MEASURING MORTGAGE AVAILABILITY & TAKE-UP

AN APPLICATION TO MACRO-PRUDENTIAL POLICY

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A frontier analysis to estimate 1) the loan frontier and 2) credit utilization in the Irish economy

- **Frontier analysis?** Given inputs, obtain outputs
- **Loan-level analysis**
  - Inputs: mortgage/borrower characteristics
  - Output: 1) Loan frontier (maximum borrowing capacity) + 2) Credit utilization (estimated take-up)
  - **Policy application**: evaluate the impact of new BBM

- **Original methodology for a complex issue**
  - Almost no loan-level frontier estimations before (Anenberg et al., 2019)
  - Frontier analysis explored in other fields (Galán et al., 2014)
  - Challenge: Loan frontier is not observable
The authors estimate the loan frontier as a function of borrower/mortgage characteristics (income, age, deposit, rates, residence in Dublin...)

- **Loan frontier**: income, down-payment
- **Loan frontier**: age, interest rates, FTB

Comment #1.1. Validate the frontier (see next slide)
Validate the frontier

The frontier is not observable, by definition

Strategy: depict the frontier

1. Predicted loan sizes (chart)
2. Observed loan sizes?

Good frontier?

+ During expansions: observations closer to the frontier
- Recessions: observations far away from the frontier

Source: Kelly and Mazza (2019)
Determinants loan frontier = Determinants take-up

- **take-up**: income, age, FTB
- **take-up**: down-payment, interest rate

Comment #2.1.

- **Loan-level data**: what drives the take up? Economic interpretation
- **In(efficiency) is easier to interpret in bank-level applications**
  - For instance:
    - **Frontier** → Total loans = f(size, cost of funding, ...)
    - **In(efficiency)** → f(technology, other factors ...).
    - At bank-level, drivers of efficiency are easier to understand, to measure...
    - ...at loan-level, the idea of efficiency is more challenging
#3.1. Did BBM succeed?

- Mixed results: lower frontier in some segments (lower risk?), but more credit utilization (higher risk?)
- Role of the "bank credit reallocation channel" (Acharya et al., 2019)

- Is the lending frontier an estimate of the costs of macroprudential action?
THANKS FOR YOU ATTENTION