DISCUSSION OF:

OPTIMAL UNEMPLOYMENT INSURANCE OVER THE BUSINESS CYCLE

(BY LANDAIS, MICHAILLAT, and SAEZ)

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OVERVIEW

- Optimal unemployment insurance over the business cycle
  - A timely topic
  - U.S: UI has been extended several times, up to 99 weeks for some individuals
- Matching analysis in business-cycle context
- Well written paper
  - A number of robustness tests
- Basic model mechanism
  - Downward-sloping labor demand function

$$f(k,n) = n^{\alpha}$$

(Though a question: if capital utilization can be adjusted quickly, overall production may be closer to Cobb-Douglas)

  - Real wage rigidity

$$w_t = w_0 a_t^{\gamma}$$

  - UI financed by contemporaneous government financing

OVERVIEW

- **Main result: optimal UI is countercyclical**
  - **GDP is low → UI is high**

- **Analytical derivation in terms of macro-elasticity…**

$$\varepsilon^{M} = \frac{\Delta C}{1-N} \cdot \frac{dN}{d\Delta C}$$

- **…and micro-elasticity**

$$\varepsilon^{m} = \frac{\Delta C}{1-N} \cdot \frac{\partial N^{s}}{\partial E} \cdot \frac{\partial E}{\partial \Delta u} \cdot \frac{d\Delta u}{d\Delta C}$$

- **"Sufficient statistics" approach to measuring how to provide UI**

- **Numerical simulations in calibrated version of model**
  - **Broadly numerically relevant for various U.S. measures**

- **(Though a question: is current situation due to a "pure cyclical event" or a "mismatch" between skills of workers and those required by firms?)**

CURRENT EVENTS

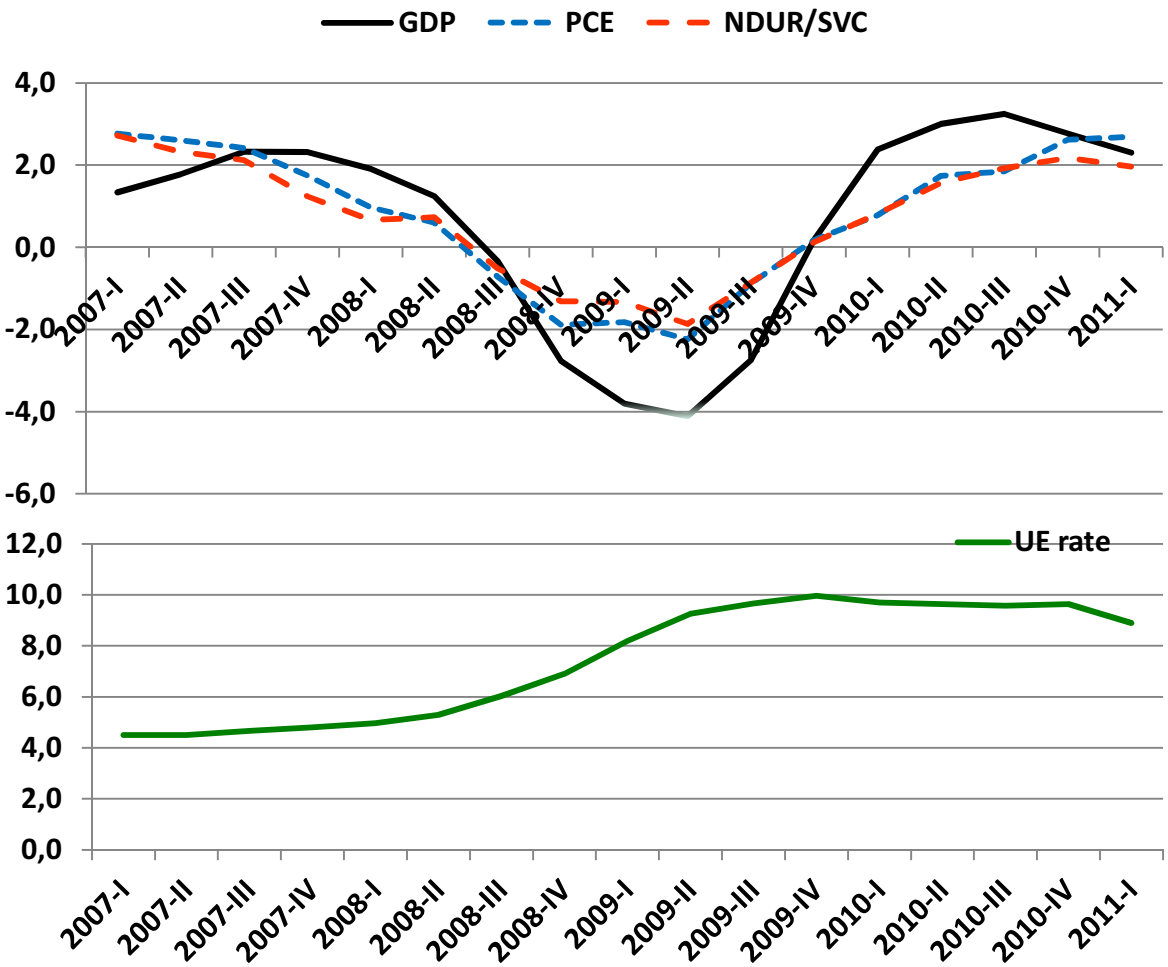
- Is the goal to "explain quantitatively" events of the past couple of years?
- Or to sketch a model that goes in the right direction?

