Discussion of

McKernan, Ratcliffe, Steuerle and Zhang
"Disparities in Wealth accumulation and Loss from the Great Recession and Beyond"

Bhutta and Keys
"Interest Rates and Equity Extraction During the Housing Boom"

Bayer, Ferreira and Ross
"The Vulnerability of Minority Homeowners in the Housing Boom and Bust"

Brian Bucks
Consumer Financial Protection Bureau

McKernan et al.: Findings

1. Insight: Other pre-post analyses understate wealth losses since they miss, e.g., expected life-cycle wealth accumulation

2. Wealth losses in the wake of the Great Recession were greater than for 1990–91 and 2001 recessions

3. Losses in home equity were key, but other major wealth components also fell between 2007 and 2010

4. Blacks, Hispanics, and younger families generally experienced largest wealth declines
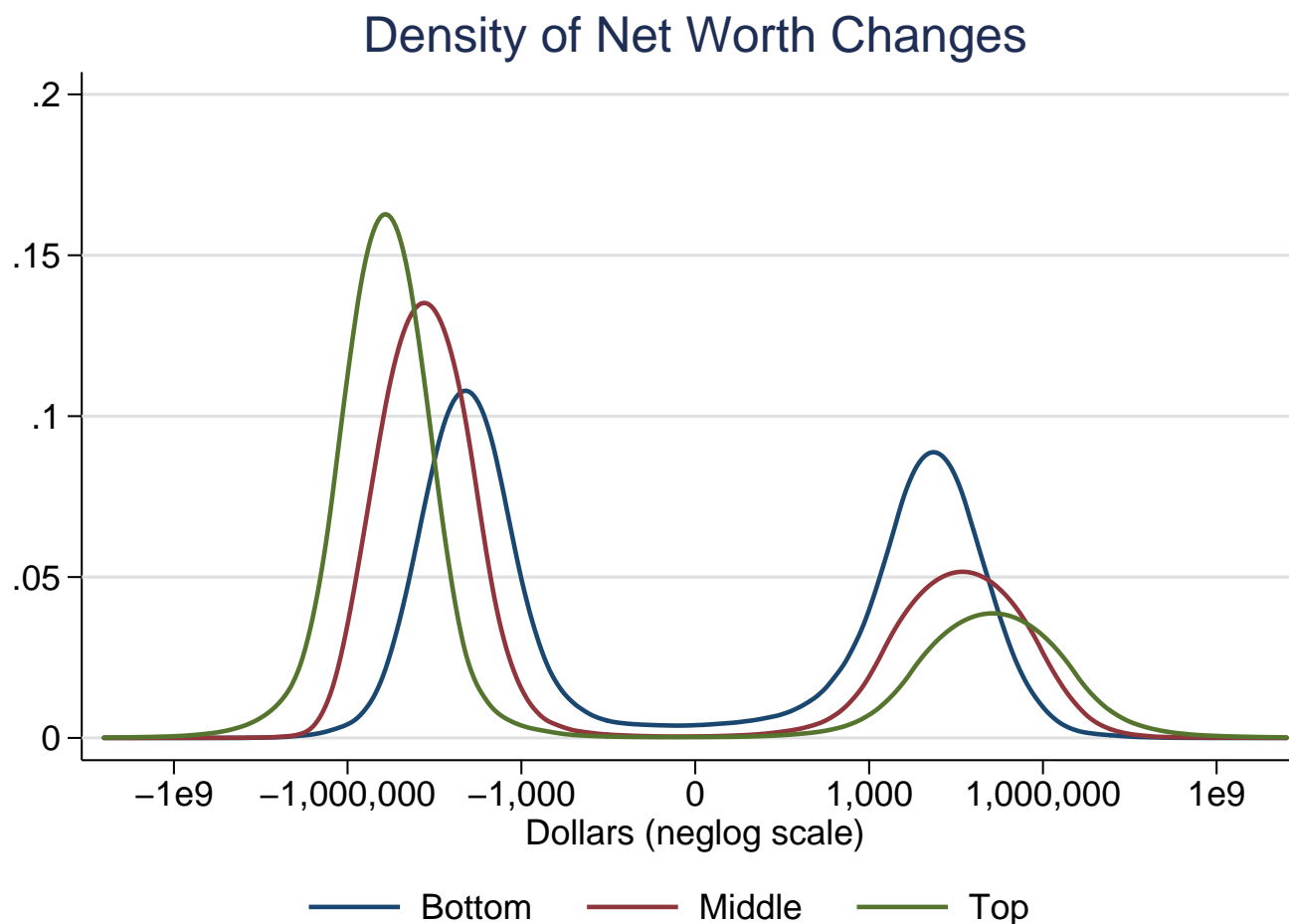
One perspective on the Great Recession
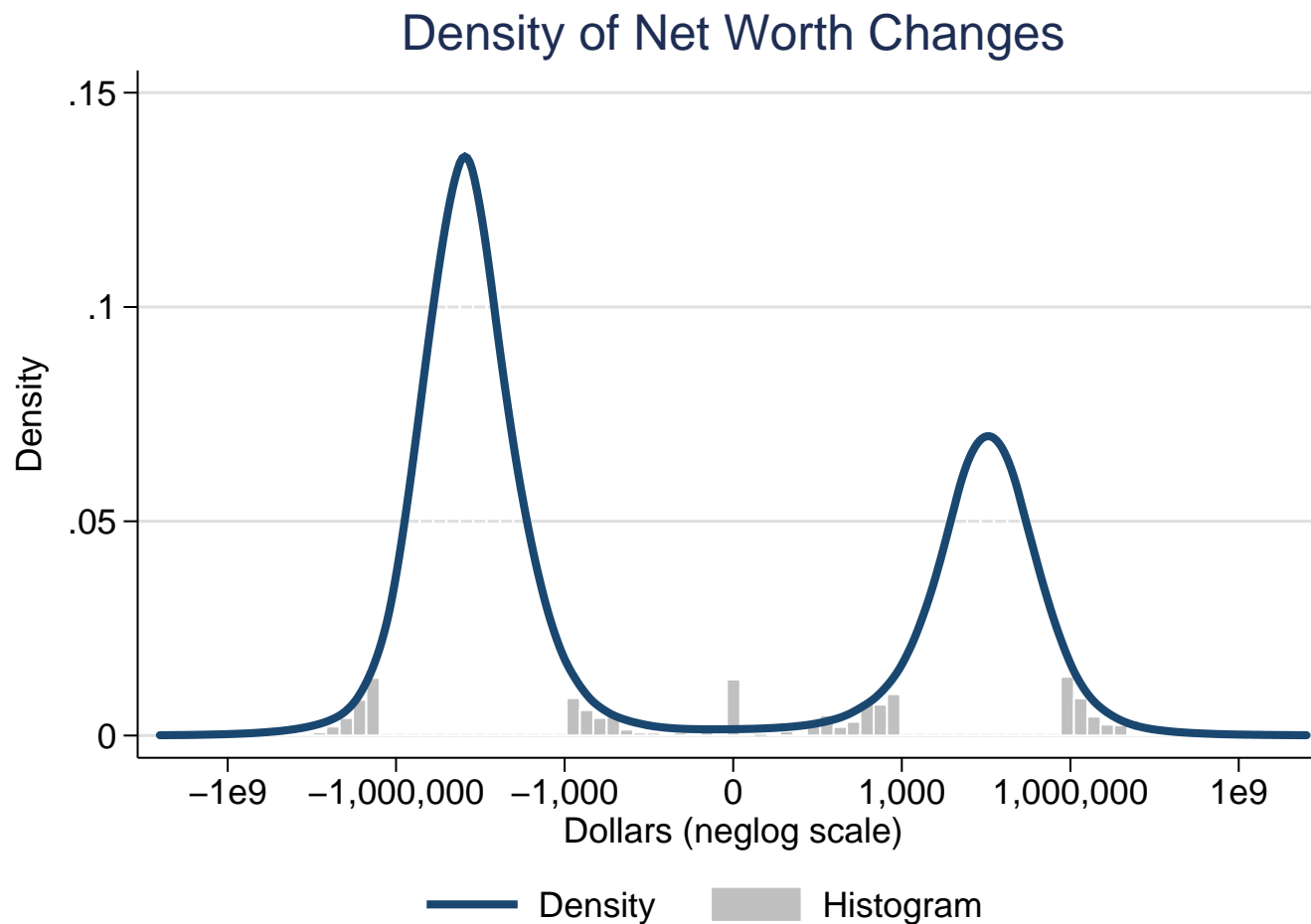
Density of Net Worth Changes

Source: 2007–09 SCF panel

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2007–09 changes in net worth by 2007 net worth

Density of Net Worth Changes

.2

.15

.1

.05

0

−1e9   −1,000,000   −1,000   0   1,000   1,000,000   1e9

Dollars (neglog scale)

