Discussion "Fiscal Stimulus Payments, Housing Demand, and House Price Inflation"

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Summary of the Paper

- Research Question
  - whether the fiscal stimulus transfers provided during the pandemic contribute to the **increasing housing demand and house price inflation** in the United States?
  - focuses on two sizeable stimulus transfers
    - ★ Economic Impact Payments (EIPs)
    - ★ expanded Child Tax Credits (CTC)

- Empirical Evidence
  - **Household micro**: lower-income families saw bigger boosts to disposable income; their home-ownership rates and rooms-per-person rose.
  - **A regression-kink design** at the $75k$/150k income thresholds shows discontinuous jumps in ownership and space consumption
  - **Cross-MSA analysis**: every \$1,000 of per-capita stimulus is associated with roughly a 4–5 percentage-point housing price increase

This paper...

- Findings
  - stimulus transfers significantly influenced housing consumption and prices,
  - lower-income groups disproportionately benefit in terms of increased homeownership rates and higher LTI ratios.

- Highlights
  - Well-written, clearly structured
  - Comprehensive Empirical Analysis
    - ★ multiple empirical approaches: household-level analysis, a regression kink design, and MSA-level regressions
    - ★ detailed microdata (ACS and HMDA)
    - ★ robust to numerous control variables (income, unemployment, remote work exposure, housing stock, and demographic factors)
  - Novel Contribution and Policy Relevance

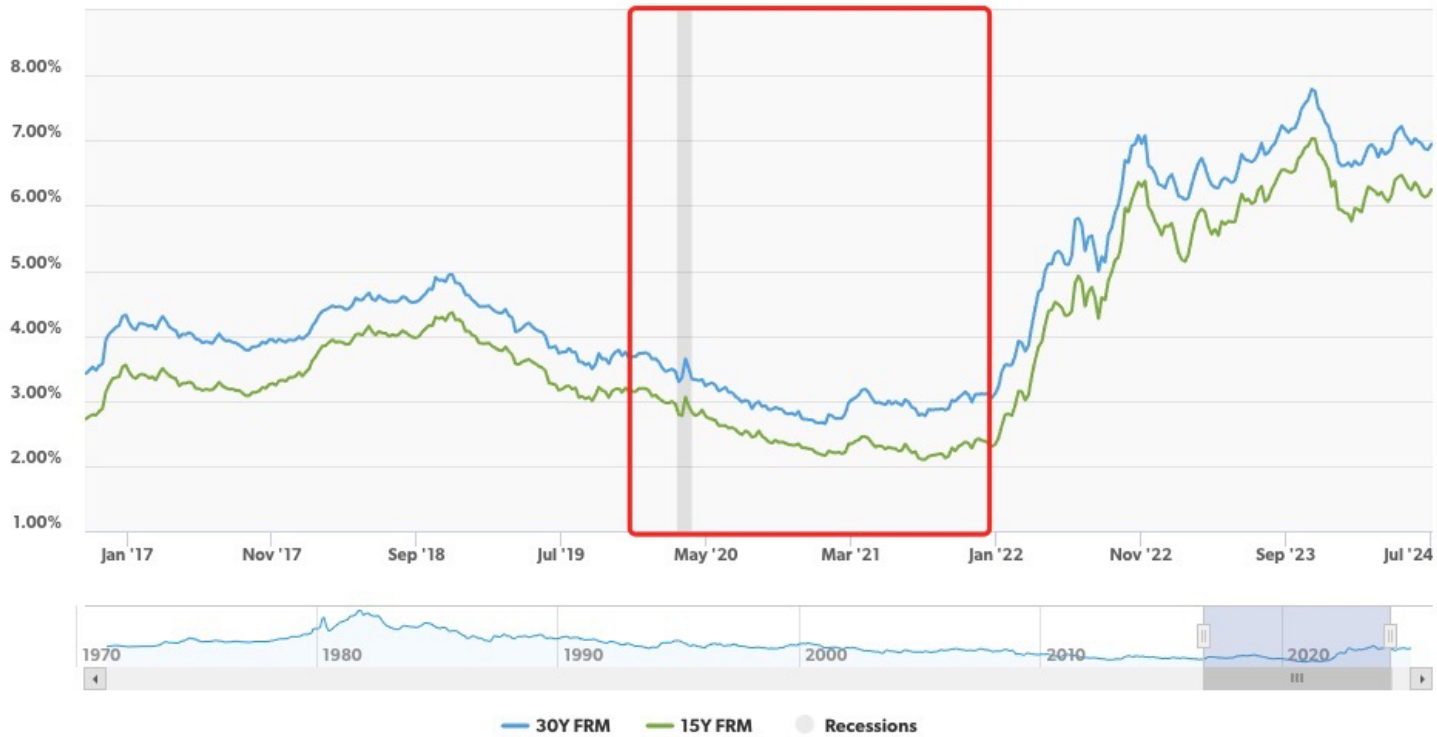
Comment 1: Identification and Causality Concerns

