

Macroprudential Policy and Housing Markets

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Macroprudential measures for housing markets booms

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Tools	Definition	Purpose/Transmission
Sectoral capital requirement	Forces lenders to hold extra capital against their household exposures, in order to protect against unexpected losses	<ul style="list-style-type: none">•Increases banking sector resilience to shocks•Credit supply: increasing funding costs and lending rates can reduce credit supply
Limits on loan-to-value (LTV) ratios	Imposes a limit on the size of collateralized loans relative to the appraised value of an asset (e.g. a house and or vehicle)	<ul style="list-style-type: none">•Resilience: bolstering borrowers and lenders' resilience to asset price shocks• Counter-default: reduces borrowers' incentive to default strategically•Credit demand: reduces loan demand• Expectations: can lead households to revise down their expectations of future asset price increases
Caps on debt service-to-income (DSTI) ratios	Restricts the size of debt service payments to a fixed fraction of household incomes	<ul style="list-style-type: none">•Similar to LTV. Differences:<ul style="list-style-type: none">- Enhancing borrowers' resilience to interest rate and income shocks- Functions as an automatic stabilizer when house price growth exceeds income growth

Use of combination of tools

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Number of Countries with Sectoral Macroprudential Tools

	Sectoral Capital Requirements	Limits on LTV Ratio	Caps on DSTI Ratio	Limits on LTV and DSTI ratios	At least One tool	More than two tools	All three tools
Number of Countries (Total = 46)	24 (52 percent)	24 (52)	15 (33)	13 (28)	38 (83)	20 (43)	5 (11)

Source: IMF staff calculation.

Note: Numbers in () shows the proportion of countries with a specific instrument among the sample.

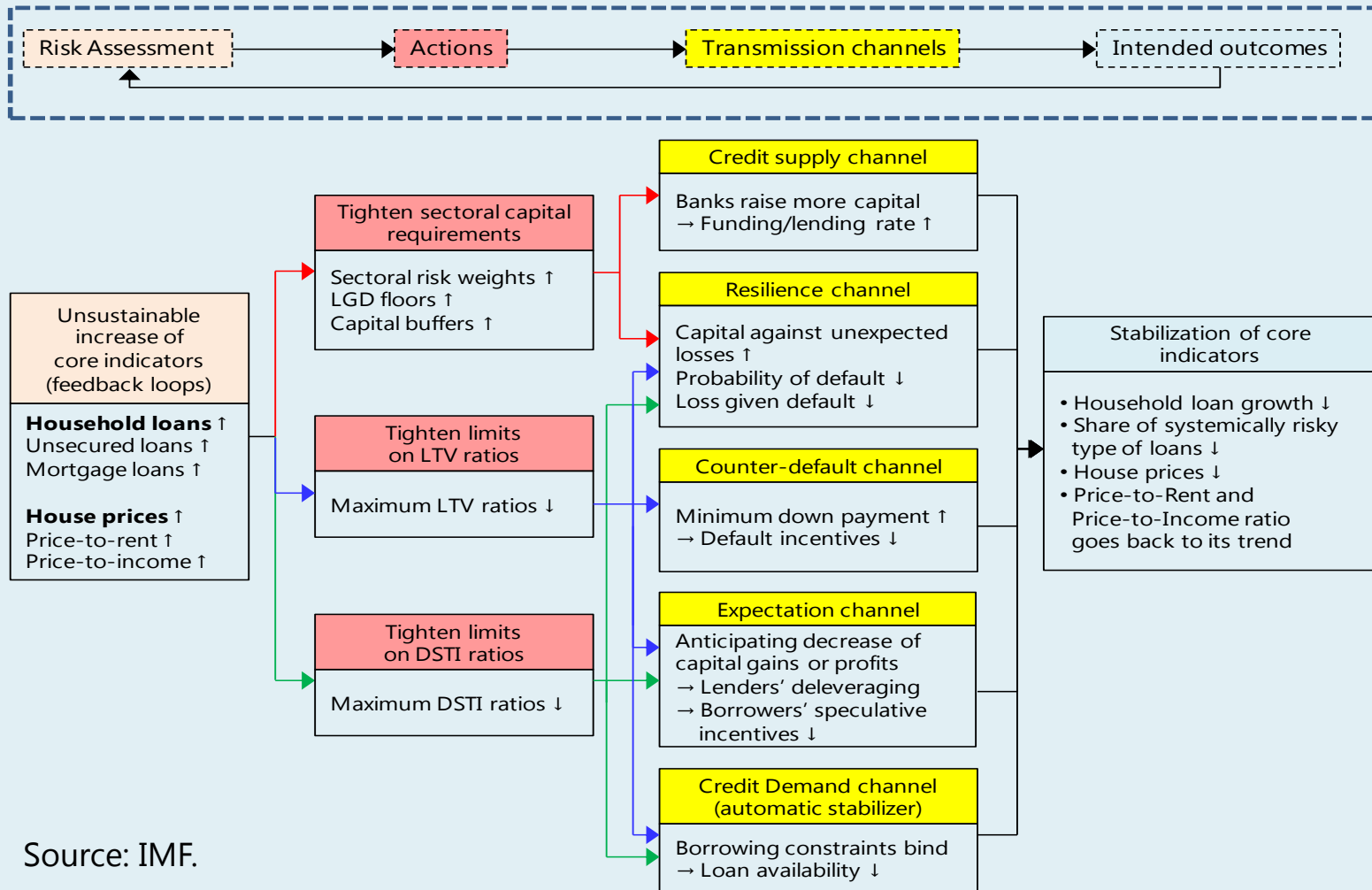
Number of Macroprudential Measures—Tightening or Loosening (2008–13)

