

Discussion of: “Unemployment Crises” by Nicolas Petrosky-Nadeau and Lu Zhang

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Roadmap

1. Overview of findings
2. Praise
3. Remarks and suggestions

Overview of findings

Chief contribution

1. Novel historical stylized facts on labor market dynamics
2. Fairly standard search and matching model of the labor market accounts for the historical facts

Overview of findings (cont.)

Historical labor market facts

1. Unemployment largely state dependent
 - ▶ Extraordinary high before 1945 (14% average pre-war vs. 5.8% average post-war)
 - ▶ Extraordinary volatile before 1945 ($\sigma^2 = 0.258$ vs. $\sigma^2 = 0.126$)
2. Vacancy rate mildly state dependent
 - ▶ Similar volatility before and after 1945 (0.172 vs. 0.135)
3. Beveridge curve flatter before 1945 (-0.79 vs. -0.92)

Overview of findings (cont.)

Suitability of DMP model of labor market

- ▶ The analysis shows that a standard DNP model replicates the evidence
- ▶ Non-linear solution is important to replicate the evidence
- ▶ Critical element for success: alternating wage bargaining scheme (Hall-Milgrom (2008))

Praise

The analysis is relevant across several dimensions:

- ▶ It establishes a wide range of novel facts on labor market dynamics, and provides time series too
- ▶ It shows that a prototype, non-linearized model replicates the facts
- ▶ It outlines several interesting and yet under-explored features of the model (i.e., state dependence, non-linearities)

Remarks and Suggestions (1)

The central role of wages

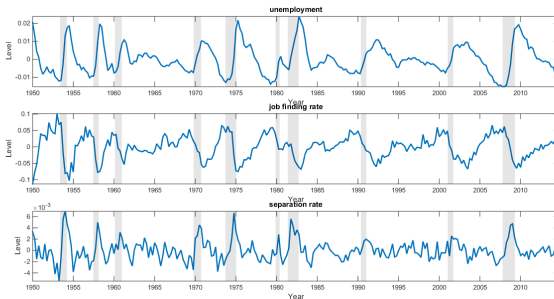
The wage is central to crisis dynamics:

- ▶ Hall-Milgrom (2008) bargaining scheme
- ▶ Increase in the probability of bargaining breaks down (i.e. parties take outside option) \Rightarrow wage bargaining becomes close to Nash \Rightarrow No state dependence \Rightarrow No crisis dynamics
- ▶ Critical assumption: constant disagreement payoffs
- ▶ Is the assumption supported by data?
- ▶ Chodorow-Reich and Karabarbounis (2016) find b pro-cyclical. Idle capital could also be cyclical
- ▶ The paper should discuss this issue. Does the paper imply that crisis related to wage rigidities?

Remarks and Suggestions (2)

Unemployment outflows and inflows

A look at the data:



A look at the model:

$$u_t = u_{t-1} + \delta(1 - u_{t-1}) - q(\theta_t)v_t \quad (1)$$

Remarks and Suggestions (2 Cont.)

State dependence and job separation

$$u_t = u_{t-1} + \delta(1 - u_{t-1}) - q(\theta_t)v_t \quad (2)$$

- ▶ This paper is predominantly about job creation $q(\theta_t)v_t$
- ▶ The DMP model is also about job separation $\delta(1 - u_{t-1})$

Question:

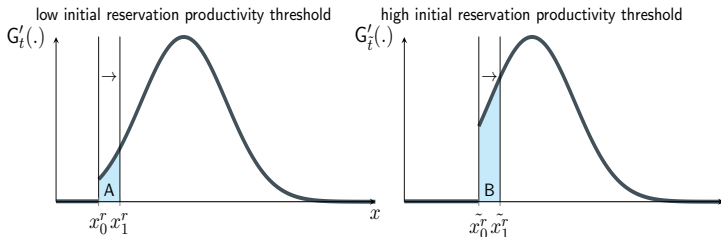
Why is the potential role of the separation margin neglected?

Remarks and Suggestions (2 Cont.)

State dependence and job separation

- ▶ Separation margin important to explain non-linearities and skewness in labor markets variables
- ▶ See Ferraro (2018) and Pizzinelli, Theodoridis and Zanetti (2018)

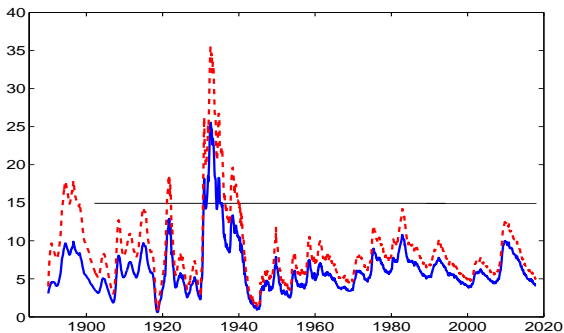
Intuition:



Remarks and Suggestions (3)

Some clarifications

Threshold for unemployment crisis is set to 15%

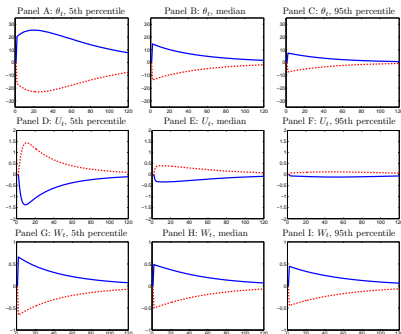


The Great Recession is not classified as a crisis. Essentially no crisis after 1945?

Remarks and Suggestions (3 cont.)

Some clarifications

No state dependence with respect to the sign of shock?



The paper mentions that unemployment is skewed, which would require asymmetric reactions

Remarks and Suggestions (3 cont.)

Some clarifications

- ▶ The cost of posting a vacancy is somewhat uncommon:

$$\kappa_t = \kappa_0 + \kappa_1 q(\theta_t)$$

High tightness low posting cost ($\uparrow \theta \Rightarrow \downarrow q(\theta) \Rightarrow \downarrow \kappa_t$)

- ▶ The job creation condition becomes:

$$\frac{\kappa_0}{q(\theta_t)} + \kappa_1 = \mathcal{E}_t$$

Conclusion

- ▶ The study develops long time-series and provides novel empirical regularities on unemployment and labor market tightness. They will be helpful to several studies
- ▶ Wage bargaining is central to the analysis and assumptions deserves more scrutiny
- ▶ DMP posits that unemployment depends on job creation **and** job separation. Discussing the possibility of job separation is important to qualify the findings and link them to the related literature