- The potential endogeneity of regional stimulus payment variation
  - local shocks may correlate with both stimulus payments received and housing market outcomes
    - ★ e.g., pandemic severity

- A more direct strategy: a DID analysis?
  - exploiting differences in stimulus rollout timing across states or examining regions with similar initial economic conditions but different stimulus receipts
  - treat and control groups; narrower band for RD
  - more explicit placebo checks or falsification tests
    - ★ using pre-pandemic periods
    - ★ using placebo thresholds further removed from actual eligibility cutoffs

Comment 2: Alternative Explanations: Low Rates

- Primary Mortgage Rates: nation-wide Fed-induced drop to 50-year low mortgage rates (2.65-3.0%) during the study period



(Source: Freddie Mac PMMS)

- Cheap credit mechanically boosts purchasing power
  - ★ prices can rise 10-15% without stimulus. (Favara and Imbs, 2015, AER; Justiniano et al., 2019, JPE; Greenwald and Guren, 2024, JF)

Comment 2: Alternative Explanations: Low Rates

- Potential consequences if ignored
  - Upward bias: stimulus coefficient may capture price-to-payment sensitivity rather than liquidity effect.
  - Mis-attributed mechanism: policy conclusions about transfer effectiveness could mislead.

- Should disentangle interest rate shock from the stimulus variation
  - Add changes in local average contract rate (state/MSA) 2019-21 as covariate.
  - Define "payment-sensitive" MSAs: high price-to-income or high ARM share, estimate the interaction term $\textit{Stimulus} \times \textit{Sensitivity}$.
  - Triple Difference: from 2018-24, interact Stimulus with Post-2022 high-rate dummy.
  - Additional Robustness Checks:
    - ★ LTV vs LTI: falling LTV alongside stable LTI supports down-payment story.
    - ★ Rent/vacancy regression: if demand channel dominates, rents ↑ with prices.

Comment 3: Mechanisms

- "Stimulus raises the down-payment; because it is not counted as income, the borrower can now qualify for a larger loan, so LTI rises."
  - implicitly treats "L" as potential borrowing capacity (how much the bank would now let you borrow), rather than the realised loan on the purchase that actually shows up in HMDA.
  - LTI from HMDA or GSE loan-level records: based on the funded loan balance
- Definition of LTI
  - LTI = actual loan amount originated/ borrower annual gross income
    - ★ It is not the borrower's ex-ante "borrowing capacity," or "maximum loan they could qualify for."
- Two competing mechanisms:
  - cash substitutes for debt: higher down-payment, lower actual loan, LTI falls.
  - trade-up house: higher purchase price, loan rises by more than the cash, LTI rises.

Comment 3: Mechanisms

- LTI can rise or fall depending on how households deploy the cash windfall.

	Baseline (pre-stimulus)	**Scenario A Same house, bigger cash**	**Scenario B Bigger house, LTV relaxed**
Household income (annual)	\$40,000	unchanged	unchanged
Savings *before* stimulus	\$100,000	\$100,000	\$100,000
Cash stimulus windfall	—	+\$5,000	+\$5,000
Total cash available	\$100,000	\$105,000	\$105,000
Loan–to–value limit	90%	90%	90%
House price chosen	\$1,000,000	fixed at \$1,000,000	maximum affordable \$1,050,000
Down-payment	\$100,000 (10%)	\$105,000 (10.5%)	\$105,000 (10%)
Loan amount	\$900,000	\$895,000	\$945,000
Loan-to-income (LTI)	22.5	22.4 ↓	23.6 ↑

Comment 3: Mechanisms

- LTI is a joint outcome of the chosen house price, the loan contract, and stated income. A liquidity bump can push it either way.

