Wealth Effects on Consumption across the Wealth Distribution: Empirical Evidence

By Arrondel and Savignac

Discussion by Tullio Jappelli

University of Naples Federico II, CSEF and CEPR

Outline

1. The wealth effect
2. Empirical findings
3. Lesson from the literature
4. The French case

1. The Wealth Effect

$$\Delta \ln c_{it} = \lambda \Delta z_{it} + \sum_{k=1}^{K} \phi^k \pi_{it}^k + \nu_{it}$$

π may reflect income shocks or unanticipated effects of house prices and stock market prices (the “wealth effect”).

- Complete markets: no impact if shocks are idiosyncratic ($\phi = 0$).
- PIH, buffer stock model: consumption responds strongly to permanent shocks, little to transitory shocks.
- These models suggest that unexpected and permanent drops in wealth reduce consumption, and that this reduction equals the annuity value of the drop in wealth, r/(1+r) with infinite horizon.
- In models with partial insurance consumers insure shocks to a larger extent than in models with self-insurance.

Research questions

1. What is the **MPC from wealth shocks**?

2. Households are **differently affected by wealth shocks:**

- size of shocks;
- preferences (e.g. precautionary motive)
- heterogeneity in financial asset holdings;
- home ownership status, location, labor market participation;
- formal (eg UI) and informal (e.g. family networks) insurance opportunities;
- access to financial markets (liquidity constraints)

Questions crucial to understand consumers' behavior and evaluate consumption effect of changes in asset prices.

2. Empirical findings

Results based on micro-data are mixed, with some papers finding large responses of expenditure to house and stock prices shocks, while others find smaller effects.

Surveys by **Deaton** (2011) and **De Nardi et al.** (2011) point out that wealth effects are important in the Great Recession.

Implicit assumptions

(i) wealth shocks are not predictable, and therefore not anticipated by consumers;

(ii) current prices are the best predictors of future asset prices, (changes in asset prices are a permanent shock). Thus should have a relatively large impact on consumption, equivalent to the annuity value of the shock (say 2 to 5 pp).

(iii) consumption should not respond to anticipated wealth changes. But Paiella and Pistaferri (2015) point out that consumers should respond also to expected wealth changes. These reflect intertemporal substitution effects, not wealth effects (unlike distinction between anticipated and unanticipated income shocks).

3. **The French case**

- Two cross-sections on wealth and consumption (imputed). About 3,500 observations.

- Timing. Consumption data refer to 2009. Wealth survey is fielded between October 2009 and February 2010. Is wealth measured at the beginning or at the end of 2009?

- Specification: $$\frac{C}{Y} = \alpha + \beta \frac{W}{Y} + \gamma \left(\frac{W}{Y} \right)^2 + \varepsilon$$

- Hypothesis: $\beta > 0, \quad \gamma < 0$

- Finding: consumption and wealth are positively correlated in the cross section. Correlation is small (less than 1pp), and stronger at low wealth levels.

Lesson from previous studies

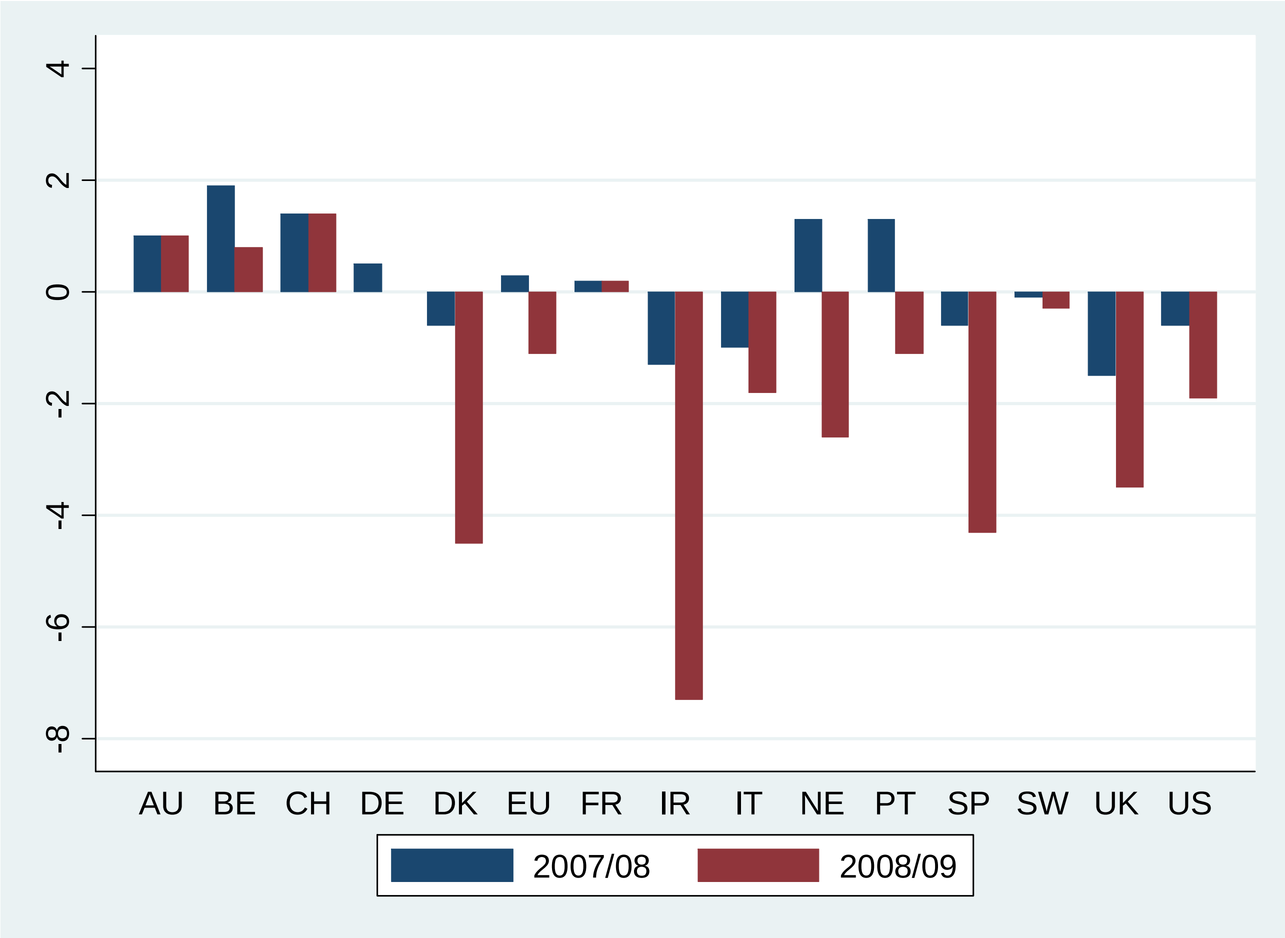
1. Most studies rely on aggregate measures of house price changes (regional or county level), while house price risk has also an idiosyncratic component specific to each dwelling.
Need strategy to identify wealth shocks.