——— Bottom   ——— Middle   ——— Top

Source: 2007–09 SCF panel

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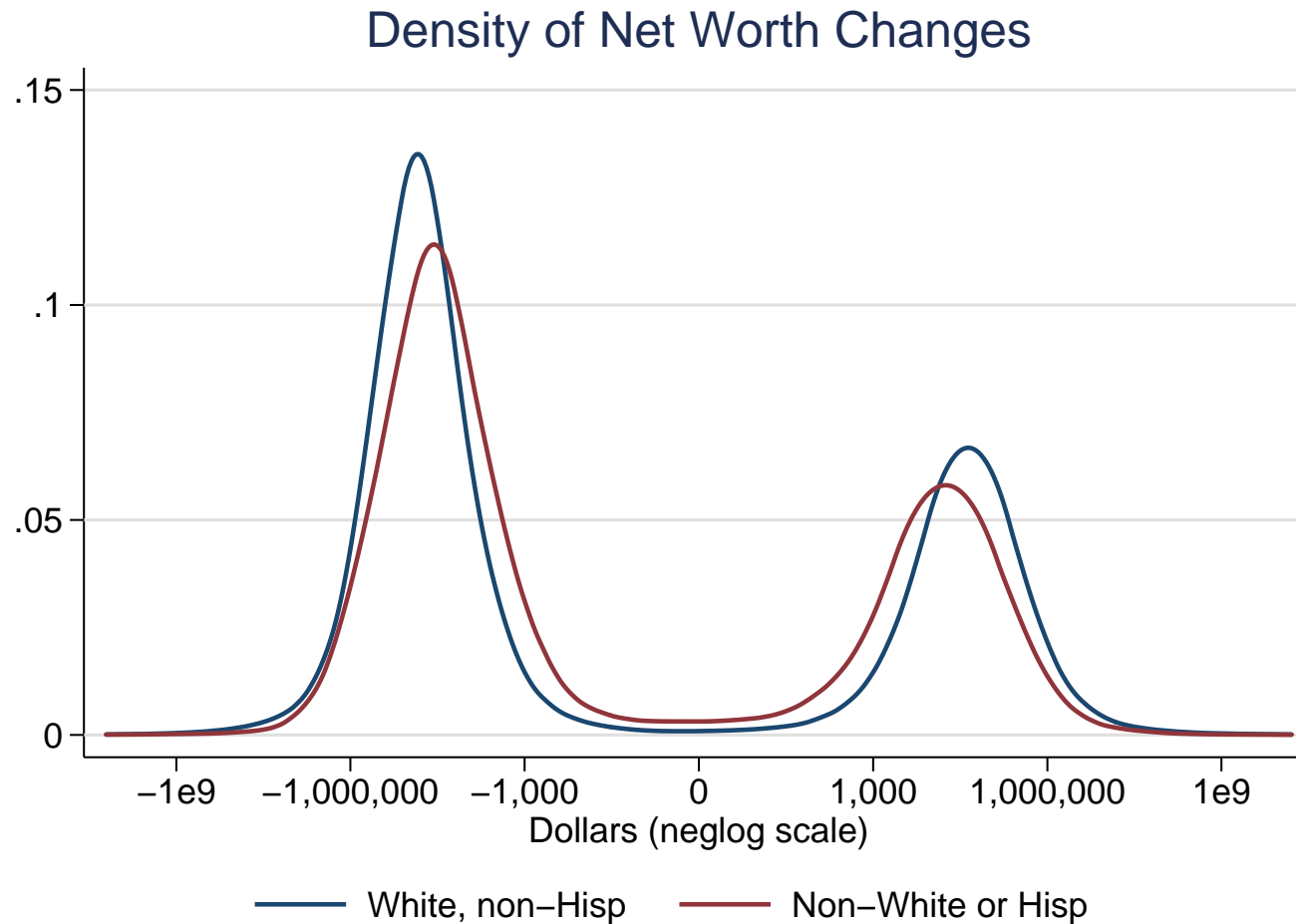# 2007–09 changes in net worth by race, ethnicity

