The Making of a Great Contraction With a Liquidity Trap and a Jobless Recovery

Stephanie Schmitt-Grohé and Martin Uribe

Discussion by Karel Mertens

Boston, October 2013

The Peril of Taylor Rules: Multiple equilibria

Benhabib, Schmitt-Grohé and Uribe 2001

$$
\begin{aligned}
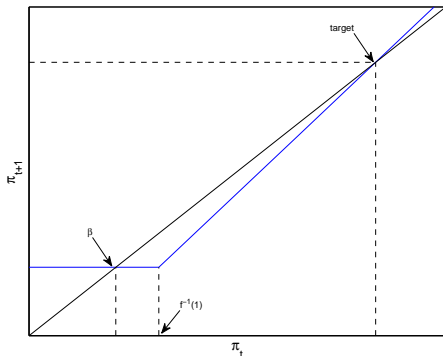u'(C_t) &= \beta R_t E_t \left[u'(C_{t+1})/\pi_{t+1} \right] \\
R_t &= \max(f(\pi_t), 1) \quad, \quad \beta f'(\cdot) > 1 \\
C_t &= Y^n
\end{aligned}
$$

Because of ZLB, infinitely many bounded deterministic solutions to

$$\pi_{t+1} = \beta \max(f(\pi_t), 1)$$

Taylor principle does not hold globally.

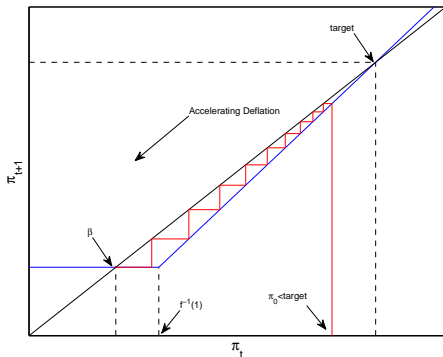## The Peril of Taylor Rules: Multiple equilibria

Benhabib, Schmitt-Grohé and Uribe 2001

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\begin{aligned}
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Because of ZLB, infinitely many bounded deterministic solutions to

$$\pi_{t+1} = \beta \max(f(\pi_t), 1)$$

Taylor principle does not hold globally.

'Confidence shocks' can generate long ZLB episodes.

But how generate persistent below trend output/employment?

Downward Nominal Wage Rigidities
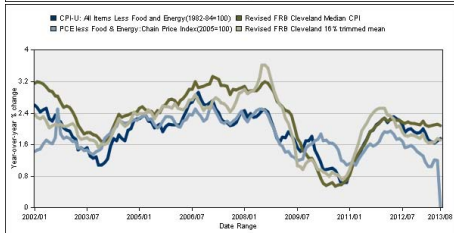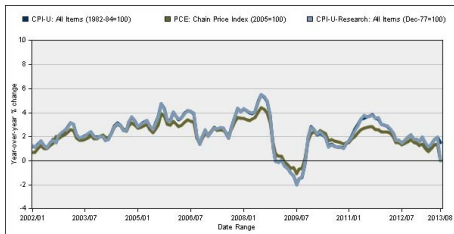
Authors posit a wage Phillips curve

$$W_t/W_{t-1} \geq \gamma_0 \left(Y_t/Y_t^n\right)^{\gamma_1/\alpha} \ , \ \ \gamma_0, \gamma_1 > 0$$

$$w_t/w_{t-1} \geq \gamma_0 \left(Y_t/Y_t^n\right)^{\gamma_1/\alpha} /\pi_t$$

Rise in involuntary unemployment if
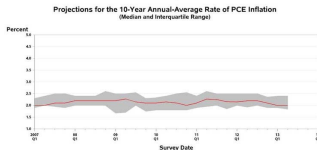
  a. significant price deflation

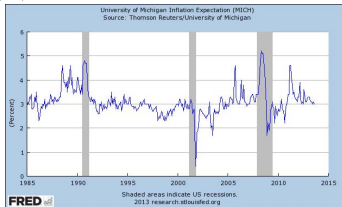 b. limited wage deflation.

Significant Price Deflation?

Unanchored Inflation Expectations?

