Inflation Targeting and Financial Stability

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October 28, 2010

Policy Lecture at the CEPR/ESI 14th Annual Conference on
"How Has Our View of Central Banking Changed
with the Recent Financial Crisis?"
Hosted by the Central Bank of Turkey,
Izmir, October 28-29, 2010

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Outline

- Causes of the financial crisis
- Lessons for monetary policy
- Practical flexible inflation targeting

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Conclusions

- The financial crisis was caused by other factors than monetary policy
- MP and financial-stability policy (FSP) are distinct and different – it was FSP that failed, not MP
- Financial stability (FS) as an objective of *MP* makes little sense – but makes sense as an objective of the *central bank*

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Conclusions

- Flexible inflation targeting (FIT) is fine – before, during, and after the crisis
- But greater role for financial conditions in transmission mechanism
- FS may imply restrictions on MP – rare event
- Normally, handle FS w/ FSP, not w/ MP
- Do not use MP to target housing prices
- FIT with mean squared gaps (MSGs) – another step towards increased transparency

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The financial crisis was not caused by monetary policy

Main causes of the crisis:

- *Macro conditions*: Global imbalances, global saving glut and investment shortage, low world interest rates, underestimation of risks, very low risk premia
- *Distorted incentives to excessiv leverage and lack of due diligens*: lax regulation and supervision, securitization, myopic and asymmetric remuneration contracts, US housing policy
- *Information problems:* Hidden risk in complex securities, underestimation of correlated systemic risks
- These causes had little or nothing to do with monetary policy!

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The financial crisis was not caused by monetary policy

- Loose Fed policy after 2001 justified by fear of Japanese-style deflation and liquidity trap
- Modest effects of policy rates on house prices and credit growth; substantially higher interest rates needed to stop house prices: recession, deflation and eventually liquidity trap?
- No impact on problems of distorted incentives, lax reg and sup, information, etc.

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Lessons for monetary policy?

- Price stability not enough to achieve financial stability
- Interest rate not enough to achieve financial stability: Separate financial-stability policy needed
- Let financial conditions and asset prices remain indicators, not targets, of monetary policy: Incorporate effects in forecasts of inflation and resource utilization at any horizon

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Relation monetary policy (MP) and financial-stability policy (FSP)?

- Distinguish economic policies according to
  - Objectives
  - Instruments
  - Authority(ies) controlling instruments and responsible for achieving objectives
- MP and FSP distinct and different – but interaction
- MP and fiscal policy distinct and different – but interaction

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Monetary policy

- Objective
  - Flexible inflation targeting:
    Stabilise inflation around inflation target *and* resource utilization around normal level
- Instruments
  - Normal: Policy rate, policy-rate path, communication
  - Crisis: Fixed-rate lending at longer maturities, asset purchases (quantitative easing), …
- Authority
  - Central bank

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Financial-stability policy (FSP)

- Objective
  - Financial stability (financial system fullfils main functions w/o disturbances with significant social costs)
- Instruments:
  - Normal: Supervision, regulation, FS reports
  - Crisis: Lending of last resort, variable-rate lending longer maturities (credit easing), bank guarantees, bank resolution, capital injections, asset purchases (QE),…
- Authority(ies): FSA, CB, MoF, NDO,…(varies across countries). Good case for CB for macroprudential reg and sup

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MP and FSP different and distinct

- Interaction
  - FSP affects inflation and resource utilization via financial markets and transmission mechanisms (spreads, lending)
  - MP affects resource utilization, asset prices, balance sheets, leverage, credit losses
  - Cf. interaction between MP and fiscal policy
- Distinction and difference to be taken into account

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MP and FSP different and distinct

- Conduct MP taking FSP into account
- Conduct FSP taking MP into account
- (As with MP and fiscal policy)
- FS as objective for *MP* makes little sense
- FS as objective for *CB* makes sense, *if* appropriate FSP instruments

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Lessons for monetary policy?

- Flexible inflation targeting, "forecast targeting": Set policy rate path so forecast of inflation and RU best stabilizes inflation and RU, using *all* relevant info, *including* financial conditions
- In crisis times, financial conditions may matter a lot for monetary policy (more research!)
- In normal times, financial conditions matter little or not at all

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Lessons for monetary policy?

- In 2nd best situation w/ imperfect financial-stability policy, *if* policy-rate path affects financial stability, take into account (probably very rare event)
- Normally policy-rate negligible impact on financial stability and strong impact on inflation and RU (unfavorable tradeoff!)

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The "risk taking" channel

- Leverage and/or risk depends on MP?
- Threat to financial stability?
- Empirical evidence?
- Relevant for financial sector dominated by commercial banks?
- Relevant after reasonable regulation?
- Search for yields? A distortion
- Still too much risk, too low interest rates?

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The "risk taking" channel

- If leverage and risk increases with lower policy rates, regulate so always below threshold for threat to financial stability

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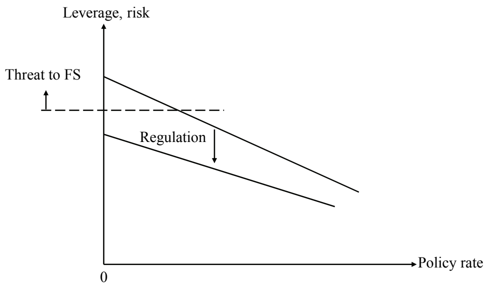
Leverage and threat to financial stability



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Leaning against the wind?

