Discussion of Fisher and Gervais "First-Time Home Buyers and Residential Investment Volatility"

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Household debtors are frequently young families acquiring homes and furnishings before they earn incomes to pay for them outright; given the difficulty of borrowing against future wages, they are liquidity-constrained and have a high marginal propensity to consume.

(James Tobin, *Asset Accumulation and Economic Activity*, 1980 p.10.)

−> **first-time home buyers are liquidity constrained**

It is a truth universally acknowledged, that a single man in possession of a good fortune, must be in want of a wife.

(Jane Austin, *Pride and Prejudice,* 1813).

−> **assets of first-time home buyers rise before marriage/purchase of home**

1 What the paper is about

- Standard deviation of housing investment has declined more than other macro variables during Great Moderation.

- This paper is an impressive attempt at explaining why, looking at institutional changes in the housing market.

  Focus on young (and freshly married) first-time home buyers.

  Context: OLG, stochastic growth model with consumption/housing choice, in the tradition of papers like Gervais (2002), Chambers Garriga Schlagenhauf (2005), Silos (2005), Peterson (2004), Nakajima (2004) and many others

  Added feature of this paper: looks at the effect of aggregate shocks, although still in a rough way.

US Economy. Cyclical Statistics, 1965-1983 (HP-filtered variables)

Variable	sd %	sd/sd(Y)	correlation with GDP
GDP	2.44	1.00	1.00
C	1.60	0.66	0.97
IH	13.70	**5.61**	0.90
IK	5.53	2.27	0.65
Mortgage Debt	3.16	1.29	**0.71**

US Economy. Cyclical Statistics, 1984-2005

Variable	sd %	sd/sd(Y)	correlation with GDP
GDP	1.21	1.00	1.00
C	0.77	0.63	0.94
IH	5.03	**4.16**	0.64
IK	4.22	3.48	0.85
Mortgage Debt	1.33	1.10	**0.04**

What is residential investment? (5% of GDP, but very volatile)

Two main categories:

- Permanent-site (single and multifamily structures) residential investment (60 percent)

- Home improvements (20/25 percent)

Permanent-site residential shows the largest decline −> most likely associated with decision of first-time home buyers −> right focus!
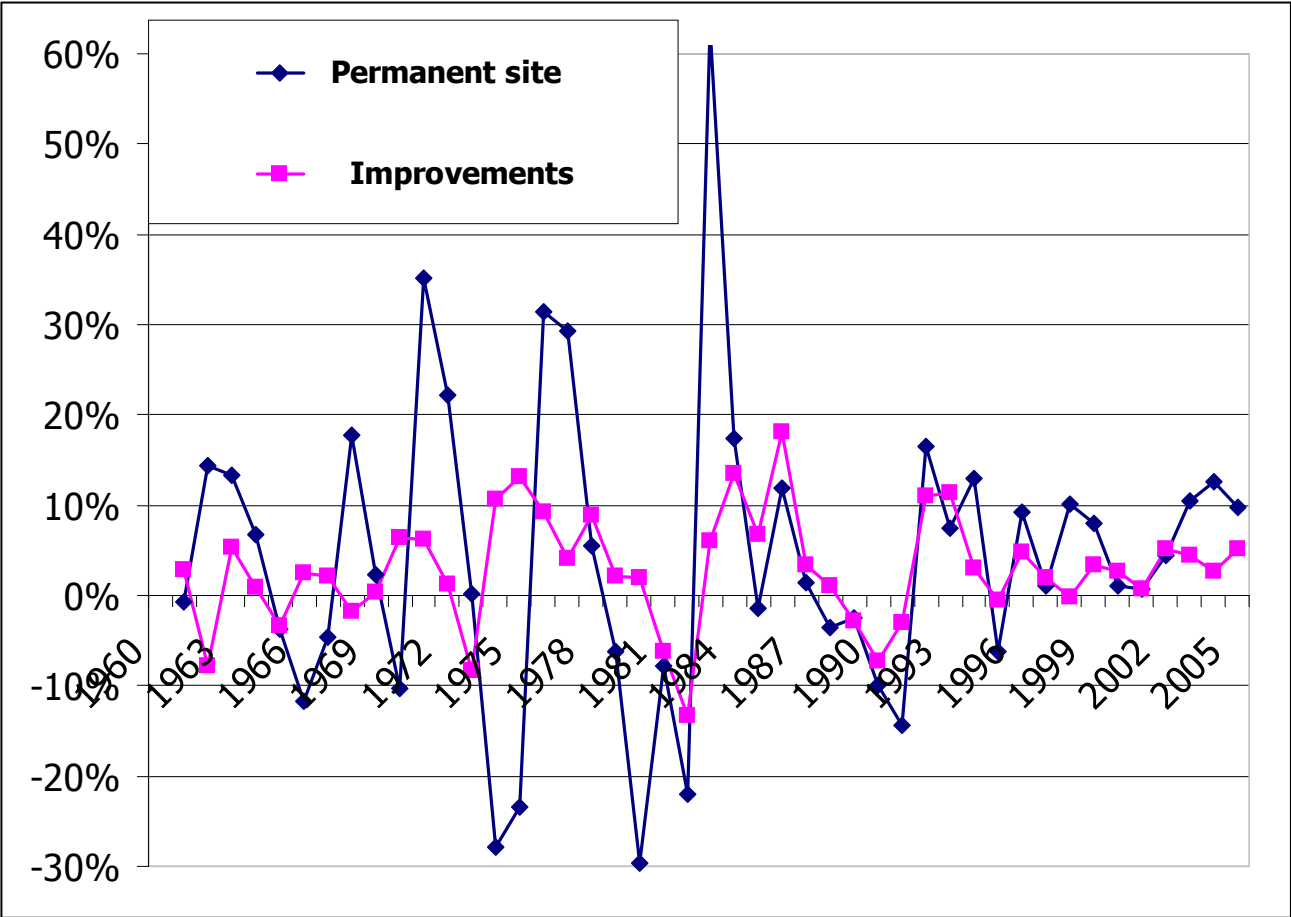
Figure 1: Source: My calculations

