Housing risk and macroprudential policies

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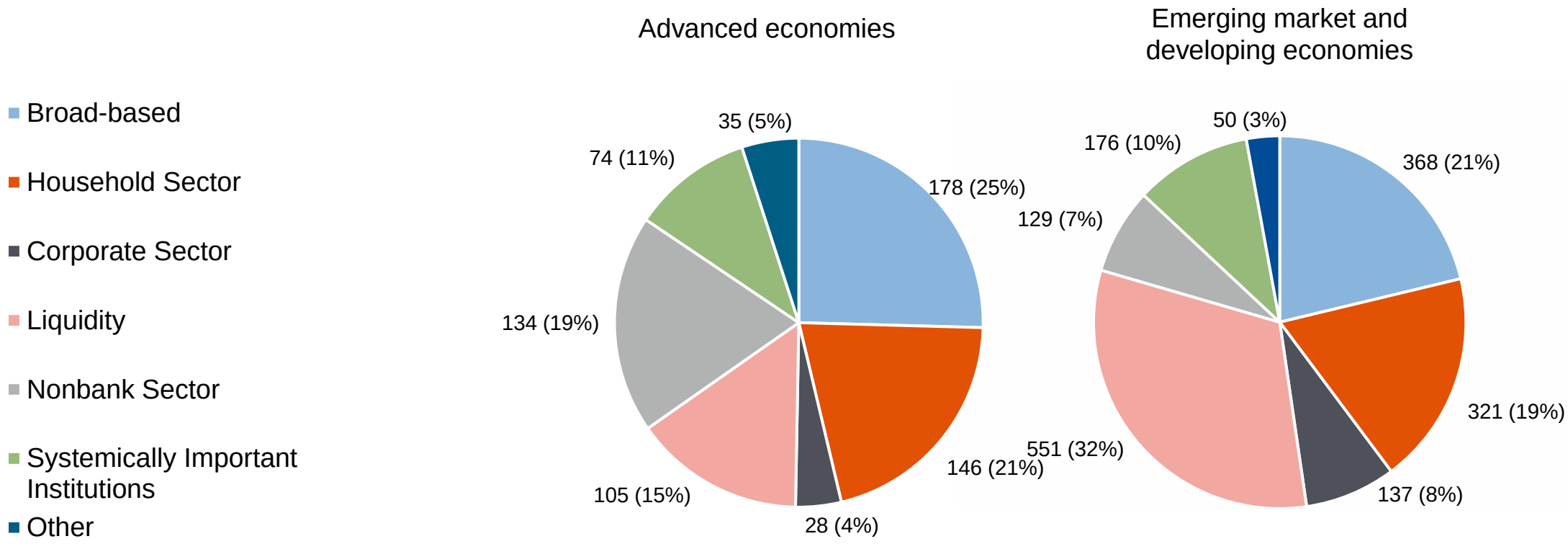
Borrower-based macroprudential tools are widely used

Total number of tools: 2,432, in use in 183 countries, as of June 2022



Sources: IMF Macroprudential Policy Survey Database.

Numbers denote the frequency of measures reported. Percentages denote the share among total measures reported. Data is as of at least end June 2022: 117 countries reported data through June 2022, and 66 beyond 2022 Q2.

Which tools?

Borrower- and capital-based measures[1] Table 3

	AU	BE	CA	FR	GB	HK	IE	IL	IN	LU	MX	NL	NZ	SA	SG
Borrower-based measures															
LTV		✓	✓			✓	✓	✓	✓	✓		✓	✓	✓	✓
DSTI		✓	✓	✓		✓		✓				✓		✓	✓
DTI		✓			✓		✓								
Amortisation requirements[2]	✓		✓	✓				✓				✓		✓	✓
Capital-based measures															
Countercyclical capital buffer / sectoral systemic buffer	✓	✓[3]	✓	✓	✓	✓	✓			✓		✓			
Risk-weight floors / add-ons / multipliers	✓	✓[3]				✓		✓		✓		✓	✓	✓	
Risk weight linked to LTV	✓							✓	✓			✓	✓	✓	
Risk weight linked to DSTI								✓							
Risk weight linked to loan size									✓						
Floor on credit-loss allowance								✓							
Exposure limit to residential real estate															✓
Minimum equity buffer on housing portfolios								✓							
Capital requirements on mortgage insurers			✓												

[1] Measures in place as of June 2023. [2] Also includes measures targeting interest only mortgages. [3] Risk-weight capital buffer until 2022, when it was replaced by sectoral system risk buffer.