Density of Net Worth Changes

White, non–Hisp   Non–White or Hisp

Source: 2007–09 SCF panel

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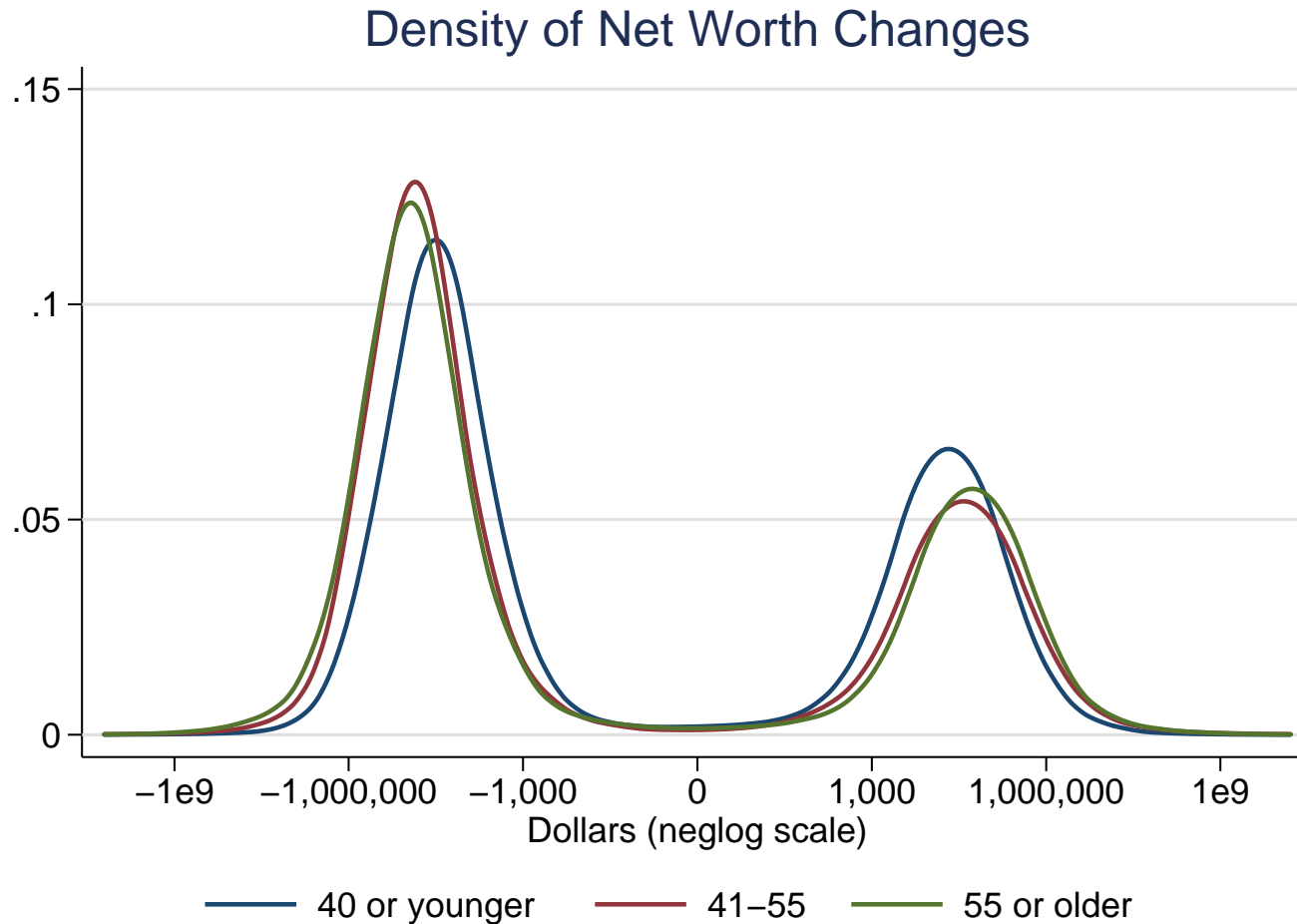# 2007–09 changes in net worth by age of head

Density of Net Worth Changes

Legend: 40 or younger — 41–55 — 55 or older

X-axis: Dollars (neglog scale), values: −1e9, −1,000,000, −1,000, 0, 1,000, 1,000,000, 1e9

Y-axis: 0, .05, .1, .15

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2007–09 changes in net worth by housing tenure

