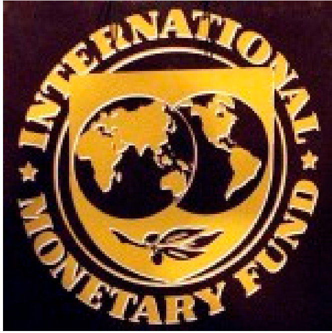


Macroprudential Policy: What Instruments and How to Use Them?

Lessons from Country Experiences

Monetary and Capital Markets Department

Road Map

I. Country experiences with macroprudential instruments

II. Effectiveness of macroprudential instruments

III. Lessons and Policy Messages

IV. Next Steps: Remaining Gaps

I. Country Experiences with Macroprudential Instruments

What Instruments Are Used?

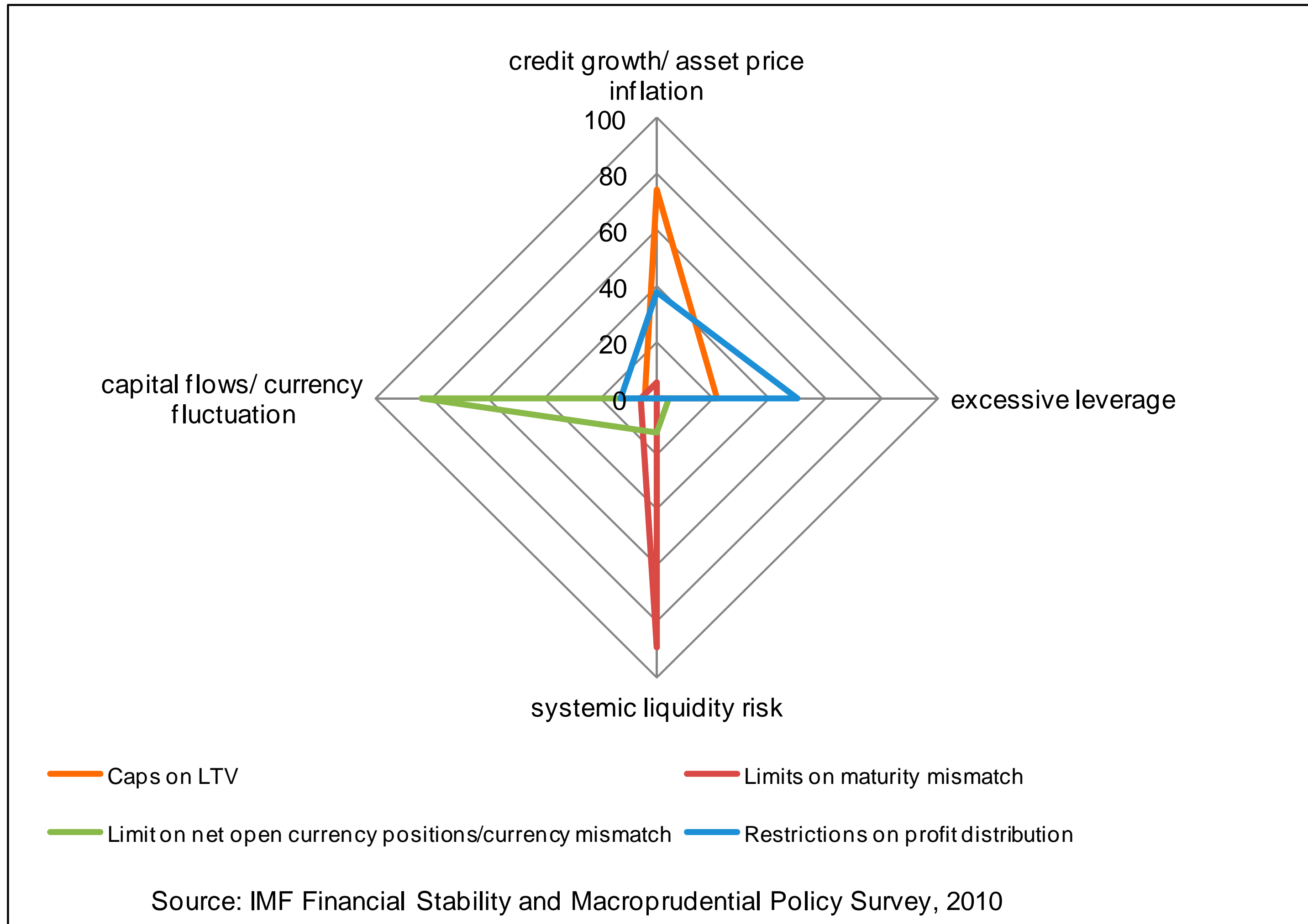
- 10 of the most frequently used instruments are examined
- Mostly prudential instruments
- Those capable of addressing systemic risk are considered macroprudential
  - Procyclicality (time dimension)
  - Interconnectedness (cross-sectional dimension)