2. House and stock price changes are correlated with other economic events (impact on expectations of future income).
Need panel data, and appropriate IV.

3. Studies usually don't distinguish between transitory and permanent wealth shocks.
Need data on house price process, or subjective expectations.

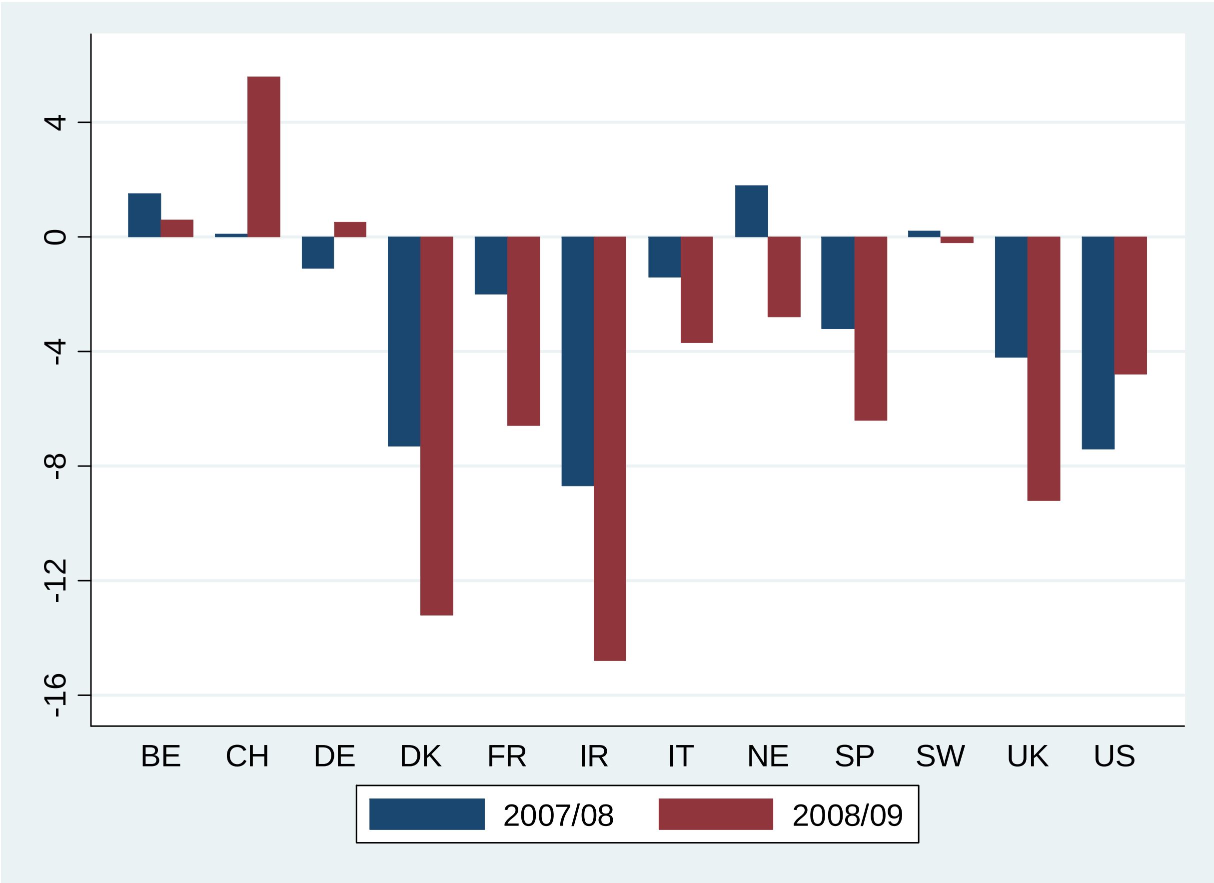
4 . Consumers may tend to smooth consumption only when income or wealth changes are large.
Need data on size of the shocks.

Consumption and the Great Recession



France: flat consumption. Source: OECD Economic Outlook.

% Change in House Prices



France: about 10% decline. Source: OECD Economic Outlook.

Stock Prices

Quite significant drop in France

Stylized facts for France in 2009

- Little change in private consumption
- Significant drop in house prices
- Larger drop in stock prices
- Consistent with small wealth effects

Comments

- Consumption measured in 2009.
- Wealth measured in ??
- Not easy to identify shocks in a cross-section
- Better use interaction terms rather than sample splits (eg. for homeowners, debt/asset ratio, etc)