## Financial Constraints and the Racial Housing Gap (Arpit Gupta, Christopher Hansman, Pierre Mabille)

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## Summary and Contribution

- How much do financial downpayment constraints contribute to racial housing wealth gap and spatial misallocation?
  - Main friction: higher opportunity areas impose stricter limits on leverage
  - Bunching, and differences-in-differences design
  - Equilibrium spatial life-cycle model that allows to run counterfactuals
- Findings
  - Large role for financial constraints in perpetuating racial (housing) wealth disparities
  - Downpayment constraints bind systematically more for Black households than white households
  - Constraints perpetuate spatial mismatch by race and thereby lead to history dependence
- Policy implications: A combination of relaxed financial downpayment constraints and increased housing supply can reduced the housing gap between Black and white households as well as improve spatial misallocation

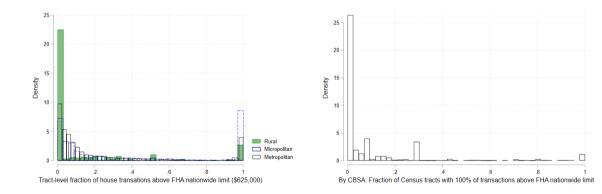
## Highlights of the paper

- 1. Research question with crucial implications for policy making and reducing racial inequality  $\rightarrow$  Addressing spatial misallocation (Hsieh & Moretti, 2019) that leads to inequality and reduced productivity of cities
- 2. Elegant model that includes only the key elements to give a 2 x 2 cross-sectional distribution of individual type and location choice
- 3. Directly use reduced form variation to calibrate the model  $\rightarrow$  Key reduced-form moment: responsiveness of Black households' borrowing to availability of FHA mortgages
- 4. In the counterfactual, linking of downpayment constraints to housing supply policies and examing the interaction

## Comment 1: Model interpretation – Locations and amenities

- Motivation for the paper comes from neighborhoods with high and low opportunities, such as better job opportunities, but also higher quality public schools, and intergenerational mobility
- ► To remain tractable, the model distinguishes between high- and low opportunity locations → Spatial models often tend to feature an amenity distribution
- More detail on what a high-opportunity versus a low-opportunity location in the model translates to in the data
  - ► Seems it's tied to the availability of FHA loans → How many areas feature no FHA loans?
  - Should we think of high-opportunity areas as entire cities/ commuting zones or neighborhoods?
    - ► Income differences arise from skill sorting and different opportunities → Opportunities might be endogenous to the people living in the locations themselves
  - ► Does the income process capture location-specific amenities such as good public schools in a flexible way?→ What is the implicit assumption on sorting on amenities?

## Relatively few Census Tracts are entirely ineligible for FHA loans



## Equilibrium: Relax leverage limit in high-opportunity locations

- Counterfactuals raise interesting questions about the choice between renting and owning: Rents fall both in the high and the low opportunity neighborhood
- My prior was that rents would not fall, but certainly that rents would fall more in low-opportunity neighborhoods than high-opportunity neighborhoods
- What is driving these results?
- Seems to suggest that households are not wanting to be renters in high-opportunity neighborhoods? Which calls in question how amenities are being captured here apart from the wealth accumulation channel
- ► Would be interesting to also examine chosen squarefootage → Are new renters in high-opportunity areas predominantly consuming very little housing?
- ► Is there a cutoff value for relaxing LTV when rents fall rather than rise in the high-opportunity neighborhood or do they always fall? → Important policy consequences

## Equilibrium: Housing supply

- Is new supply rented or owned?
- ► Is the overall population fixed in the counterfactual simulations? → How much of price decreases is mechanical?
- As before, would be helpful to see the consumed quantities of housing

