

Macroprudential policy: Measurement and effectiveness

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– looking back and looking ahead”

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*The views presented on these slides and all associated remarks do NOT necessarily reflect the views of the Federal Reserve Board or the Federal Reserve System.

Narrow macroprudential framework

- **Objective:** Resilience and stability of the financial system
- **Intermediate objectives:**
 - Curtail financial vulnerabilities (e.g., excessive credit growth or valuation pressures)
 - Limit systemic risks (e.g., contagion)
- **Instruments:**
 - Cyclical (e.g., countercyclical capital buffer, LTV caps, etc.)
 - Structural (e.g., GSIB buffers, resolution rules, etc.)

References: Claessens (2015), Freixas, Laeven, Peydro (2015), Forbes (2021), Borio, Robinson, Shin eds. (2023)

Macroprudential policies:

Key questions in the literature

1. Are the current macroprudential instruments effective at achieving the main objective through the intermediate targets?
2. Are there any material “leakages” when using these instruments?
3. Do macroprudential policies increase the resiliency of the banking sector in periods of stress?

Assessing macroprudential actions

External Validity:
Cross-country studies

Alam et al. (2019) (IMF's iMapp database)	Countries	Period	Policies
	134	1990-2020	17

Objective: Documents instrument changes (indicators and levels) and analyzes their effectiveness

Cerutti, Correa, Fiorentino & Segalla (2017) (IBRN database)	Countries	Period	Policies
	64	2000Q1- 2020Q4	5

Objective: Capture changes in prudential policy intensity in a cross-country, cross-time consistent way

Internal Validity:
Identification

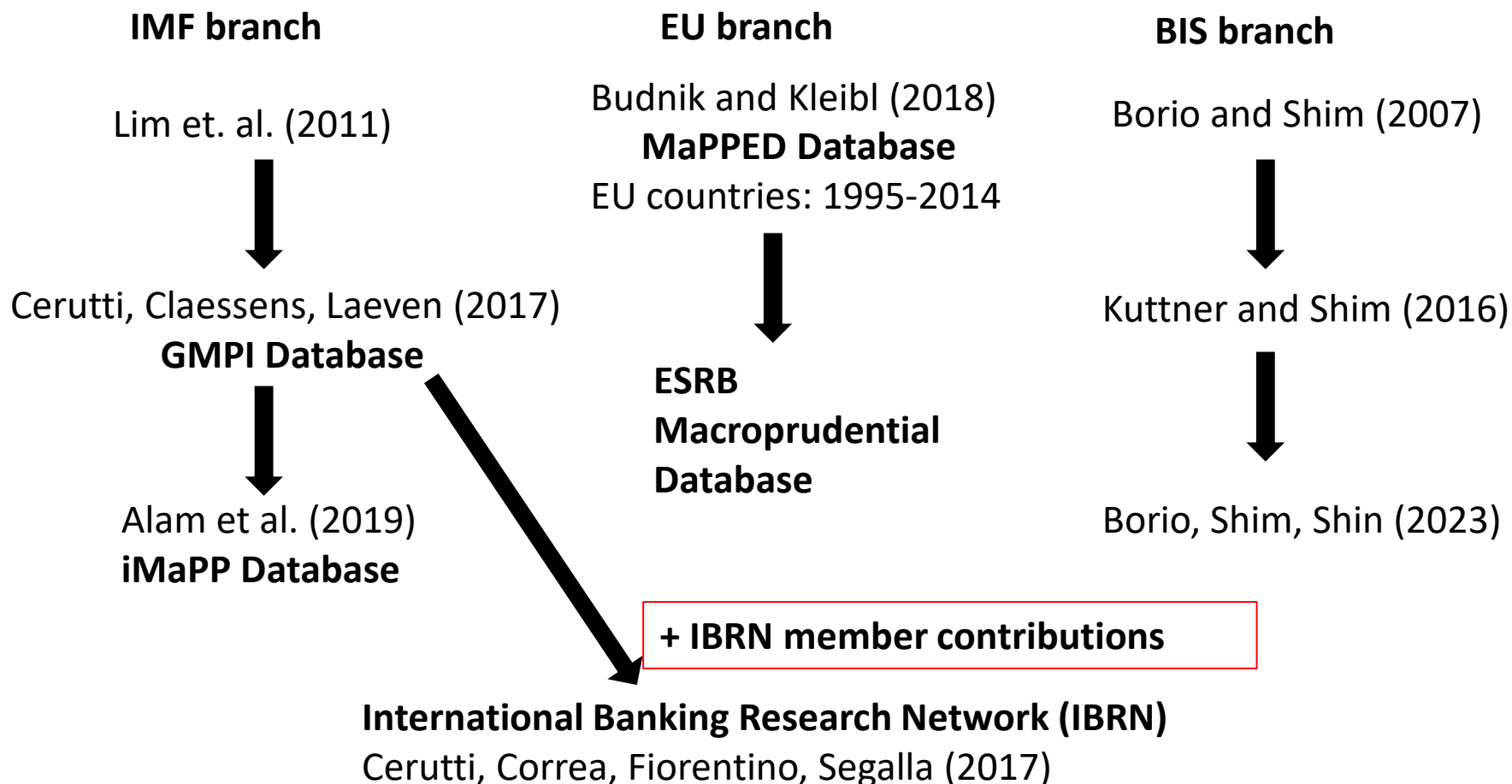
Jimenez, Ongena, Peydro & Saurina (2017)	Countries	Period	Policies
	Spain	1998Q4- 2010Q4	Dynamic Provisioning

