Comments on Housing Wealth, Credit Conditions and Consumption by Aron, Muellbauer and Murphy

Bank of Spain workshop
Household Finances and Housing Wealth

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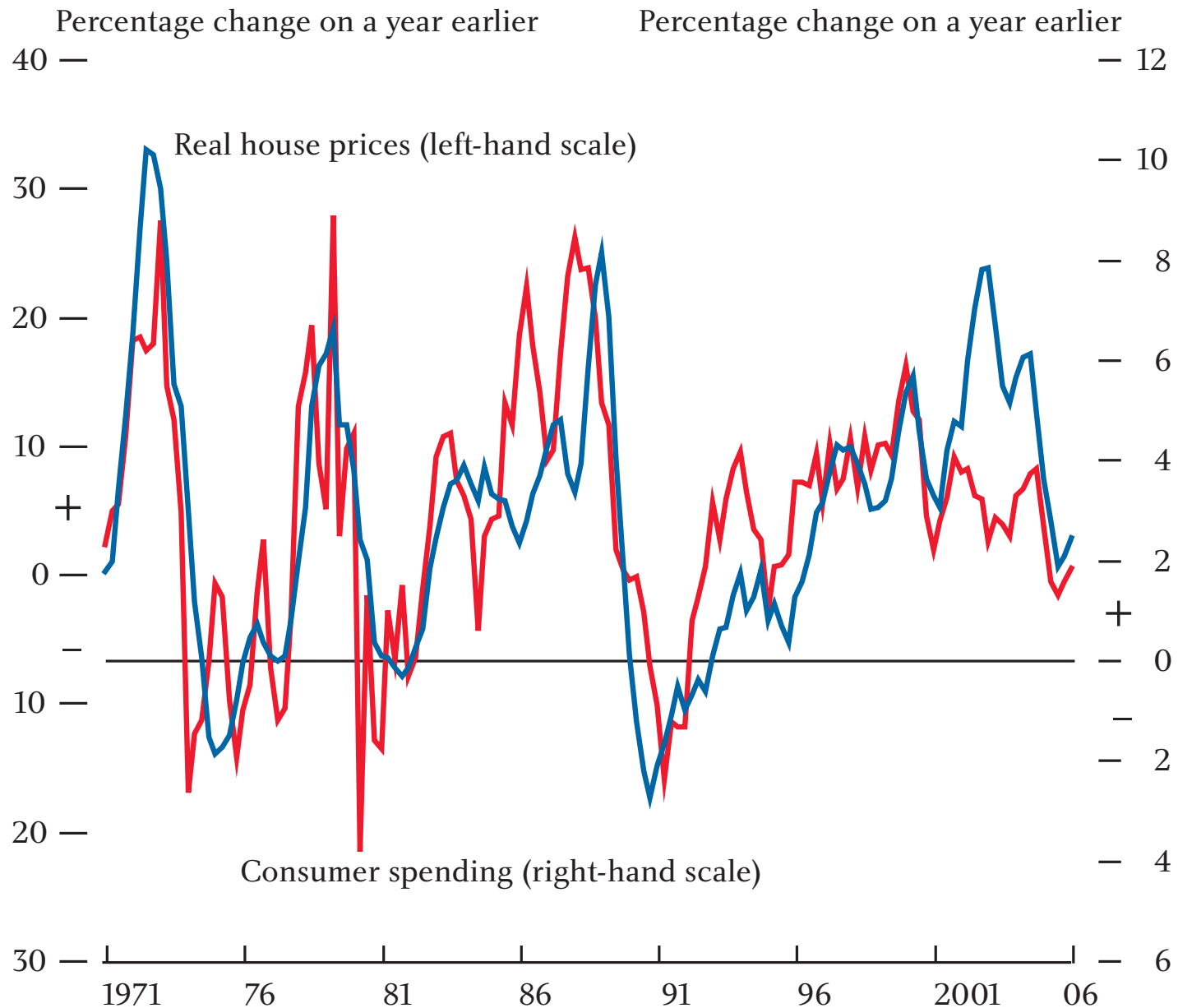
Introduction