Density of Net Worth Changes

Source: 2007–09 SCF panel

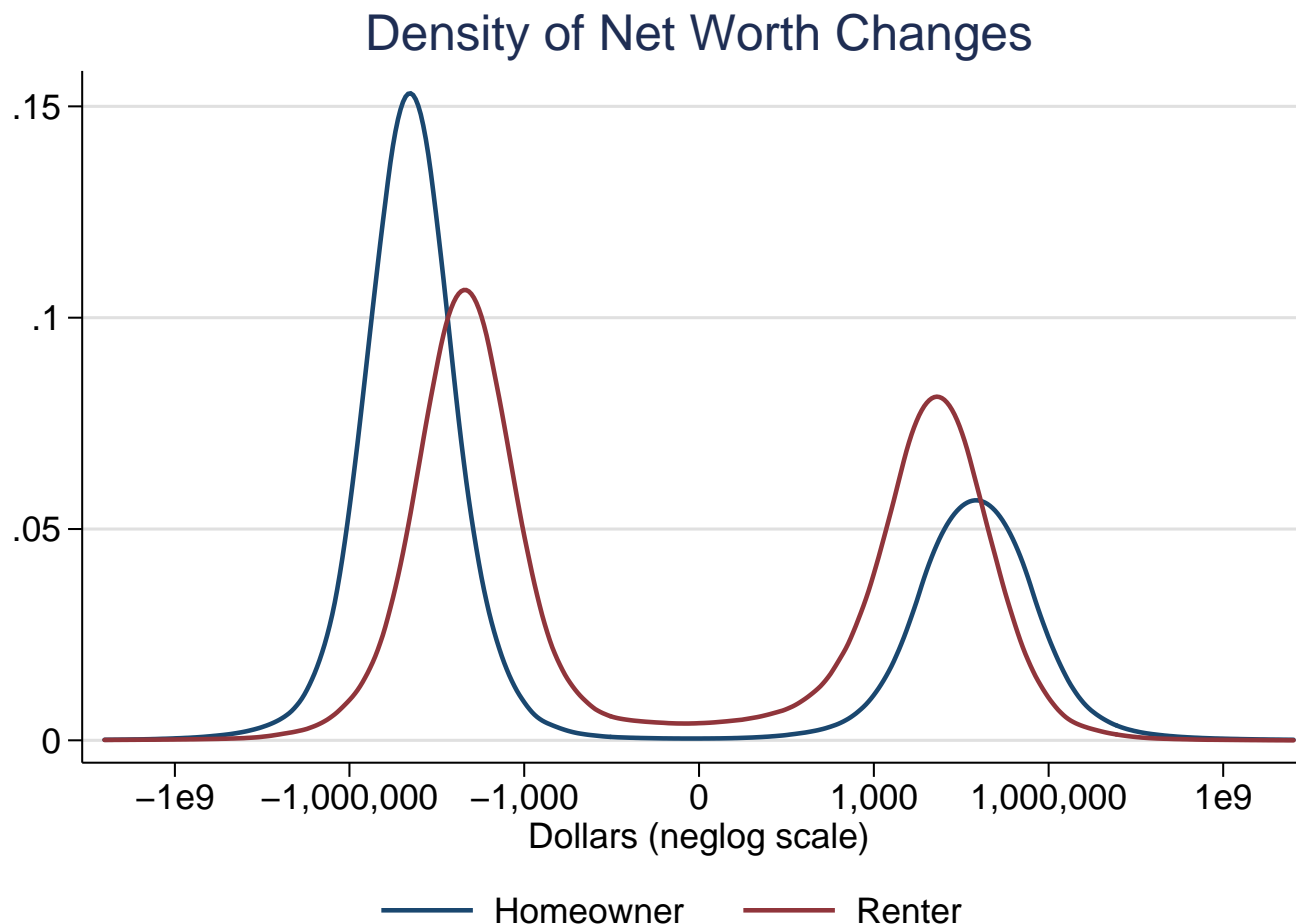The views expressed here are mine alone and not necessarily those of the CFPB, its staff, or the U.S.

Empirical approach

Synthetic cohorts based on, e.g., cohort-year averages

$$\ln(\bar{Y}_{c,t}) = \alpha + \beta_1 GR + \beta_2 Cohort + \beta_3 \bar{X}_{c,t} + \varepsilon_{c,t} \qquad \text{[Model 1]}$$

