

Discussion of
“The (Un)importance of Unemployment
Fluctuations for Welfare”
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Purpose of the Paper

- ▶ Evaluate welfare costs of aggregate fluctuations in a model with endogenous unemployment.
- ▶ Contributes to a large literature that re-computes (from Lucas's original) those welfare costs using different assumptions.
- ▶ “Volatility matters, not in itself, but because it affects mean unemployment”

Setup

- ▶ Standard model of fluctuations with labor market matching.
- ▶ Extreme heterogeneity:
 - ▶ Group of agents share unemployment risk and hold all the assets (capital and firms' shares).
 - ▶ Second group can't hold any assets or save/store in any form.
- ▶ Higher volatility results in higher mean unemployment – non-linearity in employment accumulation equation.
- ▶ Welfare costs much larger than Lucas's original calculation because of mean effects.
- ▶ These mean effects are larger for low-skilled workers.

Mean Effects of Volatility

► Simplified Model:

$$A_t = \rho A_{t-1} + \epsilon_t, \quad E(\epsilon_t) = 0, \quad Var(\epsilon_t) = \sigma_\epsilon^2$$

$$s_t = \bar{s} + \xi A_t$$

$$e_t = (1 - \nu)e_{t-1} + s_{t-1}u_{t-1}$$

$$u_t = 1 - e_t$$

. . . Mean Effects of Volatility

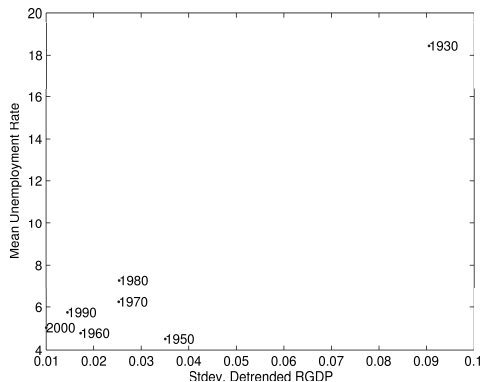
- ▶ Taking unconditional expectations,

$$E(e_t) = (1 - \nu)E(e_{t-1}) + E(s_{t-1})E(u_{t-1}) + Cov(s_{t-1}, u_{t-1})$$

- ▶ $E(s_{t-1}) = E(s_t) = \bar{s}$
- ▶ $E(u_t) = \frac{\nu - Cov(s_t, u_t)}{\bar{s} + \nu}$
- ▶ $\bar{u} = \frac{\nu}{\bar{s} + \nu}$
- ▶ $E(u_t) \geq \bar{u}$ and $\uparrow \sigma_\epsilon^2 \Rightarrow \uparrow Cov(s_t, u_t)$

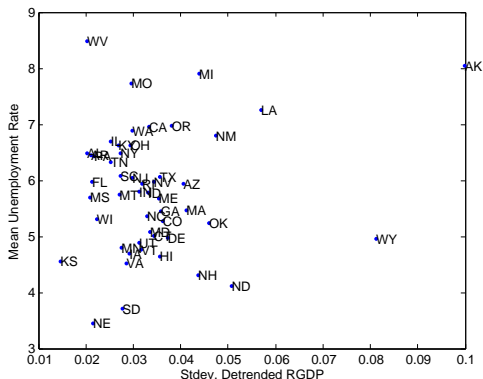
Mean U vs. Volatility Over Time

- ▶ Mean unemployment rate and volatility of output by decade.



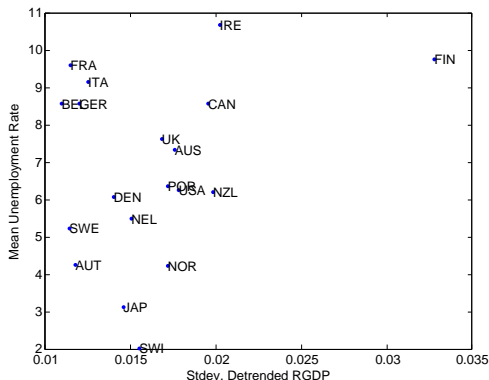
Mean U vs. Volatility Across US States

- ▶ Mean unemployment rate and volatility of output by US state.

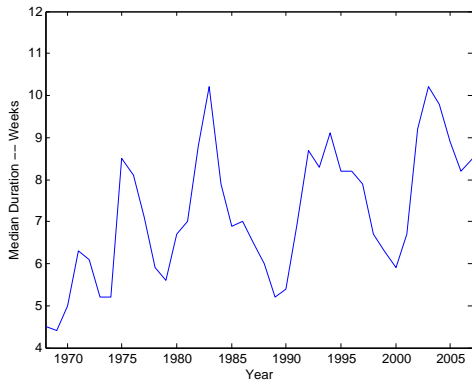


Mean U vs. Volatility Across Countries

- ▶ Mean unemployment rate and volatility of output by country.



Median Duration of Unemployment U.S.



Unemployment Duration and the Business Cycle

- ▶ Fractions of unemployed by duration:
 - ▶ Less than 5 weeks: 41%
 - ▶ Between 5-14 weeks: 31%
 - ▶ Between 15-26 weeks: 13%
 - ▶ 27 weeks or more: 15%
- ▶ Volatility of unemployed people by duration:
 - ▶ Less than 5 weeks: 5.2%
 - ▶ Between 5-14 weeks: 11.1%
 - ▶ Between 15-26 weeks: 19.15%
 - ▶ 27 weeks or more: 28.3%

Random Matching vs. Duration-Dependent JFP

- ▶ Plenty of evidence on decreasing hazard rates (from U to E).
- ▶ Not consistent with random matching.
- ▶ “Random-hiring” vs. “ranking-hiring” (Blanchard and Diamond (1994))
- ▶ Heterogeneity and aggregate shocks: Nakajima (2007), Krusell, Mukoyama, Sahin (2007) and others. . .
- ▶ Maybe not key for matching business cycle facts but important for welfare costs of business cycles.

Recap

- ▶ Important contribution to the welfare costs of fluctuations.
- ▶ Empirical relevance of mechanism needs to be examined.
- ▶ Match duration distribution.