Identification: micro-level demand controls (e.g., firm*time FEs)

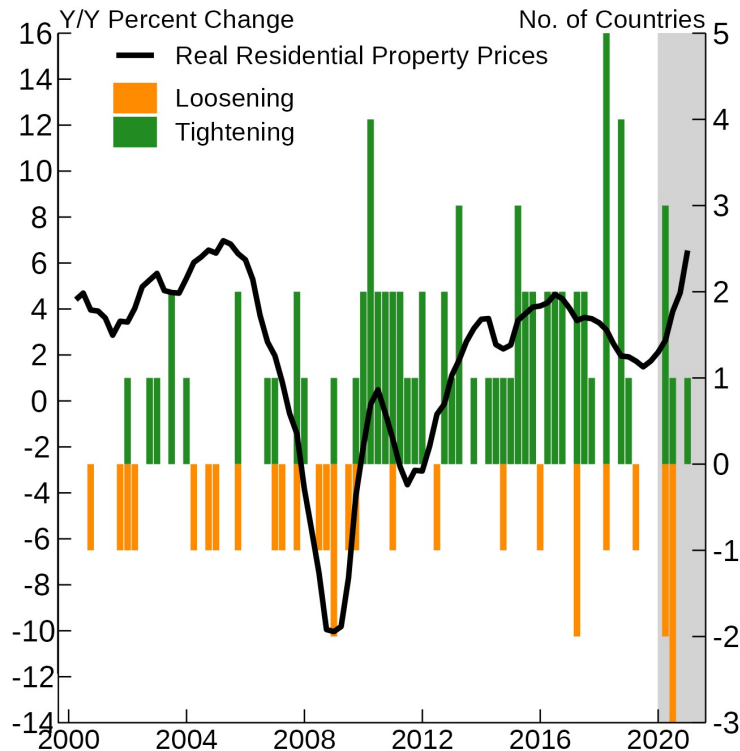
Measuring macroprudential actions

- **What is a macroprudential instrument?**
 - Gray line between macro and microprudential instruments (e.g., capital requirements)
 - Distinction comes from policymaker's objective
- **How to measure macroprudential actions consistently across countries?**
 - Differences in the scope of instrument-specific actions (e.g., LTVs that apply to a subset of properties)
 - Databases rely on indicators to capture changes (-1,0,1) or averages for some instruments
- **When should the action affect prices and quantities?**
 - Announcement or implementation
 - Some measures are phased in over time