Credit conditions and housing wealth

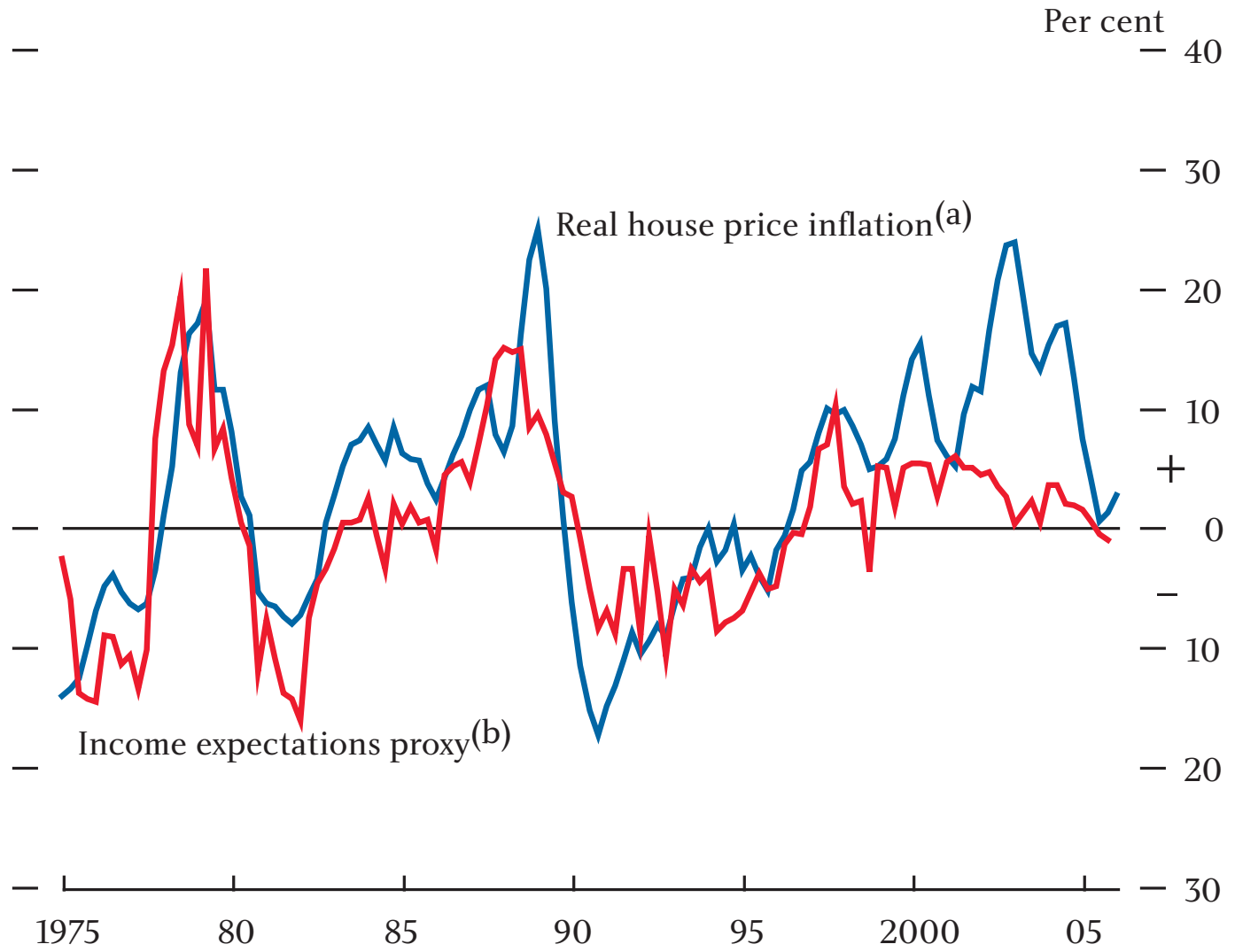
- The paper makes an important point: the estimation of the effect of housing wealth on consumption should consider the evolution of credit restrictions since these conditions affect housing prices and consumption. Failure to control for the direct effect of credit liberalization can overestimate the effect of housing wealth on consumption.
- Practical implication: it explains the break down (weakening) in the bivariate relationship between house prices and consumption which has been a common place in recent discussions and research in the Bank of England.
- Takes on Case-Quigley-Shiller (2005).