	Tightening	Loosening
Capital requirements	19 (39)	7 (12)
Limits on LTV ratios	54 (76)	9 (19)
Caps on DSTI ratios	14 (26)	3 (4)
Total	87 (141)	19 (35)

Note: Data in [Kuttner and Shim \(2013\)](#) and [Lim and others \(2013\)](#) are combined by IMF staff. Table shows tightening and loosening of three sectoral tools over 2008–13 and 2001–13 (in parenthesis).

Transmission mechanisms

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Source: IMF.

Core and additional indicators

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Core indicators

- Household loan growth
- Share of household (mortgage) loans to total credit
- House price appreciation rate
- House price-to-rent ratio and house price-to-disposable income ratio

Additional indicators

- House price appreciation rate by region and types of properties
- Loan-to-Value (LTV) ratio (average and distribution)
- Debt service-to-income (DSTI) ratio (average and distribution)
- Household Loan-to-disposable Income (LTI) ratio (average and distribution)
- Share of banks' and nonbanks' household loans (changes of the share over time);
- Share of systemically important financial products, such as FX loans or interest-only loans

Using multiple indicators for activation

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- Evaluation of **core indicators** should be complemented by **additional indicators** to support a **judgment** on the need for policy action.
 - When **multiple** indicators are flashing “**red**,” there is a strong case for activating measures, even if this decision should be based on judgment.
 - When **some** indicators are flashing “**red**,” and **others** “**green**,” consideration can also be given to **alternative policy actions**.
 - E.g., when house prices rise, but mortgage lending is subdued, this can point to supply constraints and the need for structural measures
 - When **most** indicators are **yellow**, this points to a gradual approach to the activation of measures, e.g., initial non-binding guidance or partial tightening of tools.
 - Where information to construct indicators is missing (“no light”), the emphasis is on the **collection** of the relevant **data**.

