Pension reform with entrepreneurial choice

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Netspar International Pension Workshop
Leiden, January 19, 2017
SUMMARY OF THE PAPER

• Paper analyzes the impact of pension reforms in Germany on occupational choice

• Analysis is based on a numerical general equilibrium model with intra- and intergenerational heterogeneity
  – Agents differ in terms of age, skill level (low/medium/high) and occupational status (worker/entrepreneur)

• Income is subject to idiosyncratic productivity shocks

• Three reforms are considered
  – Forced participation for entrepreneurs into pension system
  – Transition to flat benefits (Beveridgean PAYG)
  – Transition to funded DC
MAIN RESULTS

• Including entrepreneurial choice allows for more realistic wealth distribution in the top tail.
• Pension systems affect entrepreneurial choice directly through redistribution and indirectly through changes in factor prices or borrowing constraints.
• Pension reforms might affect different types of entrepreneurs in different directions.
• Allowing for entrepreneurial choice might increase labour-supply distortions induced by reforms compared to studies that do not consider this extensive margin.
POLICY-RELEVANT TOPIC

- Position of self-employed one of the (key) drivers for pension redesign, also in the Dutch case
- Dutch occupational pensions exclude entrepreneurs and contain disincentives to become self-employed

<table>
<thead>
<tr>
<th></th>
<th>Net benefit</th>
<th>% pension income</th>
</tr>
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<tbody>
<tr>
<td>Participation from age 25-66</td>
<td>-8.4</td>
<td></td>
</tr>
<tr>
<td>Participation until age 45</td>
<td>-37.5</td>
<td></td>
</tr>
<tr>
<td>Participation from age 45</td>
<td>15.4</td>
<td></td>
</tr>
<tr>
<td>Participation from age 25-66</td>
<td>-2.2</td>
<td></td>
</tr>
<tr>
<td>Participation until age 45</td>
<td>-29.9</td>
<td></td>
</tr>
<tr>
<td>Participation from age 45</td>
<td>22.6</td>
<td></td>
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</tbody>
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Source: CPB (2013)
WHAT DRIVES SELF-EMPLOYMENT?

• The literature points to multiple factors that determine entrepreneurial choice, but policy reforms seem to be important (van Es, van Vuuren, 2010)

• The paper could gain on (empirical) relevance by embedding it more in the (German) institutional context
  – To what extent has the number of entrepreneurs increased?
  – At what age do people enter (or exit) self-employment?
  – What drives this development?

• The model matches total fraction of entrepreneurs but what about other stylized facts (like age distribution, life-cycle patterns, etc.)?
COMPREHENSIVE PAYG SYSTEM

• Model predicts that a comprehensive PAYG scheme increases the number of lower-skilled entrepreneurs
• The argument for this is that there is no need anymore to become worker for accumulating pension wealth
• However, what drives this outcome given that …
  – Agents are rational and voluntarily save for old age
  – Private savings typically have a higher rate of return
  – Pension scheme does not insure idiosyncratic income risks
• One of the intuitive reasons to implement this reform, i.e. myopia, is not taken into account
FUNDED PENSION SYSTEM

• Reform replaces PAYG scheme by private savings
  – Existing pension claims financed by payroll tax
• Why does this depress labour supply in the model?
  – Reform transforms implicit debt into explicit debt
  – In both cases interest payments on debt are distortionary
  – Change in tax regime, from EET to TEE (?)
• How does this relate to overall efficiency loss due to the fact that “the loss of longevity insurance by far outweighs lower distortions of labor supply (p.19)”
• How does this result change if funded scheme provides longevity insurance, like in the Dutch case?
EXTENDING REFORM ALTERNATIVES?

- Reform scenarios focus on two dimensions:
  - No participation for entrepreneurs in pension scheme or mandatory participation
  - Type of pension scheme (Bismarck PAYG / Beveridge PAYG / Funded DC)

- The paper only analyses a subset of possible options

<table>
<thead>
<tr>
<th></th>
<th>Bismarck PAYG</th>
<th>Beveridge PAYG</th>
<th>Funded DC</th>
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</thead>
<tbody>
<tr>
<td>No participation</td>
<td>✓</td>
<td>✓</td>
<td>✓</td>
</tr>
<tr>
<td>Mandatory participation</td>
<td>✓</td>
<td>×</td>
<td>×</td>
</tr>
</tbody>
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