Discussion of "Involuntary Unemployment and the Business Cycle" by Christiano, Trabandt and Walentin

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CTW's Selling Points

- Variable labor force ⇒ $\Delta u_t \neq -\Delta n_t$
- Positive comovement between employment and the labor force (*US data: 0.67*)
- Employment more variable than labor force (due to procyclical search effort) (*US data: factor of 3*)
- No apparent difficulties matching estimated impulse responses, including LM variables.
- Unemployment includes "active searchers" only
- Employed happier than unemployed

Key Ingredients

1. Imperfect consumption risk sharing: $c_t^w > c_t^{nw}$

   → individuals better off if they find a job

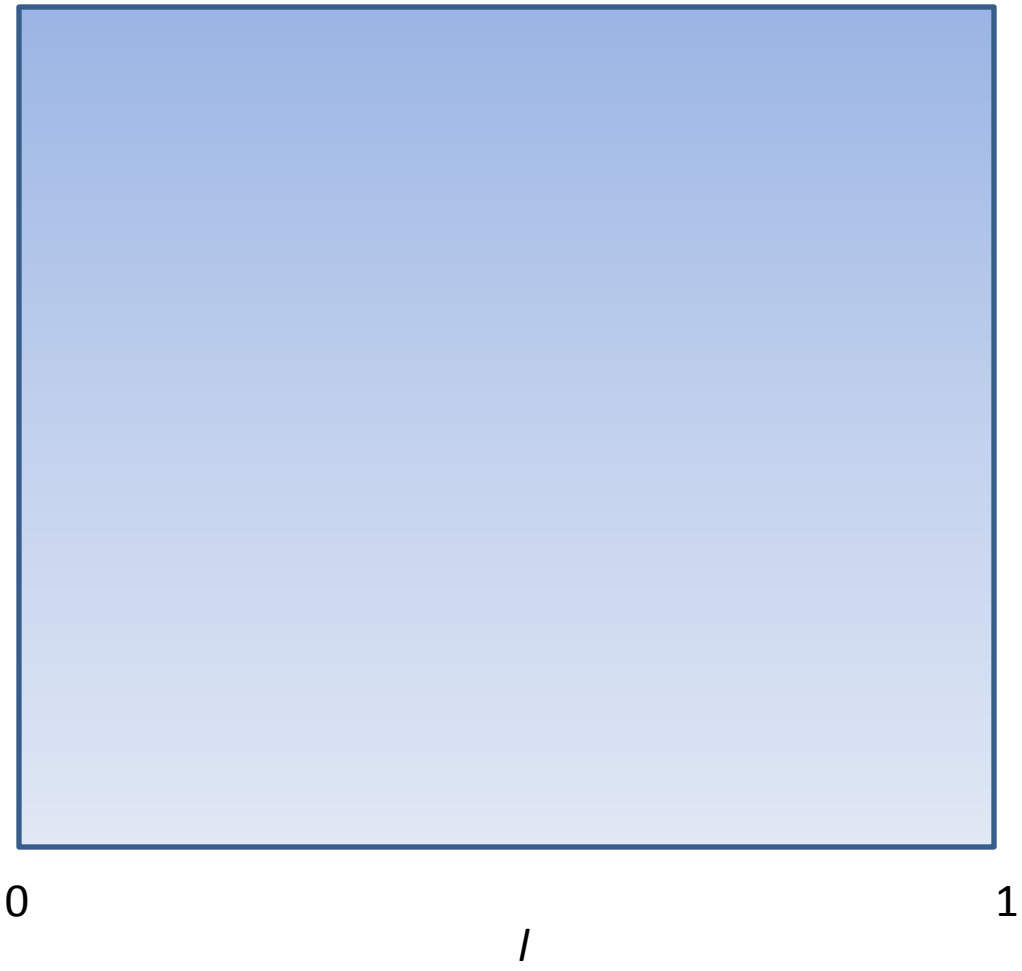
2. Heterogeneity in work disutility

   → some stay out of the labor force

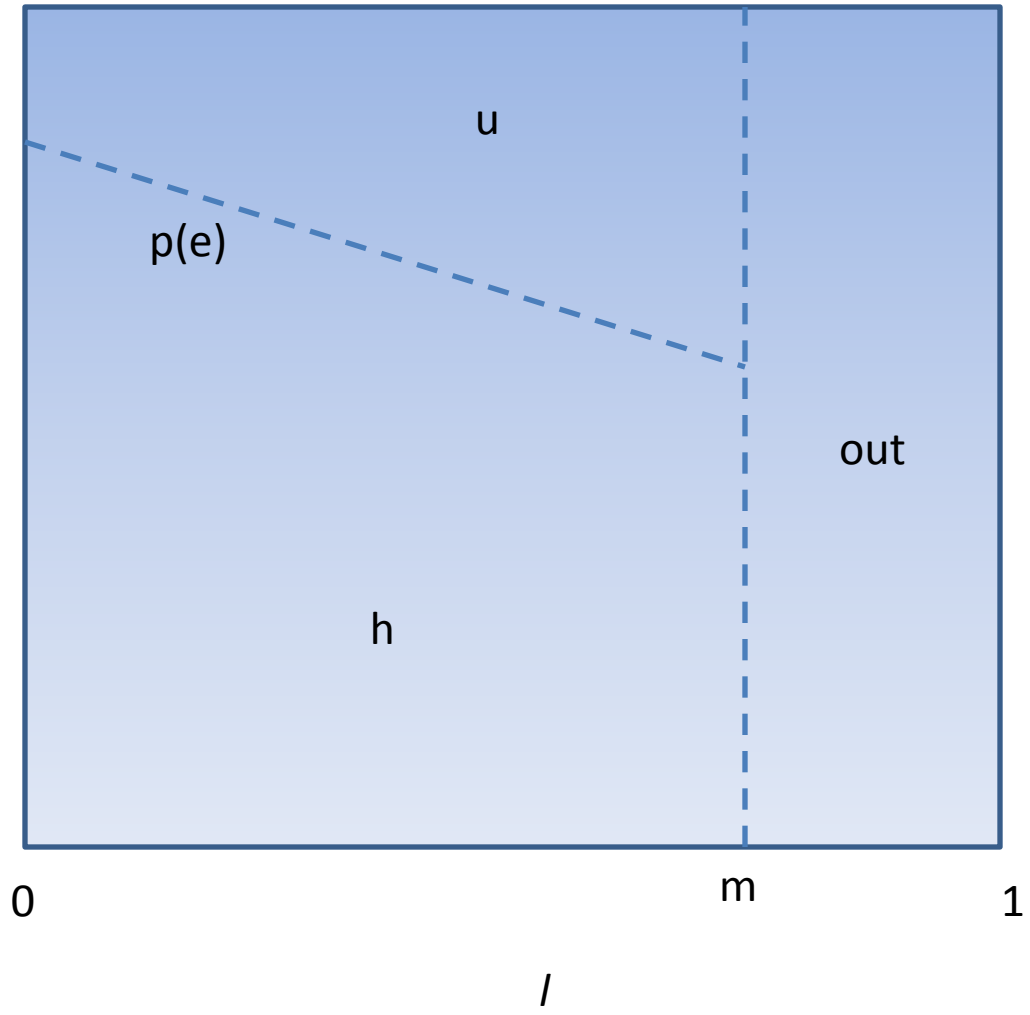
3. Probability of getting a job increases with search effort

   → unemployed do “active search”

A CTW Family



The CTW Labor Market



Some Quibbles

- Probability of finding a job, given effort

$$p(e_t) = \eta + a e_t$$

  - Function p(·) independent of labor market conditions. Does this make sense?
  - Non-participants defined by zero effort, but still p>0 ! Better: $p(0) = 0$

- No history dependence on employment
  - Do we really need i.i.d. work disutility?

More Quibbles

- Unemployment even under perfect information and perfect competition → "frictional"