1. Specification avoids log for zero and negative wealth but should be better motivated

2. Semi-log models may not yield consistent estimate of percentage changes (e.g., Blackburn, 2007)

An alternative approach

1. Quantile regression

    *   Should yield unbiased, consistent marginal effects from coefficients

    *   Facilitates analysis of the bimodal wealth changes

2. Alternative transformation defined for zero and negative wealth—neglog or IHS
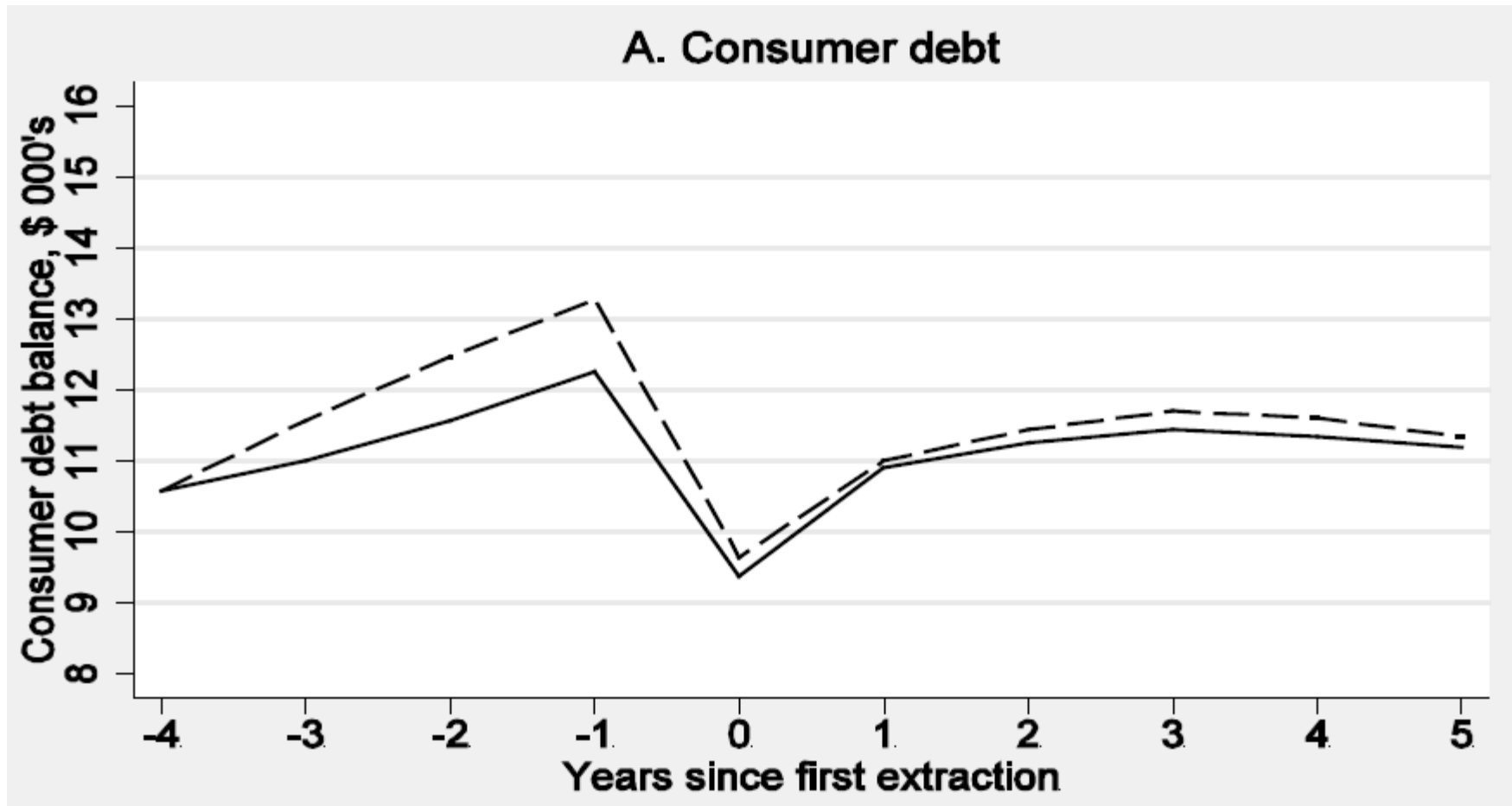
Bhutta and Keys: Findings