The 10 Instruments

- Credit-related:
  - Caps on the loan-to-value (LTV) ratio
  - Caps on the debt-to-income (DTI) ratio
  - Caps on foreign currency lending
  - Ceilings on credit or credit growth
- Liquidity-related:
  - Limits on net open currency positions/currency mismatch (NOP)
  - Limits on maturity mismatch
  - Reserve requirements
- Capital-related:
  - Countercyclical/time-varying capital requirements
  - Time-varying/dynamic provisioning
  - Restrictions on profit distribution

- Risks generated by strong credit growth and asset price inflation;
- Systemic liquidity risk ;
- Risks arising from excessive leverage and the consequent de-leveraging;
- Risks related to large and volatile capital flows and currency fluctuations.

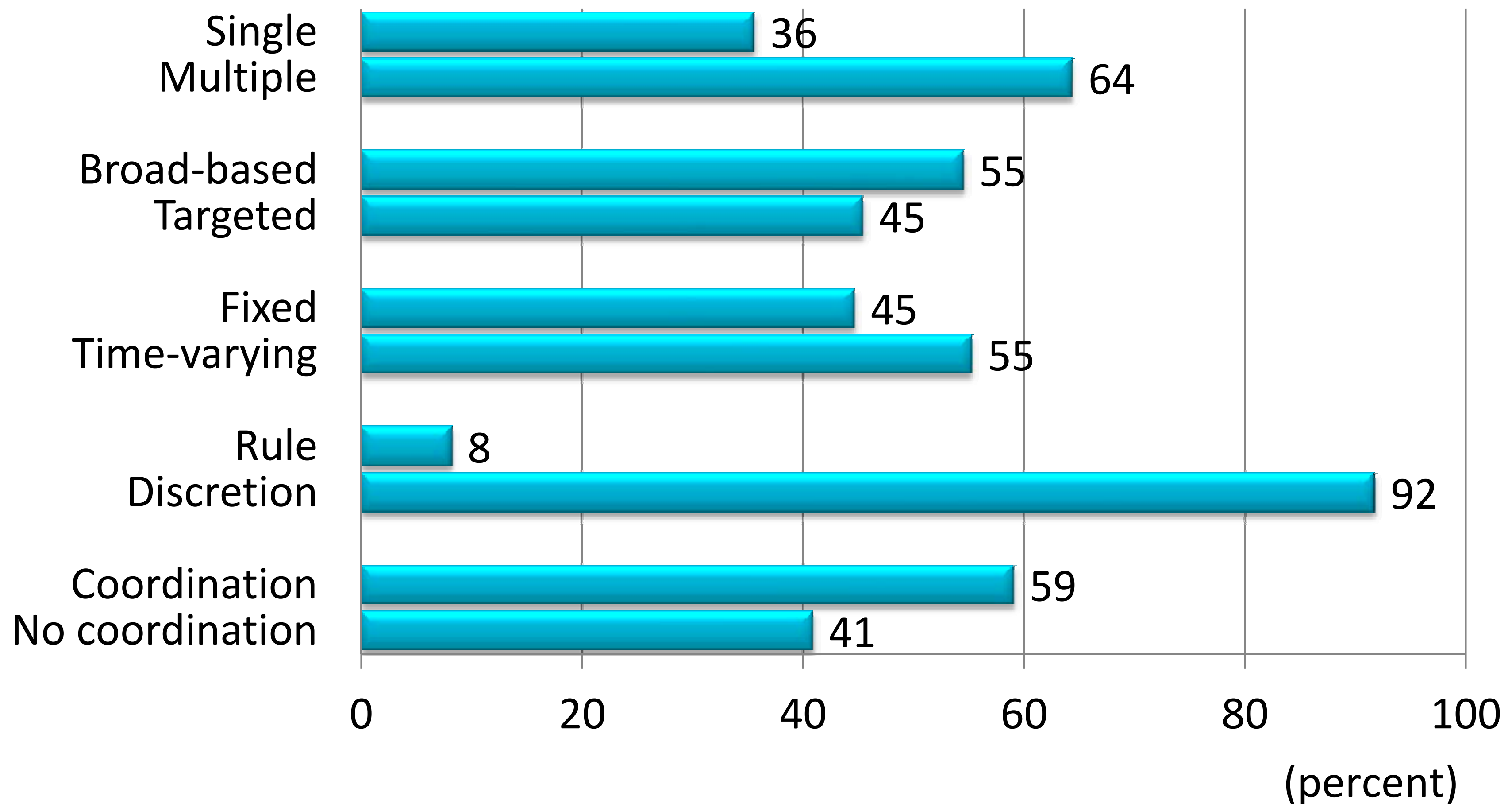
Objectives of Macroprudential Instruments



