XIV Annual Seminar on Inflation Targeting
Banco Central do Brasil

Macroeconomic and Financial Stability

Objectives and Instruments

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Rio de Janeiro, May 2012

Structure of Presentation

- MaP: Objectives and Instruments
- Topics/Issues:
  - I. Analytical Framework
  - II. Operational Set of Instruments/Effectiveness
    - Tools
    - Choice of instruments
    - Use in EM
    - Effectiveness
  - III. MaP and MP: complements, substitutes?

MaP: Objectives and Instruments

- MaP policy seeks to **limit systemic**, or system wide, financial risk.
- Systemic risk: a risk of disruptions to financial services that is caused by an **impairment of all or parts of the financial system**, and can have serious negative consequences for the real economy.
- MaP policy seeks to **address two specific dimensions** of systemic risk: (i) *the time dimension* (*procyclicality);* and (ii) *the cross-sectional dimension* (interconnectness).
- Central element: system wide perspective

MaP: Objectives and Instruments

- Objective *(prime objective)*: Maintaining the stability of the financial system as a whole, by limiting the build-up of systemic risk.
- Instruments: Core instruments are prudential type instruments, calibrated and used to deal specifically with systemic risk, and applied with a broader financial system perspective.

MaP: Objectives and Instruments

- Complement to MiP
  (useful conceptually/ difficult in practice).
- Financial stability is a common responsibility *(degree of coordination across policies).*
- No substitute for sound policies.
- Involves managing tail risks.
- Institutional setup.

Issues/Topics

I. Analytical Framework

II. Operational Set of Instruments/Effectiveness

- Tools
- Choice of Instruments
- Use in EM
- Effectiveness

III. MaP and MP: Complements, Substitutes?

I. Analytical Framework

- Macroprudential policy requires a **capacity to identify systemic risks early enough** so timely action can be taken.
- Several gaps remain.
  I. Can systemic risk be identified and measured?
  II. How reliable is the current analytical toolkit to monitor systemic risk?
  III. How to operationalize an assessment of systemic risk?

When is "too fast"?

II. Operational Set of Instruments/Effectiveness

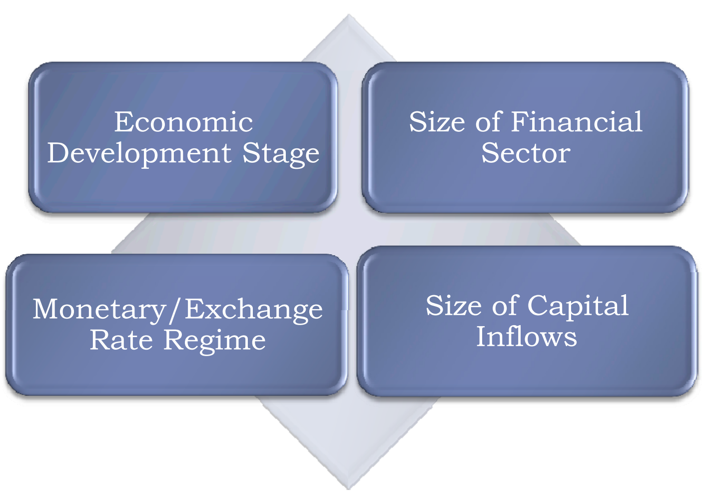
- Prudential type instruments…
- … though little consensus has emerged as to the type of instruments that should form part of a MaP toolkit .
- Need arises to provide clarity as to which instruments can be considered MaP, and which instruments cannot.

II. Operational Set of Instruments/Effectiveness

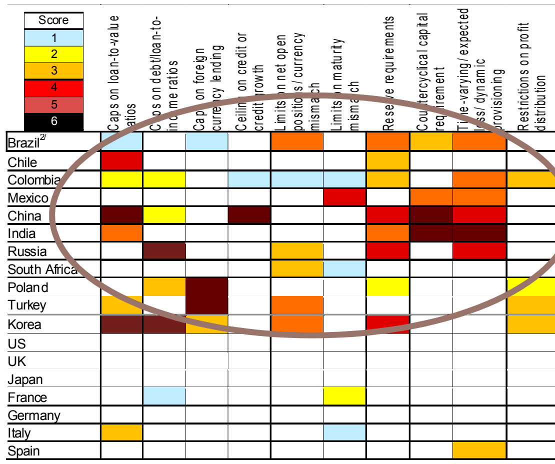
Tools	Risk Dimensions	
	Time-Dimension	Cross-Sectoral Dimension
Category 1. Instruments developed specifically to mitigate systemic risk		
	• Countercyclical capital buffers • Through-the-cycle valuation of margins or haircuts for repos • Levy on non-core liabilities • Countercyclical change in risk weights for exposure to certain sectors • Time-varying systemic liquidity surcharges	• Systemic capital surcharges • Systemic liquidity surcharges • Levy on non-core liabilities • Higher capital charges for trades not cleared through CCPs
Category 2. Recalibrated instruments		
	• Time-varying LTV, Debt-To-Income (DTI) and Loan-To-Income (LTI) caps • Time-varying limits in currency mismatch or exposure (e.g. real estate) • Time-varying limits on loan-to-deposit ratio • Time-varying caps and limits on credit or credit growth • Dynamic provisioning • Stressed VaR to build additional capital buffer against market risk during a boom • Rescaling risk-weights by incorporating recessionary conditions in the probability of default assumptions (PDs)	• Powers to break up financial firms on systemic risk concerns • Capital charge on derivative payables • Deposit insurance risk premiums sensitive to systemic risk • Restrictions on permissible activities (e.g. ban on proprietary trading for systemically important banks)

