Medicaid and Household Savings Behavior:

New Evidence from Tax Refunds

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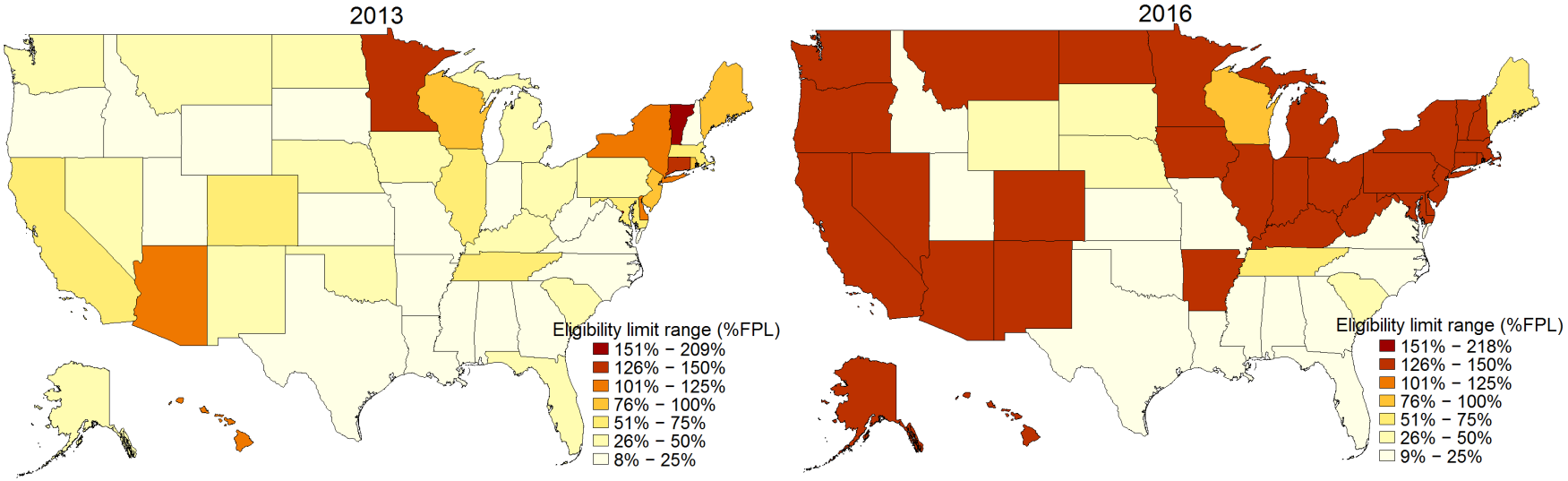
Motivation

"...social insurance programs...may exert as large an effect on saving behavior as tax policy." – Hubbard, Skinner & Zeldes (1994)

- The personal savings rate in the U.S. fell from above 10% in the 1970s to about 5% in the post-2000 era
- A candidate explanation is that social insurance programs, like Medicaid, are crowding out private savings
- No consensus in the literature on the relationship between public health insurance and savings behavior
  - Gruber and Yelowitz (1999); Maynard and Qiu (2009); Gittleman et al. (2011); Guariglia and Rossi (2004); Chou et al. (2003)
- Particularly important given the ACA:
  - Medicaid now covers 21% of the U.S. population (that's up from around 16% a few years ago)!
- Current policy debate around "Medicare for all" has enhanced the importance of understanding if and how subsidized health insurance affects household financial decisions

Medicaid income ceilings, able-bodied adults, 2013 to 2016



Preview

Goal

- To what extent does Medicaid interact with current bankruptcy protections to influence personal savings behavior?

Instrument

- We instrument for Medicaid eligibility using a simulated probability that varies only with state eligibility rules and pre-determined household demographics

Data

- We join this simulated instrument to tax and survey information on 57,000 low-income households over 2013–2017
  - Outcome: A household's self-reported intention to save and/or pay down debt from the tax refund

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Results

- No effect of Medicaid access on the average low-income household's propensity to save
- But, substantial heterogeneity in the savings response according to financial constraint
  - Financially contrained households save 5%pts ($102) more of their tax refund under Medicaid
  - Consistent with the predictions of a "strategic default" model, wherein some households treat bankruptcy as a high deductible health plan
- Possible macro policy implications: a link between the *generosity of Medicaid* and the *propensity of households to consume* from stimulus payments