What Affects the Choice of Instruments?

(% of countries in each group using each type of instruments)				
		Credit-related	Liquidity-related	Capital-related
Economic Development Stage	Advanced	43	19	10
	Emerging Market	68	93	68
Exchange Rate	Flexible	48	55	40
	Managed/ Fixed	100	89	56
Size of Financial Sector	Large	48	36	20
	Small	67	88	67
Size of Capital Inflow	Small	58	54	29
	Large	56	68	56

How Are the Instruments Used?



II. Effectiveness of Macroprudential Instruments

Effectiveness of the Instruments

- Dampening pro-cyclicality of
  - credit growth?
  - leverage?
- Limiting interconnectedness in exposures to
  - wholesale funding?
  - foreign sources of funding?

Three Approaches

1. The case study

2. The simple approach

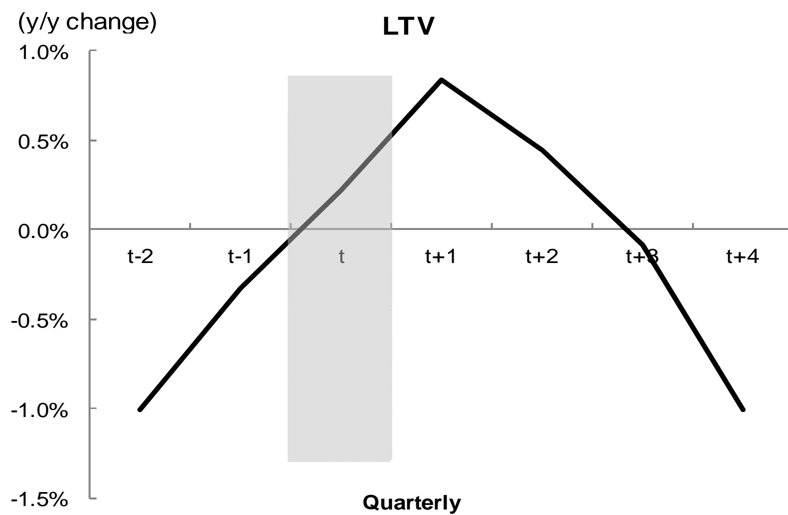
3. The panel regression

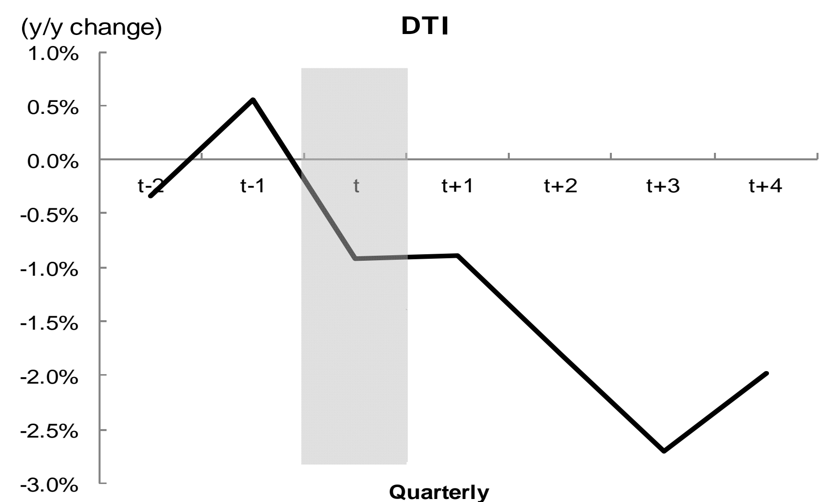
1. Case Study

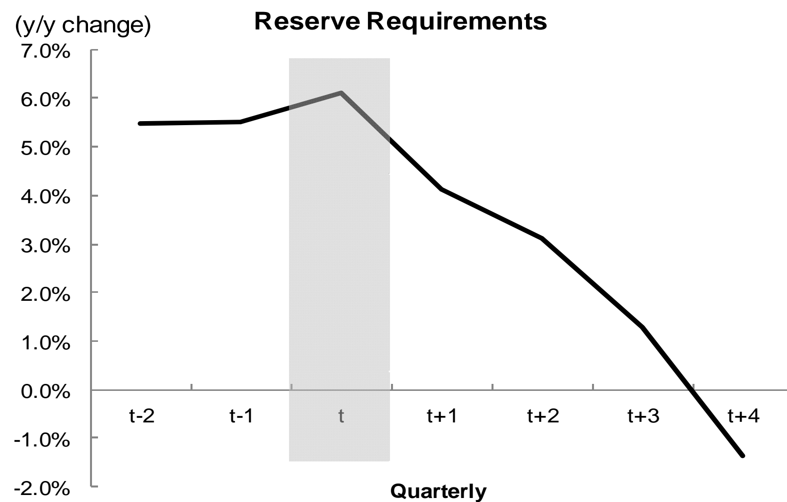
- Small but diverse group of countries:
  - China, Colombia, Korea, New Zealand, Spain, the United States and some Eastern European countries.
- Instruments seem to have achieved, to various degrees, their intended objectives
  - Effectiveness does not depend on size of financial sector or exchange rate regime

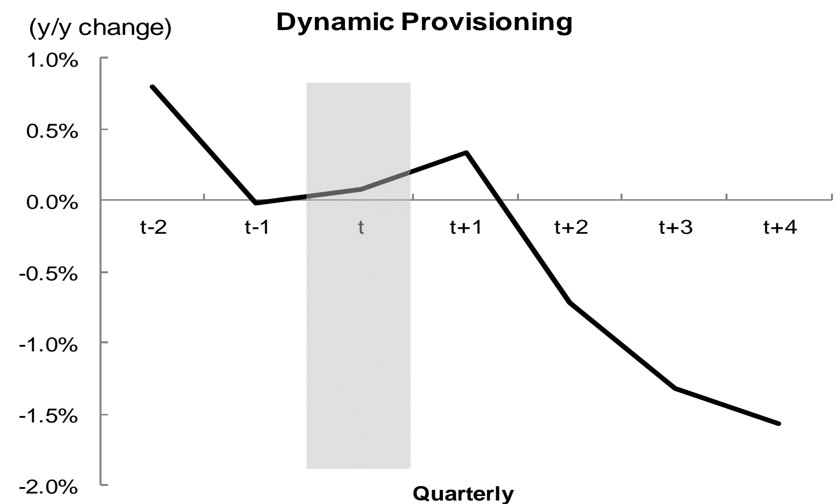
2. Simple Approach

Change in Credit Growth After the Introduction of Instruments
(average across countries)



