House Prices and Risk Sharing

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The paper in a nutshell

The empirical exercise,

- Look at a standard test for full insurance:

$$\Delta \log c_{i,t} = \mu_t + \delta \Delta x_{i,t} + \alpha_1 \Delta \log y_{i,t} + \alpha_2 d_{i,t} + \varepsilon_{i,t}$$

- Test whether departure of full insurance is smaller for households whose real estate increases in value

Results

- Adding interaction terms, the elasticity of consumption growth to income growth falls with price increases
- This happens for homeowners, but not for renters

Conclusion

- Borrowing against house equity is a fundamental mechanism to smooth income shocks

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General comments

- Very **interesting** empirical exercise:
  - Match metropolitan house price data with PSID
  - Try to learn about the risk sharing role of the main asset in most household portfolios

- Very **complete** exercise
  - Exhaustive empirical work
  - Non-trivial heterogenous agents model to interpret results (Just one step away from indirect inference)
  - Array of model extensions to address several issues

- However, not fully convinced about the **interpretation** of results:

(a) Empirical specification

(b) More emphasis needed to disentangle null from alternatives

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(a) Empirical specification

I find confusing the specification

$$\Delta \log c_{i,t} = \mu_t + \delta \Delta x_{i,t} + \alpha_1 \Delta \log y_{i,t} + \alpha_2 d_{i,t} + \varepsilon_{i,t}$$

- Why income change and displacement shocks simultaneously?
  - Cochrane (1991) considers only displacement shocks: income changes are more likely to be endogenous
  - To me α_2 only captures the future income loss as current income loss is already captured by α_1

- Why interaction is only allowed for α_2?
  - Only looking at insurance against permanent component?
  - Borrowing constraints should matter more for transitory shocks

▷ Focus only on $d_{i,t}$ and drop $\Delta \log y_{i,t}$!!

(a) Empirical specification

▷ Alternative approach

- Income changes may carry a lot of information about future income (permanent shocks) or very little (transitory shocks)
- Economic theory predicts very different responses of consumption to each shock

  See for instance Kaplan and Violante (2009)
- Recent trend to test consumption insurance looks at correlation of consumption growth and each type of shock

  Blundel, Pistaferri and Preston (2008)
- Why not perform the exercise with the BPP methodology?
  - More powerful way of testing the null as we have predictions over the risk sharing of two types of shocks

(b) Disentangling the null from alternative hypothesis

Reasons why consumption changes and house price changes are correlated

(1) Wealth effect

(2) Credit constraints

(3) Common factor moving both

▷ The first two imply no effect for renters

▷ In the paper they find,

- Insurance coefficient for renters *does not* depend on house prices
- But, direct effect of house prices on consumption *is larger* for
  - renters than for owners
  - young renters than for old renters

(b) Disentangling the null from alternative hypothesis

Common factor moving consumption and house prices

- ▷ Some income shocks are regional
  (for instance the departure of a car maker from a small city)

- ▷ A negative regional shock may decrease real estate prices

  More so when the income shock is more persistent

Then, for both owners and renters,

- The effect of a displacement shock on consumption will smaller when the house price fall is smaller

- The direct effect of house price changes on consumption changes will be larger for young workers

(b) Disentangling the null from alternative hypothesis

Common factor moving consumption and house prices

Is this important? Some micro evidence,

- Italy: wealth increases after income increases come largely from increase in price of real estate
  Krueger and Perri (2009)
- UK: consumption reacts more to house prices for young than for old households
  Attanasio and Weber (1994) and Attanasio et al (2005)
- US: consumption reacts more to house prices for renters than for home owners
  Hryshko, Luengo-Prado and Sørensen (2009)

(b) Disentangling the null from alternative hypothesis

Summary

- Some evidence points to the credit constraints channel
- Some evidence points to the regional income shocks
- Maybe, the question is to measure how much each channel matters
- They already have the model
- They could estimate/calibrate it by indirect inference with the risk sharing regressions