The Long and the Short of Household Formation

Andrew Paciorek

Board of Governors of the Federal Reserve System

June 24, 2013

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Introduction

Household Formation and Headship

Demographics

Longer-Run

Shorter-Run

Projecting Household Formation

Housing Construction

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Why has residential construction been so low for so long?
Why has residential construction been so low for so long?

\[ \text{New Construction} - \Delta (\text{Vacant Units}) - \text{Scrapped Units} = \text{Household Formation} \]
Motivation

- Rate of (net) new household formation plunged after 2006 and has remained extremely low relative to historical norm
  - 2000-2006: 1.35 million per year
  - 2007-2011: 550,000 per year
  - 2012: About 1 million

- Consequences seem fairly clear:
  - Direct effects: Housing didn’t play its usual role in jumpstarting the recovery
  - Indirect effects: House prices, wealth, etc.

- But what are the drivers of household formation itself?
What is Household Formation?

Fraction of Young Adults Living with Older Family Members

Year

Percent


36 38 40 42 44 46

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What is Household Formation?

- Individuals choose one of four living arrangements:
  - Living with family (parents, e.g.)
  - Living alone
  - Living with a spouse or domestic partner
  - Living with roommates

- For a given population, distribution of individuals across arrangements determines the number of households
The Headship Rate

\[ \text{Headship Rate} = \frac{\text{Households}}{\text{Population}} \]  \hspace{2cm} (1)

\[ \% \Delta \text{Households} \approx \% \Delta \text{Population} + \% \Delta \text{Headship Rate} \]  \hspace{2cm} (2)

Population and Headship Rate, Growth Rates

![Graph showing population and headship rate growth rates from 1980 to 2010. The population line is solid, and the headship rate line is dashed.](image-url)
Differing Headship Rate Estimates

Headship Rate

Year

Percent

CPS

ACS

Census

Three Factors Affecting Headship and Household Formation

- Demographics, particularly the aging of the US population
- Longer-run trends in behavior, such as more adult children living at home
- Shorter-run fluctuations related to the state of the economy
Age and the Headship Rate

Headship Rate by Age, 2000 Census

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Decomposing the Headship Rate

Headship Rate (CPS)

- Aggregate
- Behavioral Component
- Aging Component

Year

Percent
50.0 50.5 51.0 51.5 52.0 52.5 53.0

2012

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Use Census microdata to decompose headship over the longer run

Demographic changes (mostly aging) pushed up headship rate

Rising income and education imply higher headship

But: Rising housing costs have pushed down headship strongly
Use ACS microdata to decompose headship over the shorter run

Demographics unimportant over this horizon

Rising rent still matters, even in a depressed housing market

Most important: Unemployment and income
Given these insights, what can we say about headship and household formation going forward?

Construct a model of headship that takes into account demographics, trends in behavior, and the effects of the business cycle.

Predict headship using model and Census Bureau population projections through 2020.
Model Forecast

Predicted Headship Rate (CPS)

- Aggregate
- Predicted
- Predicted (Gap = 0)

Year
Percent
50.0 50.5 51.0 51.5 52.0 52.5

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“Full employment” in 2012 would have implied 1.5 million more households.

Given projected population growth of 2.2 million per year, model predicts household formation of 1.5 to 1.6 million per year, compared with trend of 1.3-ish million.
Household formation has been well below trend in recent years.

Pace of formation reflects three underlying factors:
- Upward push from aging population
- Downward push from rising housing costs
- Cyclical component reflecting the state of the labor market

Trend household formation is roughly 1.3 million, but model suggests that it could hit 1.6 million as labor market improves and headship “catches up” to trend.

Positive impetus for housing demand, house prices, and residential construction.
- But: Lots of caveats and lots of uncertainty!