CURRENT EVENTS

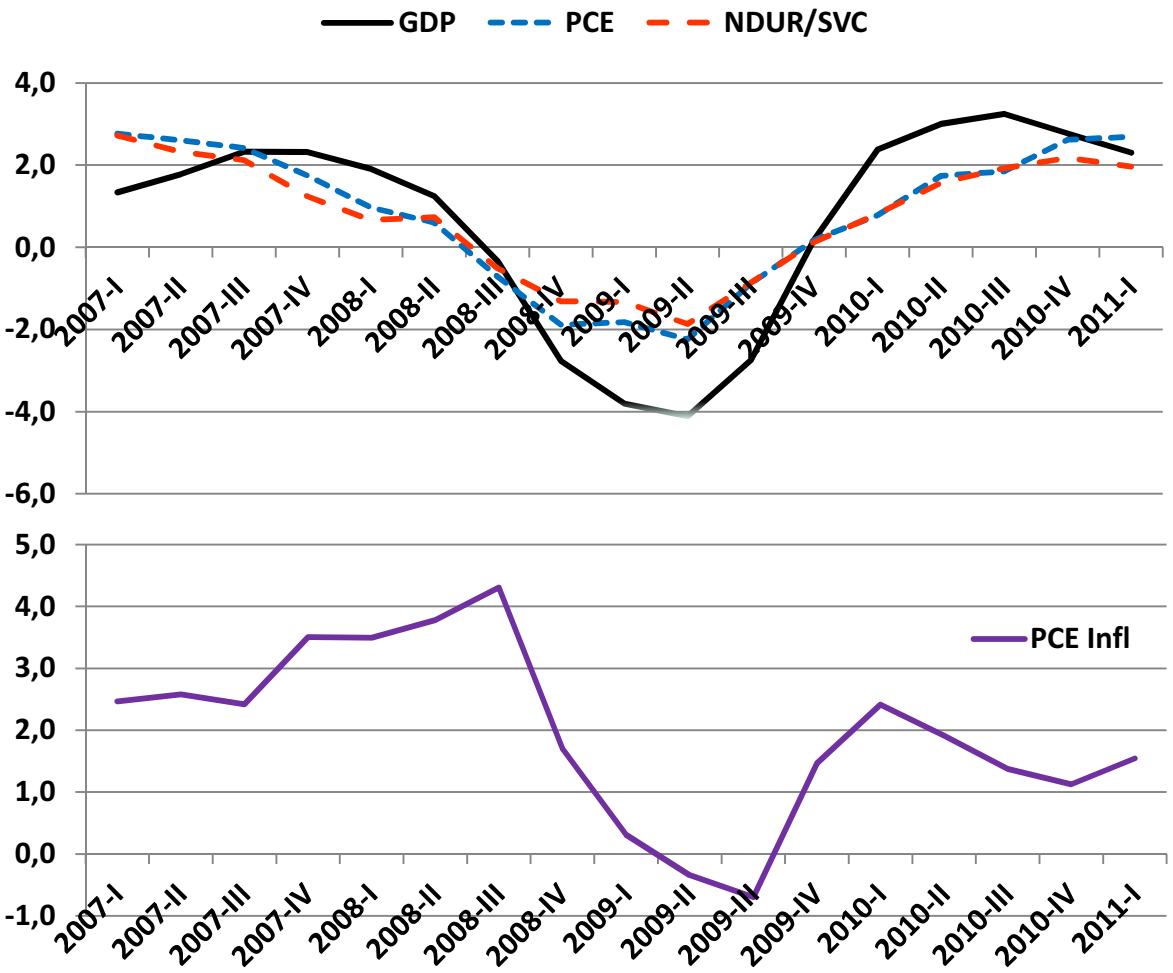
- **Is the goal to "explain quantitatively" events of the past couple of years?**
- **Or to sketch a model that goes in the right direction?**