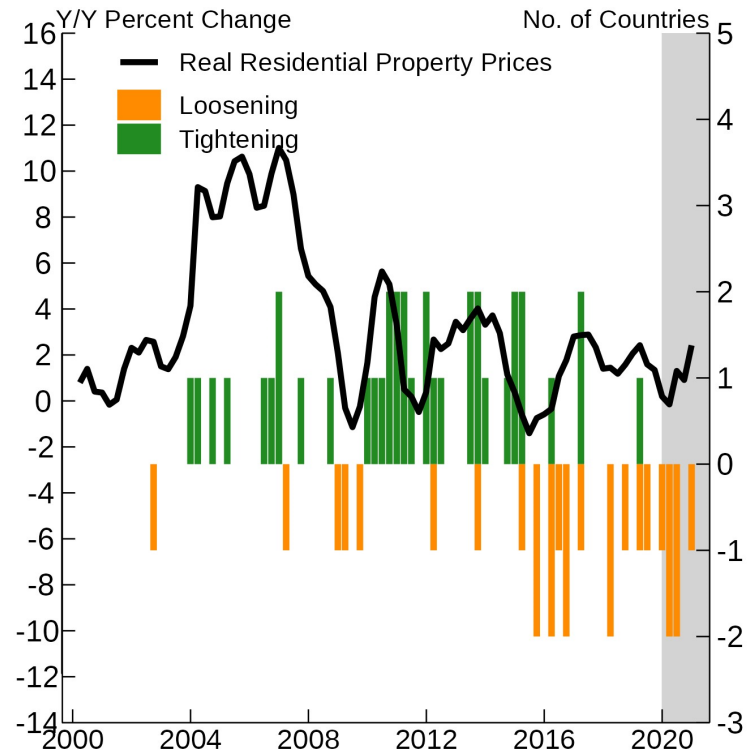
Macroprudential instrument data



1. Effectiveness of macropru actions: LTV caps and housing prices



Advanced Economies



Emerging Markets

Source: IBRN prudential instruments database, BIS, IMF

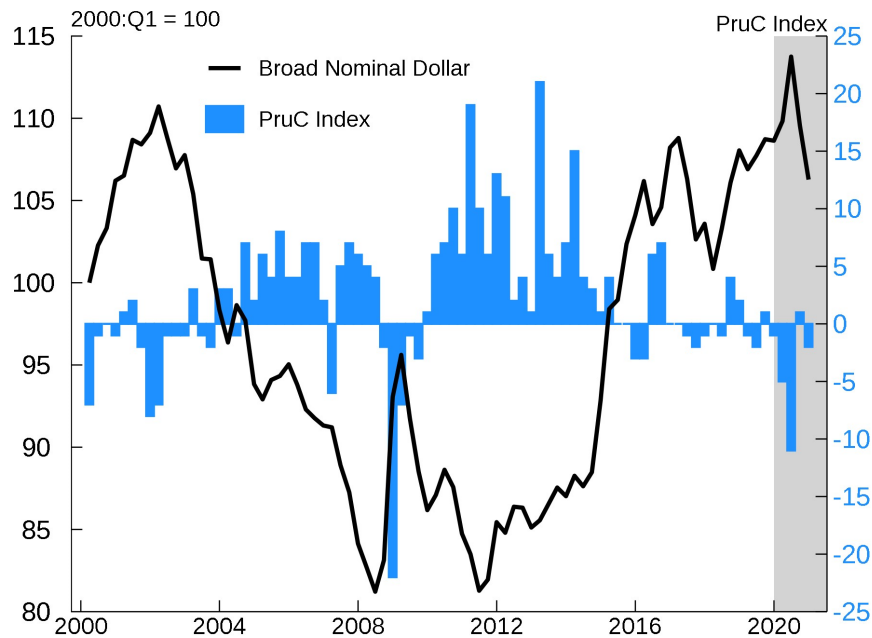
LTV cap actions associated with real estate price changes