- Supervision plays important role
- LTVs most common macropru tool
- Only two income-based tools
- Other tools, e.g. leverage limits on real estate funds or sectoral systemic risk buffer used more rarely in context of real estate

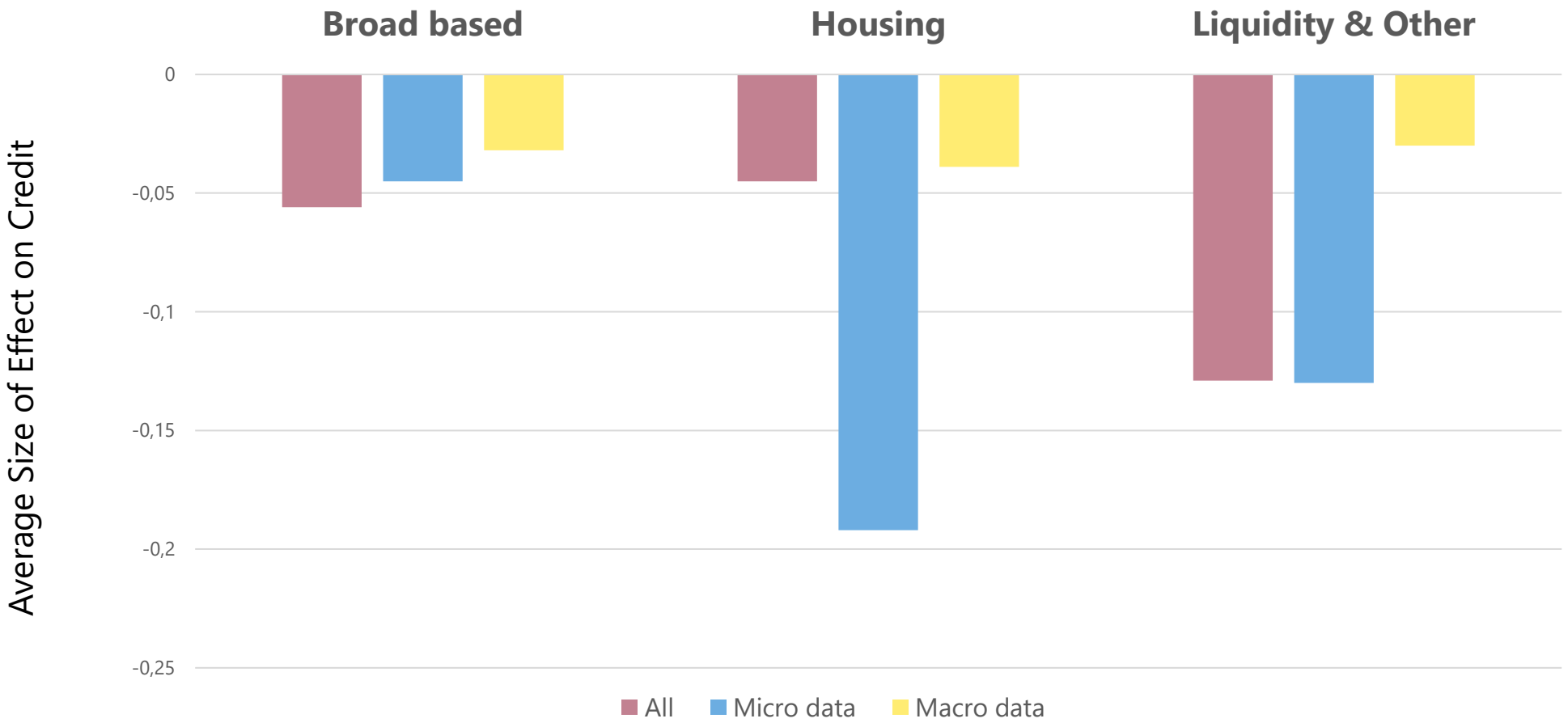
Strong effects on credit and asset prices

- Estimation needs to take account of endogeneity.
  - Since policy tends to respond to increases in credit and asset prices.
- Recent studies use micro-data or policy surprises and generally find large and highly significant effects.
  - especially for borrower-based tools.
- Macroprudential policy succeeds in reducing the build-up of vulnerabilities.

