Reluctant Savers and Mortgage Subsidies

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This Paper

- We focus on the American Mortgage Interest Deduction (MID)
  - Allows to tax deduct mortgage interest on owner-occupied homes
  - Among top 10 tax breaks in the US code
  - Constant debate around reforming MID
- We evaluate MID reforms by highlighting 2 features of housing:
  1. Housing is an illiquid asset
  2. Illiquid wealth may serve as a commitment device to curb overspending
- Q: If agents are willing to opt into housing due to commitment aspect: Is MID more/less conducive to homeownership and welfare?

What We Do

- Calibrate DSGE framework with heterogeneous agents + housing
- Agents' preferences exhibit self-control problems à la Gul-Pesendorfer

  ☞ I care about what I consume + what I *could have* consumed

- Evaluate long term effects of eliminating MID

  ☞ "GE" is key difference with Schlafman (2021), Attanasio et al. (2021)

What We Find

- We find that eliminating MID decreases homeownership and increases welfare (= other papers)

- But ignoring self-control issues leads to:

  1. Overestimating decrease in homeownership

  2. Underestimating welfare gains

     ➜ MID hurts individuals with imperfect self-control *more*

     ➜ Key: MID increases "cash-on-hand," amplifying self-control costs

Model: Main Ingredients

- Incomplete markets à la Aiyagari, OLG, endogenous housing tenure
- Housing is an illiquid asset:
  1. Proportional transaction cost ψ^s when selling
  2. Selling proceeds available with 1-period delay
- Gul-Pesendorfer preferences over the budget set B:

$$W(i,\Omega) = \max_{z \in B(i,\Omega)} \left\{ u(c,s) + \beta \mathbb{E}\left[W(i+1,\Omega') | z, i, \Omega \right] + \lambda u(c,s) \right\} - \max_{\tilde{z} \in B(i,\Omega)} \lambda u(\tilde{c},\tilde{s})$$

where (i,Ω) are states, z are controls, s is housing shelter, $\lambda u > 0$ is *temptation utility*

☞ HHs bare the self-control cost $\lambda[u(\tilde{c},\tilde{s}) - u(c,s)]$

Results

- Policy reform: Eliminate MID, increase transfers to balance budget

Table: MID Elimination – % Changes in Aggregate Measures

	$\lambda = 0.00$	$\lambda = 0.15$	$\lambda = 0.30$
Homeownership	-13.01	-9.45	-3.41
Home Equity (share in portfolio)	-8.81	-5.43	-0.34
Welfare (in CE units)	0.45	0.64	0.99
Self Control Costs (in CE units)	-	-0.85	-3.29

- Ignoring $\lambda > 0$ leads to:
  - overestimating effects on homeownership
  - underestimating average welfare gains

Results: Welfare

- The larger the λ, the larger the welfare gains from eliminating the MID
- Key channel:
  - Given h, the MID is a *liquid* source of income
  - In the case of a homeowner:

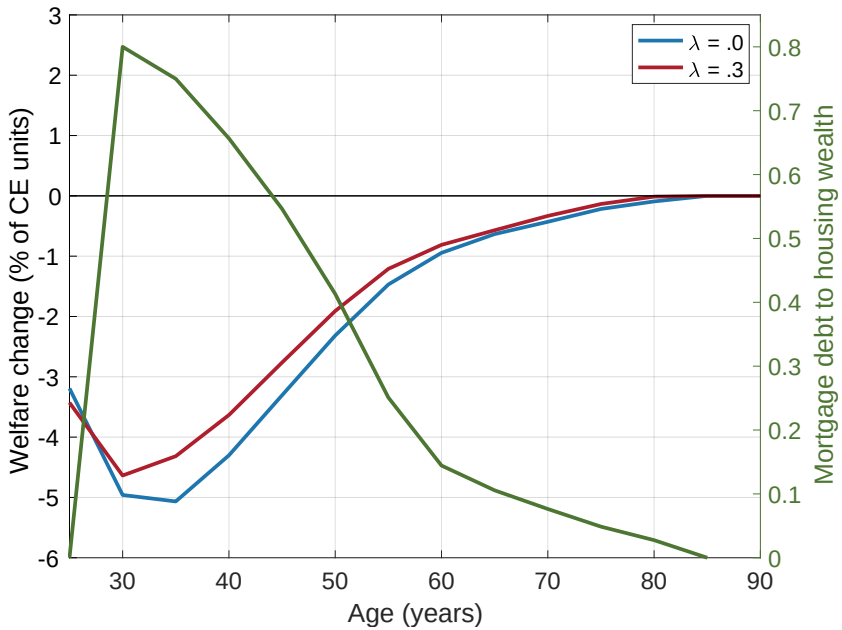
$$\begin{aligned}\text{liquid income} = x + w\gamma_i\eta(1-\tau^{ss}-\tau^{y}) + \mathbb{I}_{i\geq i_R}SS + tr \\ + p^r(1-\tau^{y})h^r + \underbrace{\tau^{y}\, r\, m(h,n)}_{\text{MID}}\end{aligned}$$

  - Eliminating MID restricts liquidity, thus reducing self control costs:

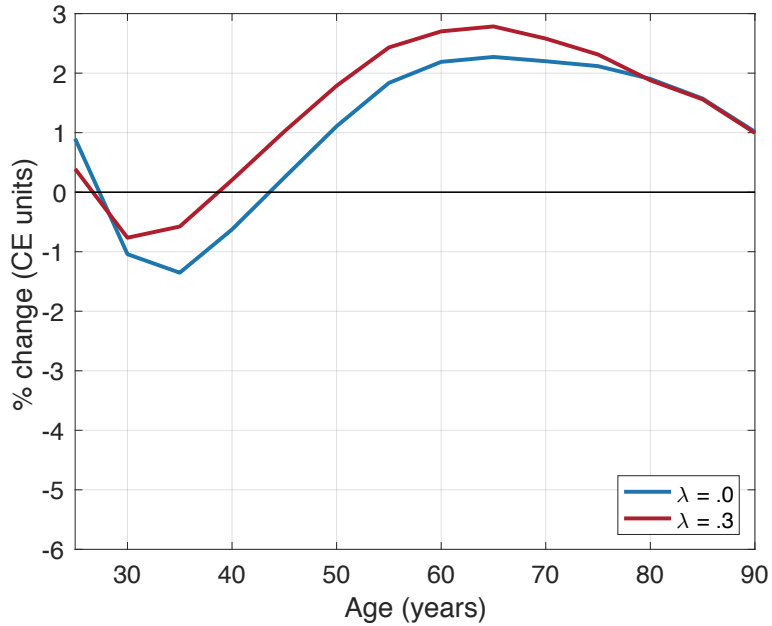
    It decreases $(\tilde{c}-c)$ and $(\tilde{s}-s)$ ➜ $\downarrow \lambda[u(\tilde{c},\tilde{s})-u(c,s)]$

Results: Welfare

Figure: Welfare Changes



(a) *Before* Transfers



(b) *After* Transfers

- In essence, the reform implements a compulsory savings scheme which benefits individuals with self control problems more

Ongoing Work

- Endogeneizing housing price
  - Can dampen effect on homeownership, but amplify positive welfare effect of the reform
- Allowing for home equity withdrawals
  - Lower "commitment premium" of housing, but do not eliminate it due to transaction costs
- Calibrating λ internally
  - Target: Proportion of home equity in total net worth