economics*, 109(4), pp.667-693
- Reiter, Michael (2007). Embodied Technical Change and the Fluctuations of Unemployment and Wages, *Scandinavian Journal of Economics*, 109(4), pp.695-721
- Quadrini, Vincenzo and Antonella Trigari (2007). Public Employment and the Business Cycle, *Scandinavian Journal of Economics*, 109(4), pp.723-742
- Menzio, Guido and Shouyong Shi (2009). Efficient Search on the Job and the Business Cycle, unpublished manuscript

Heterogeneity

- Lilien, David M. (1982). Sectoral Shifts and Cyclical Unemployment, *Journal of Political Economy*, 90(4), pp.777-793
- Abraham, Katharine G. and Lawrence F. Katz (1986). Cyclical Unemployment: Sectoral Shifts or Aggregate Disturbances? *Journal of Political Economy*, 94(3), pp.507-522
- Shimer, Robert (2007). Mismatch, *American Economic Review*, 97(4), pp.1074-1101
- Pries, Michael J. (2008). Worker heterogeneity and labor market volatility in matching models, *Review of Economic Dynamics*, 11, pp.664-678
- Lucas, Robert E. and Edward C. Prescott (1974). Equilibrium Search and Unemployment, *Journal of Economic Theory*, 7, pp.188-209
- Alvarez, Fernando and Robert Shimer (2008). Search and Rest Unemployment, unpublished manuscript

4. Data and facts on business cycle fluctuations on the labor market

- Steven J. Davis and John Haltiwanger (1990). Gross Job Creation and Destruction: Microeconomic Evidence and Macroeconomic Implications, NBER Macro annual.
- Steven J. Davis and John Haltiwanger (1999). On the Driving Forces behind Cyclical Movements in Employment and Job Reallocation, *American Economic Review*, vol. 89(5), pp.1234-1258.
- Shimer, Robert (2006). Reassessing the Ins and Outs of Unemployment, mimeo, University of Chicago.

Cyclicalities of the separation rate

- Shigeru Fujita and Garey Ramey (2006). The Cyclicalities of Job Loss and Hiring, Philadelphia Fed Working Paper 06-17.
- Shigeru Fujita and Garey Ramey (2007). Reassessing the Shimer Facts, Philadelphia Fed Working Paper 07-2.
- Robert E. Hall (2005). Job Loss, job Finding, and Unemployment in the U.S. Economy over the Past Fifty Years, NBER Macro Annual.
- Steve J. Davis (2005). Comments on "Job Loss, job Finding, and Unemployment in the U.S. Economy over the Past Fifty Years" by Robert E. Hall, NBER Macro Annual.
- Yashiv, Eran (2007). U.S. Labor Market Dynamics Revisited. Scandinavian Journal of Economics, 109(4), pp.779-806

Additional stylized facts and other shocks

- Jonathan L. Willis, Russell Cooper and John Haltiwanger (2007). Hours and Employment Implications of Search Frictions: Matching Aggregate and Establishment-Level Observations, Federal Reserve Bank of Kansas City Working Paper No. 06-14
- Claudio Michelacci and David Lopez-Salido (2007). Technology Shocks and Job Flows, Review of Economic Studies, 74.
- Claudio Michelacci, Fabio Canova and David Lopez Salido (2007). Schumpeterian Technology Shocks, mimeo.
- Balleer (2009). New Evidence, Old Puzzles: Technology Shocks and Labor Market Fluctuations, unpublished manuscript
- Barnichon, Régis (2008). The Shimer Puzzle and the Correct Identification of Productivity Shocks, CEP Discussion Papers dp0823
- Ravn, Morten O. and Saverio Simonelli (2008). Labor Market Dynamics and the Business Cycle: Structural Evidence for the United States, Scandinavian Journal of Economics, 109(4), pp.743-777

5. Wage rigidity

- Robert Shimer (2009), Labor Markets and Business Cycles, CREI lectures in Macroeconomics, robert.shimer.googlepages.com, chapter 4 and 5
- Robert E. Hall (2005). Employment Fluctuations with Equilibrium Wage Stickiness, American Economic Review, vol. 95(1), pp.50-65.
- Shimer (2004). The Consequences of Rigid Wages in Search Models, Journal of the European Economic Association.
- Leena Rudanko (2007). Labor Market Dynamics under Long Term Wage Contracting, working paper

Wage rigidity

- Olivier Blanchard and Jordi Gali (2008). Real Wage Rigidities and the New Keynesian Model, Journal of Money, Credit, and Banking, supplement to vol. 39, n°1, 2007, pp.35-66.
- Mark Gertler and Antonella Trigari (2009). Unemployment Fluctuations with Staggered Nash Wage Bargaining, Journal of Political Economy, 117(1), pp.38-86
- Krause, Michael U. and Thomas A. Lubik (2007). The (Ir)relevance of Real Wage Rigidity in the New Keynesian Model with Search Frictions, Journal of Monetary Economics, 54(3), pp.706-727
- Rotemberg, Julio J. (2006). Cyclical Wages in a Search-and-Bargaining Model with Large Firms, NBER Working Paper 12415

Robert E. Hall and Paul R. Milgrom (2008). The Limited Influence of Unemployment on the Wage Bargain, *American Economic Review*, forthcoming.

Empirical evidence on wage rigidity

Christian Haefke, Marcus Sonntag and Thijs van Rens (2008). Wage Rigidity and Job Creation, CREI working paper

Christopher A. Pissarides (2008). The Unemployment Volatility Puzzle: Is Wage Stickiness the Answer? The Walras-Bowley lecture, North American summer meetings of the Econometric Society, Duke University.

6. The Great Moderation

Stock, James, and Mark W. Watson (2002). Has the Business Cycle Changed and Why?, NBER Macroeconomics Annual 2002, MIT Press.

Stock, James, and Mark W. Watson (2005). Understanding Changes in International Business Cycle Dynamics, *Journal of the European Economic Association*, vol. 3, issue 5, 968-1006.

Cecchetti, Stephen G., Alfonso Flores-Lagunes, and Stefan Krause (2006). Assessing the Sources of Changes in the Volatility of Real Growth, NBER WP 11946.

Jordi Gali and Luca Gambetti (2007). On the Sources of the Great Moderation, CREI working paper.

Jordi Gali and Thijs van Rens (2009). The Great Moderation and the Vanishing Procyclicality of Labor Productivity, CREI working paper.