Basic life-cycle model predictions

Precautionary savings:

- Households face the prospect of a future health shock
- Households will self-insure against risk (Carroll et al., 1992) by shifting some wealth to the next period
- Medicaid will lessen this precautionary savings motive

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Prediction: effect is to reduce a household's savings when it becomes eligible for Medicaid

Strategic default model predictions

Utility model in which constrained, uninsured households treat bankruptcy as a high-deductible health plan

1. Medical care on credit, then wipe away medical debt through bankruptcy, giving up assets
   - Mahoney (2015): households factor bankruptcy laws into health spending decisions
   - Brevoort et al. (2018): the bankruptcy option might drive excessive borrowing when a household is uninsured
2. Constrained households (facing bankruptcy) have little incentive to save
   - Medicaid allows the household to enjoy the fruits of its savings next period, even if it experiences a health shock

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Prediction: Since Medicaid obviates the need to declare medical bankruptcy, Medicaid should increase the intention to save today

Data

- Tax: 2013-2017 1040-Forms for tax filers that used an online tax preperation platform (income < $31k or eligible for EITC)
  - Adjusted gross income (AGI), household size, state
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- Pooled cross-sectional dataset over 2013-2017: N=57,000
- One-fifth take a follow up survey 6-months after tax time

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$$Saving_i = \alpha + \beta Med + X'\gamma$$
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2. Differences in the income distribution within demographic blocks
3. Include state x year F.E. – use only within-state-year variation in our instrument

IV Model

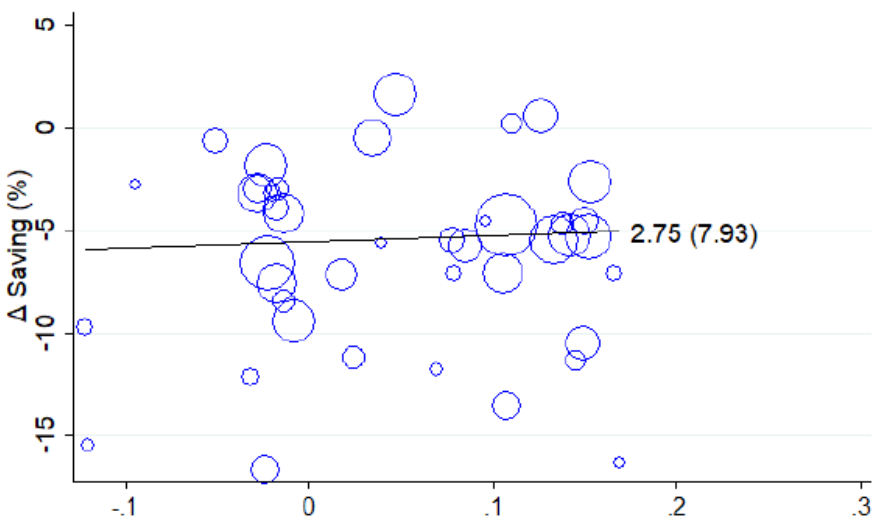
$$Med_i = \beta_0 + \beta_1 ProbNTL(Med)_i + X'\varphi + \delta_{s,t} + \varepsilon_i$$
$$Saving_i = \beta_0 + \beta_1 \hat{Med}_i + X'\gamma + \delta_{s,t} + \xi_i$$