1. Prevailing interest rates & house price increases both affect:
   - Odds of equity extraction
   - Amount extracted

2. Pr(extract) more sensitive to price growth for low-score borrowers, but to rates for others

3. Those who extracted in 2006 were more likely to default than those who did not extract

4. Equity extraction increases household leverage since it is only partially offset by declines in other debt

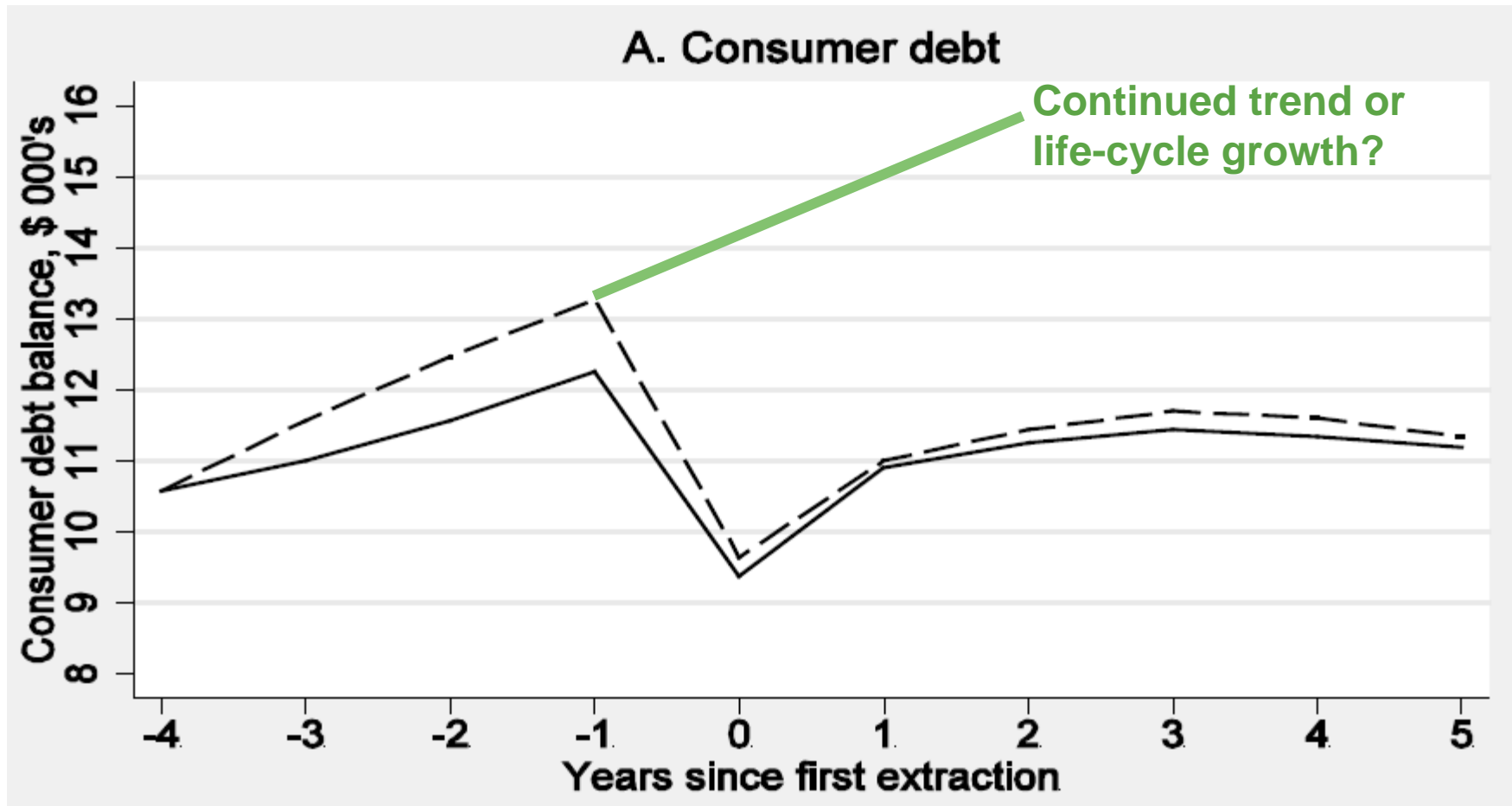# Absolute or relative rates and house values?

1. Borrower may consider prevailing interest rate <u>relative to</u>:

    - Contract rate on current mortgage

    - Prevailing rates on other types of debt

    - Expected future interest rates

2. Extraction should depend on accumulated equity

    - Home equity unobs, but can measure Δ HP since last lien

3. Alternative models

    - Hazard = f(rate difference, Δ HP since last lien, …)

    - Additionally, upfront costs extracting ➔ (s,S)-type model?

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The effect of extractions on borrowers' non-mortgage debt

A. Consumer debt

(Y-axis: Consumer debt balance, $ 000's; X-axis: Years since first extraction)

What are the counterfactuals?

A. Consumer debt

Continued trend or life-cycle growth?

