Monetary and Macro-prudential Policies: Should We Have Two in One?

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** The opinions expressed are those of the author, they do not necessarily represent those of the CNB. This presentation is based on the forthcoming CNB Research and Policy Note „Macro-prudential policy: research and practice ".*

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Central Bank and Macro-prudential Policy: Alternatives

- Two mandates in two...:
  - ...institutions: central bank responsible for monetary policy, independent authority for macro- (and micro-) prudential policy
  - ...two (overlapping) boards: monetary policy board and macro-prudential board inside a central bank, each has its own mandate (ECB, ESRB)
- Two mandates in one institution:
  - two mandates reflected in two policies: central bank conducts both monetary and macro- prudential policy (and treats them independently and equally)
  - two mandates combined into one policy: central bank considers macro-prudential aspects when setting monetary policy

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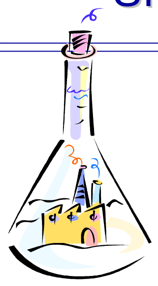
Should We Have Two in One?



Quoting from fashion blogs

- Frequently asked question:
  - Should I use a 2 in 1 shampoo and conditioner? Isn't it bad for my hair?
- Answers:
  - Yes, it saves both time and money. And no it is not bad for your hair.
  - No, I use them separately. I don't see how one product can effectively do opposite tasks: strip oil and bind (to close and protect) at the same time.

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Two Mandates in One Institution?

- Carmine Di Noia et al (1999): inflation rate higher where two mandates in one institution (credibility loss), based on 12 countries with 2-2 and 12 countries with 2 in 1 institutional set-ups
- C.A.E. Goodhart (2000): arguments for 2 in 1 alternative (transmission of information, payment system) as well as against it (the balance of power important, conflicts of interest)
- Joe Peek et al (2001): 2 in 1 solution brings synergies, e.g. forecast errors reduced due to information sharing
- CNB (2006): 2 in 1 solution, when a central bank becomes a sole integrated supervisor then supervisory mandate inherits credibility from monetary policy, there are efficiency and coordination gains

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Alternatives: Pros and Cons

	Monetary policy remains credible and transparent during financial crisis	Policy coordination easy	Information sharing easy	Cost-efficient solution
Two institutions	Yes	No	No	No
Two boards	Yes, if overlapping small	Yes, if overlapping significant	Yes, if overlapping significant	Yes, if overlapping significant
One institution	No	Yes	Yes	Yes

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Summary: Pros and Cons

	Monetary policy	Policy	Information	Cost-efficient
Two institutions				
Two boards				
One institution	No	Yes	Yes	Yes

Given the pros and cons, there are central banks, including the CNB, to have a „2 in 1“ solution. Risks to credibility and transparency do not outweigh efficiency and coordination gains in their cases.

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Two Policies Reflecting Two Mandates?

- Inside one institution, the choice must be made between (i) conducting two policies, that reflect two mandates separately, and (ii) combining two mandates into one policy
- This choice has not been much discussed in literature
- In the short run, both alternatives are difficult to implement, but despite this, it is important to discuss what the choice could be in the medium run
- Many activities will be directed by this choice: research, forecasting process, negotiations with other institutions
- If resources are scare, it is perhaps better to make the choice soon instead of preparing for both choices

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Alternatives: Pros and Cons

	Monetary policy remains credible and transparent during financial crisis	Policy coordination easy	Informatio n sharing easy	Cost-efficient solution
Two mandates, two policies	No (credibility) and yes (transparency)	Yes	Yes	Yes
Two mandates combined into one policy	No (credibility) and no (transparency)	Yes (same policy-makers) and no (combining is tricky)	Yes	Yes

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Summary: Pros and Cons

	M re ar du cr			nt
Two mandates, two policies	ye			
Two mandates combined into one policy	No (credibility) and no (transparency)	Yes (same policy-makers) and no (combining is tricky)	Yes	Yes

Given the pros and cons, a „2 in 1“ solution may not be optimal in this case. Should we try to put macro-prudential policy on equal terms with monetary policy in practice?