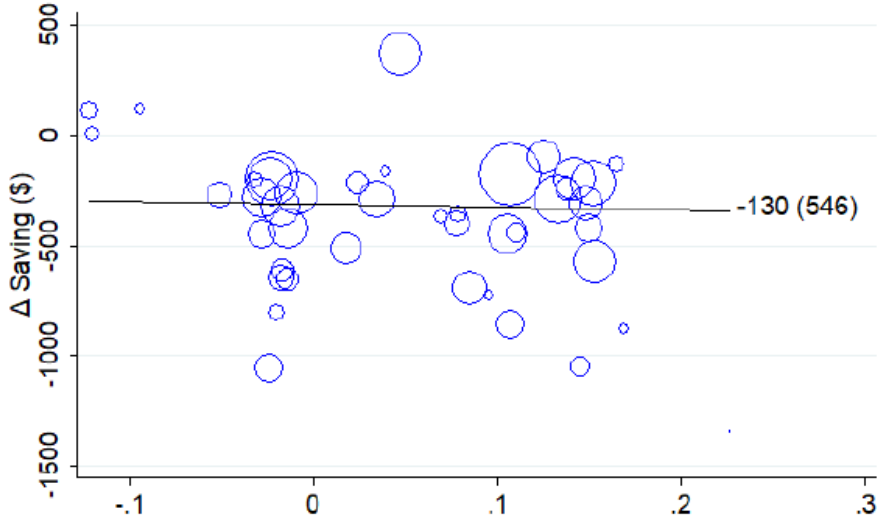
- $\%Saving_i$ is the percentage of the tax refund that household i expects to save (for at least 6 months) or pay down debt with
  - Also show: $IHS(\$Saving_i)$; $IHS(\$LiqAssets_i)$; $IHS(\$NetWorth_i)$
- $Prob(Med)_i$ is our simulated instrument for Medicaid eligibility
- Med_i approximates actual Medicaid eligibility from the 1040 Form
- X_i is a vector of predetermined socio-demographic controls, such that residual variation in our instrument is due only to the national income distribution and state eligibility rules
- State-year F.E.
- Interaction effect: identify constrained households ("*Hardship*") through an index constructed using a PCA

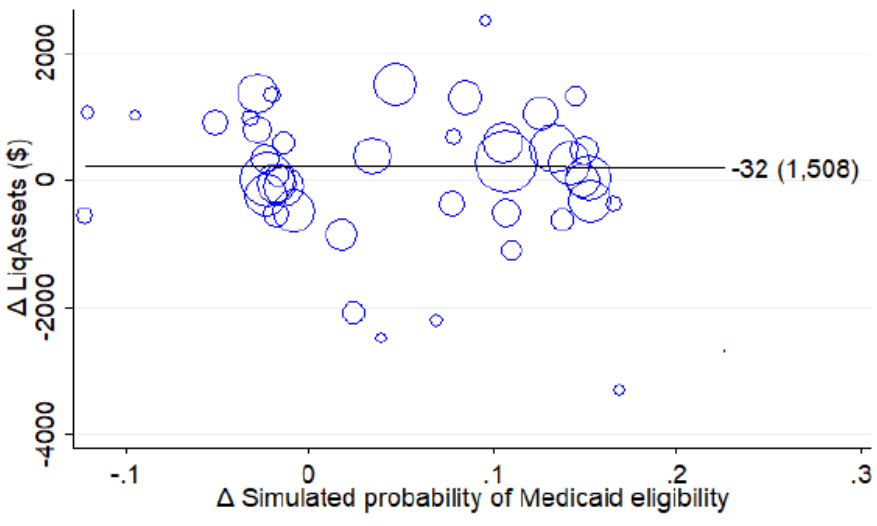
Done as **2SLS IV** and a **reduced form**

