Recovering from recessions: household consumption over the business cycle

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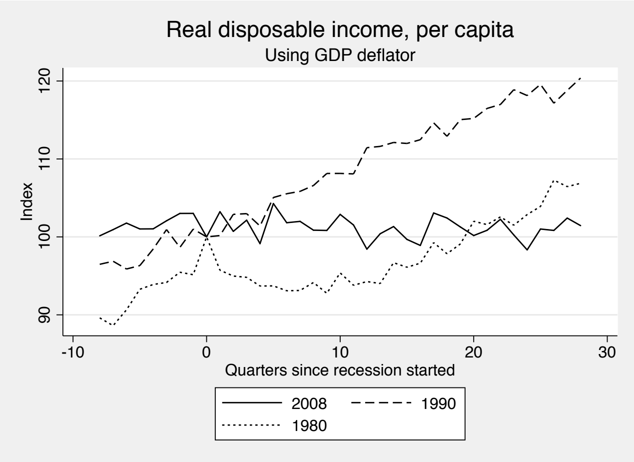
Introduction

- Patterns and Puzzles in Household behaviour

1. Savings behaviour in recessions
2. How does behaviour differ across groups? Split by age, by housing tenure
   - ★ Impact of leverage
3. Durable vs Non-durable Spending Patterns
   - ★ Different speeds of recovery
   - ★ Long-run changes in volatility

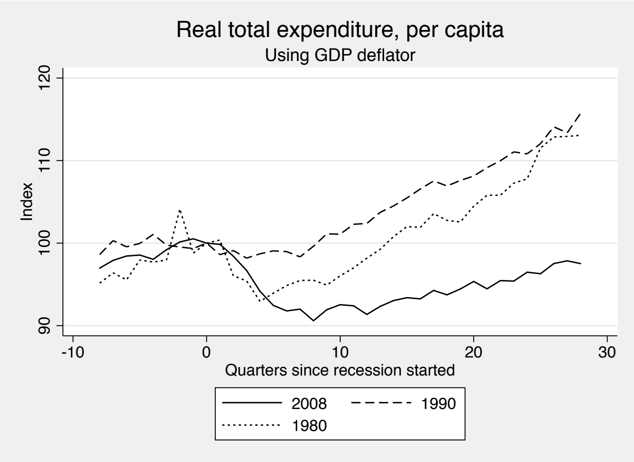
Savings Behaviour

Income over the past three recessions



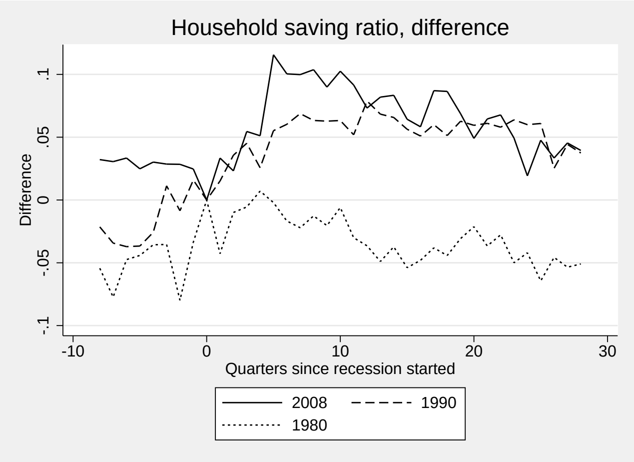
Savings Behaviour

Expenditure over the past three recessions



Savings Behaviour

Household Saving Ratio over the past three recessions



Savings Behaviour: Summary

- Spike in savings around start of recession.
- Similar in UK and US
- Negative correlation between savings and growth in GDP
- Puzzling because consumption should be smoothed through shocks

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- Explanations (Alan, Crossley and Low, 2014)