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Central Bank Conducts Two Policies

- The Tinbergen's rule: two targets, two set of tools
- Explicit targets: inflation target, threshold for systemic risk
- Policy tools: monetary policy tools (interest rates, interventions), macro-prudential tools (capital buffers,...)
- Analysis: inflation forecasts, systemic risk estimates relative to capital (FSR becomes similar to IR)
- Decisions: set monetary policy tools so forecast is close to inflation target, set macro-prudential tools so the estimates of systemic risk are below the threshold (separate monetary-policy and macro-prudential policy meetings)
- Communication: inflation forecast/ updated systemic risk estimates, based on just decided changes in tools

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Where to Focus Research: Targets

- How exactly should the explicit target for macroprudential policy be defined (or should we have multiple targets/ thresholds for several systemic risk indicators)?
  - Hans Gersbach 2009: equity capital requirements (minimum level)
  - Claudio Borio and Mathias Drehmann 2009: operational framework difficult, take the measurement challenge seriously, find barometer of distress (EWI)
  - Gabriele Galati and Richhild Moessner 2010 and 2011: set limit to systemic risk
  - IMF 2011: set limit to a range of systemic risk indicators

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Where to Focus Research: Analysis

- Which models do we need to assess transmission from macro-prudential tools to the target?
  - Hans Gersbach 2009: use complex risk model to compute capital required, given systemic risk
  - Gabriele Galati and Richhild Moessner 2010 and 2011: battery of tools (systemically important institutions, modified DSGE), empirical assessment of transmission not available
  - IMF 2011: comprehensive and contrarian risk monitoring system
  - Jan Frait and Zlata Komárková 2011: battery of models (stress tests, set of important indicators, contagion) combined with judgment

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Where to Focus Research: Decisions

- What is the difference between taking macro-prudential policy decision compared to monetary policy?
  - K. Smidkova et al 2008: inflation forecasts around the globe are correct in 50% of the cases on average
  - Lucia Alessi & Carsten Detken, 2009: the missed crises versus false alarms makes decision difficult
- Given the 50% score of inflation forecasts, maybe macro-prudential policy decisions are not more difficult (monetary-policy decisions also face the problem of false forecasts)?

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Where to Expect Pitfalls in Practice

- Targeted variable not credible (computed by the central bank itself, not observable)
- Agreeing on thresholds (what is systemic risk?) ex ante not easy
- Some tools might be difficult to implement in a given legal framework
- Running inflation-forecasting exercise in parallel to the stress-testing exercise difficult (issue discussed last year)
- Decisions difficult because (i) macro-prudential policy is new and (ii) stakes are higher, and maybe (iii) the missed crises-false alarm problem

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Central Bank Combines Two Mandates

- Explicit target: inflation target augmented for selected asset prices, or use caveats for systemic risk
- Tools: monetary policy tools (regularly) and macro-prudential tools (discretion)
- Analysis: forecasting models extended, systemic risk incorporated into inflation forecasts (expert judgment)
- Decisions: set monetary policy tools so inflation forecast close to target, use discretion to reduce systemic risk (regular monetary-policy meetings)
- Communication: inflation forecast

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Where to Focus Research: Target

- Are policy reactions different when asset prices inside targeted index, or inside objective function, or in policy rule only?
  - Stephen G. Cecchetti et al, 2002: react to asset price misalignments, do not target asset prices (asset prices in policy rules, not in targeted price index, not in objective function)
  - Piti Disyatat, 2005: adding financial imbalances into loss function equivalent to modifying targeting rule or model (implied: greater tolerance to deviations from inflation target)

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Where to Focus Research: Analysis

- The DSGE models are story-telling devices so they should be able to tell the story for both mandates
- What is the best way to reflect combined mandates in the analysis needed for policy decisions ?
  - Piti Disyatat, 2005: modifying models difficult, use equivalent (modify objective function)
  - Camilo E. Tovar, 2009: financial markets frictions (financial accelerator, the term-structure of interest rates, collateral constraints, currency risk premia)
  - Carl E. Walsh, 2010: the new generation of models (macro-finance models)

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Where to Focus Research: Decision