Source: IMF 2011 "Macroprudential Policy: An Organizing Framework."

What Affects the Choice of Instruments?



MaPs Tend To Be Used More Heavily in EM’s



Source: IMF (2011)
1/ No color represents no use of instruments, and ‘1’ denotes the use of a single instrument. For each of the following attributes, i.e., multiple, targeted, time-varying, discretionary and used in coordination with other policies, the value of ‘1’ is added.
2/ Unlike other countries, caps on LTV ratios is applied to vehicle loans in Brazil, not mortgage loans.

Why?:

- Overheating
- K inflows/
- Volatility
- Experience
- Monetary transm. mechanism.
- IT more recent
- …

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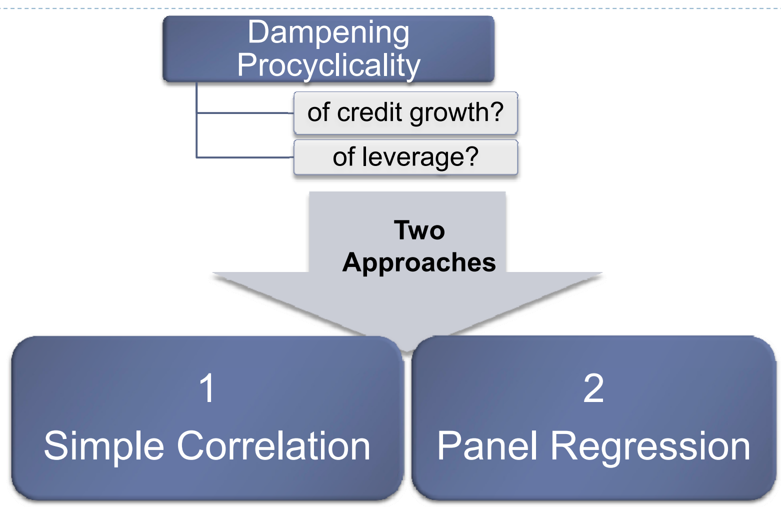
Effectiveness of the Instruments



Lim et al., 2011, “Macroprudential Policy: What Instruments and How to Use Them? Lessons from Country Experiences,” IMF Working Paper, No. WP/11/238.

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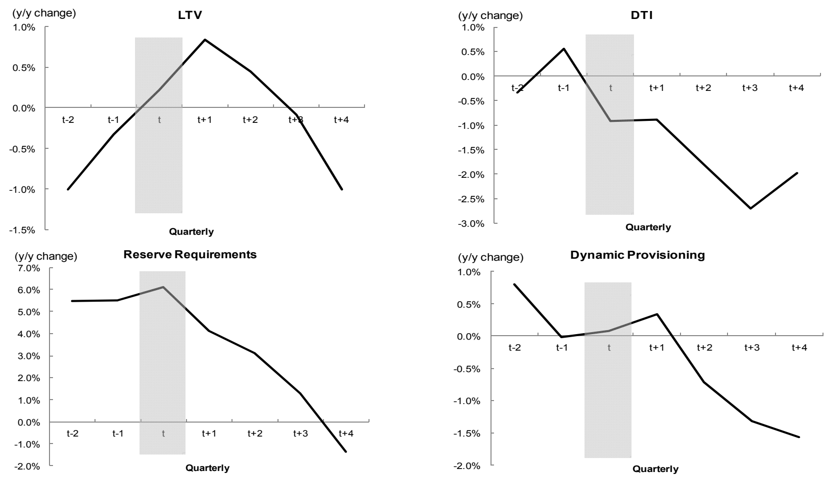
a) Simple Approach

