# **Dynastic Home Equity**

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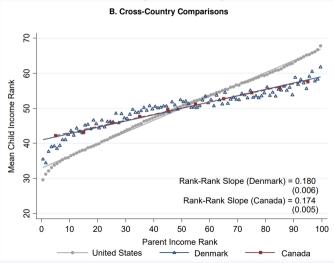
#### Sasha Indarte

Wharton, UPenn

12th ITAM Finance Conference February 2023

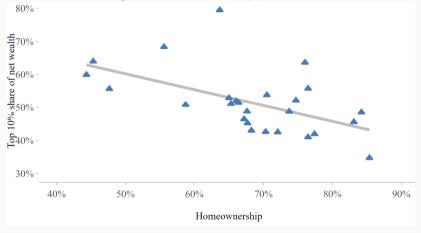
## **What Drives Intergenerational Economic Mobility?**

## Economic mobility is relatively low in the US



## What Drives Intergenerational Economic Mobility?

Across OECD countries, higher homeownership predicts lower wealth inequality



Source: OECD (2015)

## What Drives Intergenerational Economic Mobility?

Why does parental wealth predict children's wealth?

- **Debate:** what is the importance of...
  - Facilitating human capital investment (education)?
  - Social networks?
  - Learning/knowledge transmission?
  - Genetics?
  - ► This paper: wealth transfers (via home equity extraction)?

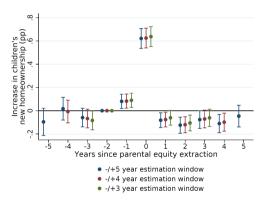
## **Paper Overview**

- **Q:** is parental home equity an important source of intergenerational wealth transfers?
- Approach: leverage large, long credit bureau panel with linked family members
  - 1 OLS: Compare Pr(buy home) vs 1[parent extract equity]
  - 2 Event Study (ES): Compare Pr(buy home) before, during, & after equity extraction
  - 3 IV: instrument for 1[parent extracts] with parent's LTV
- Findings: home equity extraction appears important!
  - ▶ OLS & ES: 0.6pp jump in Pr(buy home), 60% increase relative to 1pp average!
  - ▶ IV: 5pp jump!!! 5x increase relative to 1pp average!
  - Back-of-the-envelope: differential home equity extraction can account for 20% of housing wealth inequality

**Comment 1: Empirical Strategies** 

## Strategy 2 (Event Study)

Figure 2: Parental Equity Extraction and Children's New Homeownership



IMO, most convincing piece of evidence that parents use home equity to aid purchases!

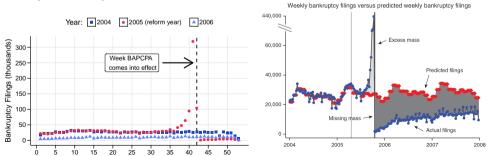
· Appears to show anticipation and decrease in post-extraction purchases

## **Alternative Implementation: Bunching Estimation**

- We see excess mass at/before extraction and lower mass after
  - ► Could estimate amount of purchases induced (not shifted forward) with bunching!
- Could further refine by differencing against placebo groups:
  - ► Compare behavior close to extraction event vs. more distant years w/o extractions
  - Compare families where kids already own homes (may understate causal effect)

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  - Compare families where kids already own homes (may understate causal effect)
- Examples (unreported results in Indarte, 2023 and Gross et al. 2021):



## **Strategies 3 (IV)**

- Identification Challenge: unobserved factors affect parent and kid wealth
  - lacktriangleright E.g., wealthy parents o education o high-earning kids o buy homes sooner
  - Expect positive OLS bias: overstate causal effect of parent wealth
- IV: instrument for equity extraction with parents' housing leverage
  - Are parents' financial constraints unrelated to other drivers of kids' homebuying?
  - ► E.g., what if constrained parents were less able to afford college education?
- Possible IV bias: overstates effect of parent equity extractions
  - ▶ If IV solves OLS bias problem, it's surprising that  $\beta^{IV} > \beta^{OLS}$