The main idea in the paper behind the reduction in volatility:

Several structural changes have "reduced" the fraction of population who is more likely to "react" a lot following given aggregate shocks

This fraction are first time home buyers

According to the paper, first-time home buyers post 1985:

1. are a smaller bunch because of demographic factors

2. save more because they marry later and buy later

3. save more because they face higher idiosyncratic risk

All these factors contribute to reduce dramatically the sensitivity of residential investment to given size aggregate shocks

2 What I like a lot

I like a lot these stories, in particular story $\#$ 3.

Mostly because it deals with something I have wrestling with in the past few months/years...

Iacoviello-Pavan (in progress): a Krusell-Smith style model with housing and non-housing capital and endogenous labor supply and idiosyncratic and aggregate shocks that matches wealth distribution well thanks to heterogeneity in discount factors. (agents live forever)

We find that larger idiosyncratic risk (combined with lower downpayment constraints) can explain:

both (1) reduction in volatility of IH (sd(IH)/sd(GDP) from 2.9 to 2.6)

and (2) reduction in the correlation between mortgage debt and GDP (from 0.6 to 0)

This happens because larger idiosyncratic risk and smaller downpayment constraints make impatient agents (sort of like the first-time home buyers in Martin and Jonas) more cautious in response to aggregate disturbances
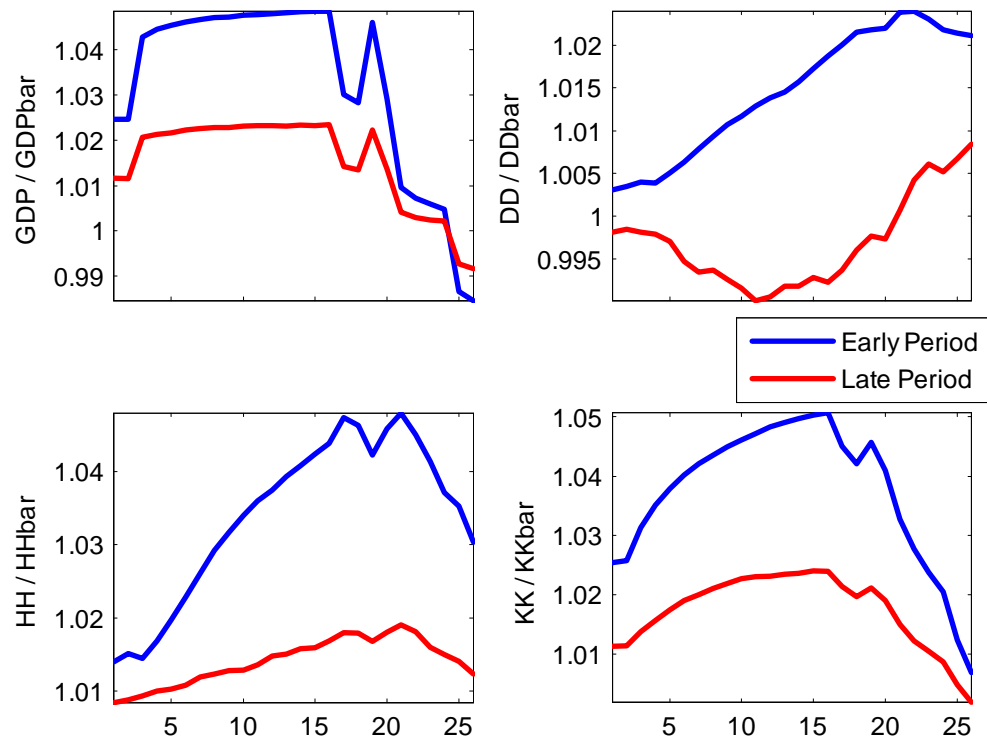
Figure 2: Source: Iacoviello and Pavan (in progress)

I like the paper emphasis on matching individual behavior around time of first purchase

There is something in the story that rent-to-own transitions are crucial in pre-85, less so afterwards.... (maybe 3 house sizes can also make sense of why rent-to-own is less correlated with residential investment in second part of the sample)
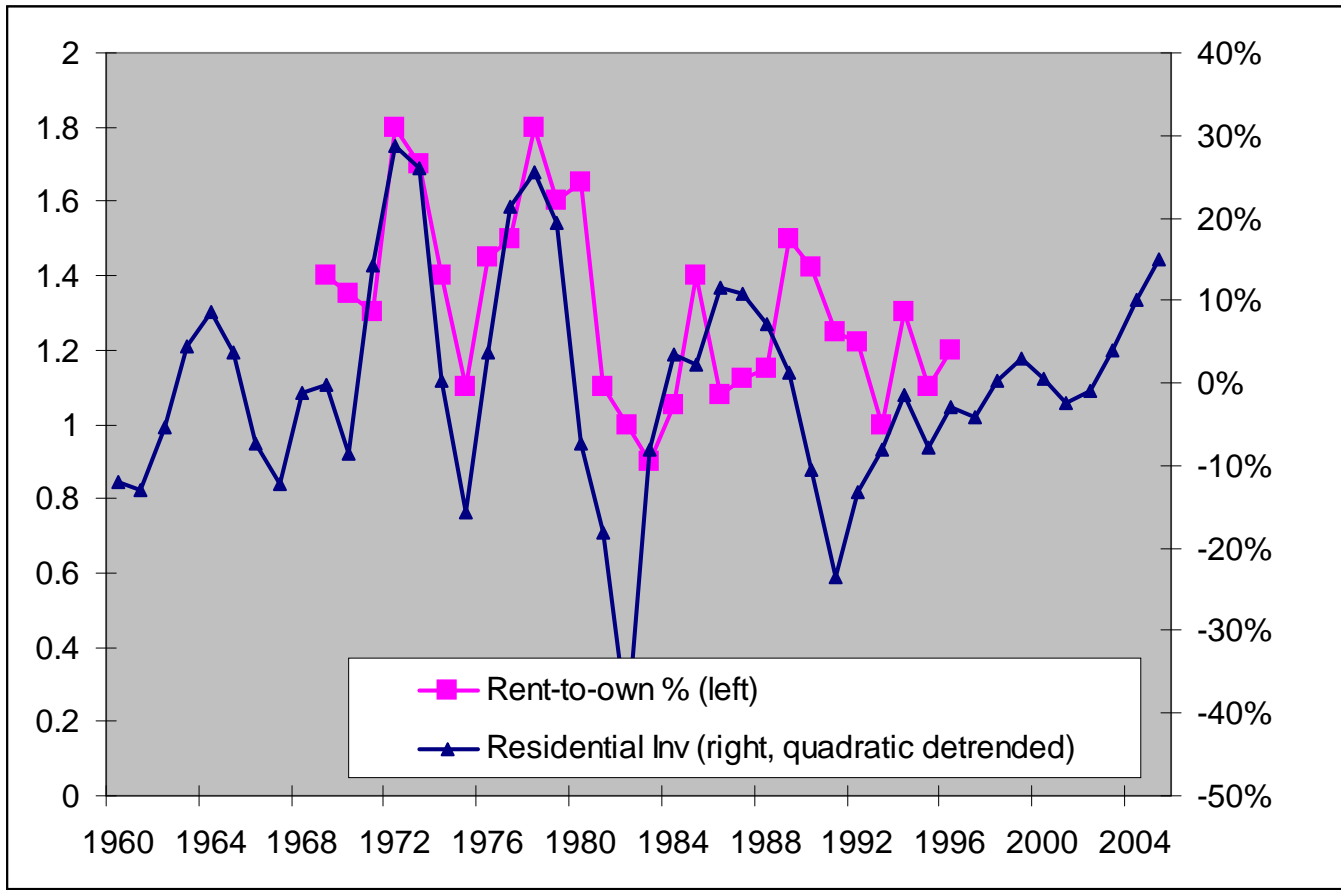
Figure 3: Source: Fisher and Gervais (2007)

