

“Reservation Wages and the Wage Flexibility Puzzle”

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Wage developments in the aftermath of the crisis

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Reservation wages and the wage flexibility puzzle

Three contributions:

- 1 Wage flexibility puzzle:
DMP model does not match fluctuations in unemployment and wages
 - Unemployment volatility puzzle, documented in a different way
 - Puzzle is similar, but different
- 2 New evidence on reservation wages
 - Constructed from micro-data for UK and Germany
 - Reservation wage flexibility puzzle
- 3 Propose modification of the model that is consistent with the data
 - Reference dependence in reservation wages
 - Makes reservation wage and wage less cyclical

- Contributions 2 and 3 make this an important paper
 - Reservation wage plays an important role in search models
 - We know very little about reservation wages in the data
 - Self-reported data are not perfect, but surely informative
 - Reference dependence in reservation wage is plausible, and
 - it is testable with the new data (and supported)
- Contribution 1 is very interesting, but:
 - It is orthogonal to contributions 2 and 3
 - The puzzle is slightly different, but this is not discussed
 - I am not convinced of the difference

1.
How is the **wage flexibility puzzle** different from the **unemployment volatility puzzle**?

2.
What explains the different finding?
(**wage rigidity** does not help)

Wage flexibility puzzle cf unemployment volatility puzzle

Approach

- Unemployment volatility puzzle (Shimer 2005):

- BC driven by changes in productivity p_t

- Match data for

$$\frac{\partial \ln u_t}{\partial \ln p_t} \longleftrightarrow \frac{\partial \ln w_t}{\partial \ln p_t}$$

- Model simulations

- Wage cyclicality puzzle:

- “agnostic about the nature of demand shocks”

- Match data for *wage curve*

$$\frac{\partial \ln u_t}{\partial \ln w_t}$$

- Similar to labor supply elasticity

Wage flexibility puzzle of unemployment volatility puzzle

Simplified derivation of the wage curve

- Wage shares match surplus

$$w_t = \rho_t + \beta(p_t - \rho_t - 0) = \beta p_t + (1 - \beta)\rho_t$$

- Profits are constant

$$\frac{p_t - w_t}{r + s} = C + \frac{c}{q_t} = C$$

- Therefore, only wage cyclical from reservation wage

$$(1 - \beta)w_t = \beta(p_t - w_t) + (1 - \beta)\rho_t \Leftrightarrow w_t = \beta(r + s)C + \rho_t$$

- Reservation wage depends on benefits and future wages

$$\rho_t = u_t z + (1 - u_t)w_t$$

- Combining both equations gives the wage curve

$$w_t = z + \frac{\beta(r + s)C}{u_t} = z + \beta(r + s)C \frac{s + \lambda_t}{s}$$

Wage flexibility puzzle cf unemployment volatility puzzle

- A stake through the heart of the DMP model!
 - Changes in productivity do not affect unemployment (no congestion externality)
 - Changes job finding and unemployment rate exogenous (?)
- Findings
 - Need implausibly high replacement ratio to match the data (Costain and Reiter 2008, Hagedorn and Manovskii 2008)
 - Wage rigidity (infrequent bargaining) does not help (Pissarides 2009, Haefke, Sonntag and van Rens 2013)
 - even if applies to newly formed matches (*Different from*: Hall 2005, and many others)
- Does the different approach explain the different finding?

In the standard model,

- The job finding rate is directly related to the job filling rate

$$\lambda_t = \theta_t^{1-\mu} = \left(\theta_t^{-\mu}\right)^{-\frac{1-\mu}{\mu}} = q_t^{-\frac{1-\mu}{\mu}}$$

- Job filling rate is determined by the JCC

$$\begin{aligned} C + \frac{c}{q_t} &= E_t J_t \\ &= \alpha J(w_t^r) + (1 - \alpha) J(w_t^a) \\ &= J(w_t^r) + (1 - \alpha) \frac{w_t^a - w_t^r}{r + \phi + s} \end{aligned}$$

- Wage rigidity new matches ('backward looking component')
 - New matches start at the average wage w_t^a with probability $1 - \alpha$
 - But this wage is then rebargained with probability ϕ in each period
 - This strongly mitigates the effect on unemployment volatility
 $\phi = 8.3\%$ per month (contract length 1 year) $\gg r + s = 1.25\%$

- Paper makes an important contribution
 - New evidence on reservation wages
 - Reference dependence offers plausible and *testable* theory of wage rigidity
 - New data support new theory
- Interesting agenda: wage flexibility puzzle
 - Is it reasonable to assume profits are acyclical?
 - Is this still the same model?
 - Is the puzzle substantively different? How? Why?