## Demographic Trends and the Real Interest Rate

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## The paper

- What explains the decline in real interest rates ?
  - The role of demographic change
- How persistent will it be?
- Aside:
  - Accounting for housing prices and household debt
  - Open economy extension: Explaining Net Foreign Liability Position
  - How does monopoly power change the impact of demographics on real interest rates

#### The context

- Increasing focus on the macro (long-run and short-run) consequences of long-run trends: ageing and productivity slowdown:
  - Revival of the secular stagnation hypothesis
  - The "saving glut" and the saving behaviour of the baby boomers
  - Slowdown of investment: structural versus cyclical factors?
  - Constraints on monetary policy at the ELB.
  - · Constraints on fiscal policies and debt sustainability

### The approach

- Calibration of OLG model
  - Physical capital (perfect substitute of consumption)
  - Housing providing services and store of wealth
  - Bequests
- Shortcuts?
  - Fixed supply of housing
  - No productivity growth
  - Neither Government Debt nor intergenerational transfers intermediated by Social Security system

### Main results

- Ageing explains 45% of the 360bp fall in real interest rate. Further reduction of 37bp by 2050
- Together with patterns of housing demand, demographic explains 3/4 of 50% rise in house prices
- Dissaving by baby boomers will not tend to raise real interest rate much
- Demographics explains around 30% of cross-country dispersion in Net Foreign Assets positions
- Higher monopoly power has ambiguous effects on r (decreases I, increases S by income effect)

# Comments (I)

- Inclined to (roughly) agree on the main conclusions
- Transmission mechanisms in the model: Straightforward and plausible
  - Standard saving behavior
  - Housing demand rises as r falls. Hence, house prices pushed up
  - More housing demand leads to more borrowing by the young
  - Composition effects
- Calibration: No major concerns

# Comments (II)

- Nevertheless, effects of ageing on r likely to be higher in the forthcoming decades
  - Key interactions ageing-productivity growth-private debt (Jimeno, 2014)
    - First time in history with such a high OADR, such a poor (and uncertain) prospects of productivity growth and such a high levels of accumulated debt
  - Concerns about public debt sustainability and the constraints on intergenerational transfers through pension systems
  - Nature of technological change
    - Does ageing leads to lower productivity growth or to more robotization (Acemoglu and Restrepo 2016)?
    - The complementarity between humans and machines: Is this time different?
- Effects of integration of LDCs in world economy on r\* likely to be lower

## Concluding remarks

- Nice topical paper (although still preliminary)
- Intuitive results, but still only scratching the surface...