

A Brief History of the Real Business Cycle –Search & Matching Literature

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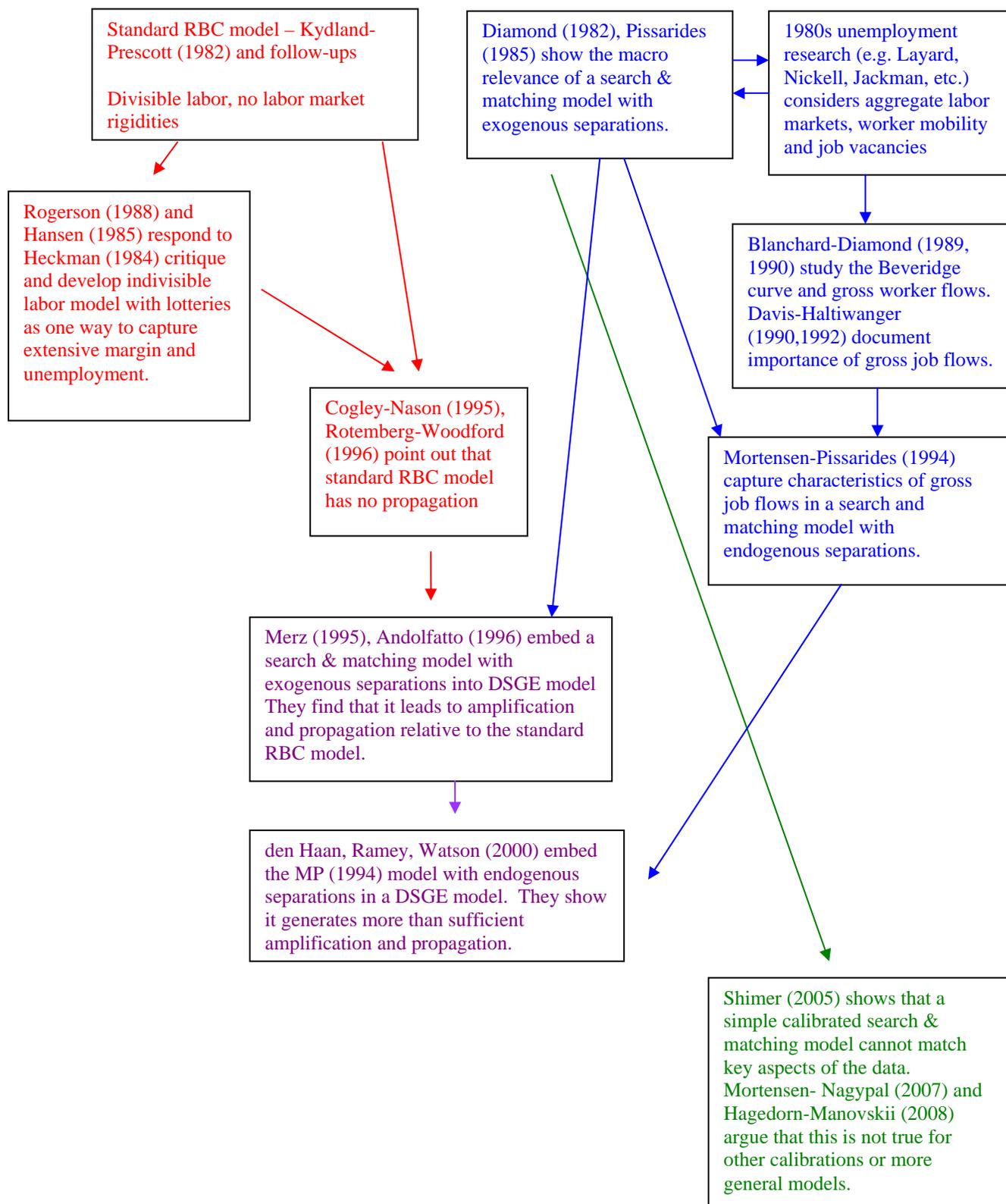
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I have recently noticed much confusion among recruitment candidates and junior professors in the macroeconomics profession about the search and matching – real business cycle literature. In particular, these researchers seem to be unaware of what was accomplished by the literature in the 1990s. I have discovered that some of this confusion is traced to the forthcoming *Handbook of Labor* chapter written by Richard Rogerson and Robert Shimer. Several contributors to the earlier literature have commented on the particular focus and omissions in that chapter. Richard Rogerson has responded that the *Handbook* chapter was not intended to be a survey of literature and that the authors' intent was to focus on a few points.