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



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a) Simple Approach *(contd.)*

Credit Growth vs. GDP Growth

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b) Panel Regression

Statistically Significant (✔) or Not (✘)

Reductions in:	Procyclicality of	
	Credit	Leverage
Caps on LTV	✔	✘
Caps on DTI	✔	✔
Limits on Credit Growth	✔	✔
Reserve Requirements	✔	✔
Time-varying/Dynamic Provisioning	✔	✔
Countercyclical/Time-varying Capital Requirements	✘	✔

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Brazil: Use of MaPs (and CFMs)

- RR have been moved counter-cyclically to manage liquidity, also affecting credit.
- Capital requirements on certain long term consumer loans to households were increased in December 2010 to tackle potential adverse effects from a rapid consumer loan growth.
- Capital flows management measures such as the IOF have been deployed, as part of a tool-kit including macro-policy adjustment, to manage flows.

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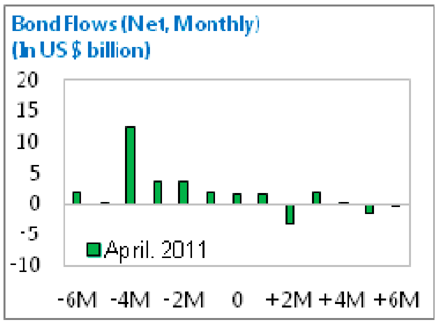
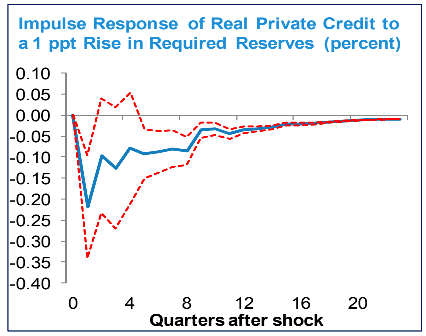
The IOF has slowed portfolio bond flows while RR's have had also some impact on moderating credit…

Impact of IOF on Bond Flows

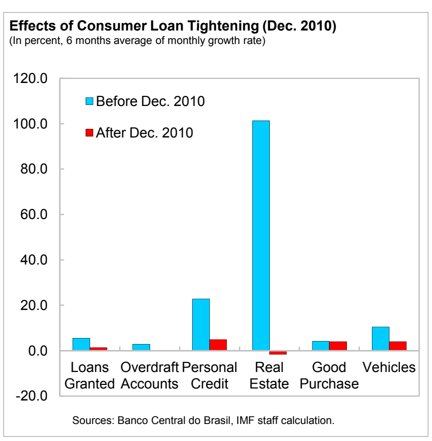


Impact of RRs on credit

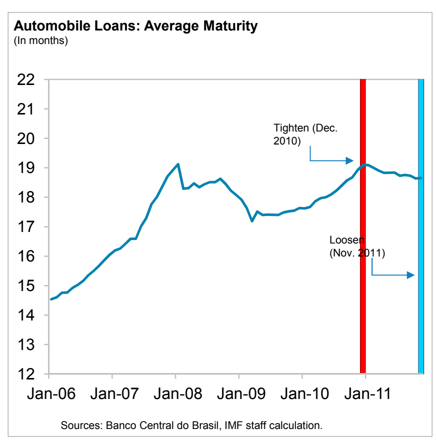


… and targeted measures have been used to slow lending in specific sectors

Lending Growth Slowed



Duration on Autos Fell Some



III. MaP and MP: Complements, Substitutes?

(emerging) DEBATE?:

- Both affect demand.
- MaPs: implementation has impact upon, and therefore alters, the transmission mechanism of monetary policy.
- Is there a case to use them as substitutes?
- MP: Leaning against the wind/MaPs: leaning against inflation?

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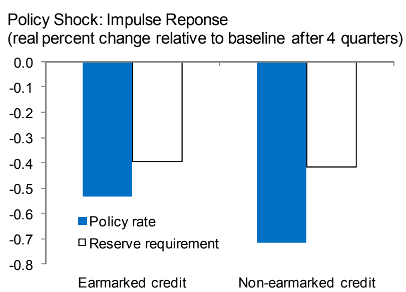
There are some complementarities between MP and MaPs in terms of credit



* Effects of an increase of 1 percentage point in the Selic policy interest rate or required reserves.

- MaPs hard to model—use RR's as proxy.
- Simple analysis for Brazil.
- Suggests that shocks to policy rate and RR's both have effects on credit.
- RR's have relatively more important impact on "earmarked credit."