Real house prices[a] and consumer spending



Sources: Nationwide and ONS.

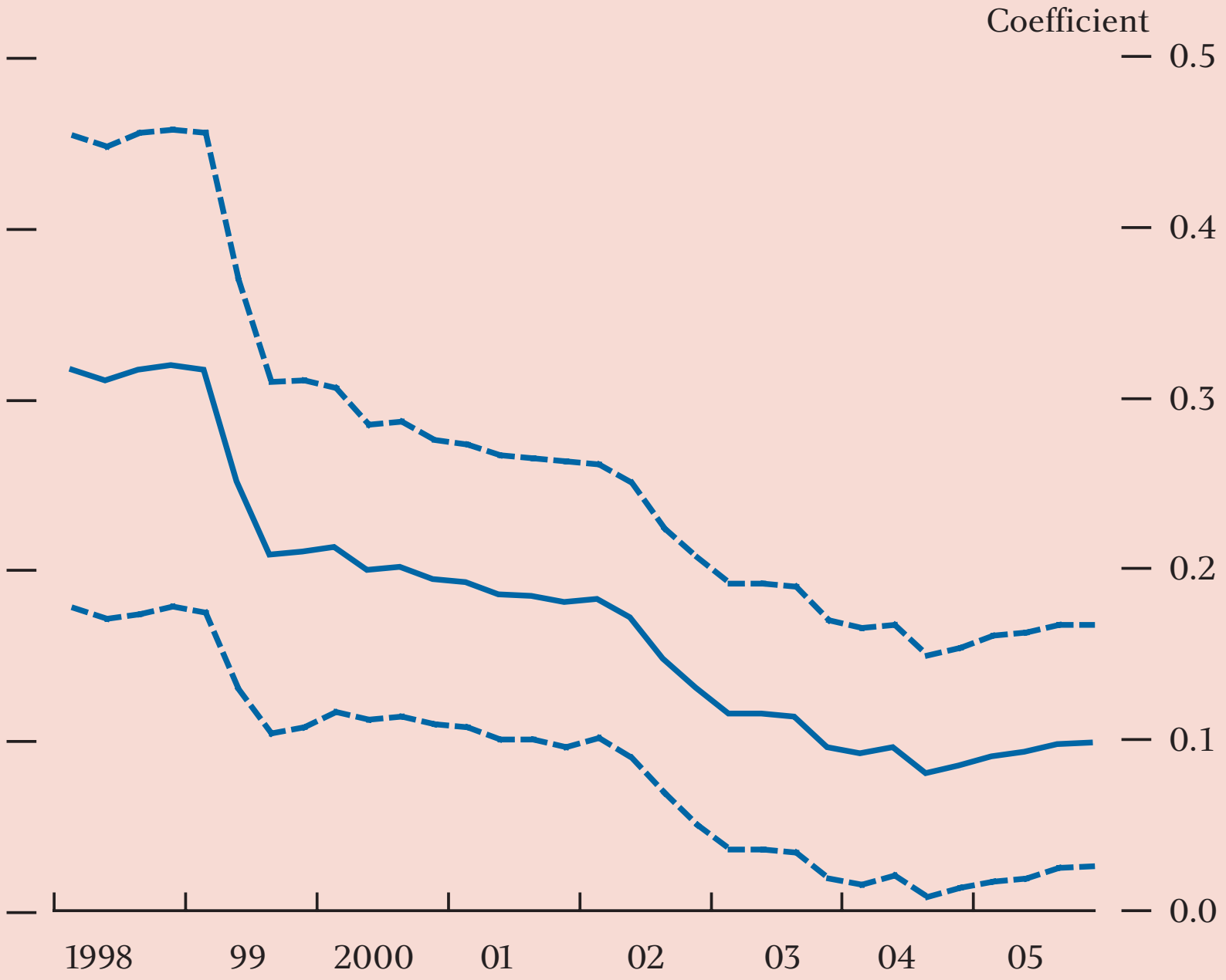
Real house price inflation and a simple proxy for income expectations



