

Discussion of "Downward Nominal Wage Rigidity and Job Destruction"

by Seth Murray

Discussion by Vytautas Valaitis

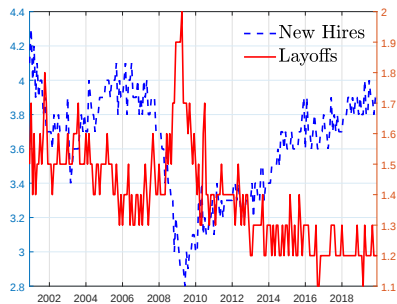
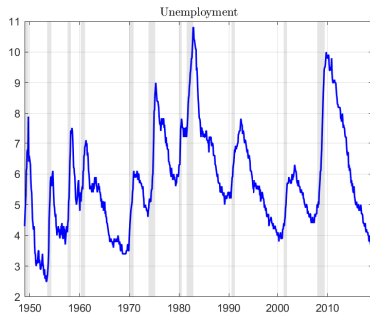
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November 23, 2020

Motivation in the Aggregate Data

Typical to ignore the role of job destruction, but:

- Unemployment rises quickly, declines slowly, fluctuations asymmetric
- Both vacancy and job separation rates are not constant



Not much work trying to understand, why is that the case?

This Paper

A causal link: Downward Nominal Wage Rigidity $\rightarrow$ Job Destruction

This helps to understand:

- How wage rigidity affects firms' hiring and firing decisions?
- What drives aggregate unemployment?
- Asymmetry in NK models?

Hard to establish empirically because:

- Endogeneity issues: Wage setting is forward looking, hard to find an exogenous shock

Strategy in this paper:

- Quasi-Natural experiment: Lehman 2008 shock
- Find that wage raises within the firm are clustered in one quarter.
- Firms raising wages in Q2 more exposed to wage rigidity than Q4 wage raising firms

Main Result: Q2 firms more likely to destroy jobs than Q4 firms

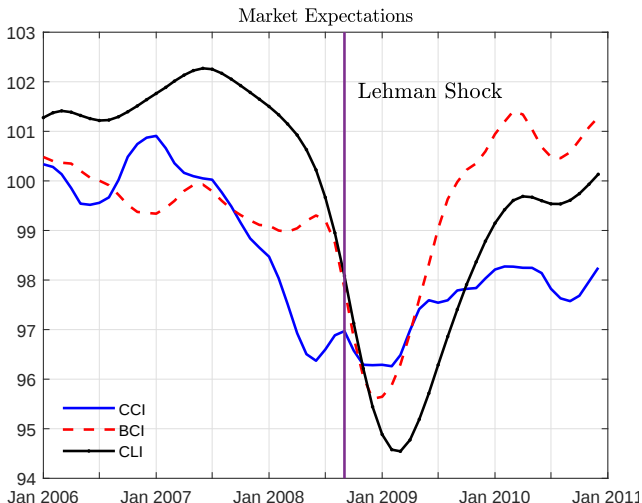
$$JD_{kt} = D_{kt}^{2008:Q4} \theta^{Q4} + \sum_{q=1}^3 D_{kt}^{2008:Q4} D_{kt}^{QqRaiser} \theta^{Qq} + \mathbf{X}_{kt} \beta_t + \epsilon_{kt}$$

Table 3: Difference-in-Differences Job Destruction by Typical Raise Quarter

Dependent Variable	Job Destruction Rate		
	(1)	(2)	(3)
2008:IV * Q4-Raiser	1.48*** (0.16)		
	Relative to Q4-Raiser		
2008:IV * Q1-Raiser	0.34 (0.28)	0.24 (0.25)	1.02*** (0.18)
2008:IV * Q2-Raiser	2.11*** (0.21)	1.30*** (0.26)	2.01*** (0.20)
2008:IV * Q3-Raiser	0.70** (0.26)	0.26 (0.24)	-0.22 (0.14)
Industry*Time FE	No	Yes	Yes
Employment Weighted	No	No	Yes
Mean JD Rate	8.6%	7.7%	4.9%
Observations	5.7M	5.6M	5.6M
R-Squared	0.28	0.29	0.38

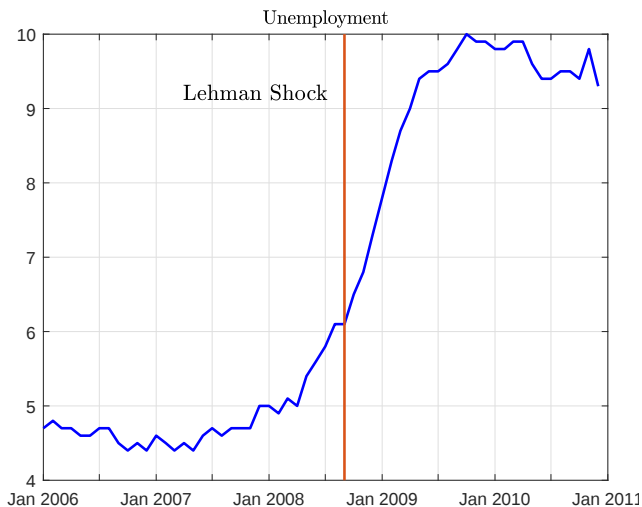
Comment 1: Exogeneity of Lehman 2008 Shock

Even if Lehman shock was unexpected, leading indices begin to fall much earlier



Comment 1: Exogeneity of Lehman 2008 Shock

Aggregate unemployment starts to rise in the beginning of 2008



Comments 2: Measurement

- Identification of the typical raise quarter:
 - Is the typical raise quarter stable within firm?
 - How are Q2 firms in 2008 identified? Do we observe these Q2 firms actually raising wages in 2008?

- Job Destruction measured as:

$$JD \equiv \max \left[0, \frac{\text{start of quarter employment} - \text{end of quarter employment}}{0.5 \text{ start of quarter employment} + 0.5 \text{ end of quarter employment}} \right]$$

- Measures both job destruction and reduction in employment from no replacement. To discriminate between search-and-matching models better to use layoffs
 - Why restrict to positive values? Potential bias?
- Extraction of the unobserved persistent wage changes
 - Could describe the procedure in more detail
 - Trade-off: noisy data versus measurement error and, therefore, endogeneity

Comments 3: Estimation

- JD response to negative revenue changes:

$$JD_{kt} = \mathbf{D}_{\mathbf{kt}}^{2008:Q4} \left(\theta^{Q4} + \mathbf{R}_{kt} \gamma^{Q4} + \mathbf{D}_{\mathbf{kt}}^{Q2raiser} \right) (\theta^{Q2} + \mathbf{R}_{\mathbf{kt}} \gamma^{Q2}) + \mathbf{X}_{kt} \beta_t + \epsilon_{kt}$$

To argue that endogeneity between JD and R attenuates the difference between Q2 and Q4 firms, need to assume that JD of Q2 firms are more affected by negative revenue change

- Argument is illustrated on a different specification than the one estimated?
- Plausible in 2008, but the estimation sample is 2002 : Q1 to 2014 : Q4.
Direction of bias on control variables is not clear. How does this affect γ^{Q2} ?
- Why no weights here?
- Instrument for W_{kt} in $JD_{kt} = \gamma W_{kt} + \gamma^{2008:Q4} d_{kt}^{2008:Q4} Q_{kt} + \mathbf{X}_{\mathbf{kt}} \beta_t + \epsilon_{kt}$
 - Endogeneity because of persistent unobserved confounders between past wages and current job destruction
 - Instrument with historical wage raises
 - Missed why the instrument is exogenous?

Thanks!