Strong effects on credit and asset prices

- **Household credit** – strongest effects from Loan-to-Value Ratios (LTV), Debt-Service-to-Income Ratios (DSTI), Loan-Loss Provisions (LLP), Loan Restrictions
- **House prices** – effects weaker, but strongest from LTV, LLP
- Capital requirements have weaker effects on house prices and credit.

Macroprudential tightening – effects on credit (Meta analysis)



Source: Biljanovska, Chen, Gelos, Igan, Martinez Peria, Nier, Valencia (2023) , Araujo et al. (2020)

Note: Shows average effects of tightening macroprudential measures on credit obtained through weighted least squares regressions; weights are proportional to the precision of each result. The dependent variable in such regressions is the coefficients collected by Araujo and others (2020) from studies where macroprudential policy is measured through -1,0,1 dummy variables at a horizon of up to one year, normalized by the standard deviation of the outcome variable (in this case total bank credit or transformations of it). All effects are statistically significant.

Assessing overall effects

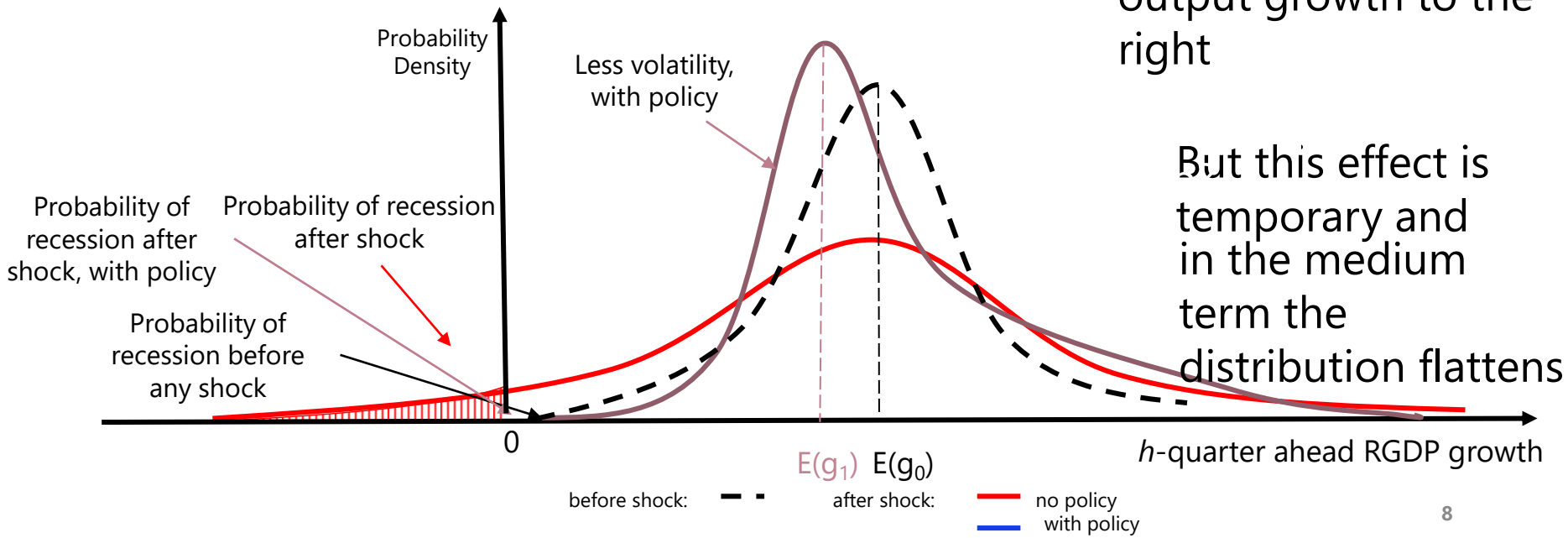
- Precise quantification/calibration still in infancy: progress for LTV
- Still, a few macroprudential authorities have started to assess & communicate their macroprudential stance within a cost-benefit framework (e.g. Ireland).
- Identifying and quantifying costs & benefits remains challenging (CGFS 2024).
- Growth-at-Risk frameworks building on Adrian et al (2019) have increasingly found use. Examples include, among others:

  Brandao-Marques, Gelos, and Nier (2020); Franta and Gambacorta (2020);
  Bundesbank (2021); Suárez (2021); Cecchetti and Suárez (2021); O'Brien and Wosser (2021);
  Cucic et al (2023); Fernández-Gallardo et al (2023); Galan (2024); Škrinjarić (2024); ESRB (2024)

