**Similar literature**The most similar paper is “Evidence on the Benefits of Alternative Mortgage Products” in JF by Coco. In the UK from 1990 to 2008, IO usage is predicted by both realizations of future income growth and occupation (as a proxy for expectations), but only in the second half of the sample (2001-2008). IO users were more likely to be educated in the second half of the sample, and that regulation was stricter in the second half of the sample.

Cox, Brounen and Neuteboom in The Journal of Real Estate finance and Economics show that their sample of Dutch households IO mortgages are more likely to be chosen by those who are financially literate and less risk averse. They find that those who are older are more likely to choose IO loans.

“Interest-Only Mortgages and Consumption Growth: Evidence from a Mortgage Market Reform” by “Bäckman and Khorunzhina” uses the same dataset and same introduction of IO mortgages in Denmark as this paper. They run a very similar diff-in-diff to that in section 3.3 but use “home value to income” ratio rather that “home equity to total assets as used in this paper”. The conclusions are the same, and figure 8 panel (b) explicitly plots out heterogeneity by age (finding results similar to Table 4 of this paper). It seems misleading to just cite this paper as “using the same data” when the design, research question and findings in a key section are very similar.

I think the first part of the paper focusing on younger households is more or less just a replication of Coco 2013 in a different data context. The second part of the paper focusing on older households is very similar to BK. I think it would be helpful if the authors explicitly engaged with the similar paper. I focused on section 3 when looking for papers but with that caveat section 4 seems to be relatively newer but I think the claims of causality in this section are much stronger than are warranted by the data.

**Research questions**What are the characteristics of borrowers who take out IO mortgages? What are the effects of IO mortgages on consumption and savings?

**Data and setting**  
The data is from Denmark which apparently has strict regulation of mortgage origination. It seems strange to me that the authors do not talk about the extent to which regulation might affect their findings, particularly given that they frame their paper in the first paragraph/sentence as having relevance to the US housing crisis.

**Ideal experiment/Identification**

Section 3:   
*IO choice is contingent on lifecycle earnings*:  
You would randomly shock people’s expectations about their earnings paths into the future. You would observe how this influences their decision to choose an IO loan.

In practice, the authors need to use realisations of future income as predictors. One might be worried that people who have high income growth are different to people with low income growth (on features other than these beliefs). If you believe the CBN finding that more sophisticated and less risk averse types are the ones who buy IO products it seems that ex-post income growth would be predictive of both of types people (you are probably selecting those in professions and those who took risks (which paid off) in their career). Moreover the extent to which ex-post income growth realizations are predictive of these features likely varies across the life cycle (i.e. high growth in earlier career indicates you are a “hotshot” vs later in career it is probably recovery from a shock).

I also think in practice the claim being made by the authors is actually more about causal attribution than effect sizes. That is the effects should be rescaled by the amount of variation in income growth realizations across their dataset. Even if the effect of income growth is large (which they observe it is and is perhaps independently interesting), if they want to make a claim of “because” as they do in their abstract they need to calculate “alpha”.

*IO choice is contingent on liquidity constraints*

You would randomly assign holdings of illiquid housing wealth to various households (perhaps holding total wealth constant). You would observe how IO usage changes between these houses.

In practice what the authors actually do is observe whether the consumption of the borrowers who are liquidity constrained change more that borrowers who aren’t as around the time of the shock. “Households choose IO mortgages because they are liquidity constrained “ and “households who are liquidity constrained have higher consumption after the introduction of IO mortgages” are actually slightly different empirical claims.   
  
I think if you wanted to design an experiment to test the second claim, you would randomly assign a small (by GE effect) sample of the population the right to use an IO loan. You would then compare consumption for the treatment and control.

The interpretation of the diff-in-diff also seems slightly off. The authors note in the conclusion of their paper that they can’t rule out macro-economic effects of the mortgages and cite a paper which finds “that the introduction of IO mortgages contributed to the surge in home prices during the housing boom in Denmark”. Their diff in diff is actually comparing pre and post on all households (not IO users) on the basis of the share of their wealth in housing. Maybe I’m missing something but it seems like their findings could be explained entirely in terms of “IO mortgages increase house prices, those later in life have a higher MPC out of wealth changes”. Their placebo test doesn’t particularly deal with this concern since surely the after crisis period wasn’t associated with much change in housing prices.  
  
I also feel like it would be helpful if they explicitly plotted out the outcome variables (residualised by their control variables and say faceting by under/over 50) since the do actually have 3 years of data for pre-trends.

*What are the effects of IO mortgages on other financial decisions*

You would probably use the same ideal experiment above. I find this section to be particularly liberal in interpretation. We know that people who use IO mortgages differ from those who do not on a number of features (both observed in this data set and not). It seems questionable to just chuck a bunch of control variables in the regression and call it a day (although I guess this could be said for the analysis in section 3 too).