y-axis: Consumer debt balance, $ 000's

x-axis: Years since first extraction

If extraction used to purchase durables
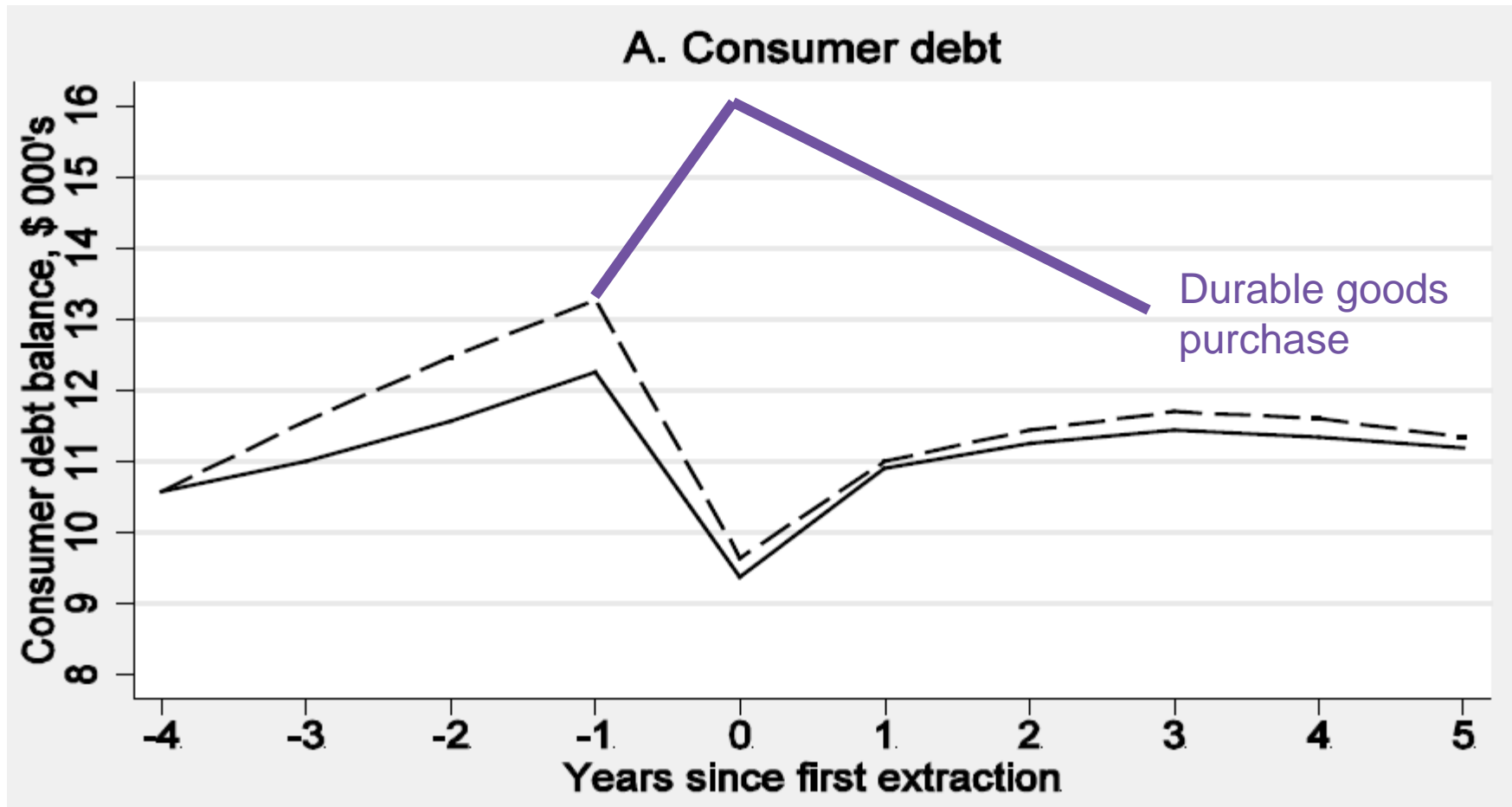
A. Consumer debt

Durable goods purchase

Consumer debt balance, $ 000's

Years since first extraction

One basis for thinking about counterfactuals

Purpose	1st-lien cash-out	HELOC draw
Home improvement, addition, repairs and maintenance	39%	38%
Miscellaneous incl. personal loans, bills, vehicle repair, gifts	36%	23%
Investments incl. businesses and real estate	8%	9%
Car, truck, SUV	5%	11%

Source: 2001, 2004, 2007, 2010 SCFs

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Bayer, Ferreira and Ross: Findings

1. Data for borrowers in 7 metro areas show comparatively high delinquency & default rates for blacks and Hispanics

2. Largest racial/ethnic diffs are among those who borrowed in 2005-2006

3. Differences are not entirely eliminated in models intended to capture differences across borrowers in, e.g.,

   - Credit score, LTV, and payment-to-income ratio

   - Likelihood of a subprime loan

   - Local labor market and house price dynamics

Rich data confirm and extend prior studies

- FRB 2007 Report to Congress on Credit Scoring found differences by race, ethnicity in loan performance

- Merging HMDA, Dataquick, and Experian data yields extraordinarily rich data

➔ Begins to narrow the set of potential explanations for "underperformance" for racial minorities

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Other factors to consider

1. No information on asset side of the balance sheet

    - <u>But</u>, cursory SCF analysis: no clear `01-`07 decline in recent buyers' financial assets, non-housing leverage

2. Other loan characteristics
    (see Mayer, Pence and Sherlund, 2009)

    - Prepayment penalties
    - No-doc/low-doc
    - Hybrids
    - Interactions of these loan terms ("risk layering")

3. Depth of negative equity

The path to 90 to 180-day delinquency

What are the differences, if any, at 60+ and in cure rate?

1. One hypothesis: 30 to 60-day delinquencies are more likely result of economic shocks

2. Differences in, say, Pr(refinance | 60+) might be estimated from Experian data on mortgage inquiries

3. HAMP data might shed some light on diffs in likelihood of ultimately receiving a modification