## **IV Suggestions**

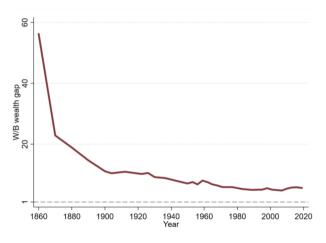
- Suggestions to alleviate concerns:
  - ► Balance tests showing parents' constraints don't predict kids' financial outcomes
  - ▶ Is there are different argument for OLS having negative bias?
  - Alternative instruments?
- Alt IV 1: differences in amortization speed
  - lacktriangledown Faster amortization ightarrow faster accumulation of equity (Bernstein and Koudijs, 2021)
  - Compare parents with similar balances, home values, and interest rates 5 (?) years ago, but with different loan ages:
  - Idea: exploit faster amortization for older loans
- Alt IV 2: natural disasters and the destruction of home equity

# Comment 2: Implications for Black-White Wealth Gap

## **Racial Wealth Inequality**

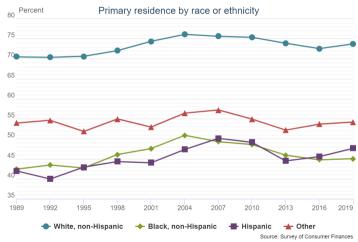
#### Black-white wealth gap has fallen but remains large (Derenoncourt et al, 2022)

Figure 1: White-Black per capita wealth ratio: 1860-2020



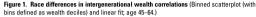
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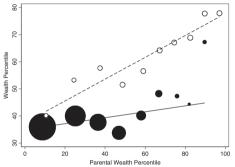
## Black homeownership rate is around half that of whites



## **Racial Wealth Inequality**

#### Black wealth mobility appears lower than for whites (Pfeffer Killewald, 2018)





#### Note:

- (a) Hollow circles and dashed line = Whites (N = 1,135) (b) Solid circles and solid line = African Americans (N = 802)
- Aside: it was hard to find a parent-kid wealth rank graph! It would be valuable to make one for homeownership and housing wealth with data as large as yours!

- Differences in strength of Black-white equity extraction channel could vary with...
  - Differences in parent homeownership and home values
  - 2 Differences in parent home valuation errors
  - 3 Differences in parent credit access
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The New Hork Times

Home Appraised With a Black Owner: \$472,000. With a White Owner: \$750.000.

Nathan Connolly and his wife, Shani Mott, say an appraisal company undervalued their home based on their race. The couple has filed a lawsuit in Maryland.

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- How does propensity to extract equity differ in primarily Black ZIP codes? How does relationship with parents' extraction and kids' buying vary?

**Comment 3: Intensive Margin Outcomes** 

## **More Expensive Homes?**

- There is substantial inequality in the amount of housing wealth
- Does parental equity extraction help kids buy more expensive homes?
- Paper gives evidence that extraction  $\rightarrow$  lower LTVs
- Challenge: parents likely extract when kids need help affording down payment
  - Event study might show those receiving help get smaller homes because of selection
  - Here, IV could have an advantage over event study

## **Better Neighborhoods?**

- ZIP codes strongly predict intergenerational mobility (Chetty and Hendren, 2017)
- Does parental home equity help kids buy in better neighborhoods?
  - ► Higher mobility score? (à la Opportunity Insights' measures)
  - ▶ Higher income ZIP codes?
  - Higher school test scores?
  - ► Lower crime?
- Does equity extraction them help them jump relative to parents' ZIP?
- Wrt race, this may be informative about forces that perpetuate segregation



**Conclusion** 

#### In conclusion...

• Important, big picture question

 Large, individual-level data linked to families: near-ideal opportunity to shed light on equity extraction channel

 Nailing causality would be a huge contribution in the debate on the importance of wealth transfers in propagating wealth inequality

• Home equity extraction is plausibly an important channel for wealth transmission



Thanks!