Aging, Homeownership, and Macroeconomic Inefficiency

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Discussed by Stijn Van Nieuwerburgh (Columbia Business School)
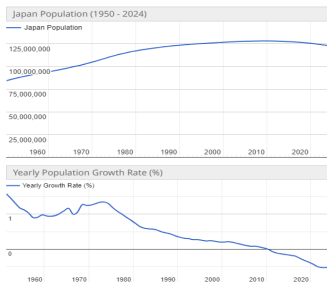
Columbia University Japan Center, February 2, 2024

Background

▶ Japan is at the forefront of aging societies

Japan Population (LIVE)

122,914,900

▶ By 2050, population will be 106 mi, and by 2100 just 75mi. We are losing one Japanese per second from now on.

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    - aggregate productivity and GDP growth
    - real interest rates and house prices
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- ▶ Important macro-economic implications:
  - ▶ aggregate productivity and GDP growth
  - ▶ real interest rates and house prices
  - ▶ fiscal sustainability of social security and health insurance schemes
- ▶ This paper: Quantifies the macroeconomic impact of aging in Japan, focussing on the **role of housing**

Akiya = empty house

Japan Has Millions of Empty Houses. Want to Buy One for $25,000?

With a shrinking population and more than 10 million abandoned properties, the country is straining to match houses with curious buyers.

- Nomura: 11 million akiya
- Akiya could exceed 30% of housing stock in 10 years' time

This Paper

- ▶ Calibrates an OLG model to the Japanese economy
  - ▶ Features age-specific mortality rates (ω)
  - ▶ Bequest motives over financial and housing wealth (ν)
  - ▶ Inefficient inter-generational transfer of houses (ϕ)
  - ▶ Large but stabilizing productivity gap between construction and production sectors (θ)

This Paper

- ▶ Calibrates an OLG model to the Japanese economy

- ▶ Decomposes the response of macro variables into 6 exogenous drivers
  - ▶ Stagnant technology growth and aging (low fertility/mortality) are the main drivers of the decline in the real rate (-170bps) and in real GDP growth (-3%)
  - ▶ Low construction sector productivity drives up house prices by 50% between 1980 and 2010
  - ▶ High demand for housing from the elderly & aging drives up per capita housing quantities

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- ▶ Counterfactual Analysis
  - ▶ Bequest motive ↑ ⇒ housing demand ↑ ⇒ housing prices ↑, GDP level ↑ (boosts investment), TFP & GDP growth ↓ (housing sector grows slower) ⇒ real rate ↓

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  - ▶ Inefficiency of housing bequest (ϕ) strengthens the above effects
  - ▶ Inheritance tax rates are not quantitatively important
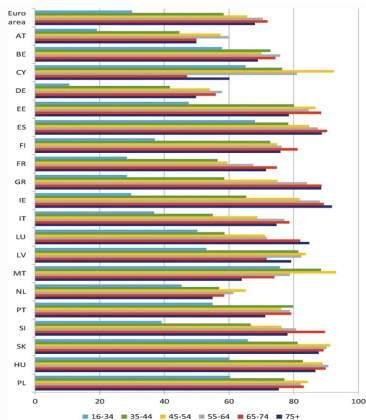
Comment 1: Homeownership Late In Life

▶ Model implies very high homeownership late in life, matching Japanese data

Age of Household Head
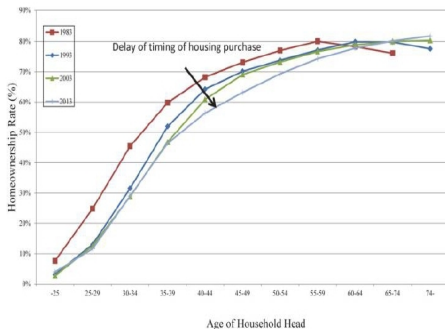
Source: Housing Survey in Japan, Statistic Bureau, Ministry of Internal Affairs and Communications

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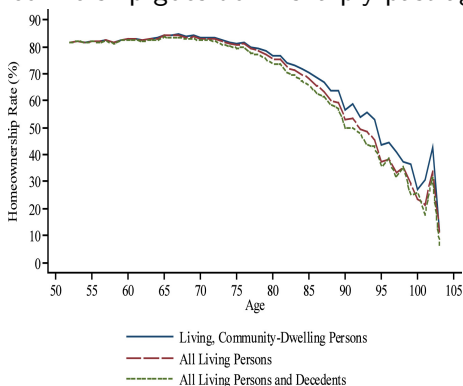- ▶ Consistent with evidence in the U.S. and Europe

Participation rate in ownership of HMR by age group (in %). Source: Own composition based on HFCS (2017), 2nd wave, Table B3

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▶ In U.S., homeownership goes down sharply past age 80!

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▶ But what actually happens to homeownership after age 75? Sparse data. Need "exit" interviews.

▶ Does similar data exist for Japan? I homeownership also declines past age 75, is the model consistent with this decline for the current bequest parameters ν and ϕ?

Comment 2: Fewer babies, fewer bequests?

- ▶ Model contains no link between fertility and bequests

  - ▶ Old people want to leave houses to their kids, irrespective of how many kids they have
  - ▶ But what if an aging population with fewer kids has a weaker bequest motive, or a bequest motive less tilted towards housing, in the aggregate?

- ▶ Why would the old generation accumulate housing for which there are no young residents?

- ▶ Maybe high old-homeownership is less due to bequests but more to **preference for aging in place** and **dissaving through lack of maintenance** (Cocco and Lopes, 2020)?

- ▶ If so, how would the welfare/policy implications differ?

Comment 3: Government Debt and Interest Rates

- ▶ Model assumes large ↑ in govt debt/GDP from 20% of GDP in 1985 to 125% in 2020, constant after

- ▶ and govt. spending ↑ from 14% of GDP in 1985 to 21% in 2020, constant after

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- ▶ Data: Low rates in Japan in last 20 years are, in large part, the result of massive **financial repression**. BOJ bought essentially entire net supply of Japanese govt bonds and now owns 50% of outstanding debt. Future of rates depends on BOJ actions!

Conclusion

▶ Nice paper on important question

▶ Aging affects macro aggregates through well-known channels of few working-age and productivity slowdown

▶ But also through **less well-known housing channels**

  ▶ How high is housing/homeownership really after age 75?
  ▶ If very high, is it due to strong bequest motive with housing tilt?
  ▶ Low intergenerational efficiency of housing bequests: capture spatial mismatch?

▶ Potentially alternative explanations for low real rates and for (recently) rising house prices (low rates $+$ duration)