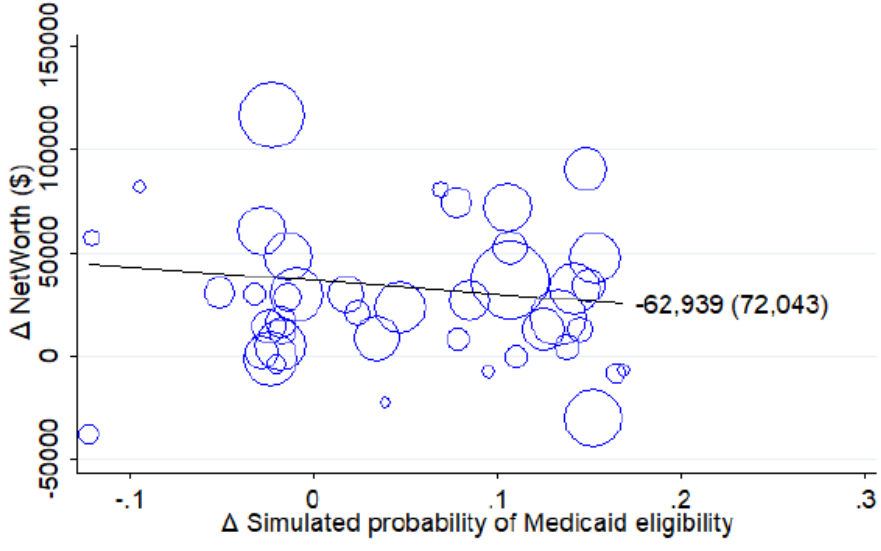
Descriptive evidence

2013–2017 changes in state-level average savings and Medicaid probabilities



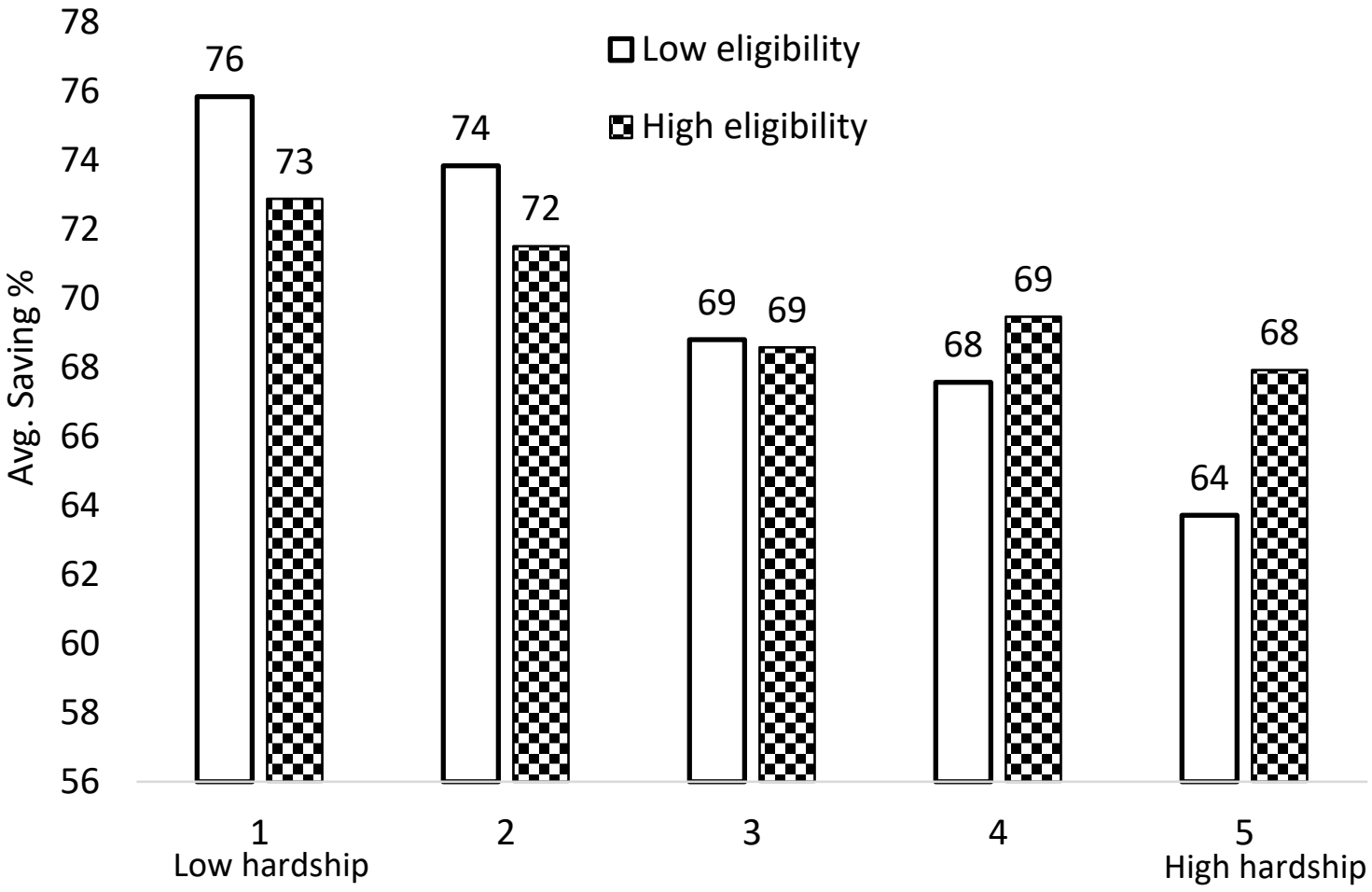






The role of financial hardship: descriptive evidence

Average refund savings rate of households, by hardship index and Medicaid eligibility probability



