Past labor market experiences and portfolio choice

- Big effect of unemployment experience (in region-sector-occupation cell) on stock market participation 15 years later
- Main result carefully documented and clearly economically significant
- Omitted variable stories (non-random selection into unemployment conditional on observables) do not seem plausible
- But channel through which the effect works is still an open question, to some extent
Past labor market experiences and portfolio choice: Channels

- Risk preferences
- Beliefs
  - pessimism about macroeconomy?
  - beliefs about (disaster) covariance of labor income/unemployment shocks and the stock market (overemphasis on salient own experience)?
  - lack of trust in stock market and financial intermediaries (Guiso et al. 2008)?
- Wealth/income risk
- Wealth/assets/income levels
  - well established channel for stock market participation effects (e.g. participation cost models)

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Discussion of Labor Market Experiences

Decomposition into wealth/income effects and residual effects

Results suggest a big part of the labor market effect is explained by unemployment → assets/income → stock market participation channel

<table>
<thead>
<tr>
<th>Dependent variable</th>
<th>Stock market participation</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>1</td>
</tr>
<tr>
<td></td>
<td>Point estimate</td>
</tr>
<tr>
<td>Income</td>
<td>-0.068</td>
</tr>
<tr>
<td></td>
<td>(-3.40)</td>
</tr>
<tr>
<td>Unemployment</td>
<td>-0.016</td>
</tr>
<tr>
<td></td>
<td>(-2.33)</td>
</tr>
<tr>
<td>Assets</td>
<td>-0.372</td>
</tr>
<tr>
<td></td>
<td>(-4.88)</td>
</tr>
<tr>
<td>Liabilities</td>
<td>0.017</td>
</tr>
<tr>
<td></td>
<td>(0.84)</td>
</tr>
<tr>
<td>Total</td>
<td>-0.439</td>
</tr>
<tr>
<td></td>
<td>(-5.45)</td>
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</tbody>
</table>
Decomposition into wealth/income effects and residual effects

- Assume structural model, with wealth $w$ and variable of interest $x$, both uncorrelated with $\varepsilon$,
  \[ y = bw + cx + \varepsilon \]  
  (1)
  where $\text{Cov}(w, x) = \rho$ and $\text{Var}(x) = 1$, $\text{Var}(w) = 1$.
- Main regression in the paper
  \[ y = \beta x + e \text{ i.e., } \beta = b\rho + c \]  
  (2)
- Share of effect of $x$ in (2) that comes through $w$
  \[ \theta = 1 - \frac{c}{\beta} \]  
  (3)
- One could easily get $\theta$ from estimating (1) and (2), but paper does something different.

Decomposition into wealth/income effects and residual effects

- Decomposition regressions
  \[ y = \delta w + u \text{ i.e., } \delta = b + c\rho \]  
  (4)
  \[ w = \tau x + v \text{ i.e., } \tau = \rho \]  
  (5)
- Measure of wealth effect share in the paper
  \[ \omega = \frac{\delta \tau}{\beta} = \rho \frac{b + c\rho}{b\rho + c} \]  
  (6)
- Consider some special cases
  - Entirely a wealth channel effect, $c = 0$: $\omega = 1$ and $\theta = 1$. OK.
  - No wealth channel effect, $b = 0$: $\omega = \rho^2$ but $\theta = 0$
- Thus, current decomposition method overstates wealth/income channel effect. Why not just run regression (1)?
Additional concerns about decomposition

- But also some concerns that wealth effects could be under-estimated:
  - Not just current but also lagged wealth matters in participation cost models with fixed participation costs
  - Functional form: Not necessarily linear in level of wealth

- (As the authors recognize) asset accumulation is not exogenous with regards to participation. Difficult to address. Alternative tests, methods?

Alternative test: Look at portfolio choice variables for which wealth effects are less important

- Conditional on participation, wealth effects are generally much weaker for risky asset share
- Do past labor market experiences affect risky assets share?
  - Perhaps even more detailed measures of riskiness: Compute volatility, beta of portfolio?
- If so, this would support idea that labor market experiences affect portfolio choice through channels other than wealth/income.
A few (half-baked) ideas on how to dig deeper on the channels

- Trust: Financial market participation vs. stock market participation
- Macroeconomic pessimism: Higher (precautionary) savings?
- Beliefs about labor income-stock market covariance: Portfolio composition shifted towards assets that are safer w.r.t. labor income risk?

Summary

- Basic finding on correlation between labor market experiences and stock market participation is clear and strong
- More work needed to establish to what extent the effect of labor market experiences is “just” a wealth/income effect
- Potential to enhance contribution of paper by taking broader perspective on portfolio choice and savings decisions