$$h_t = \int_0^{m_t} p(e_{l,t})dl \leq m_t$$

- Implications for search effort

$$u_t = 1-(h_t / m_t) = 1-(1/m_t)\int_0^{m_t} p(e_{l,t})dl = 1-\overline{p_t}$$

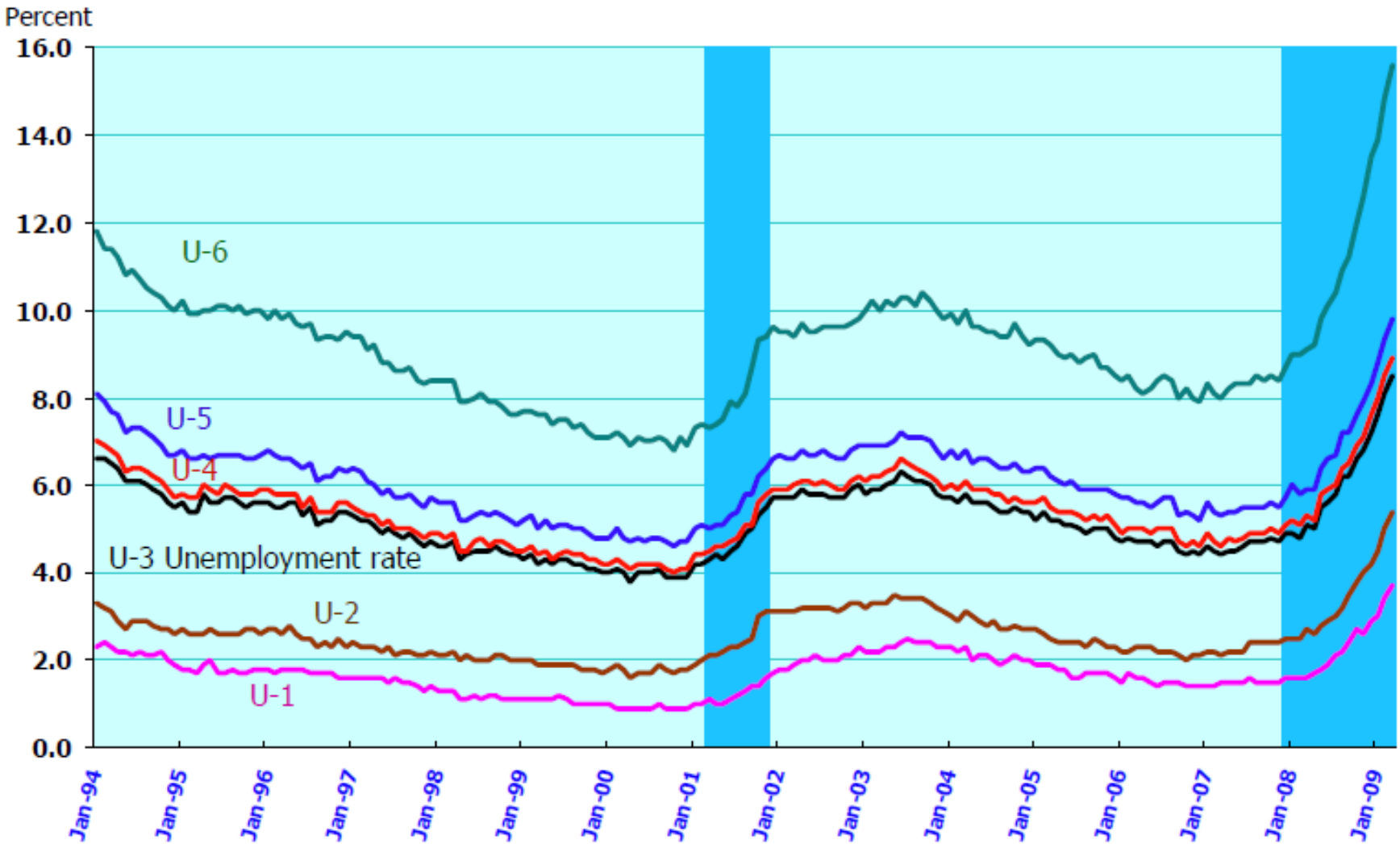
→ $e_{l,t}$ must be procyclical

→ Evidence? Shimer (2004): NO

Comparison to Alternative Models

- Employed better off than unemployed ex-post (vs. models with “full risk sharing”)
  - unfair: individuals care for welfare of the family in those models (otherwise labor force = 0)
- Only “active searchers” counted as unemployed (vs. classical unemployment)
  - irrelevant in practice: U-3 vs. U-4
- Procyclical labor force (vs. classical)
  - no problem if more realistic wealth effects (GSW)