1. Effectiveness of macropru actions

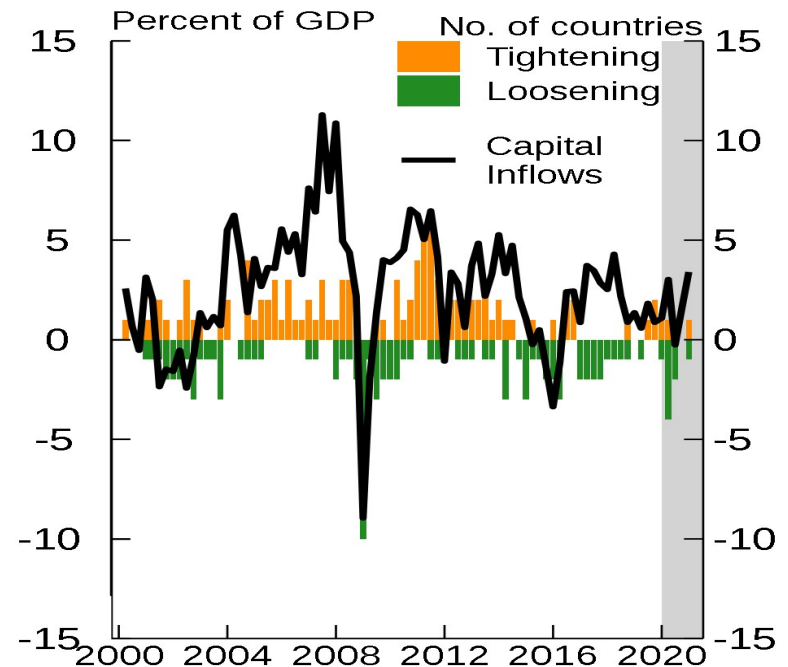
- Effective in targeting some of the intermediate objectives, for example, containing credit growth and residential real estate prices
- Material heterogeneity across instruments, with relatively stronger effects for borrower-based measures
- Some instruments reduce bank vulnerabilities to foreign currency borrowing

References: Akinci and Olmstead-Rumsey, 2018; Araujo et al., 2020; Biljanovska et al., 2023; Cerutti, Claessens, Laeven, 2017; Forbes, 2021