Tax refund savings and Medicaid, 2SLS IV estimates

Dependent:	*%Saving*	*IHS($Saving)*
$\hat{Med}$	0.313	60.585
	(3.537)	(179.114)
$Med \times \hat{HighHardship}$	4.975***	91.453**
	(1.437)	(40.533)
HighHardship	-7.464***	-107.841***
	(0.679)	(23.988)
N	66,996	66,996

- Among households in high hardship, Medicaid access increases the propensity to save from the tax refund by almost 5%pts
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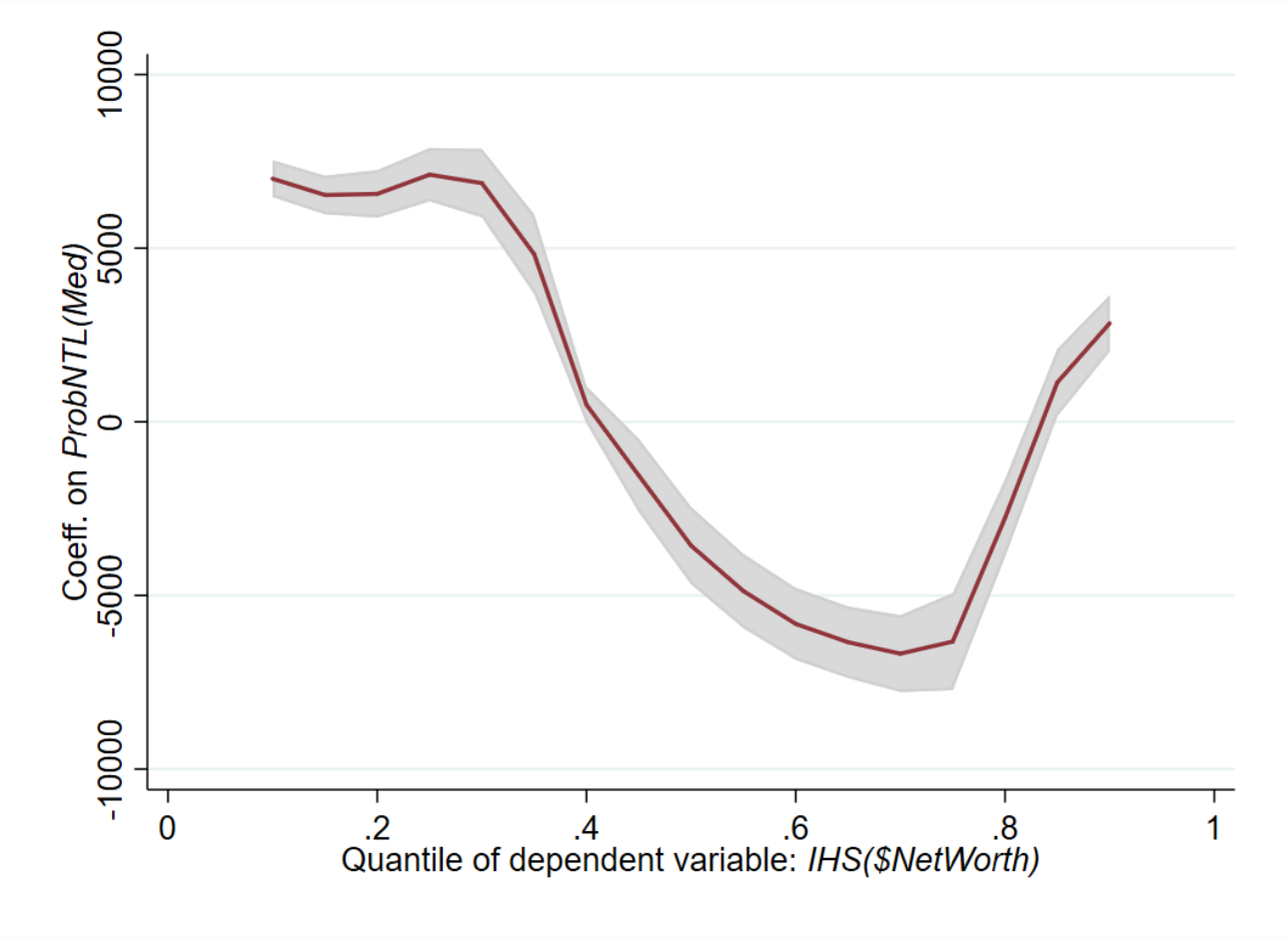
Effect of Medicaid across the wealth distribution

At any quantile, how does a marginal increase in the simulated Medicaid affect net worth?



