

Real Estate Booms and Busts: Implications for Monetary and Macroprudential Policy in Europe

by John Muellbauer

DISCUSSION BY GIOVANNI DELL'ARICCIA (IMF AND CEPR)

#### ECB FORUM ON CENTRAL BANKING, SINTRA, JUNE 2022

The views expressed in this presentation are those of the author and do not necessarily represent the views of the IMF, its Executive Board, or IMF Management.



### Summary

- > Great paper
- Main messages:
  - Complex role of real estate in MP transmission
  - > Our understanding has improved, but much more is needed
  - Local institutions/culture/contract-structure matter
  - > Leaning against the wind? Difficult. Especially in multi-country setting
  - Central role for macroprudential policies

### Seven elements of MP transmission

- 1. MP stance  $\rightarrow$  Lending (mortgage) rates
- 2.  $\rightarrow$  Real estate prices
- 3.  $\rightarrow$  Residential investment
- 4.  $\rightarrow$  Consumer spending
- 5.  $\rightarrow$  Mortgage debt
- 6.  $\rightarrow$  Non-price credit conditions
- 7.  $\rightarrow$  Inflation (rents)



### Seven elements of MP transmission

- 1. MP stance  $\rightarrow$  Lending (mortgage) rates
- 2.  $\rightarrow$  Real estate prices
- 3.  $\rightarrow$  Residential investment
- 4.  $\rightarrow$  Consumer spending
- 5.  $\rightarrow$  Mortgage debt

 $6. \longrightarrow \text{Non-price credit conditions}$ 

7.  $\rightarrow$  Inflation (rents)

### House prices and financial stability

> House-price booms/busts often associated with financial crises

But leverage and credit quality are what really matters
Household debt (Mian/Sufi/Verner 2017), (Cerutti at al. 2017)
Lending standards Jimenez et al. (2014), (Dell'Ariccia/Laeven/Suarez, 2017)

Special role for construction sector (Dell'Ariccia/Ebrahimy/Igan/Puy 2020)

Policy implications:

- ≻ MP: LAW?
- Macroprudential tools

## GFC: Crisis severity in line with magnitude of credit booms





Source: Dell'Ariccia et al. EP 2017

### Policy rate and risk taking, evidence from the US



6



Source: Dell'Ariccia, Laeven, Suarez, JF 2017



#### Difference in VA and Employment between "Good" and "Bad" Credit booms



Source: Dell'Ariccia et al. EP 2020

Local institutions matter for transmission mechanism and financial stability

- Mortgage leverage ratios / Household indebtedness
- Contractual details
  - Fixed vs variable rates
  - > Portability
- Bank capitalization / NPLs / Securitization
- Land scarcity / Building regulations
- Path dependency: Credit/Construction/House-price booms



# Residential real estate markets have been trending up





#### Rapid increase in prices outpaced rents



Sample of 37 countries.



## Mortgage rates an important factor in recent price increases





## Factors contributing to sensitivity of house prices to policy rates





## Twin boom in credit and house prices?



Correlation: Real house price growth and HH debt to GDP growth over time





Sources: BIS, staff calculations.

Sources: BIS, staff calculations. In a sample of 40 countries.

## Borrowing pool different from pre-GFC



Mortgage Originations by Credit Score



Total Balance by Delinquency Status











#### Effects on Household Credit

#### Effects on Real Estate prices



#### Source: Arajuo et al. 2020



- Short-term relatively effective
- Some evidence of leakages: Need for cross-border cooperation
- Leakage appears to increase over time (as for CFMs)
- More effective when stance aligned with monetary policy
- > Biljanovska et. Al, 2022, Araujo et al., 2020

### Takeaways

## TARY TOT

#### Great paper

- Detailed review of current state of understanding of links between monetary policy and housing sector dynamics
- Critical, albeit positive, assessment of progress since GFC
- > Policy implications:
  - > Monetary policy needs to take into account transmission through real estate
    - Especially, in markets with high leverage
  - Central role for macroprudential policy
  - > Debate on LAW remains open:
    - > More difficult in heterogeneous monetary jurisdictions
    - > If macroprudential policies prove insufficient

# Structural effects from the pandemic?



## Weakening link between distance to city center and rents/prices



#### Figure 1. Rent and Price Gradients across top 30 MSAs

This plot shows coefficients from a repeated cross-sectional regression at the ZIP Code level as in equation 1 for the top 30 MSAs. We regress the distance from the city center (measured as the log of 1 + distance to City Hall in kms) against log rent (left) and log price (right). We include additional controls (log of annual gross income in 2017, median age of the head of household, proportion of Black households in 2019, and proportion of individuals who make over 150k in 2019), as well as MSA fixed effects, and run the specification separately each month. Price and rent data are drawn from Zillow.

#### Source: Gupta et al. 2021, NBER WP 28675.

#### House prices declined in formerly bubbly cities such as NYC and SF



#### Rents declined even more





## Structural effects from the pandemic?





The plots show coefficients from a repeated cross-section regression at a ZIP code level for top 7 metro areas as shown below.  $distance_i$  denotes the distance of the are from a centroid zip location, measured in miles.  $X_i$  includes ZIP-level controls for log median household income and proportion of black households in 2019 ACS. MSA fixed effect are also included. Both rent (left panel) and house price (right panel) data are obtained from Zillow.

 $\ln(price_i) = \alpha + \beta_1 \ln(1 + distance_i) + X_i\beta + MSA_i + \epsilon_i$