- **Basic shock of the model: productivity shocks**
  - **Were productivity shocks the starting point of the ongoing economic/financial downturn?**

Basic U.S. Facts



Basic U.S. Facts



Interpret as demand shocks

CURRENT EVENTS

- **Is the goal to "explain quantitatively" events of the past couple of years?**
- **Or to sketch a model that goes in the right direction?**

- **Basic shock of the model: productivity shocks**
  - **Were productivity shocks the starting point of the ongoing economic/financial downturn?**

- **Maybe easier to interpret onset of recession in 2007/2008 as demand shock**
  - **(Or "financial shock")**
  - **Nominal price index and real activity moved strongly in the same direction**

SHOCKS

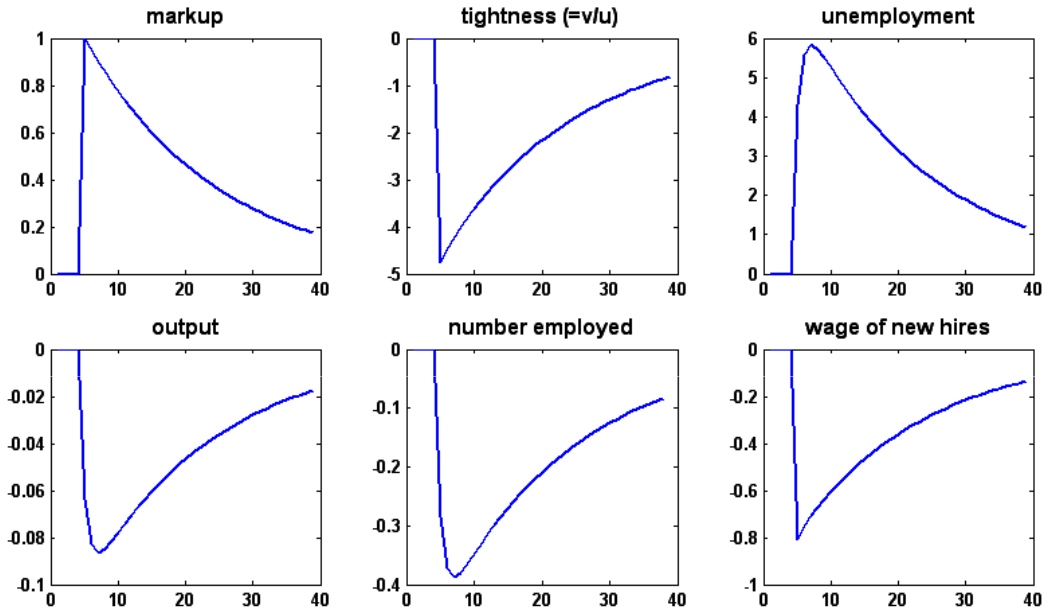
- **Vacancy creation condition**

$$\frac{ra_t}{q(\theta_t)} = \frac{F'(N_t^d, a_t)}{\varepsilon_t} - W_t + \delta(1-s)E_t\left\{\Xi_{t+1|t}\frac{ra_{t+1}}{q(\theta_{t+1})}\right\}$$