- Mostly take intertemporal dimension only partially into account

Assessing overall effects

Measure policy effects on the **entire** distribution

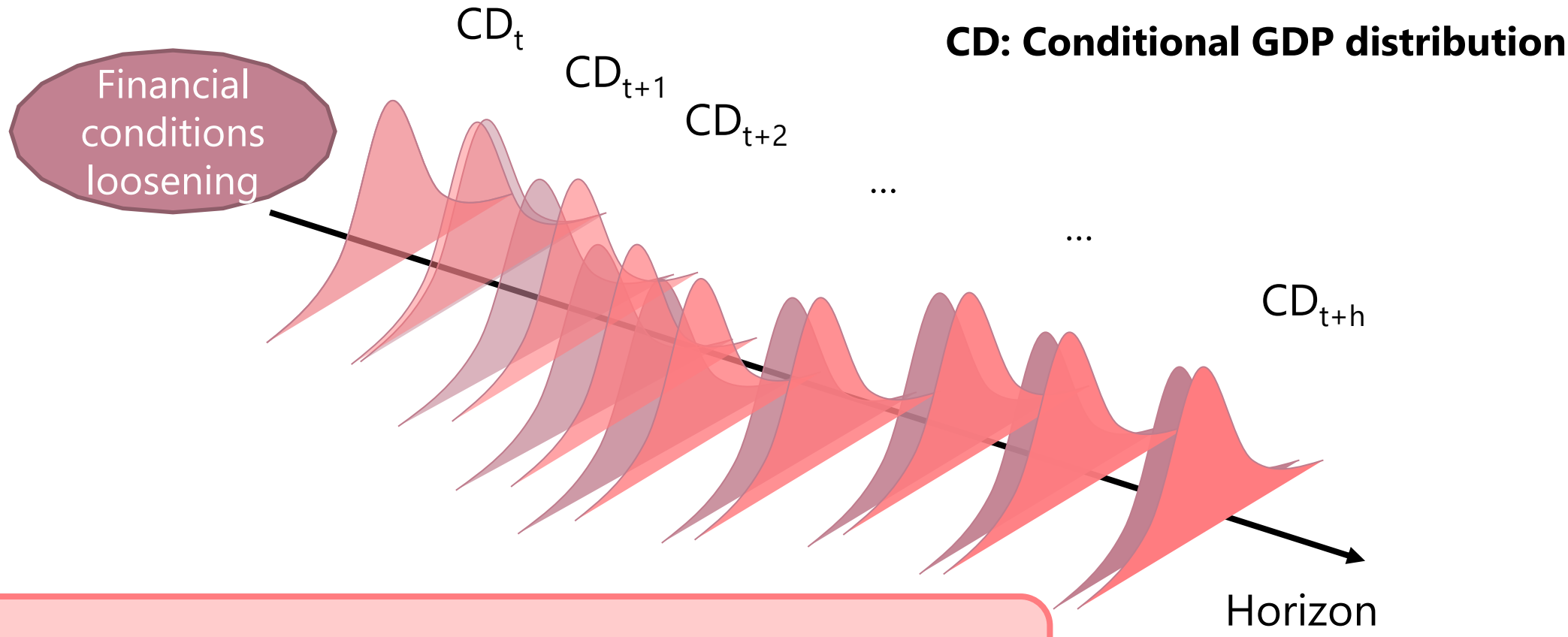


Looser financial conditions first shift the distribution of output growth to the right

But this effect is temporary and in the medium term the distribution flattens

Source: Brandao-Marques, Gelos, Narita and Nier (2020)

