SPOUSAL INSURANCE, PRECAUTIONARY LABOR SUPPLY, AND THE BUSINESS CYCLE

KATHRIN ELLIEROTH  COLBY COLLEGE

**Motivation**

Figure 1: Detrended employment cyclicality

Married women have the lowest employment cyclicality compared to married men and single men and women

**Hypothesis**

- **Precautionary Labor Supply:** Married women remain employed and choose to not quit in recessions in response to husband’s higher job loss risk
- This countercyclical employment response will dampen the employment cyclicality for married women in the aggregate

**Research Question**

How much of the cyclicality in employment for married women is due to spousal insurance and what are the implications for intra-household risk sharing?

**Transition Rates**

Use short panel in CPS monthly files and link individuals across subsequent months to obtain transition rates

Figure 2: Employment-to-Not in the labor force (E-to-N) transition rates

Married women are less likely to leave employment into not in the labor force in recessions (procyclical E-to-N transition rates)

- Cyclicality of transition rates as a linear regression of each log transition rate on log unemployment rate
- For married women:
  - Procyclical E-to-N transition rate: If the unemployment rate doubles, E-to-N declines by 25.14%
  - Acyclical E-to-E transition rate
  - Countercyclical job loss (E-to-U) similar to single women

- Procyclical E-to-N transition rate offsets the increase in job loss and thus leads to acyclical E-to-E transition rate

<table>
<thead>
<tr>
<th>Transition rate</th>
<th>Data</th>
<th>Model</th>
</tr>
</thead>
<tbody>
<tr>
<td>E-to-N</td>
<td>-0.2514</td>
<td>-0.1563</td>
</tr>
</tbody>
</table>

- Coefficient from regressing log transition rate on log unemployment rate in data and model negative
- Cyclicality of risk accounts for about 62% of the procyclical E-to-N transition rate

**Result 1**

<table>
<thead>
<tr>
<th>Transition rate</th>
<th>Married women</th>
<th>Married men</th>
<th>Single women</th>
</tr>
</thead>
<tbody>
<tr>
<td>E-to-E</td>
<td>0.0024***</td>
<td>-0.0072***</td>
<td>-0.0031***</td>
</tr>
<tr>
<td>E-to-U</td>
<td>0.4950***</td>
<td>0.7946***</td>
<td>0.4633***</td>
</tr>
<tr>
<td>E-to-N</td>
<td>-0.2514***</td>
<td>0.1863***</td>
<td>0.0691</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Transition rate</th>
<th>Married women</th>
<th>Married men</th>
<th>Single women</th>
</tr>
</thead>
<tbody>
<tr>
<td>E-to-E</td>
<td>0.0024***</td>
<td>-0.0072***</td>
<td>-0.0031***</td>
</tr>
<tr>
<td>E-to-U</td>
<td>0.4950***</td>
<td>0.7946***</td>
<td>0.4633***</td>
</tr>
<tr>
<td>E-to-N</td>
<td>-0.2514***</td>
<td>0.1863***</td>
<td>0.0691</td>
</tr>
</tbody>
</table>

**Result 2**

- Compare baseline model to single-earner married model (Assumption: Married women never work, married men as in baseline model)
- Compute consumption (Var(Δc)) and income volatility (Var(Δy)) in baseline model single-earner married model following Blundell et al. (2008)

- $\frac{\text{Var}(\Delta c)}{\text{Var}(\Delta y)}$ is 30.89% lower in the baseline model than in the single-earner model

**Result 3**

Test three counterfactuals and compare to baseline model:

1. Assign married men’s labor market frictions to married women: Married women provide 50% less spousal insurance
2. Assign both genders married men’s productivity process: Married women provide 8% less spousal insurance
3. Uncorrelated job loss: Married women provide 37% more spousal insurance

**Quantitative Model**

- Married women’s labor supply decisions are determined by the interaction of idiosyncratic shocks and aggregate risk
- Quantify implications of cyclicity of husband’s labor market risk for precautionary labor supply and intra-household risk sharing
- Incomplete assets model (Bewley-Huggett) with labor market frictions based on Krusell et al. (2007) and Mankart et al. (2016)
- Unitary household comprised of husband and wife
- Extensive labor supply decisions: Wives can be fired, otherwise endogenous moves between employment, unemployment, and Nilf
- Gender-specific labor market frictions and labor income
- Recessions: periods of low job finding and high job loss probabilities
- Job loss correlated among spouses
- Exogenous wage rates and interest rate

**References**


**Contact Information**

Web https://sites.google.com/site/kathrinellieroth

Email kathrin.ellieroth@colby.edu