

Discussion

"The Cyclical Behavior of Equilibrium Unemployment and Vacancies in the US and Europe" by Alejandro Justiniano and Claudio Michelacci

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Can a standard model replicate the cyclical properties of the labor market?

Three differences with respect to the literature (Shimer 2005):

- 1 Many shocks and frictions (transmission mechanisms)
- 2 Estimate the model using MLE (full information methods)
- 3 Study several European countries as well as the US

What I like about this paper

- Exercise was long overdue

“the goal post for modifications of the model is substantially lower when one allows for other sources of employment volatility.”

(Mortensen and Nagypal 2007)

- Implementation careful and comprehensive
 - Descriptive statistics, priors
 - Moments and impulse responses to discuss identification
- Interpretation results thoughtful

Estimation versus calibration

- Estimation using Bayesian, likelihood-based methods
 - Formal about uncertainty (standard errors) **[Comment#1]**
 - Full information
- Full information methods use all information in the data, but ...
 - You choose which variables to include as observables
 - You choose which properties of the data the model should match
 - Calibration: drop moments model should not be expected to match
 - Estimation: extend model with 'frictions' to match these moments

The frictions (transmission mechanisms)

- Structural frictions
 - Endogenous separations
 - Hiring costs
- Semi-structural frictions
 - Variable capital utilization
 - Wage rigidity
- Ad-hoc frictions **[Comment#2]**
 - Adjustment costs to investment, $K_{t+1} = [1 - \delta(j_t)] K_t + e^{\varphi_t} \left[1 - T \left(\frac{I_t}{I_{t-1}} \right) \right] I_t$
 - Adjustment costs to vacancies, $R_t = S_t \left[1 - G \left(\frac{S_t}{S_{t-1}} \right) \right]$

Can a standard model replicate the cyclical properties of the labor market?

Different approach to a familiar question:

- Estimation using full information methods
- Many frictions (transmission mechanisms)

Contributions:

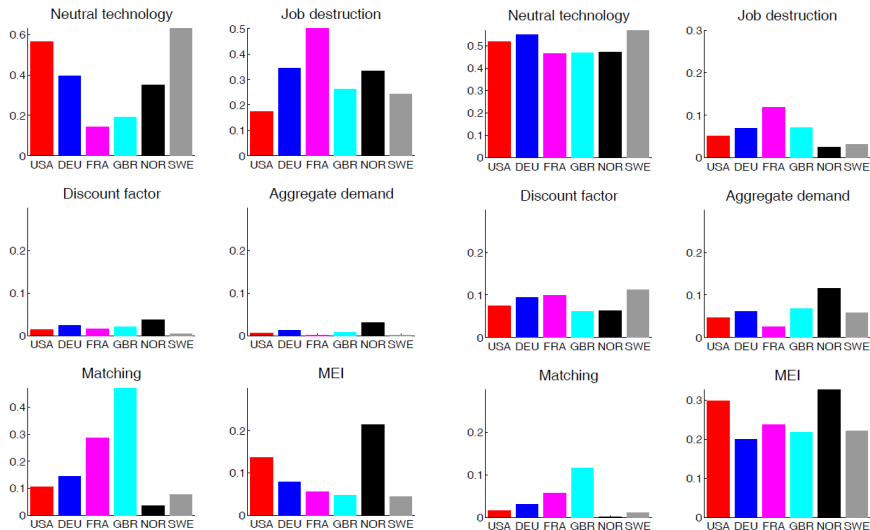
- 1 Many shocks
- 2 Study several European countries as well as the US **[Comment#3]**

The shocks

- Neutral technology
- Investment-specific technology (MEI)
- Job destruction
- Matching efficiency ('mismatch shock')
- Government expenditure ('aggregate demand shock')
- Discount factor

Note: Keynesian demand shocks show up as technology shocks (Sveen and Weinke 2008)

Results



(a) Unemployment

(e) GDP

Results about the US:

1. Technology shocks most important driver of fluctuations
2. Investment-specific technology important for output, not for labor market
3. Government expenditure shocks do not matter for labor market