3   Where I see room for improvement

- The model/data assertion that home ownership rates have gone down, especially for comparing pre and post 1985

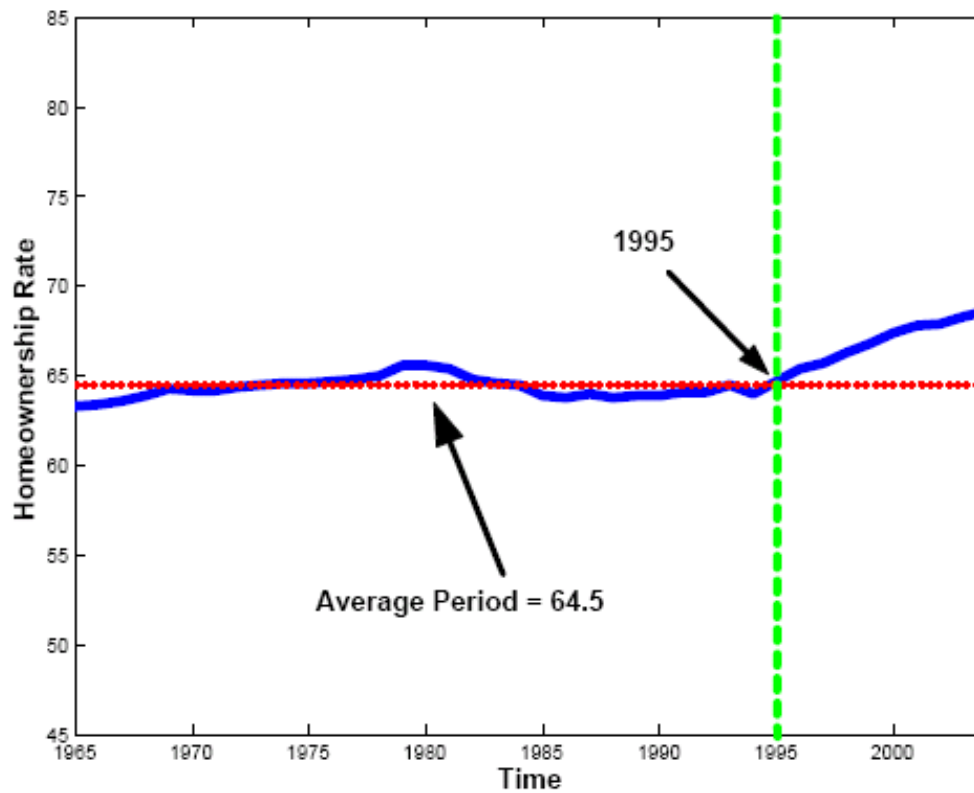Figure 1: The Evolution of the Homeownership Rate