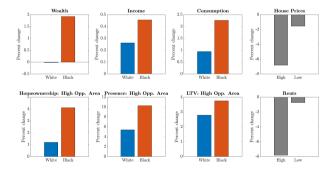


FIGURE 8: HIGH HOUSING SUPPLY IN HIGH-OPPORTUNITY AREA

# Comment 2: Use the reduced form exercise to discuss variation across neighborhoods

- Clarify exactly how treatment is defined → How many tracts are there where all loans are above the FHA national limit?
- Reduced form allows you to estimate a key parameter that you can then match with the model – the elasticity of Black borrowers with respect to the share of FHA loans
- Additionally, use it to fill in gaps from the model  $\rightarrow$  Show us a mapping from these areas to the two geographies in the model
  - Which places are treated, i.e. in the model these will be on the verge between high and low-opportunity areas
  - Rural/ urban / suburban status / spatial distribution / amenities
  - Within or across cities: How do we think about commuting? I.e. can you access (labor market) opportunities by living nearby in a cheaper area

Validate the model more: Show us more moments that are key in the model

- Look at the share of renters of different races as an outcome (right now this is mostly suggestive)
- Is the difference in racial composition driven by the lack of new inmovers or an increase in outmovers?
- Show us housing supply constraints/elasticities in treated areas compared to control areas (WRLURI)
- Change in house prices in treated areas (the model predicts that demand will fall)
- Lifecycle profile (Figure 6) seems like something you can directly compare in the data as well, this would be nice as another validation exercise

## Comment 3: Identification of key parameters

- Model fits many targeted moments well but seems to be underestimating the fraction of Black households choosing high-opportunity neighborhoods (and therefore also fraction of Black home owners)
- Among non-targeted moments, Black-white gaps are larger in the data than predicted by the model

### Suggests

- Something missing from income process
- Black households more price sensitive in reality

#### TABLE 3: MODEL FIT: TARGETED MOMENTS

Variable	Data	Model
Avg house price high-opportunity	455,000	455,000
Avg house price low-opportunity	225,000	225,000
Avg rent high-opportunity	1,588	1,588
Avg rent low-opportunity	1,008	1,008
Avg income high/low-opportunity	1.70	1.76
Avg income white/Black	1.73	1.70
Share white living in high-opportunity	0.19	0.21
Share Black living in high-opportunity	0.08	0.15
Avg moving rate to high-opportunity White	0.02	0.03
Avg moving rate to high-opportunity Black	0.02	0.02
Homeownership white in high-opportunity	0.68	0.72
Homeownership Black in high-opportunity	0.48	0.55
Homeownership Black in bigh-opportunity	0.67	0.69
Homeownership Black in bigh-opportunity	0.45	0.46
Avg wealth/avg income	4.50	4.28
Avg house price/avg income	4.05	4.03
Avg rent/avg income	0.20	0.18
Avg default rate	0.02	0.02
Quasi-exp. treatment effect: $\frac{\Delta(\pi_{Block}^{max})}{\Delta(\ell_{sh}^{LTV+})}$	0.098	0.101

## Bindingness of the LTV limit

- $\blacktriangleright$  Bindingness of LTV limit plays a key role for the identification of CES parameter  $\epsilon$
- Higher bunching indicates households have a high valuation for the neighborhood as compared to having higher consumption
- The decision to rent versus own tells us about this, choosing to rent a small space also implies having a high valuation for the neighborhood
- Can you directly target the fraction bunching at the limit or add this moment to the untargeted moments

## Comment 4: Another suggested counterfactual

- Much of the debate around reducing racial inequality around neighborhoods now centers around improving given neighborhoods rather than incentivizing households to move away
  - Chetty et al (2020)
  - Kelly & Ellen (2022)
- Can you do a counterfactual that simulates these kind of policies? I.e. increases opportunity in currently low-opportunity neighborhoods?
- One way to think about it in this model is to change the income process by increasing µ<sub>j</sub> with and without additionally relaxing the loan limit or housing supply
- Or introducing a third type of area?

## Conclusion

- Highly important policy question: How do financial constraints especially in housing markets – impact the gap in housing wealth between Black and white households and spatial misallocation
- Model and reduced form that fit together and give predictions about ownership status, consumption, savings, and access to high-opportunity areas across races
- If governments relaxed leverage caps and additionally increased supply of housing, Black households would be able to move to higher-opportunity areas at lower costs and accumulate more housing wealth, thereby beginning to close the housing gap
- Reduced form analysis can be used to further supplement some elements of the model
  - What is behind high-opportunity housing locations?
- Equilibrium price effects are still a bit puzzling, suggesting that some aspects of location sorting are not fully captured