

# HOUSING WEALTH AS PRECAUTIONARY SAVINGS: EVIDENCE FROM URBAN CHINA

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## Impact of housing wealth on consumption in China

- Measurement of  $MPC_{housing}$

## Mechanism at play

- “Precautionary savings” channel?
- “Life-cycle” channel?
- “Collateral” channel?

## Data

- 2002-2009 (annual) Urban Household Survey
- Repeated cross-section with 1/3 HH kept from one year to the next
- 12,878 HH and 45,119 obs

# WHAT THE PAPER DOES

## Empirical strategy

- Estimate  $\log C_{it} = \beta_0 + \beta_1 \log HW_{it} + \beta_2 X_{it} + \epsilon_{it}$
- $X_{it}$ : income, HH demographic characteristics, city + year + HH FE
- Channel? MPC sensi. to labor income risk – i.e.  $dMPC_{housing}/d\sigma_y^2$

## Key results

- $\hat{\beta}_1 = 0.14$  for full sample, thus  $MPC_{housing} = 0.025$ 
  - $\hat{\beta}_{1,SOE} = 0.05 \ll 0.18 = \hat{\beta}_{1,non-SOE}$
  - $\hat{\beta}_{1,college} = 0.02 \ll 0.14 = \hat{\beta}_{1,non-college}$
- Other channels
  - $\hat{\beta}_{1,debt} = 0.02 \ll 0.15 = \hat{\beta}_{1,no-debt} \Rightarrow$  discard “collateral channel”
  - $\hat{\beta}_{1,upgrade} = 0.14$  vs.  $\hat{\beta}_{1,downgrade} = 0.21 \Rightarrow$  “life-cycle channel” discarded??
- Robustness (control for expected income growth, stock ownership, use other measures of housing wealth etc.)

# COMMENTS ON EMPIRICAL RESULTS

## Identification

- Currently, paper only documents a set of correlations
- No obvious “exogenous” shock that can be used to isolate the causal effect of house price growth on consumption
- Instead, maybe rely more on theory/model estimation?

## Are SOE employees truly facing less idiosyncratic income risk?

- 1995-2002: 35+mm SOE workers laid off during economic transition
- Can we test in the data that  $\sigma_{y,SOE}^2 < \sigma_{y,non-SOE}^2$ ?
- Same comment for college vs. non-college workers

## Could household's employment choice (i.e. selection into private vs. public sector employment) be the driver of those results?

- What if households going into private sector just had a higher risk aversion parameter?
- Maybe look for those households who switch from private to public sector, and see the extent to which their  $MPC_{housing}$  changes?

## COMMENTS: WHAT ABOUT THEORY?

### Many potential effects of $\uparrow$ in house prices on consumption

- substitution effect  $\rightarrow$  HH substitutes away from housing;
- income effect  $\rightarrow$  HH poorer because of  $\uparrow$  in implicit rental cost;
- wealth effect  $\rightarrow$  HH richer;
- collateral effect  $\rightarrow$  (given housing choices) HH can borrow more.

$\Rightarrow$  Need theory to guide discussion!

### PIH model

- Iso-elastic, Cobb-Douglas over  $C$  and  $H$ ,  $\rho = r$ , constant  $P_H$
- Assume constant house prices

$$\frac{d \ln C}{d \ln P_H} = \frac{HP_H}{PV(Y) + HP_H + A}$$

- In the US,  $PV(Y) \approx 40Y$ ,  $HP_H \approx 2Y$ ,  $A \approx -0.5Y \Rightarrow d \ln C / d \ln P \approx 0.05$ .