Sources: Bank of England, GfK, Nationwide and ONS.

(a) Four-quarter rate. Real house prices were calculated by deflating the Nationwide house price index by the consumer expenditure deflator.
(b) Simple average of the Table A indicators' deviation from mean. The indicators differ in their variability so, for comparability, each series was normalised by dividing by its standard deviation relative to house price inflation.

Rolling estimates of housing wealth coefficient in *Bank of England Quarterly Model*(a)



Introduction

Credit conditions and housing wealth

- However, previous research is unclear on the net effect of credit constrains on housing prices. Meen (1989, OBES): the removal of credit rationing (regime switch in the 80's in UK), given all the other variables, would have increased house prices by 21%. However, if there are no changes on other variables affecting mortgage demand and supply, then the mortgage interest rate must increase. Simulations show that this effect is sufficient to offset almost entirely the direct effect of the removal of rationing on house prices.
- Cameron, Muellbauer and Murphy (2006): the estimated effect of the credit conditions index, in terms of its direct, positive effect on real house prices, is roughly canceled out by the effect of the rise in real interest rates.

Specifications

- Case-Quigley-Shiller (2005): all variables are real (deflated by the GDP deflator) and per capita

$$\begin{aligned}\Delta \ln c_t &= \alpha(\ln y_{t-1} - \ln c_{t-1}) \\ &\quad +\beta_1 \Delta \ln c_t + \beta_2 \Delta \ln y_t + \beta_3 \Delta \ln Q_t + \beta_4 \Delta \ln Q_{t-1} \\ &\quad +\beta_5 \Delta \ln H_t + \beta_6 D86_t \Delta \ln H_t + \mu_i + \mu_t + \varepsilon_{it}\end{aligned}$$

- AMM (2006)

$$\begin{aligned}\Delta \ln c_t &= \alpha(\ln y_t - \ln c_{t-1} + \alpha_0 CCI_t + \sum_{j=1}^{3}(\alpha_j + \alpha_{jc} CCI_t) X_j \\ &\quad +\gamma_1 NLA_{t-1}/y_t + \gamma_2 IFA_{t-1}/y_t + (\gamma_3 + \gamma_{3c} CCI) H_{t-1}/y_t) \\ &\quad +(\beta_1 + \beta_{1c} CCI_t) \Delta \ln y_t \\ &\quad +(\beta_2 + \beta_{2c} CCI_t) DB_{t-1}/y_t \Delta_4 \ln nr_t + \mu_t + \varepsilon_{it}\end{aligned}$$

What can explain the comovement?

Common factors: affect both consumption and housing prices

- Interest rates
- Access to credit (less credit constrains)
- Income expectations

What can explain the effect of housing wealth on consumption?

Is housing only financial wealth or real wealth?

For homeowners who expect to live in his current house for a long time, a higher house price is simply compensation for higher implicit rental cost.

- Redistribution of wealth: young households planning to trade up while older households trade down -> if these groups react differently to changes in wealth then redistribution can affect aggregate spending. Using aggregate time series it is quite difficult to identify this channel.
- Increase collateral: more spending because lenders lend more and at lower interest rate when there is more collateral. But this is not a wealth effect but a reduction in borrowing constrained homeowners, that now can smooth consumption.
- Precautionary savings: as house prices rise the need to hold other forms of wealth for precautionary reasons is reduced.