- Our interpretation: Households in the 45th-85th are actively saving for future health shocks. Granted Medicaid access, they limit this precautionary behavior.

Isolating a strategic default mechanism

- Exploit substantial variation in state bankruptcy laws and test for variation in estimates based on state asset exemptions laws
- Underlying idea:
  1. Households learn about the consequences of default in their state from exposure to peers that default (Guiso et al., 2013)
  2. Households that treat bankruptcy as a high-deductible health plan (Mahoney, 2015) should save comparatively *less* in states with *less* generous exemption limits

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Prediction: $\uparrow CostB_s \Rightarrow \uparrow$ prob. savings is lost in bankruptcy $\Rightarrow \downarrow$incentives to save among households in hardship $\Rightarrow$ Medicaid has a $\uparrow$ + effect on savings

Bankruptcy rules and the savings response to Medicaid

Dependent variable:	*%Saving*	
Sample:	*LowCostB*	*HighCostB*
$Prob(Med)$	4.86	-14.06***
	(4.96)	(4.75)
$Prob(Med) \times HighHardship$	5.47	14.63***
	(3.30)	(3.52)
Difference p-value:		
$Prob(Med)$	0.007	
$Prob(Med) \times HighHardship$	0.061	

- In states where bankruptcy is costly, interaction effect is nearly 3 times larger
  - Increased savings under Medicaid reflects a reduced necessity to resort to bankruptcy for households in hardship
- Medicaid is associated with reduced savings among households *not in hardship* in states with a $HighCostB_s$
  - More precautionary savings (more self-insurance) to avoid medical bankruptcy

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Macroeconomic implications: Fiscal stimulus

Is there a link between the generosity of the social safety net and the propensity of households to consume from transient income changes?

1. Constrained households drove much of the consumption from the 2001 and 2008 tax rebates (Johnson et al., 2006; Parker et al., 2013)
2. Constrained household have a **lower** MPC from their tax refund if they enjoy access to Medicaid
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$\Rightarrow$ **The effect of fiscal stimulus on aggregate demand may, to some extent, depend on the extent of Medicaid coverage**

- Replicate Parker et al. (2013) – using same BLS 2008 Consumption Expenditure Survey – and find supporting evidence

Partial equilibrium implications for fiscal policy

What is the implied impact on consumption as we move from a society with no Medicaid access to one with full Medicaid access for low-income households?

- Hypothetical debt-financed stimulus program of 2% of GDP, targeted at low-income households (<200% of poverty)
- Using the coefficients from the 2SLS IV model, compute the MPC as (1 - the predicted savings rate) with and without Medicaid

Medicaid policy for low-income adults	MPC	Aggregate consumption growth	% Change in consumption impact of stimulus
No Medicaid	42.66%	1.24%	
Full Medicaid	38.24%	1.11%	
Difference	-4.42%pts	-0.13%pts	-10.36%

- Medicaid access would reduce the economic impact of the stimulus by 10%

Conclusion

- Medicaid does not crowd-out the savings of the average low-income household
- Among those in financial hardship: a *robust positive* savings response to Medicaid
  - Consistent with the predictions of a strategic default model
  - Effects are modest in absolute (i.e., 5%pts or $102), but large relative to direct savings interventions
- Characteristics predictive of a stronger precautionary savings effect:
  - (1) having more wealth; (2) living in a state with a higher financial cost of bankruptcy; and (3) having completed college
- MPCs from fiscal stimulus programs might be lower under an expanded social safety

Brevoort, Kenneth, Daniel Grodzicki, and Martin Hackmann (2018), "Why does insurance reduce borrowing? evidence from the aca medicaid expansion." Working paper, July 27.

Guiso, Luigi, Paola Sapienza, and Luigi Zingales (2013), "The determinants of attitudes toward strategic default on mortgages." *Journal of Finance*, 68, 1473 – 1515.

Mahoney, Neale (2015), "Bankruptcy as implicit health insurance." *The American Economic Review*, 105, 710–746.