- **Think of ε_t as "gross markup"**
  - **In goods markets**
- **Aggregate goods resource constraint** $c_t + \gamma v_t = F(N_t^d, a_t)$
- **Strictly positive analysis**
- **Additional simplifying assumptions**
  - **No wage rigidity for new hires (use Hosios condition with Nash bargaining)**
    - **Wage rigidities for ongoing workers would not affect vacancy creation**
  - **Full consumption sharing (no C^u vs. C^e)**

SHOCKS

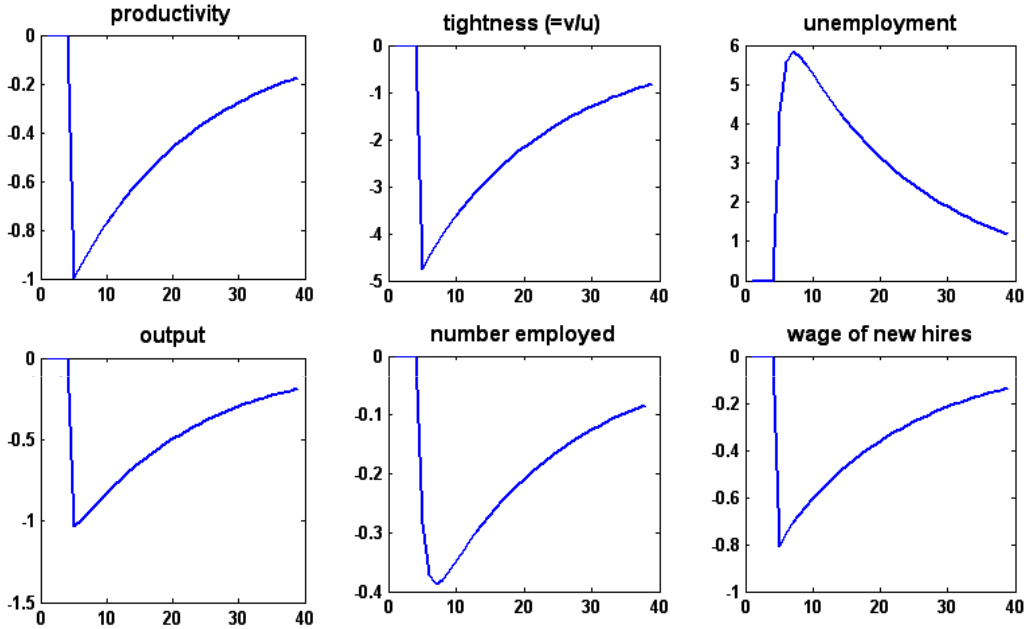
- **Shock to** ε_t



- **How does this compare to effects of productivity shock?**

SHOCKS

- **Productivity shock**



- **"Supply" vs. "demand" shocks impossible to identify within the model?**
- **It is possible – look at output per worker**

SHOCKS

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$$\frac{ra_t}{q(\theta_t)} = \frac{F'(N_t^d, a_t)}{\varepsilon_t} - W_t + \delta(1-s)E_t\left\{\Xi_{t+1|t}\frac{ra_{t+1}}{q(\theta_{t+1})}\right\}$$