- A higher mean LTI in 2021 could reflect:
  - general house-price inflation
  - compositional shifts: more low-income borrowers entering, who mechanically have high LTI

- How could LTI rise in spite of higher down-payments?
  - Trade-up behavior: The transfer relaxes the LTV constraint, so the buyer chooses a larger or better-located house.
  - Combined rate & cash effect: Lower mortgage rates in 2020–21 increased the "affordable payment" ceiling: loosen two constraints (lower rates and extra cash)
  - Competitive starter-home markets: Transfers trigger extra bidders who drive prices up

Comment 3: Strategies to Distingush the Mechanisms

- LTV test: If transfers ease down-payment constraints, LTV should fall, even if LTI rises.
  - Regress ΔLTV on stimulus at borrower/MSA level.
  - Confirms the liquidity channel directly

- Condition on local price indices
  - Regress loan size on borrower income and local price index
  - Test if low-income borrowers take larger residual loans in high-payment MSAs.
  - Separates pure price inflation from selection/composition.

- Plot LTI Quantile Shifts
  - Split loans into Low-Stimulus MSAs vs High-Stimulus MSAs (top vs bottom of per-capita EIP + CTC).
  - Draw the empirical CDF or kernel density of LTI for each subsample and year
  - Compare Δ quantiles: If high-stimulus MSAs show a bigger jump only in the right tail, then it is evidence of down-payment relief

Comment 4: Why didn't renters up-size?

- If liquidity really relaxed housing constraints, why is there no intensive-margin response for renters?
  - The most constrained group (renters) should react first.
  - Weakens the claim that the boom is driven by liquidity

- Why do we observe this? three possible explanations:
  - Selection/composition bias:
    - ★ Stimulus-rich MSAs may have lost many renters who bought homes
    - ★ The remaining renter pool is poorer/younger and unlikely to up-size: Could overstate "non-housing MPC" and understate housing demand.
    - ★ Current analyses may mix "movers" and "stayers"
  - Measurement error
    - ★ rental moves remain invisible: 2-bed→2-bed with 30% more sqft
    - ★ Misclassifies true consumption response as "zero.
    - ★ Use better data: square footage, rent paid
  - Supply-side bottlenecks?
    - ★ Vacancies plunged in 2020-21: search frictions and lease rigidity may have blocked upsizing even if renters wanted it.

Comment 4: Strategies to address the issue

- Renter-to-owner flow
  - Measure transition probability 2019→21 by MSA.
  - High flow in high-stimulus MSAs would explain why renters show no housing consumption change: they exited the renter pool.

- Square-foot or rent paid
  - Redfin Rental or American Housing Survey micro: regress Δsqft or Δ rent on stimulus.
  - Whether quality/space improved even when "room count" did not.

- Movers-only room analysis
  - restrict to renters who changed address in the last 12 months: compare room change vs stimulus
  - If movers up-size only in high-stimulus areas, liquidity mattered but lease rigidity blocked stay-put renters.

- Whether renters diverted transfers to non-housing consumption.
  - Consumer Expenditure Survey: track durable-goods and cash-balance changes versus stimulus by tenure.

Minor Comments: Remaining Confounding Factors

- Selection Bias & External Validity Issues: Only the poor got cash
  - High-income households untreated and estimated effects describe liquidity-constrained buyers only (LATE)
  - Can we say anything about what would happen if rich households also received $?
  - "down-payment relief" specific to constrained buyers; rich may channel cash into savings/investment.
  - Calibrate life-cycle housing-choice model and report counterfactual price effect.

Minor Comments: Remaining Confounding Factors

- How about intensive-margin outcomes?
  - home-improvement and renovation expenditure
- Other potential confounders:
  - regional differences in COVID-19 severity or policy responses
    - ★ e.g., lockdown stringency, reopening pace, housing market policies
  - control for pandemic severity at the MSA or county level
    - ★ e.g., COVID-19 infection rates, mortality rates, or lockdown durations
- Long-run effects?
  - whether the effects are temporary or have lasting structural effects

Take-aways

- Well-executed paper: rich data, multiple designs, careful robustness.
- Key contribution: shows pandemic transfers translated into tangible housing-market impacts—especially for liquidity-constrained buyers.
- Next steps: isolate low-rate channel, pin down mechanisms (down-payment vs. equity-management), and explore renter outcomes.

An important and policy-relevant study:
I look forward to the revision!