=> I am not sure that using aggregate time series data we can identify these effects.

What can explain the weakening of the relationship?

Effect depend on the reason why housing prices are going up

- Redistribution of wealth: bequests and transfers to the children to pay for sharpy higher housing prices.
- Borrowing against the value of the house was very weakly constrained by the beginning of the current decade
- Precautionary savings less important for a reduced perception of uncertainty in the future.
- The role of financial wealth and the stock market crash during the period 2000-2003.
- Reduced return to financial assets makes housing a more desirable asset for investment (increases demand for housing but not consumption).

Specific comments

The paper considers very important effects

- "Behavioral life cycle hypothesis": people difference between consumption and income is mediated by institutions not by individual decision. Therefore, changes in institutions (standard LTV ratio for home mortgages, spread of credit cards, etc.) are important to model consumption.
- Gross and Souleles (2002, QJE): the average mpc out of liquidity (defined in a different way but representing the same concept) is between 10% and 14%. These are the values estimated by AMM!!
- Psychological effects related with the marketing of credits are also important (Bertrand et al 2005 randomized experiment in the consumer credit market in South Africa).

Specific comments

Classification of assets and its return

- Expected utility maximization cannot explain why there is a difference in the wealth effect of stock markets and real state. Many papers do not explain why they disaggregate the assets in different categories. By contrast, AMM spend many paragraphs explaining this.
- Bonds and shares: "illiquid assets"? Usually research disaggregate financial assets and housing wealth. Why should mpc for liquid assets be different from "illiquid assets" type bonds and stocks? The difference in the transaction cost of stocks and pension funds is higher than the difference between the transaction cost of stocks and "liquid" assets.
- It is a bit surprising that the expected capital gains from housing wealth are never significant (opposite to Campbell and Cocco 2007).
- Graph 1: housing assets to income maximum at 1? Illiquid assets over income around 1.4 in 2000. In Corugedo and Muellbauer is 2.7 in 2000. Magnitudes used to defined the CCI seem to have different definitions.

Specific comments

Housing wealth and CCI

- In general assets should be interacted with CCI: "the wealth effect on consumption will differ according the liquidity characteristics of different types of wealth, and these characteristics shift with liberalization". However, in the empirical specification that disaggregate assets only housing is interacted with CCI. It is also unclear why the level of housing wealth is not included when the interaction between housing wealth and CCI is included.
- Why is the effect of housing wealth evaluated at the peak and not at the average of the period? It is difficult to compare with other estimations. If we take the comparison with the average CCI the mpc out of housing wealth is 0.02 (0.032 at the peak CCI), very similar to the mpc out of "illiquid" wealth (0.024).

Specific comments (cont.)

- The unemployment rate is included as a proxy for the need of precautionary savings. However, housing equity should be also interacted with unemployment since, depending on the level of equity and the perception of the probability of losing the job, the need for precautionary saving will change.
- Other missing interaction (in UK estimation): uncertainty by CCI.
- It would be nice to know, given the motivation of the paper, to what extent the change in the CCI can explain the observed change in the coefficient of housing wealth in the Bank of England Quarterly Model. Is it possible to find a high impact being the CCI constant in the last part of the sample?

Final comment

- Many authors (like for instance Carroll 2006) have argued that the basic problem of the cointegration-error correction mechanism approach to the measurement of the effect of housing wealth on consumption is the instability of the cointegrating vector. The reader would like to see the result of some evidence of the stability of their cointegrating vector.
- There is a mixture of precise mathematical arguments and informal modifications: "we do not take log of assets"; "better represented by the 4-quarter moving average"; "annual log change of the nominal rate is preferable to quarterly rate"; strong simplifying assumptions.