SHOCKS

- **Vacancy creation condition**

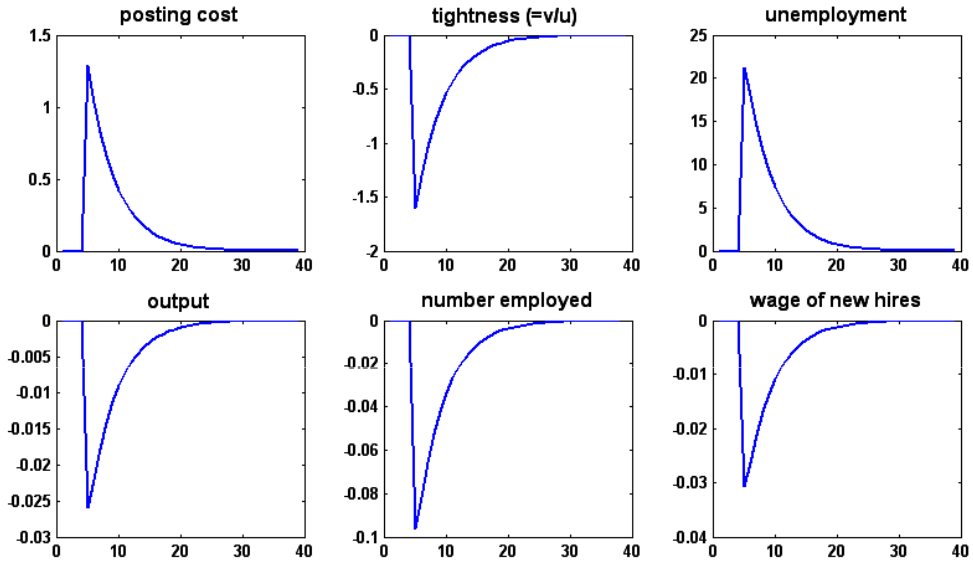
$$\frac{r^{\vartheta_t} a_t}{q(\theta_t)} = \frac{F'(N_t^d, a_t)}{\varepsilon_t} - W_t + \delta(1-s)E_t\left\{\Xi_{t+1|t}\frac{r^{\vartheta_{t+1}} a_{t+1}}{q(\theta_{t+1})}\right\}$$

- **Shock to posting costs**
  - **Reduced form way of capturing "financial shocks?"**

- **Timing of shock?**
  - **A shock to period-*t* cost?**
  - **A shock in period-*t* "expectation of future hiring cost?"**