Alternative measures of labor underutilization, U-1 to U-6, 1994-2009



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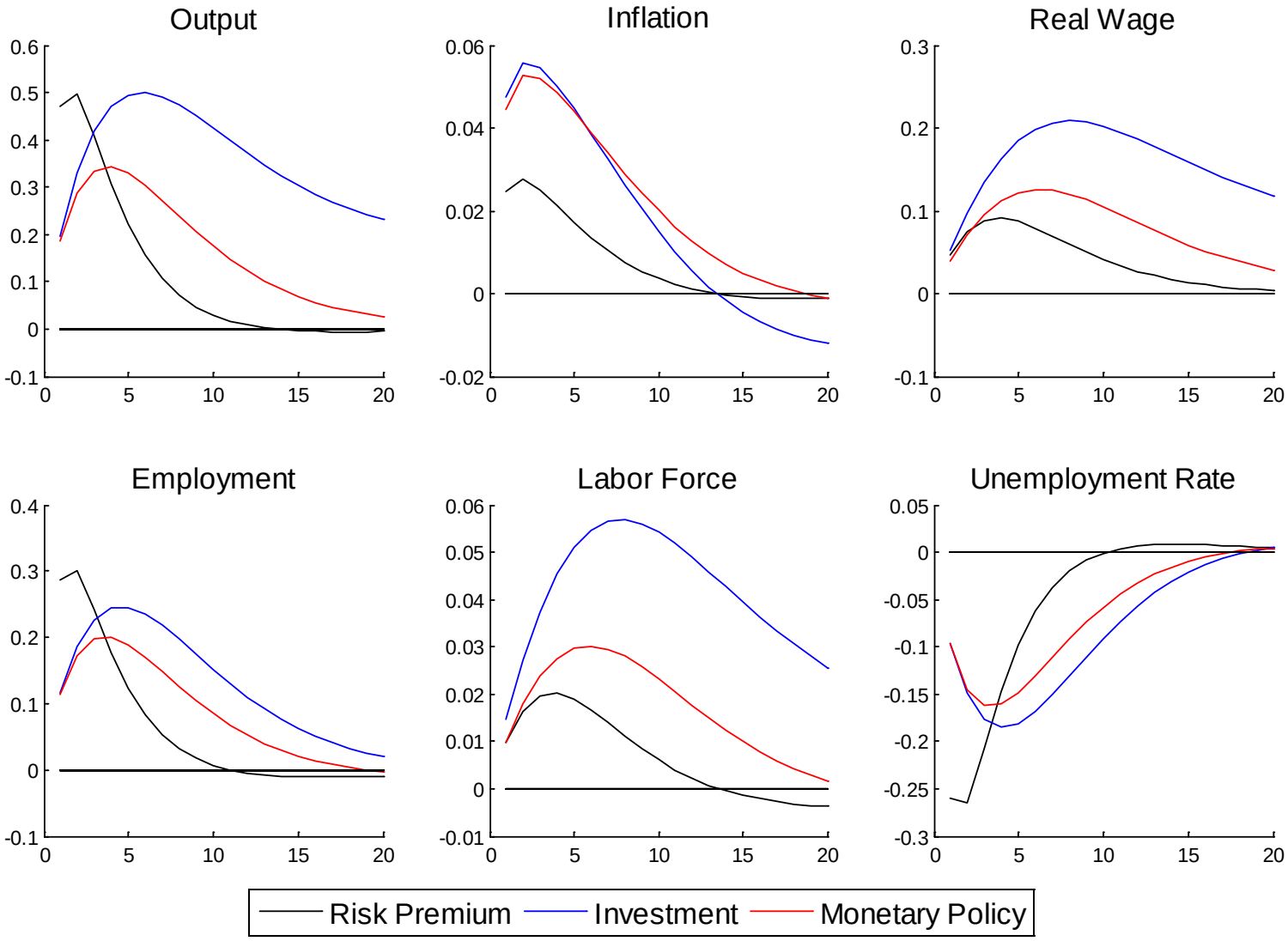
Dynamic Responses to Three Demand Shocks in the Estimated GSW Model



Source: Galí-Smets-Wouters 2010

Phillips Curves, NAIRU, etc.

- Shall we be surprised?
  - Calvo price-setting: $\pi_t = \beta E_t\{\pi_{t+1}\} - \lambda \hat{\mu}_t$
  - Perfect competition in LM + other auxiliary assumptions:

$$\begin{aligned}\hat{\mu}_t &= -\delta(y_t - y_t^*) \\ &= -\delta(n_t - n_t^*) \\ &= \delta(u_t - u_t^*)\end{aligned}$$

$$\Rightarrow \pi_t = \beta E_t\{\pi_{t+1}\} - \lambda\delta(u_t - u_t^*)$$

  - Holds only in the “toy model”
  - It’s not a NAIRU…

Leftovers

- Labor market variables used in the estimation of CTW model but not for the “standard model”: unfair!

- Steady state wage markup: 1.01

  → implausible high labor demand elasticity !!

(to Larry: remember Greenland?)