# Labor Market Reforms and the Cost of Business Cycles by T. Krebs and M. Scheffel

Discussion by
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### THE PAPER: AN IMPORTANT ISSUE

Welfare cost of business cycles, neglected issue since Lucas (1987)' paper:

- Lucas finds that the welfare gain from eliminating consumption risk is 0.005% of permanent consumption per capita
  - ➤ an annual consumption compensation as low as 17 US dollars per capita (Source: FRED database, 2014Q1, US, Real personal consumption expenditures per capita, 34 339 Chained 2009 Dollars)
- ▶ If Lucas is right, why shall we care about stabilizing policies analyzed in Neo-Keynesian DSGE models?

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  - deterministic and fluctuating economies have the same mean
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- ▶ In Lucas (1987)'s paper: linear world
  - deterministic and fluctuating economies have the same mean
  - the negative effects of recession are compensated by the positive effects of expansions
- ► In a non-linear world
  - deterministic and fluctuating economies do not share the same mean
  - ▶ asymmetric effects of recessions and expansions : recessions are more harmful than expansion are beneficial (Mortensen Pissarides, 1994)

## THE PAPER: A RICH MODEL

- ▶ Bringing the data to the model : German labor market reforms
- ► Model:
  - search and matching model, endogenous search effort and wealth, aggregate and individual shocks, human capital depreciation, heterogeneous agents
  - endogenous interest rate r and tax rate  $\tau$

## MAIN COMMENTS

- 1. Separation rate?
- 2. Understanding the results
- 3. Wage?

## 1. SEPARATION RATE

Source of non-linearity:

At the steady state, unemployment outflows equal unemployment inflows. U is then a convex function of the job finding rate f

$$U = \frac{s}{s+f}$$

Because of convexity,

$$\bar{u} = \frac{s}{s + \sum_{i} \pi_{i} f_{i}} < \sum_{i} \pi_{i} \tilde{u}_{i} = \tilde{u} \approx E(u)$$

The unemployment gap is

$$\tilde{u} - \bar{u} \approx u''(f) \frac{\sigma_f^2}{2} \approx \frac{s}{(s+f)^3} \sigma_f^2$$
 (1)

which increases with  $\sigma_f^2$  and falls with f.



FIGURE: Non linearities in the labor market: the mean effect. The larger the business cycle fluctuations, the  $\uparrow$  the average unemployment rate. A  $\downarrow$  in business cycle volatility leads to  $\downarrow$  unemployment, more C and welfare

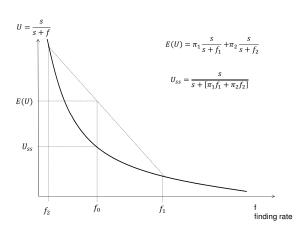
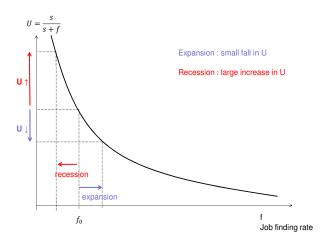
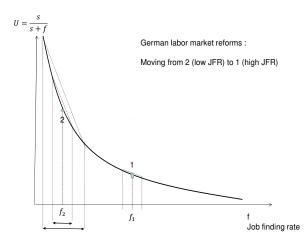


FIGURE: Non linearities in the labor market: Asymmetric effect of the business cycle



#### FIGURE: German labor market reforms



## 1. Separation rate s

In US data, it seems reasonable to assume exogenous and constant s

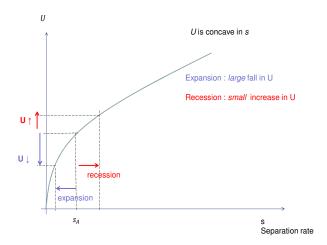
- Fluctuations in U are explained mainly by f (Shimer, 2012)
- ▶ U fluctuations are asymmetric (McKay and Reis, 2008; Petrosky-Nadeau and Zhang, 2013): contractions in economic activity ( $\uparrow U$ ) are briefer and more violent than expansions.

## 1. Separation rate s

#### In Germany?

- ► In German data:
  - Fluctuations in U are explained by s and f (Elsby, Hobijn and Sahin, 2012;  $\beta^s = 0.47$  and  $\beta^f = 0.56$ )
  - ► U fluctuations are not asymmetric: contractions are neither shorter nor more violent than expansions (my calculations using McKay and Reis program on German unemployment data from OECD, MEI, 1991Q1-2013Q3)
- ▶  $U = \frac{s}{s+f}$  hence U is concave in s
- Story behind  $\alpha$ ?  $\alpha = 1$ ? Move Germany to a region in which U is more concave?

Figure : U is concave in the job separation rate s



- ► Full Characterization of the economy before / after the reforms:
  - ▶ Business cycle properties before/after the reform (model versus data)? Shimer puzzle? Gartner, Merkl and Rothe (2012): more sclerotic labor market are more volatile so less business cycle labor market after the reform. Is that what you get?
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  - Composition of unemployment (short-term / long-term)? Inequality (endogenous savings)? Beveridge Curve?
- ▶ Very rich model: Do we need all this?
  - ► Endogenous savings? Labor market convexity is not enough?
  - ▶ Search effort? Magnifying effects of  $\theta$  on labor market variables?
  - ▶ Results without these elements?

- ► Understanding the impact of general equilibrium effects
  - ► Endogenous r: results with constant r (small open economy)? Impact on financial income for employed individuals? Inequality (financial income of the rich)?
  - ▶ Endogenous  $\tau$ : results with constant  $\tau$ ? Larger impact on low income groups?

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- ► Model without capital (savings are not productive)
  - ▶ Krusell and Smith (1999): precautionary savings →
     "over-savings" → high level of capital and production
     → welfare cost of fluctuations is low
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- ▶ Desirability of the reforms? Desirable to lower the cost of fluctuations but does the cost of transition matter?



## 3. Wage

- ► Wage dynamics is crucial in labor market dynamics (understanding changes in quantity and price)
- ► Wage dynamics in the data before / after the reform ? Empirical evidence?
- In the paper, w = A
- Expected wage dynamics matter for business cycle costs:
  - ▶ Gomes, Greenwood and Rebelo (2001): search payoffs are convex in productivity (wage) so that more fluctuations in productivity may be preferred to less

## MINOR COMMENTS

- ▶ Present the distribution of welfare gains rather than the different weight in welfare function
- Job quantity versus job quality?
- ▶ Is that a desirable reform ... for France? Negative spillovers to France? (Busl and Seymen, 2013)
- ▶ Which margins of labor matter? What about hours or labor participation?
- ➤ Suggested references: Challe and Ragot (2013), Iliopulos et al. (2014), Roulleau-Pasdeloup (2014)

## CONCLUSION

Many questions that the paper can address which makes it very appealing!

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