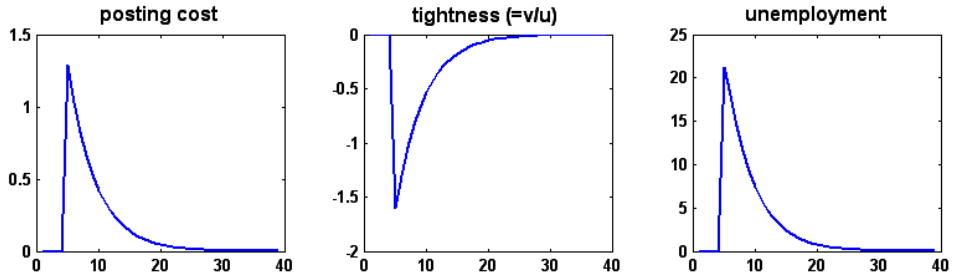
SHOCKS

- **Posting cost in *t***

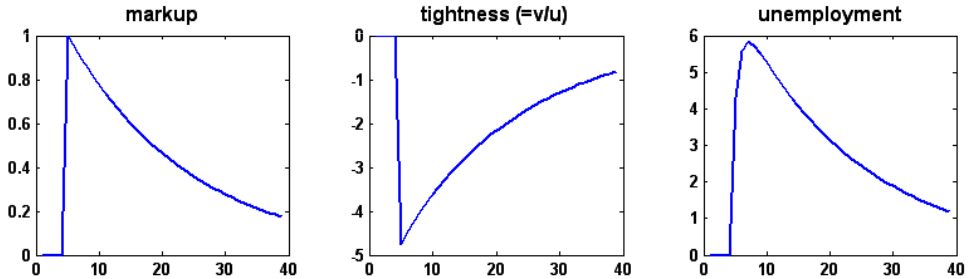


SHOCKS

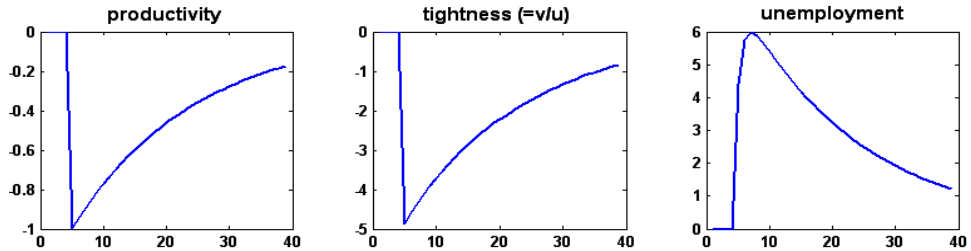
- **Posting cost in *t***



- **Shock to ε_t**

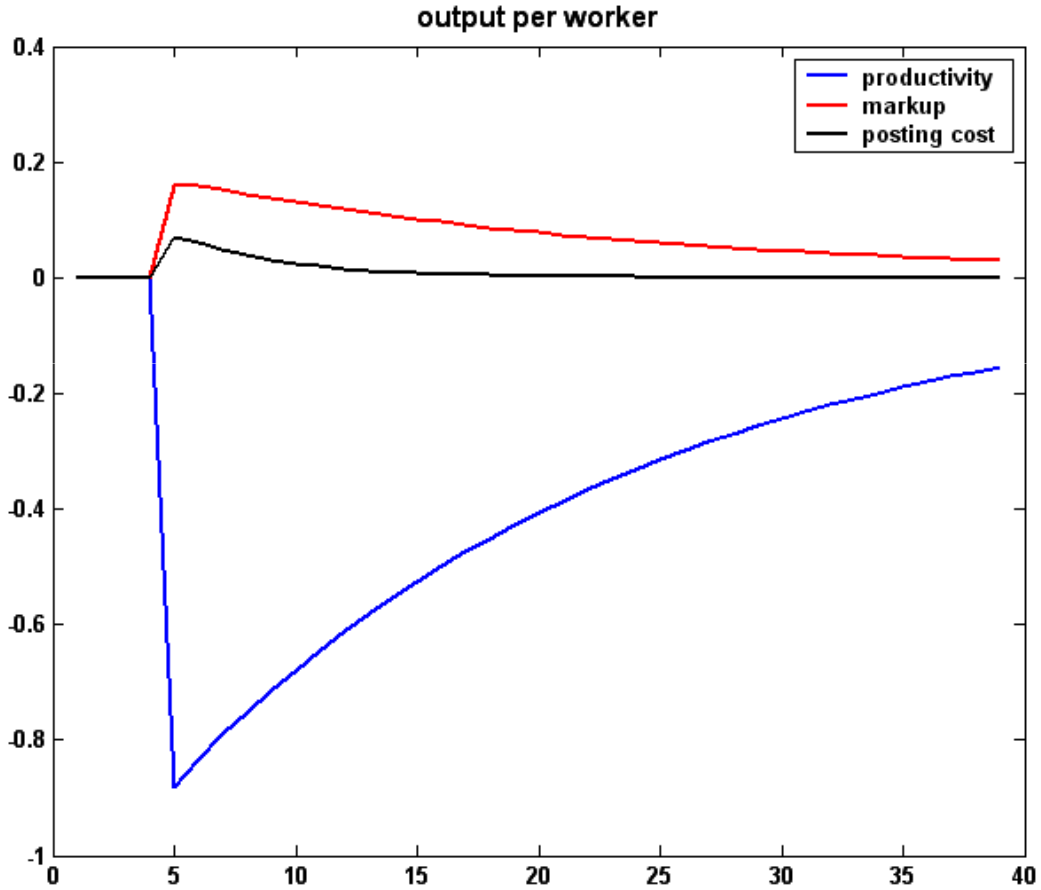


- **Productivity**



SHOCKS

- **Labor productivity**



Output per worker is clearly different in face of "pure demand" vs. "pure supply" shocks

Question: can a "demand shock" lead to changes in output per worker that are either > 0 or < 0?

SHOCKS

- Shocks to "expectation of future posting cost?"

$$\frac{r^{\vartheta}}{q(\theta_t)} = pr + \delta(1-s)E_t\left\{\Xi_{t+1|t}\frac{r^{\vartheta_{t+1}}}{q(\theta_{t+1})}\right\}$$

- Need expectation of future value (i.e., "user cost") of labor to fall
  - Perhaps because consumption demand is expected to fall
  - Could be some type of risk shock
- As VC condition moves through time, current value of labor would fall
  - Current value $\frac{r^{\vartheta}}{q}$ governs job recruiting efforts
  - Unemployment would rise with somewhat of a lag
- To get unemployment to fall, the expectational shock would have to reverse

SUMMARY

- Paper well done and well written
  - Can always pick on particular aspects of model, but those are more secondary comments
- What is the nature of "recruiting costs?"
  - A "posting cost?"
  - Other "recruiting intensity" aspects?
- What is the nature of "shocks" to include in matching models?
  - Supply?
  - Demand?
  - Financial?