

The Limited Macroeconomic Effects of Unemployment Benefit Extensions

Gabriel Chodorow-Reich

Harvard University and NBER

Loukas Karabarbounis

University of Minnesota and NBER

NBER Summer Institute, EF&G

July 2016

The Question

- By how much do benefit extensions affect macro outcomes?
- Challenge: benefit extensions endogenous to business cycle.

Example Illustrating our Strategy

(April 2013)	Louisiana	Wisconsin
Real-Time Unemployment Rate	5.9%	6.9%
Benefit Extension	14 Weeks	28 Weeks
Revised Unemployment Rate	6.9%	6.9%
Hypothetical Benefit Extension	28 Weeks	28 Weeks
UI Error	-14 Weeks	0 Weeks

Revisions: (i) revised data; (ii) full time series; (iii) model improvement.

Empirical Framework

- Decompose duration of UI benefits:

$$\underbrace{T_{s,t}}_{\text{UI duration with real-time data}} = \underbrace{\tilde{T}_{s,t}}_{\text{UI duration with revised data}} + \underbrace{\hat{T}_{s,t}}_{\text{UI error}}. \quad (1)$$

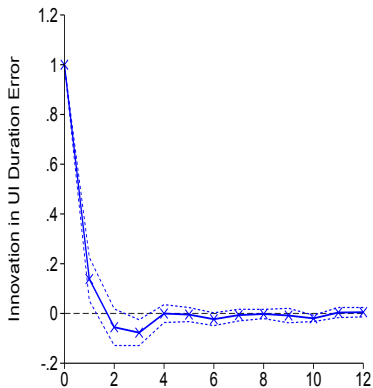
- Define “UI error innovation”:

$$\epsilon_{s,t} = \hat{T}_{s,t} - \mathbb{E}_{t-1} \hat{T}_{s,t}. \quad (2)$$

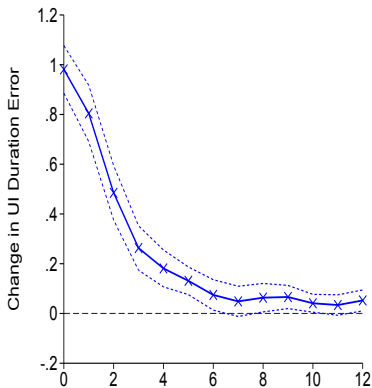
- Run the regression:

$$\underbrace{y_{s,t+h}}_{\text{outcome}} = \beta(h) \underbrace{\epsilon_{s,t}}_{\text{UI innovation}} + d_s + d_t + \nu_{s,t+h}. \quad (3)$$

Serial Correlation

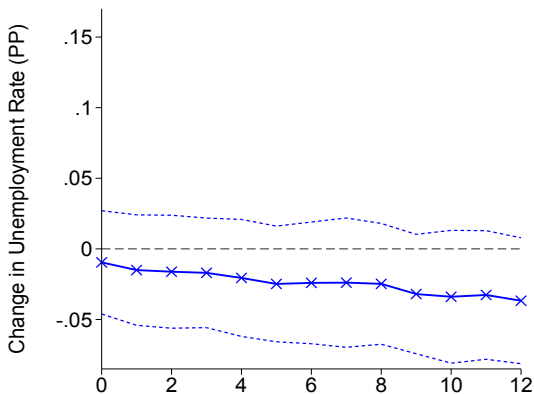


(a) $\epsilon_t = \hat{T}_t - \mathbb{E}_{t-1} \hat{T}_t$



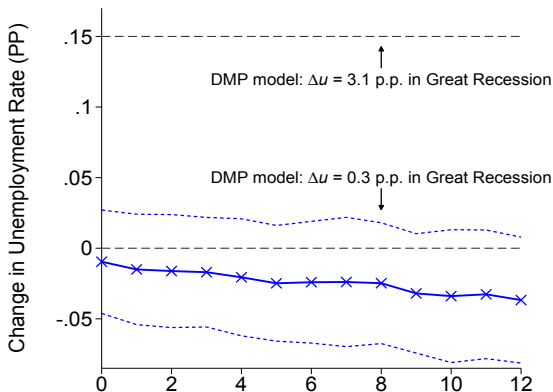
(b) \hat{T}_t

Small Unemployment Response to Innovation in \hat{T}_t



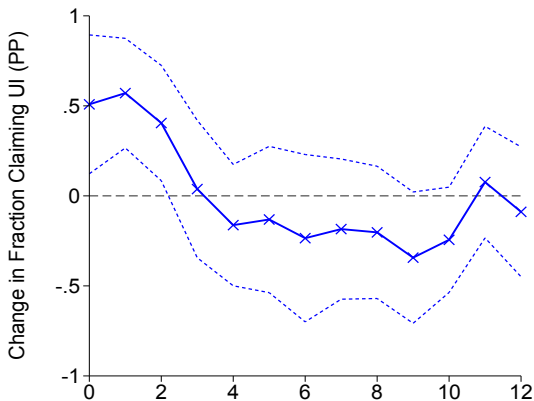
- benefit extension from 26 to 99 weeks: $0.02 * 17 \approx 0.3$ pp

DMP Incorporates Non-Linearities and Anticipation Effects



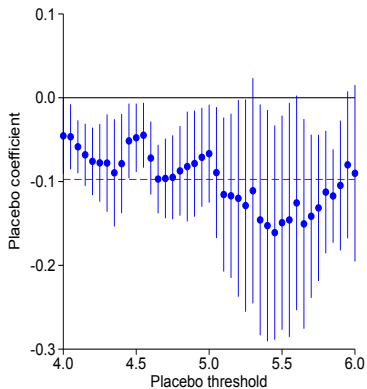
- data consistent with DMP with low opportunity cost (0.3 p.p.)

Our Estimates Do NOT Reflect Noise

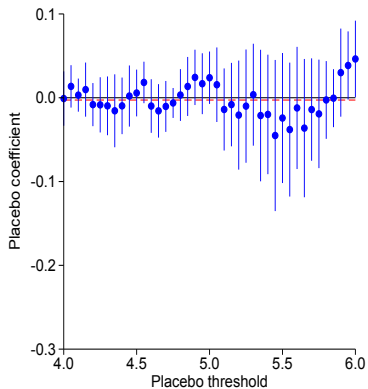


- CPS: extension from 12m to 13m affects 0.5-1% of unemployed

Placebo Test Revisited



(a) HMM regressor \hat{T}



(b) CRK regressor $\epsilon = \hat{T} - \mathbb{E}\hat{T}$