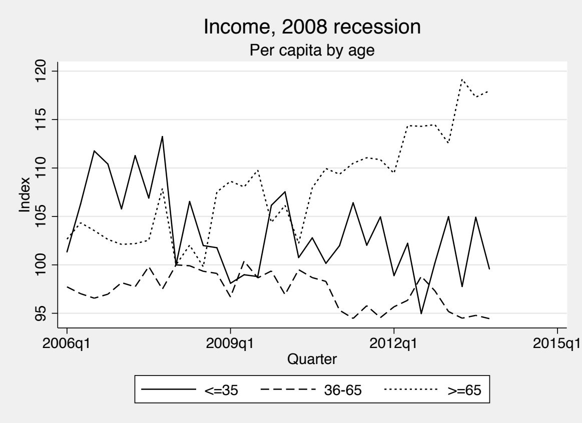
  1. Shocks of recessions are permanent to the individual:

     ΔPDI reflects transitory income, GDP growth permanent

  2. Recessions generate uncertainty in permanent income

Differences across Groups post-2008: Age

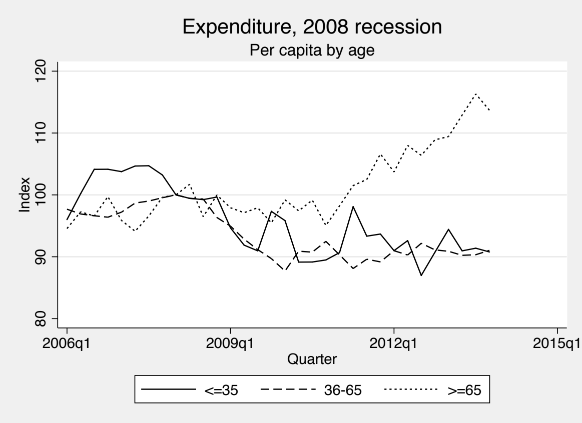
Income



Largest income fall for middle-aged, Old recover fastest

Differences across Groups post-2008: Age

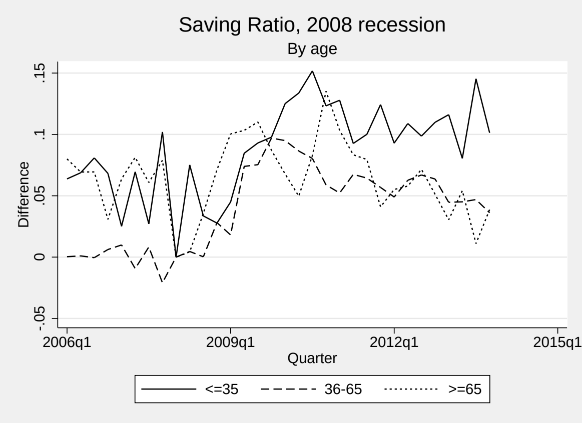
Expenditure



Middle-aged and young both cut expenditure

Differences across Groups post-2008: Age

Saving Ratio



Saving of all age groups rises - not just about credit constraints

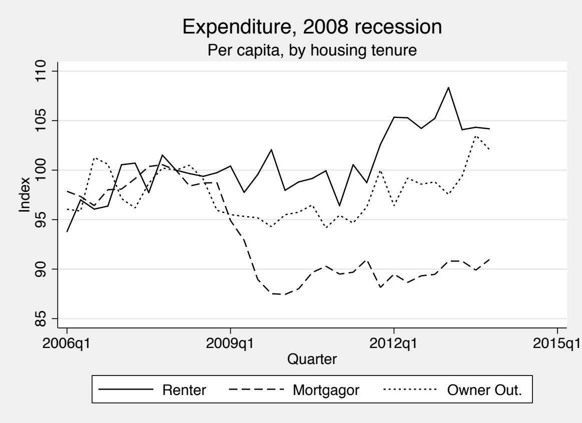
Differences across Groups post-2008: Age

Summary

- Income fall particularly for middle aged; fast recovery for the old
- Savings increased for all groups; especially for the young
- Explanations
  1. Suggests supply of credit is not the driver of savings spike
  2. Role of uncertainty
  3. Wealth effects