Effectiveness in achieving objectives

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- **Capital requirements:**

- Can increase resilience, but need to watch ratings migration for risk-based requirements (recent case studies: *Sweden, Norway, Hong Kong*)
- Marginal changes may have only moderate effects on credit growth when introduced in the midst of a boom ([Crowe and others \(2013\)](#) and recent case studies: *Switzerland, Sweden*)

- **Limits on LTV:**

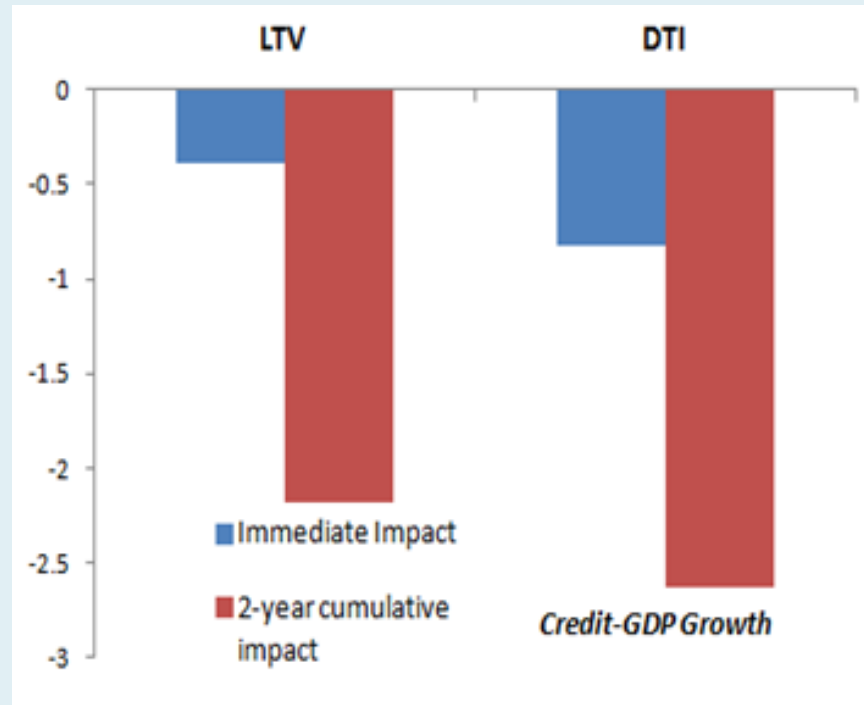
- Evidence that LTV limits reduce borrower default rates in the event of shocks (*Hong Kong*: [Wong and others \(2011\)](#), *Korea*: [Lee \(2012\)](#), *Ireland*: [Hallssey and others \(2014\)](#))
- Can dampen accelerator mechanism in the upswing ([IMF, 2011b](#), [Lim and others, 2011](#)). Can also have sizable effects on credit growth, while effects on asset prices often found to be weak ([He, 2014](#); Arregui and others, 2013, Jacome and Mitra, forthcoming)
- May need adjusting when asset prices and credit move in tandem and existing settings become non-binding ([Kuttner and Shim, 2013](#)).

- **Limits on DSTI:**

- Evidence that DSTI limits affect both resilience and credit extension, e.g., [Hallssey and others \(2014\)](#), [Kuttner and Shim \(2013\)](#)

Example of cross-country evidence

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Source: Arregui, Benes, Krznar, Mitra and Santos (IMF WP, 2013): “Evaluating Net Benefits of Macroprudential Policy: A Cookbook”

Using multiple and tailored tools

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- **Combined use:** Complementary role suggests combined use of both LTV and DSTI.
 - Limits on LTV ratios to protect against house price shocks, and caps on DSTI ratios against interest rate and income shocks
 - DSTI caps enhance the effectiveness of LTV limits: by restricting the use of unsecured loans to attain the minimum down payment of the LTV limits.
- **Tailored to risks:**
 - Tighter limits for loans that pose heightened risks, e.g., FX loans, interest only loans.
 - Stressed DSTI ratios. When interest rates are low, DSTI can be based on a higher, “stressed” interest rates (e.g. *United Kingdom, Hong Kong SAR*).
 - For example, in Hong Kong SAR the stressed DSTI test assumes a 300 basis point interest rate hike.