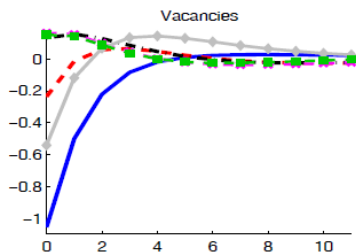
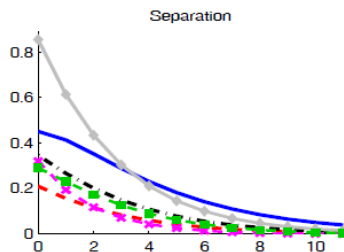
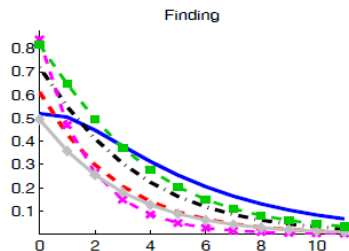
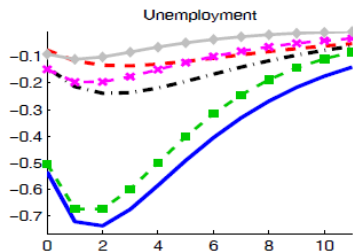
Results about cross-country comparison:

4. Job destruction shocks more important in Europe
5. Matching shocks important in the UK, France (and Norway)

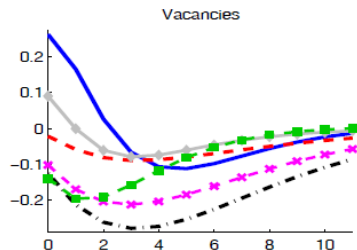
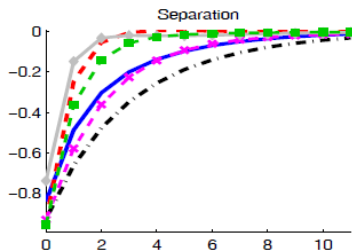
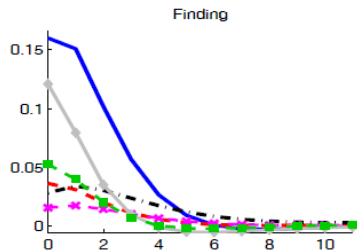
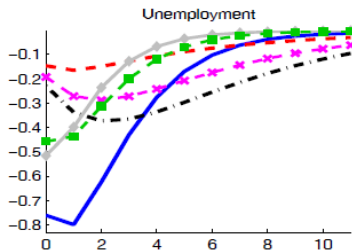
Interpreting the results [Comment#4]

- Technology shocks most important driver of labor market fluctuations
 - Wage rigidity fixes the Shimer puzzle
 - Technology shocks important where wage rigidity high (US, Sweden)
- Is fiscal stimulus ineffective?
- Are European labor markets more flexible?
 - High volatility JD versus JC suggests low EPL (not in model)
 - Wages are less rigid in Europe ($\theta = 0.20$ in Germany vs 0.57 in US)
- What is special about the UK, France and Norway?
 - Mismatch? (Barnichon and Figura 2011)
 - Matching shocks destroy the Beveridge curve, separation shocks do not

Impulse responses to matching shocks

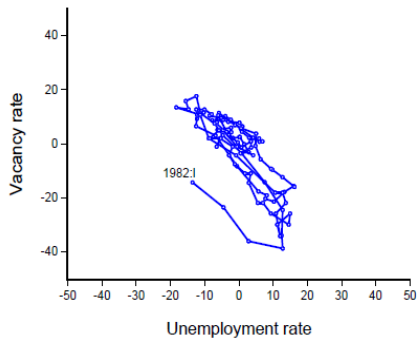


Impulse responses to job destruction shocks

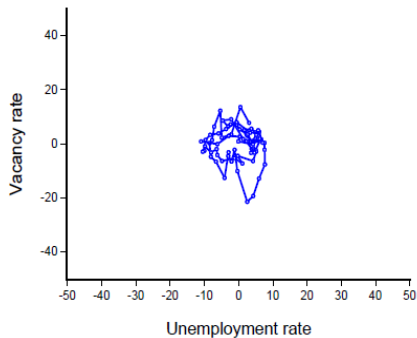


The French Beveridge dot

Figure 1: The Beveridge curve in different OECD countries



(a) US



(b) France

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Conclusions

- What I like about this paper
 - Exercise was long overdue
 - Implementation careful and comprehensive
 - Interpretation results thoughtful
- Comments:
 - 1 Exploit the advantage of estimation over calibration
Report standard errors, test over-identifying restrictions
 - 2 Focus on the contribution of shocks to labor market fluctuations
Cross-country comparisons are orthogonal, do not require many shocks
 - 3 Be careful interpreting results that depend on ad-hoc frictions
 - “model is successful in reproducing the high serial correlation of vacancies”
 - How credible is an estimate of wage rigidity without data on wages?
 - 4 The results are very interesting. Discuss them!