The Limited Macroeconomic Effects of Unemployment Benefit Extensions

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The Question

By how much do benefit extensions affect macro outcomes?

Challenge: benefit extensions endogenous to business cycle.
Example Illustrating our Strategy

<table>
<thead>
<tr>
<th></th>
<th>Louisiana</th>
<th>Wisconsin</th>
</tr>
</thead>
<tbody>
<tr>
<td>(April 2013)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Real-Time Unemployment Rate</td>
<td>5.9%</td>
<td>6.9%</td>
</tr>
<tr>
<td>Benefit Extension</td>
<td>14 Weeks</td>
<td>28 Weeks</td>
</tr>
<tr>
<td>Revised Unemployment Rate</td>
<td>6.9%</td>
<td>6.9%</td>
</tr>
<tr>
<td>Hypothetical Benefit Extension</td>
<td>28 Weeks</td>
<td>28 Weeks</td>
</tr>
<tr>
<td>UI Error</td>
<td>-14 Weeks</td>
<td>0 Weeks</td>
</tr>
</tbody>
</table>

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

- Decompose duration of UI benefits:

\[
\begin{align*}
T_{s,t} & = \tilde{T}_{s,t} + \hat{T}_{s,t}. \\
\text{UI duration with real-time data} & \quad \text{UI duration with revised data} \quad \text{UI error}
\end{align*}
\]  

(1)

- Define “UI error innovation”:

\[
\epsilon_{s,t} = \hat{T}_{s,t} - \mathbb{E}_{t-1}\hat{T}_{s,t}.
\]

(2)

- Run the regression:

\[
\begin{align*}
\gamma_{s,t+h} & = \beta(h) \epsilon_{s,t} + d_s + d_t + \nu_{s,t+h}. \\
\text{outcome} & \quad \text{UI innovation}
\end{align*}
\]

(3)
Serial Correlation

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

\[ (b) \quad \hat{T}_t \]
Small Unemployment Response to Innovation in $\hat{T}_t$

benefit extension from 26 to 99 weeks: $0.02 \times 17 \approx 0.3$ pp
DMP Incorporates Non-Linearities and Anticipation Effects

DMP model: $\Delta u = 3.1$ p.p. in Great Recession

DMP model: $\Delta u = 0.3$ p.p. in Great Recession

- 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 $\epsilon = \hat{T} - \mathbb{E}\hat{T}$