1. Macroprudential policies and the global financial cycle



Prudential inst. index and the dollar



**EME capital flows and foreign
currency reserve requirements**

Source: IBRN prudential instruments database , Haver Analytics

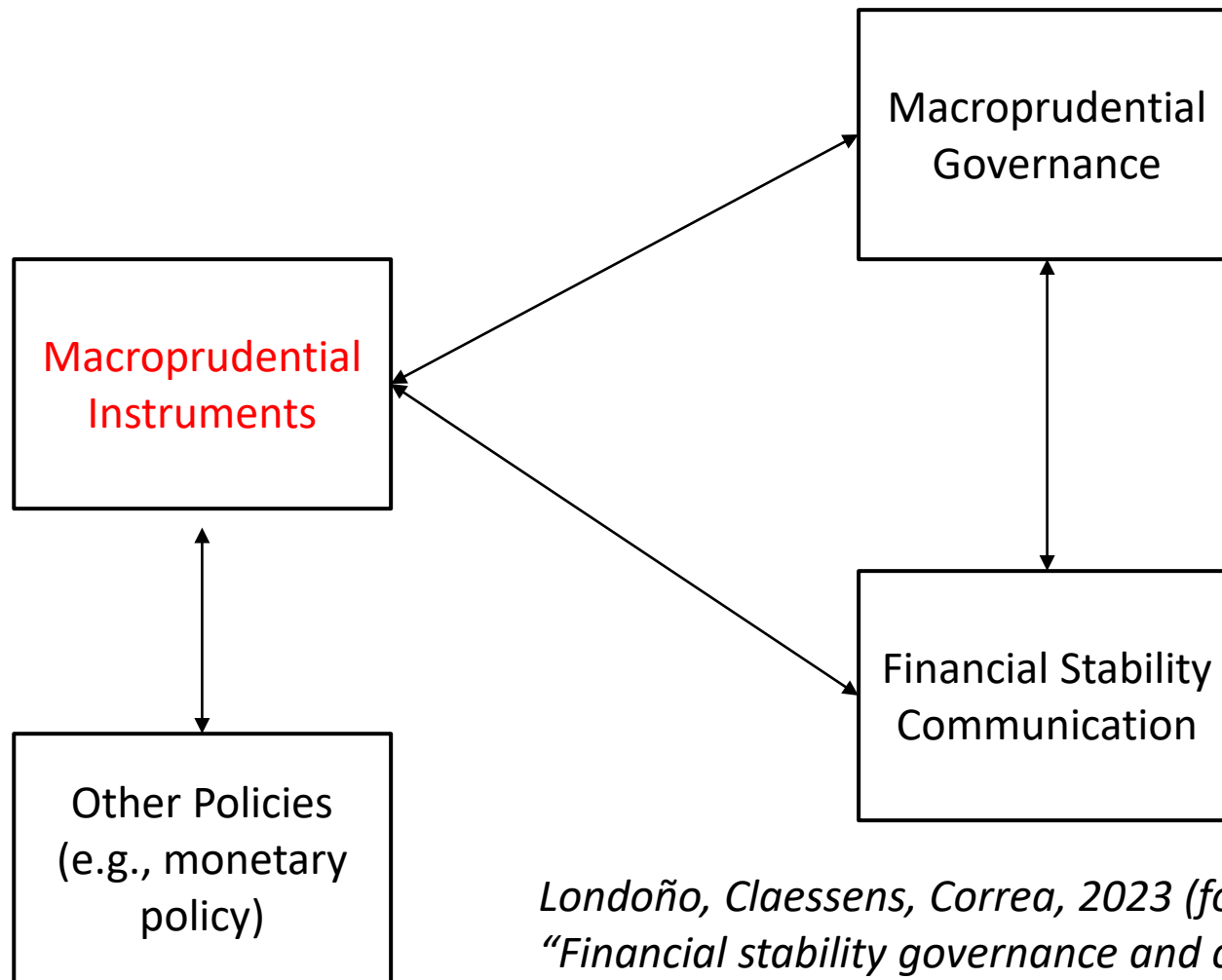
2. Macroprudential leakages

- **Does macroprudential policy have a “boundary problem” (Goodhart, 2008)?**
- Macroprudential actions spill over internationally and between foreign and domestic institutions
 - Effects are not large
 - Aiyar, Calomiris, and Wieladek (2014), International Banking Research Network, IJCB (2017)
- Similar leakage present for shifts between banks, nonbank financial institutions, and market financing (Ahnert, et al. 2021; Cizel et al., 2019)
- Bank also adjust their portfolios as a result of macroprudential actions, across sectors and geographies (Acharya et al., 2022; Bhargava et al., 2021)

3. Macroprudential tools and resilience

- **Are macroprudential instruments providing more resiliency (e.g., lending) in periods of stress?**
- Some evidence that countercyclical balance sheet buffers (e.g., dynamic provisioning or countercyclical capital buffer) may provide lending support in periods of stress (Jimenez et al., 2017; BCBS, 2021; Couaillier et al., 2022; Forbes and Bergant, 2023).
- But the usefulness of capital buffers may depend on their type and perceptions about the market impact of releasing them (Berrospide, Gupta, and Seay, 2021).

Extended macroprudential framework



*Londoño, Claessens, Correa, 2023 (forthcoming).
“Financial stability governance and central bank
communications,” IJCB.*

Questions for additional research

- Is the macroprudential governance framework effective?
 - Are financial stability committees effective?
 - How to structure them?
 - What powers should they have?
- How do macroprudential instruments interact with other policies (e.g., monetary policy, fiscal policy)?
- Are there instruments or arrangements that limit leakages (e.g., reciprocity)?
- Cost and benefit considerations of using macroprudential policies?
 - Real effects and distributional consequences
 - Political economy considerations