Differences across Groups post-2008: Housing Tenure

Expenditure



Sharp fall in expenditure for mortgage holders

Differences across Groups post-2008: Housing Tenure

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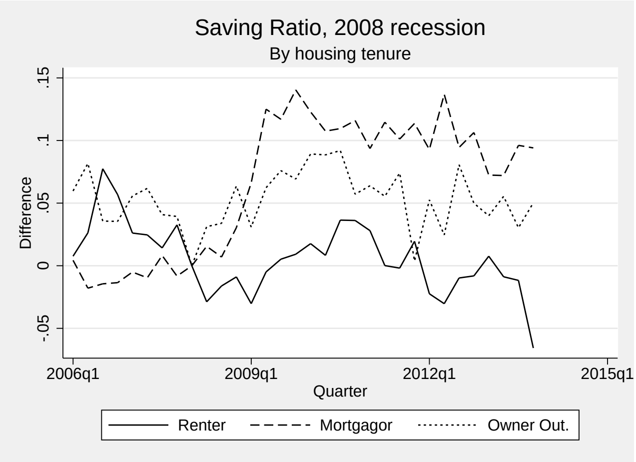

Differences across Groups post-2008: Housing Tenure

- Expenditure falls most for mortgagors
- Sharp spike up in savings
- How large is the wealth shock?

Differences across Groups post-2008: Housing Tenure

Wealth Shocks

- What is the change in net wealth, W, following a house price fall?

$$\frac{\Delta W}{W_t} = \frac{\omega_t}{(1 - L_t)}\pi_t$$

L : Leverage (debt to gross wealth)
ω : Exposure (share of housing in gross wealth)
π : Return on housing (percentage change in house price)

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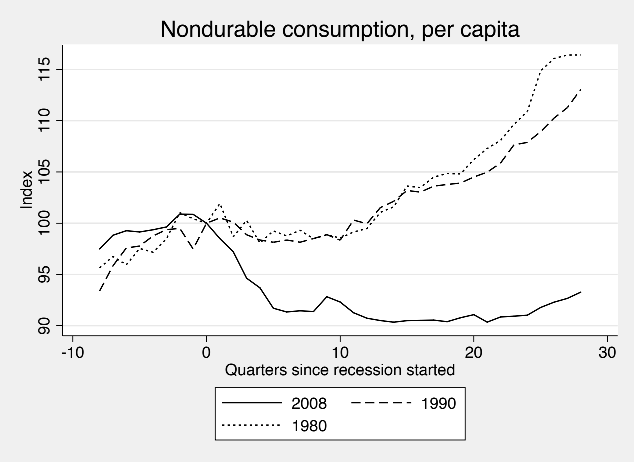
- Age 25: on financial wealth, leverage 0.9, exposure 100%.
  $\Rightarrow$ Multiplier on house price change: 10
- Age 25: on all human and financial wealth - leverage becomes 0.1, exposure 0.11
  $\Rightarrow$ Multiplier on house price change: 0.13
- Importance of uncertainty about permanent income

Durables vs Non-Durables

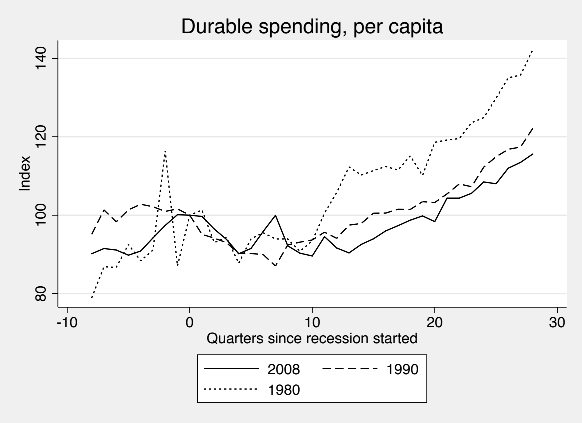
Non-durables have not recovered



Updated from Crossley, Low and O'Dea (2013). Fall after 2008 is particularly in food expenditure.