- When exactly to use the discretion, how to detect misaligned asset prices, how to detect systemic risk?
  - Berg at al, 2005: EWS have mixed results, to predict systemic risk very difficult
  - Lucia Alessi & Carsten Detken, 2009: select indicators that predict misalingments (e.g. global credit gap), select preferences (missed crises versus false alarms), issue warnings

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Where to Expect Pitfalls in Practice

- Negotiations with the Statistical Office about changes in targeted price index not fully successful (measurement risk)
- Caveats used quite frequently, poor inflation record (reduced credibility risk)
- Monetary policy tools used when maybe macro-prudential tools more suitable (inefficiency risk)
- Expansion of the forecasting model too difficult (poor forecast risk)
- Decisions under more uncertainty (suboptimal policy risk)
- Communication: too many caveats and too many tools (lack of transparency risk)

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First Steps In Practice: The CNB Case

- Target: keep inflation target, but negotiate with the CSO to incorporate housing into the CPI in the medium run
- Tools: rely on monetary policy tools, but review macro-prudential tools (prepare legal framework where possible)
- Analysis: both ways (i) use stress tests, work on EWS as well as (ii) extend the current DSGE (but this mainly to improve inflation forecast)
- Decisions: two separate meetings, during macro-prudential policy meeting, experts invited to identify risks (difficult)
- Communication: two separate communication lines (quarterly inflation forecasts, quarterly stress tests)

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Thank You for Your Attention!

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References: Two Institution?

- Should Banking Supervision and Monetary Policy Tasks be Given to Different Agencies? by Carmine Di Noia and Giorgio Di Giorgio, International Finance 2:3, 1999: pp. 361–378.
- The Organisational Structure of Banking Supervision by C.A.E. Goodhart,FSI Occasional Papers No. 1 – November 2000-10-25, BIS
- Synergies between Bank Supervision and Monetary Policy: Implications for the Design of Bank Regulatory Structure by Joe Peek, Eric S. Rosengren, and Geoffrey M. B. Tootell in Prudential Supervision: What Works and What Doesn't by Frederic S. Mishkin, editor, 2001, University of Chicago Press .
- Conference organised on the occasion of the 80th anniversary of the Czech National Bank „Financial Market - Stability and Regulation“, 2006 (http://www.cnb.cz/en/public/media_service/conferences/conferences/80cnb_en.html)
- Evaluation of the Fulfilment of the CNB's Inflation Targets 1998-2007 by K. Smidkova et al, 2008, CNB.

References: Macro-prudential Policy

- Double Targeting for Central Banks with Two Instruments: Interest Rates and Aggregate Bank Equity by Hans Gersbach CER-ETH Policy Brief 09/1 November 2009
- Towards an operational framework for financial stability: “fuzzy” measurement and its consequences by Claudio Borio and Mathias Drehmann, BIS Working Papers No 284 June 2009
- Macroprudential policy - a literature review by Gabriele Galati and Richhild Moessner, DNB Working Paper No. 267 / December 2010
- Macroprudential policy - a literature review by Gabriele Galati and Richhild Moessner BIS Working Papers No 337 February 2011
- Macroprudential Policy: An Organizing Framework by the Monetary and Capital Markets Department In consultation with Research and other departments, IMF March 14, 2011
- The CNB Macroprudential policy by Jan Frait and Zlata Komárková 2011 CNB mimeo

References: Two Mandates In One Policy

- Asset Prices in a Flexible Inflation Targeting Framework by Stephen G. Cecchetti, Hans Genberg, Sushil Wadhwani NBER Working Paper No. 8970 Issued in May 2002
- Inflation targeting, asset prices and financial imbalances: conceptualizing the debate by Piti Disyatat BIS Working Papers No 168 January 2005
- DSGE Models and Central Banks by Camilo E. Tovar, Economics-ejournal, Vol. 3, 2009-16 | May 6, 2009
- Monetary Theory and Policy, Third Edition by Carl E. Walsh, 2010 MIT
- Real Time early warning indicators for costly asset price boom/bust cycles - a role for global liquidity by Lucia Alessi & Carsten Detken, 2009. Working Paper Series 1039, European Central Bank
- Assessing Early Warning Systems: How Have They Worked in Practice? by Andrew Berg, Eduardo Borensztein, Catherine Pattillo, 2005/3 IMF Working paper.