Figure 4: Source: Chambers, Garriga and Schaughlenauf (2005)

- The strong emphasis on life-cycle changes in desired $\frac{h}{c}$ ratio

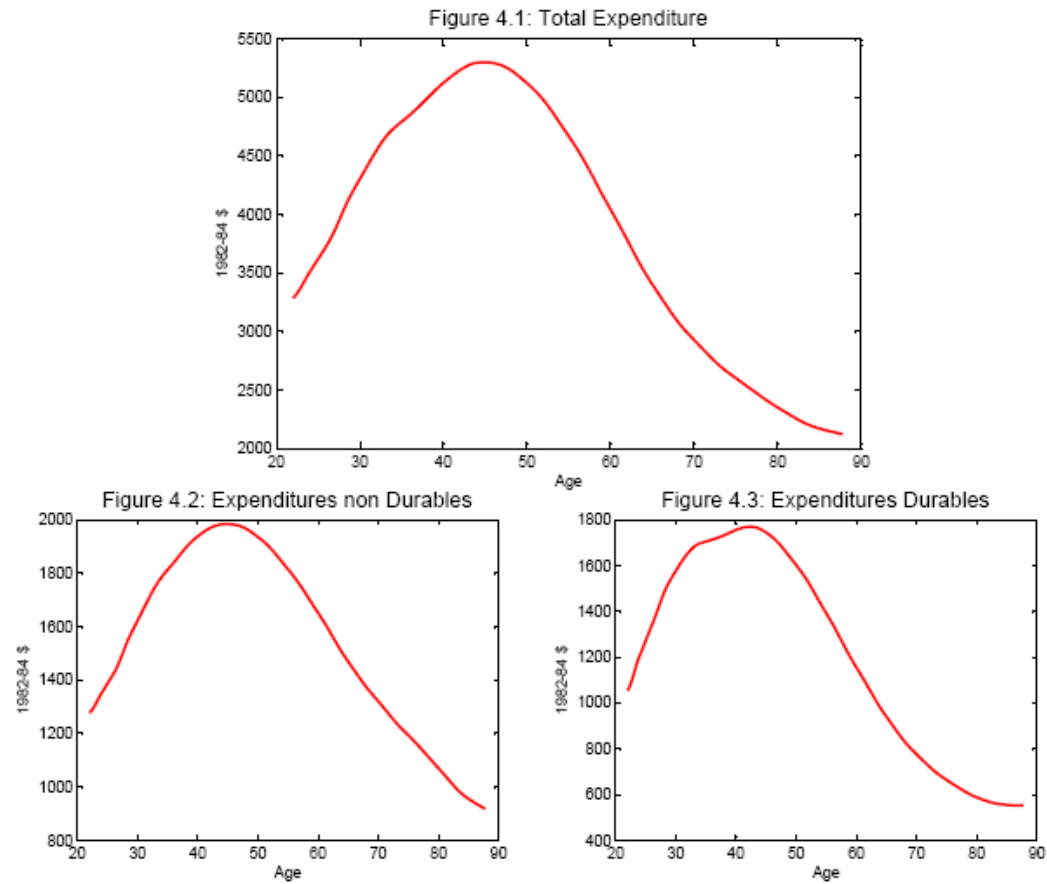 I would like the paper to say more about this, perhaps in relation to micro data

Figure 5: Source: Fernandez-Villaverde and Krueger (2006)

- I think the paper forces changes in h/c over the life-cycle that are too irrealistic for the paper to give serious quantitative answers.

  Which brings me to my main final comment.

  To me, the paper setup is too worried about matching some moments (e.g. getting right the time profile of assets and income before and after purchase) whereas it is entirely silent about others.

  Why worrying so much about getting assets/income right at the time of purchase: could gifts / pooling of assets account for a good part of that (if it does, it is not modeled in the paper)?

  What is so special about population growth? Does g kill off only the response of residential investment, or consumption as well?