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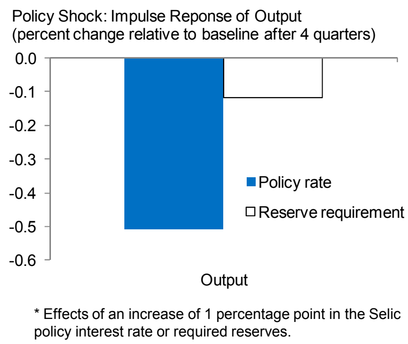
But monetary policy appears to have more powerful effects on demand



- Monetary policy transmission is beyond credit channel.
- Pass-through to interest rates more complete and expectations channel looks more powerful for MP.
- Monetary policy also broad based price signal—less prone to leakage.

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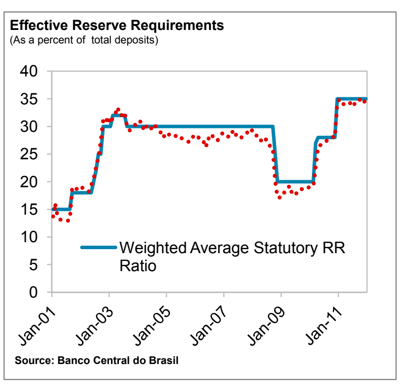
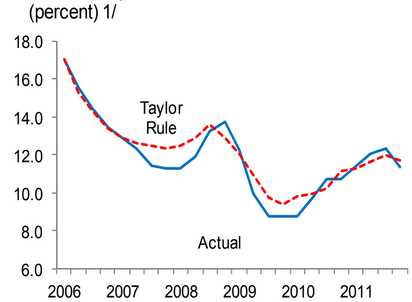
Central Bank of Brazil has used policies in the same "direction," while focusing Maps on stability

RR's have been adjusted to address liquidity risks



The policy rate has responded to the cycle

Brazil: Policy Interest Rates, Q1-2006 to Q4-2011 (percent) 1/



Source: Haver and Staff estimates.
1/ Taylor Rule using market expectations of inflation 12 months ahead.

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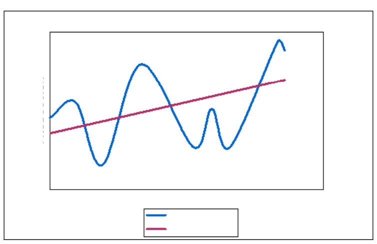
Key to preserve the central idea of one-target one instrument

- IT and ST interest rate.
- Optimal policy rule.
- Identifiable.
- Understood—hence can gauge impact.
- Important for transparency and clarity of expectations formation.
- Key part of credibility of IT regime.

To conclude…



To conclude…

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References

- Agénor, Pierre-Richard and Luiz A. Pereira da Silva, 2011, "Macroprudential Regulation and the Monetary Transmission Mechanism," *Central Bank of Brazil Working Paper* No. 254.
- Angelini, Paolo, Stefano Neri, and Fabio Panetta, 2011, "Monetary and Macroprudential Policies," *Bank of Italy Working Paper*, No. 801.
- Bean, Charles, Matthias Paustian, Adrian Penalver, and Tim Taylor, 2010, "Monetary Policy after the Fall," *Paper presented at the Federal Reserve Bank of Kansas City Annual Conference*, *Jackson Hole*.
- Beau, Denis *et al.*, 2011, "Macro-prudential policy and the conduct of monetary policy", *Banque de France, Ocassional papers*, No 8.
- IMF, 2011, "Macroprudential Policy: An Organizing Framework".
- Lambertini, Luisa, Caterina Mendicino, and Maria Teresa Punzi, 2011, "Leaning Against Boom-Bust Cycles in Credit and Housing Prices," *Bank of Portugal Working Paper*, No.8.
- Lim, Cheng Hoon ; Columba, Francesco ; Costa, Alejo ; Kongsamut, Piyabha ; Otani, Akira ; Saiyid, Mustafa ; Wezel, Torsten ; Wu, Xiaoyong, 2011, "Macroprudential Policy: What Instruments and How to Use Them? Lessons from Country Experiences," *IMF Working Paper*, No. WP/11/238
- Terrier, Gilbert ; Valdés, Rodrigo O. ; Tovar Mora, Camilo E ; Chan Lau, Jorge A. ; Fernandez Valdovinos, Carlos ; Garcia-Escribano, Mercedes ; Medeiros, Carlos I. ; Tang, Man-Keung ; Vera-Martin, Mercedes ; Walker, W. Christopher, 2011, "Policy Instruments To Lean Against The Wind In Latin America," *IMF Working Paper*, No. WP/11/159.

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Muito obrigado!
Thank you!