Ten-Year Expected Inflation and
Real and Nominal Risk Premia

Percent

Expected inflation

Inflation risk premium

Source: Haubrich, Pennacchi, Ritchken (2011).

Projections for the 10-Year Annual-Average Rate of PCE Inflation
(Median and Interquartile Range)

Percent

Survey Date

University of Michigan Inflation Expectation (MICH)
Source: Thomson Reuters/University of Michigan

(Percent)

Shaded areas indicate US recessions.
2013 research.stlouisfed.org

Limited Wage Deflation?

Yes

Daly, Hobijn and Lucking (DHL 2012):

Why Has Wage Growth Stayed Strong?

No

Elsby, Shin and Solon (ESS 2013):

Wage Adjustment During the Great Recession

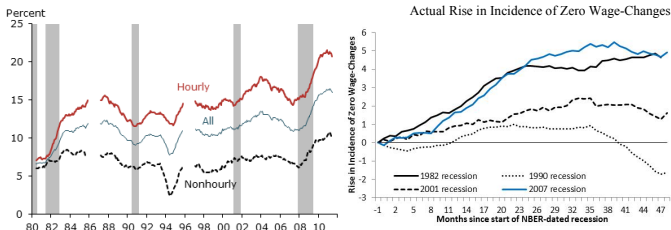Coibion, Gorodnichenko and Koustas (CGK 2013):

Amerisclerosis? The Puzzle of Rising U.S. Unemployment Persistence

DNWR in the Great Recession: Empirical Counterarguments

1. **Incidence of Zero Wage Growth in CPS**
   CGK: Great Recession similar increase as 1982 recession.
   ESS: Only moderately greater than before the Great Recession.

2. **Aggregate Wage Growth in the Great Recession**
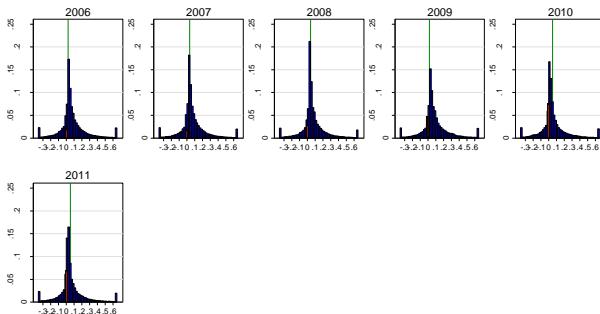   CGK: Missing price deflation, but no missing wage deflation.
   ESS: Real wages considerably procyclical (composition bias)

3. **Measurement Problems in CPS**
   Small sample, self reported, rounding error
   ESS: Better data for the UK (New Earnings Survey, payroll based)

4. **Wage rigidities for new hires?**
   Not layoffs, but long unemployment duration.

1. Add nominal price rigidities to help explain missing deflation.
2. Stochastic equilibria
3. Combine confidence and fundamental shocks

 $\rightarrow$ self-fulfilling weak recoveries

Are jobless recoveries impossible with fundamental shocks (e.g. β-shocks)?

I think this difference has more to do with the shock persistence.

Fundamental shock is temporary. Confidence shock is permanent.

The Exit Strategy

Just raise R_t, and this will raise inflation expectations and employment.
In the model, this is true for both types of shocks.
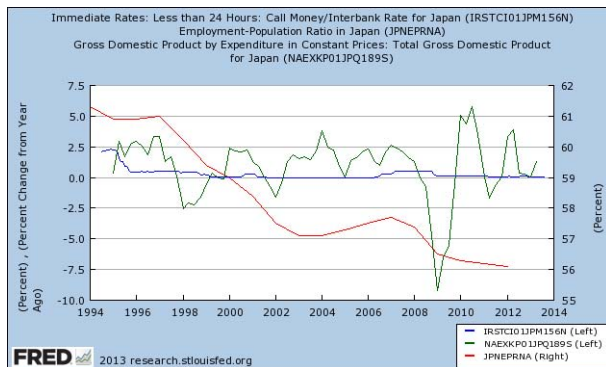
But:

Outcome depends on equilibrium selection and is not unique.

Hard to communicate.