Considering costs

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- **Design and implementation should consider efficiency costs for borrowers from a reduction in financial services.**
 - Well-targeted approaches can reduce these costs
 - e.g., tighter limits on speculative borrowers and more generous limits on first-time buyers, as in *Israel, Korea and Singapore*
 - Caps on exposure to particular types of borrowers, such as caps on the exposure to high LTV/LTI loans do not prohibit, but only constrain the provision of such credit.
 - as introduced in *New Zealand and United Kingdom*
- **Implementation should also consider costs to output growth.**
 - Effects of tightening tools on output can be large (esp. LTV and DSTI)
 - A **gradual approach** can mitigate the costs
 - e.g., as in the *Netherlands*.
- **Well-tailored design and a gradual approach** to the tightening of tools can help achieve benefits while reducing costs.

Assessing and addressing leakages

- Authorities should **assess** the potential for **leakage of** macroprudential policy tools and consider strategies to **address** such leakage ([IMF, 2014](#)).
- In principle, both **domestic** leakages and **cross-border** leakage can be addressed by expanding the scope of macroprudential intervention.
 - To non-bank providers of credit (by expanding the perimeter of macroprudential intervention)
 - To foreign providers of credit (e.g. “reciprocity,” greater “host control” of branches, targeted CFMs)
- The scope for and strategies to address leakages can differ across loan markets and macroprudential tools.

Assessing and addressing leakages (2)

- Main issues are domestic leakage and arbitrage.
 - Tight LTV limit can lead to increase in **unsecured loans**, if not combined with DSTI (as observed in *Sweden*).
 - Tight DSTI cap can lead to increases in average **amortization** periods. Can be countered by maximum amortization requirements (as in *Canada, Hong Kong, Singapore*).
 - Migration of activity from domestic banks to **domestic non-banks**. Can be countered by extending limits to non-banks (as in *Korea*).
- Cross-border leakage is possible, but less likely for **retail loans** (and LTV type measures), since foreign banks at a disadvantage in appraising local retail credit. More likely for **commercial real estate**. May still need to be considered in **financially integrated regions**.

Other policies

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- **Removing fiscal distortions**

- Some countries provide generous interest relief, but do not tax imputed rent.
- This creates incentives in favor of debt and can prop up asset prices.
- Removal of these distortions should be considered (as in the *Netherlands*).

- **Using fiscal tools**

- When asset prices are driven up by cash demand and from abroad consideration can be given to fiscal tools, such as stamp duties (as in *Hong Kong SAR* and *Singapore*).

- **Removing supply constraints**

- Lack of supply of land can push up prices (e.g., *Hong Kong SAR*, *Israel*, *Sweden*, *United Kingdom*).
- Consideration can be given to structural measures to boost supply, such as relaxation of zoning restrictions.

Relaxation

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- **Macroprudential policy tools can be relaxed when financial risks dissipate** as a result of the effective application of such measures (IMF, 2014).
- **A relaxation of time-varying tools can also be called for in periods of financial stress** (IMF, 2014).
 - To help avoid a vicious feedback between deteriorating economic and financial conditions that depresses economic activity
 - especially when macroprudential constraints are **binding** on the supply of credit.
 - A relaxation needs to respect prudential minima that can ensure an appropriate degree of resilience against future shocks.
 - Buffers need to be built-up in good times.

Relaxation of housing tools

- Where macroprudential constraints are **tight**, consideration can be given to relaxation **to counter a vicious feedback** between falls in **asset prices** and drying up of **credit**.
 - Falling house prices can constrain the ability of existing borrowers to refinance or move house at prevailing (tight) LTV ratios
 - Relaxation of (tight) LTV and DSTI caps can also unlock new demand.
 - Effectiveness will depend on the extent that banks will respond to changes in the cap.
- A **softening housing market** alone is **not a sufficient** indicator for the relaxation of macroprudential tools
 - It is then important to maintain resilience
 - Fiscal measures, such as reduction in stamp duties can be taken more readily.

Thanks

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Comments or questions?