Assessing overall effects



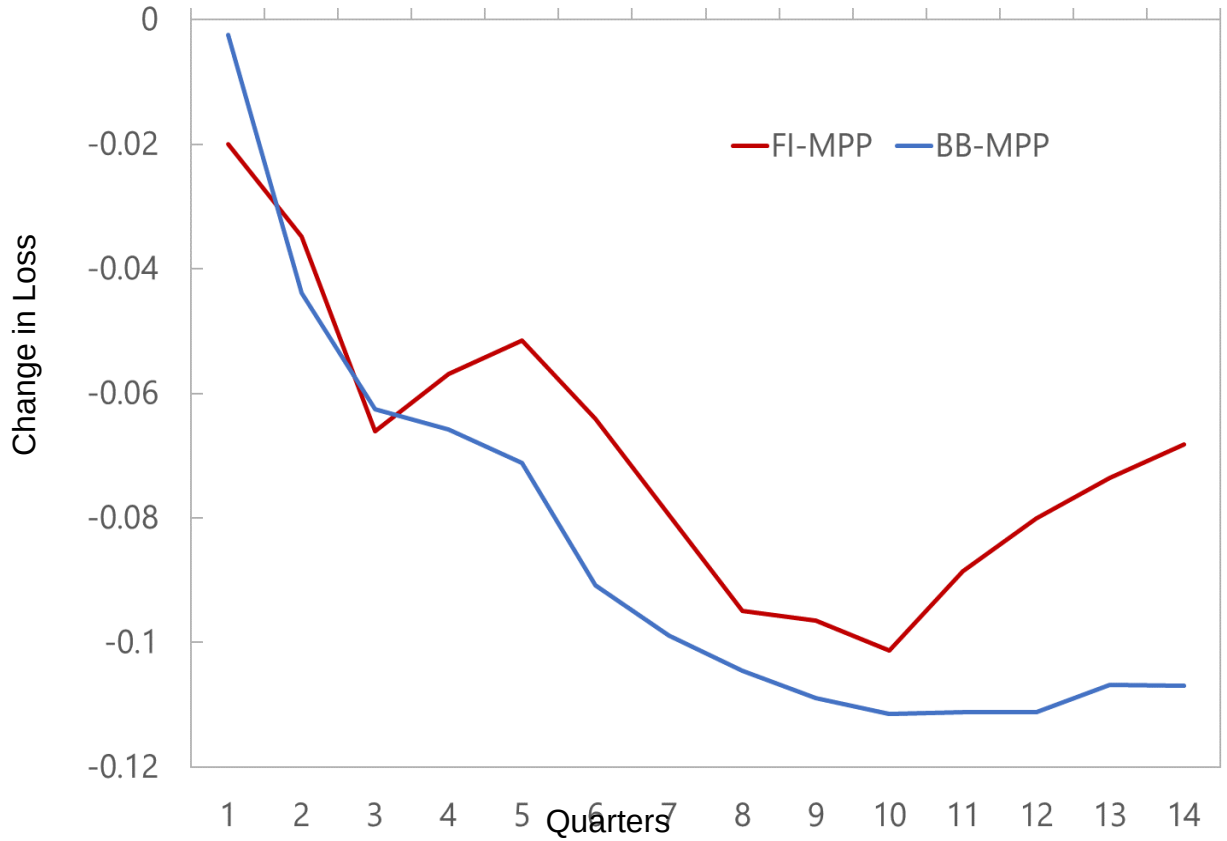
CD: Conditional GDP distribution

Summary statistic→Compute quadratric loss functions with estimated distributions

Source: Brandao-Marques, Gelos, Narita and Nier (2020)

Cross-country evidence: reduction in macroeconomic losses from tightening of macroprudential tools in response to looser financial conditions

Reduction in "losses" (based on output variability) from use of MPP



Source: Brandao-Marques, Gelos, Narita and Nier (2020).

FI- Financial Institutions-based tools

BB-Broad-based tools

Governance frameworks (CGFS, 2024)

7 Principles

1. One institution ultimately accountable for financial stability
2. Clear mandate / ultimate objective
3. Clear legal basis to introduce new measures
4. Operational independence
5. Capacity to monitory housing risks
6. Capacity to enforce compliance
7. Mechanism for macropru authority to recommend actions from fiscal, structural and monetary authorities

- Accountability and transparency
- Mitigate inaction bias
- Effective

Governance and communications

- Having tools which meet objectives without need to adjust them (eg DSTI, DTI) ➔ mitigates inaction bias. Less need to regularly communicate policy changes (CGFS 2024).

- It is useful to be open about the cost-benefit tradeoffs
  - Better quantitative cost-benefit frameworks ➔ better communication.

Conclusions

- Set of tools widely implemented
  - Accumulated experience and empirical evidence.
  - Tools are effective, with limited side effects on the economy
  - But quantification still in early stages
  - GaR useful in assessing & communicating costs and benefits

- Income-based tools have better automatic stabiliser properties than LTVs
- Governance matters

Thank you