Since so many junior researchers are confused about the literature, I thought it would be useful to provide a quick diagrammatic literature review of the process by which the Real Business Cycle literature and Search and Matching literature merged. That diagram is on the following page. An important point to note is that the Rogerson and Shimer statement that their analysis “reaffirms earlier work emphasizing that the presence of search frictions does not substantially modify the behavior of a business cycle model (Merz, 1995; Andolfatto 1996)” (p. 41) is incorrect. Even a cursory reading of the abstract of each of these earlier papers shows this to be an incorrect characterization of the conclusions of these earlier authors. Den Haan, Ramey and Watson (2000), which Rogerson and Shimer do not cite, went further by showing that incorporating endogenous separations and costly capital mobility into an RBC-search and matching model led to more than sufficient amplification and propagation in comparison with the data.

One of the reasons that Rogerson and Shimer contend that search and matching does not lead to amplification is that they study the incremental effect on a model with indivisible labor and lotteries. The indivisible labor model was a very effective stopgap for answering Heckman's (1984) critique and for finally getting some unemployment into the model. Many researchers, however, see the search and matching model as *replacing* that set-up with something that is much better at capturing a wide range of interesting facts about labor markets. Moreover, it has excellent microfoundations since the idea that it takes time to find a job/match is an accurate characterization of reality. Therefore, the proper metric for success is whether introducing search and matching into an RBC model without the lotteries parable makes a difference. The answer provided by the earlier literature is “yes.”

A Brief Diagrammatic History of the RBC–Search & Matching Literature



References

- Andolfatto, David, "Business Cycles and Labor Market Search," *American Economic Review*, 86 (March 1996): 112-132.
- Blanchard, Olivier Jean and Peter Diamond, "The Beveridge Curve," *Brookings Papers on Economic Activity*, 1989:1, 1-76.
- Blanchard, Olivier Jean and Peter Diamond, "The Cyclical Behavior of the Gross Flows of U.S. Workers," *Brookings Papers on Economic Activity*, 1990:1, 85-155.
- Cogley, Timothy and James M. Nason, "Output Dynamics in Real-Business-Cycle Models," *American Economic Review*, 85 (June 1995): 492-511.
- Davis, Steven J. and John Haltiwanger, "Gross Job Creation and Destruction: Microeconomic Evidence and Macroeconomic Implications," *NBER Macroeconomics Annual* 1990, 123-168.
- Davis, Steven J. and John Haltiwanger, "Gross Job Creation, Gross Job Destruction, and Employment Reallocation," *The Quarterly Journal of Economics* 107 (August 1992): 819-863.
- Den Haan, Wouter, Garey Ramey and Joel Watson, "Job Destruction and the Propagation of Shocks," *American Economic Review*, 90 (June 2000): 482-498.
- Diamond, Peter A., "Wage Determination and Efficiency in Search Equilibrium," *Review of Economic Studies*, 49 (April 1982): 217-227.
- Hagedorn, Marcus, and Iourii Manovskii, "The Cyclical Behavior of Equilibrium Unemployment and Vacancies Revisited," *American Economic Review*, 98 (September 2008): 1692 – 1706.
- Hansen, Gary, "Indivisible Labor and the Business Cycle," *Journal of Monetary Economics* 16 (November 1985): 309-327.
- Heckman, James, "Comments on the Ashenfelter and Kydland Papers," *Carnegie-Rochester Conference Series on Public Policy*, 21 (1984), 209-224.
- Kydland, Finn E. and Edward C. Prescott, "Time to Build and Aggregate Fluctuations," *Econometrica* 50 (November 1982): 1345-1370.
- Layard, Richard, Stephen Nickell, and Richard Jackman, *Unemployment: Macroeconomic Performance and the Labor Market*, 2nd edition, Oxford University Press: 2005.
- Merz, Monika, "Search in the Labor Market and the Real Business Cycle," *Journal of Monetary Economics* 36 (November 1995): 269-300.

- Mortensen, Dale T. and Christopher A. Pissarides, "Job Creation and Job Destruction in the Theory of Unemployment," *The Review of Economic Studies* 61 (July 1994): 397-415.
- Mortensen, Dale T. and Eva Nagypal, "More on Unemployment and Vacancy Fluctuations," *Journal of Economic Dynamics and Control* 10 (July 2007): 327-347.
- Pissarides, Christopher A., "Short-Run Equilibrium Dynamics of Unemployment, Vacancies, and Real Wages," *American Economic Review*, 75 (September 1985): 676-690.
- Rogerson, Richard, "Indivisible Labor, Lotteries, and Equilibrium," *Journal of Monetary Economics* 21 (January 1988): 3-16.
- Rogerson, Richard and Robert Shimer, "Search in Macroeconomic Models of the Labor Market," NBER working paper 15901, April 2010.
- Rotemberg, Julio J. and Michael Woodford, "Real-Business-Cycle Models and the Forecastable Movements in Output, Hours, and Consumption," *American Economic Review*, 86 (March 1996): 71-89.
- Shimer, Robert, "The Cyclical Behavior of Equilibrium Unemployment and Vacancies," *American Economic Review* 95 (March 2005): 25-49.