Durables vs Non-Durables

Durables have recovered quickly



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Durables vs Non-Durables

- How fast do durables recover compared to non-durables?
- Show ratio of quantity of durables to quantity of nondurables in 1980 and 2008

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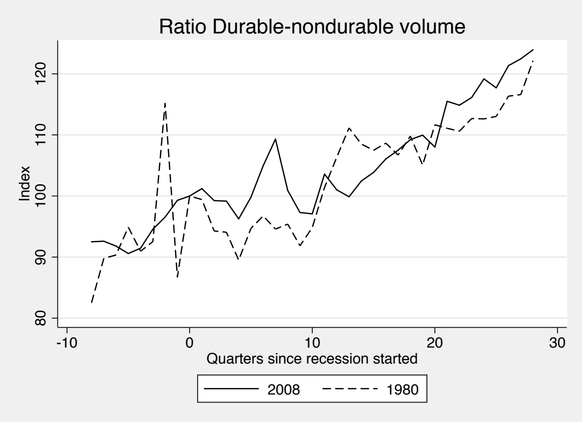
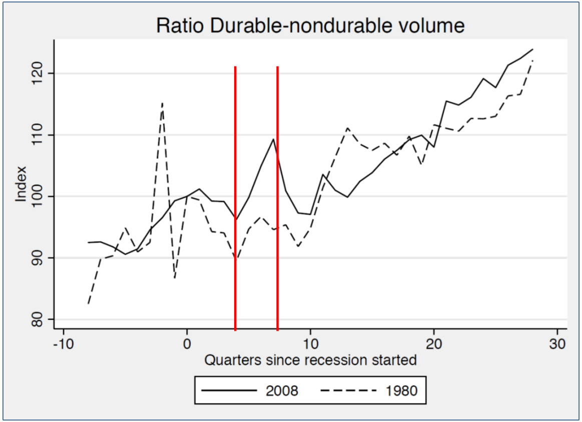


Durables vs Non-Durables

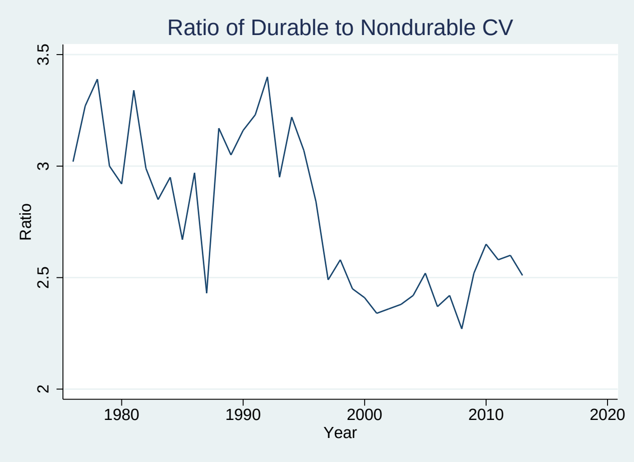
Volume Ratios: 1980 and 2008



Difference is mainly in the spike end 2008/2009: VAT cut and Scrappage, Crossley, Low and Sleeman, 2015

Durables vs Non-Durables

Cross-Section Variability



Decline in cross-section variability and time-series volatility

Durables vs Non-Durables: Explanations

1. Decline in volatility of prices
2. Decline in covariance of prices with business cycle

Durables vs Non-Durables: Explanations

1. Decline in volatility of prices
2. Decline in covariance of prices with business cycle
3. Decline in durablity / increase in depreciation
4. Durables less luxurious

Conclusions

- Three patterns to understand:

  1. Savings spikes
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     - Role of uncertainty

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   - ★ Common for all age groups
   - ★ Role of uncertainty
2. Mortgage holders cut expenditure the most - leverage and exposure
   - ★ Need to account for all wealth in thinking about leverage?
3. Durables
   - ★ Ratio of durable to non-durable spending similar to other recessions
   - ★ Both growing slower than previous recessions
   - ★ Nature of durables has changed: spending less volatile