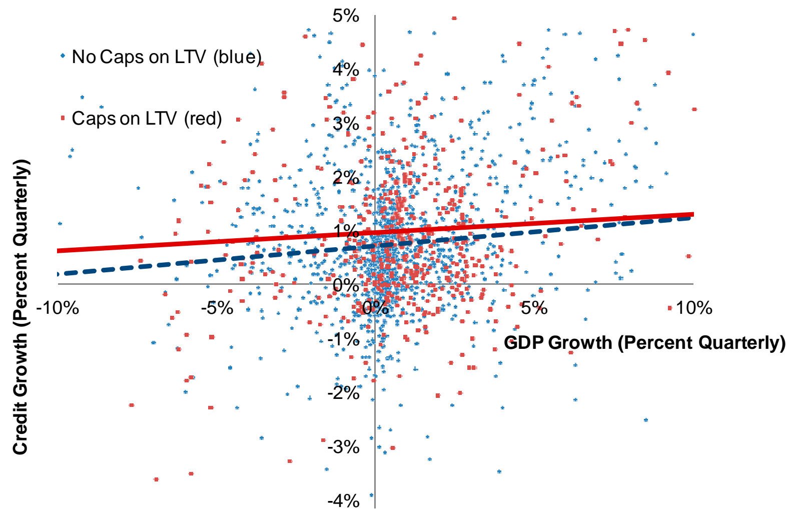


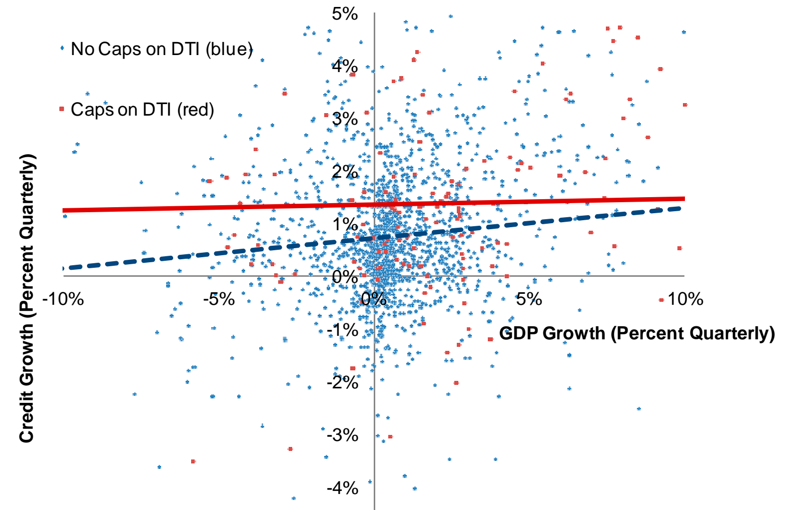


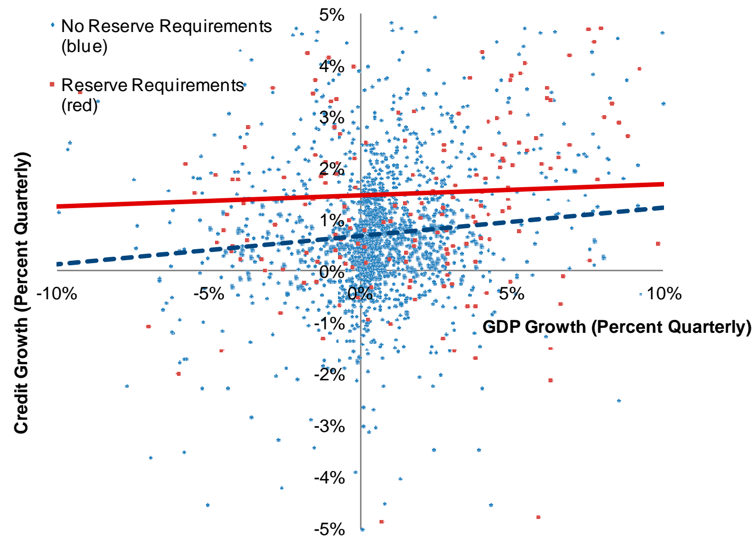


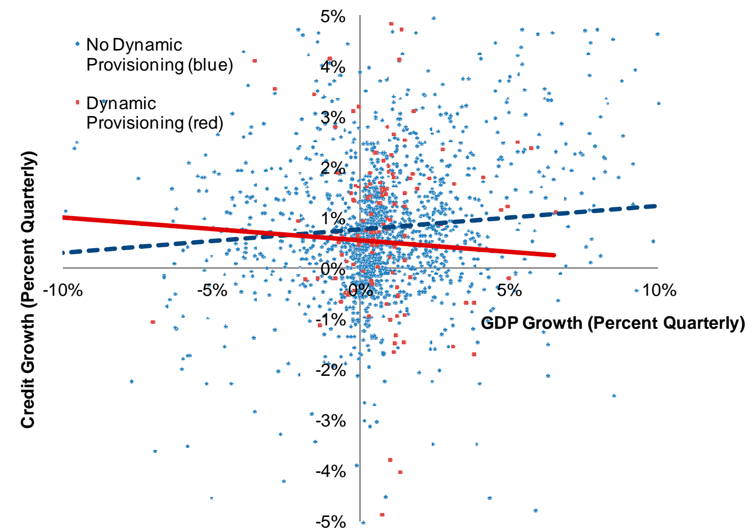
2. Simple Approach

Credit Growth vs. GDP Growth









3. Panel Regression

Estimates of effects

Reductions in:	Procyclicality of		Interconnectedness	
	Credit	Leverage	Foreign Liabilities / Assets	Credit/ Deposits
Caps on LTV	80%	34% (NS)	N/A	N/A
Caps on DTI	100%	100%	N/A	N/A
Limits on Credit Growth	100%>	80%	N/A	N/A
Limits on NOP	N/A	N/A	15%	NS
Limits on Maturity Mismatch	N/A	N/A	NS	5%
Reserve Requirements	92%	100%	N/A	N/A
Time-varying/Dynamic Provisioning	100%>	100%>	N/A	N/A
Countercyclical/Time-varying Capital Requirements	NS	100%>	N/A	N/A

N/A: Not Applicable
NS: Non-significant

3. Panel Regression: Caveats

- Regression coefficients are:
  - Averages of country performances
  - Affected by small sample size
  - Not an indication of equal effectiveness in all countries
- Country-specific circumstances important for effectiveness
- Use of instruments is new: limited number of observations

III. Lessons and Policy Messages

Lessons and Policy Messages

Instruments may be effective addressing risks generated by:

- Credit growth/asset price inflation:
  - credit-related instruments
- Systemic liquidity risk:
  - liquidity-related instruments
- Excessive leverage:
  - capital-related instruments
- Capital flows:
  - all three types of instruments

Lessons and Policy Messages

- Useful to adjust the instruments at different phases of the cycle

- Instruments that vary through the cycle have advantages and should be used when possible

- Well coordinated policy actions: necessary condition for success

Lessons and Policy Messages

Macroprudential Instruments

How to use

Single	Multiple	Broad-based	Targeted	Coordination with other policies	Fixed	Time-varying	Rules	Discretion
Do's and Don'ts								
Use when risk is well-defined from a single source	Do not overdo the use of multiple instruments or impose costs that are too high	Use if granular data are not available and risks are generalized	Be ready to adjust fine-tuning; anticipate channels for evasion Supplement with broader-based measures as needed to limit the scope for circumvention Avoid excessive complexity	Establish mechanisms to resolve conflict and assign clear accountability and governance arrangements	Adjust parameters if needed with changing circumstances	Design sound and transparent principles governing the adjustment	Use when risk of inaction is high and risk management and supervision capacity is weak Re-assess calibration periodically	Use when have deep structural changes and rapidly evolving risks Do not overdo discretion

Next Steps: Remaining Gaps

- Deeper analysis of **interconnectedness** (cross-section dimension)
  - Data availability is a constraining factor.
- Deeper understanding of **design and calibration** of instruments
- Estimates of **cost of implementation**: distortions, unintended consequences
- Relationship between **macroprudential and microprudential** regulation