- Leaning against the wind? *If* it improves stability of inflation and RU at any horizon (long!) – but rarely enough info
- Kohn 3 conditions: (1) Identification in time, (2) Impact on bubble, (3) Better performance over time
- Swedish example: Debate about real-estate prices and financial imbalances
- House prices or financial imbalances should not be concern for MP – if any problem, FSA has much better instruments (LTV restriction, etc.) (and a consumer-protection mandate)

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Housing prices in Sweden no problem for monetary policy or financial stability

- Mortgages in Sweden no problem for financial stability (full recourse)
- No bubble: Prices consistent with high demand and moderate supply
- No buy-to let, only buy-to-live
- Balance sheet more relevant than just debt: Households have strong balance sheets (graph)

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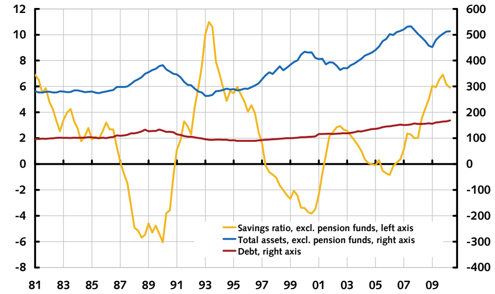
Households' assets, debt and saving

Percent of disposable income



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Housing prices in Sweden no problem for monetary policy or financial stability

- Even households w/ new mortgages are not vulnerable (FSA report, February)
- High savings ratio: No consumption boom financed by equation withdrawals
- Housing wealth is not (really) wealth (King, Buiter)

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Housing prices in Sweden no problem for monetary policy or financial stability

- Any fall in consumption from housing-price fall trivial for monetary policy: Aggregate-demand shock
- July minutes discussion
- Bubble indicator: Dependence on continued price rise
- If there would be a problem, there are much better instruments than the policy rate (policy rate is blunt and ineffective)

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Practical flexible inflation targeting

- Choose policy-rate path so as to stabilize *both* inflation around the inflation target and resource utilization (RU) around a normal level
- Intertemporal forecast loss function (δ=1) with output gap

$$L_t = \sum_{\tau=0}^{\infty} (\pi_{t+\tau,t} - \pi^*)^2 + \lambda \sum_{\tau=0}^{\infty} (y_{t+\tau,t} - \bar{y}_{t+\tau,t})^2$$

or with unemployment gap

$$L_t = \sum_{\tau=0}^{\infty} (\pi_{t+\tau,t} - \pi^*)^2 + \lambda_u \sum_{\tau=0}^{\infty} (u_{t+\tau,t} - \bar{u}_{t+\tau,t})^2$$

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Implementation: Mean squared gaps

- Measure stability of inflation around target and resource utilization around normal level

$$\frac{1}{T+1}\sum_{\tau}^{T} (\pi_{t+\tau,t} - \pi^*)^2, \quad \frac{1}{T+1}\sum_{\tau}^{T} (y_{t+\tau,t} - \bar{y}_{t+\tau,t})^2, \quad \frac{1}{T+1}\sum_{\tau}^{T} (u_{t+\tau,t} - \bar{u}_{t+\tau,t})^2$$

- Verify whether policy is
  - Efficient
  - Reasonable compromise
  - Consistent over time

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Implementation: Mean squared gaps

- Qvigstad criterion:
  Necessary condition for optimal policy:
  Inflation- and RU-gap should have the opposite sign
- Sufficient condition for optimal policy:
  Any other policy-rate path should imply a worse outcome (calculus of variation)

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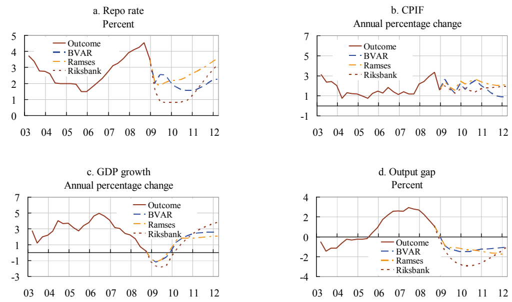
Always use good judgment

Riksbank, February 2009



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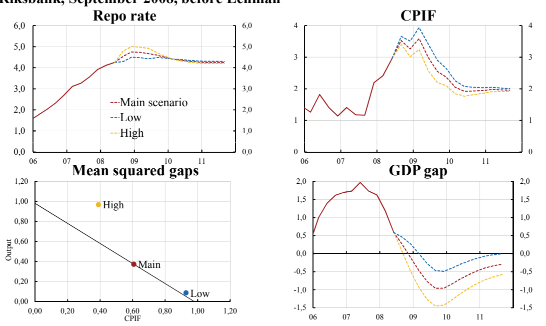
Monetary policy alternatives,

Riksbank, September 2008, before Lehman



Sources: Statistics Sweden and the Riksbank

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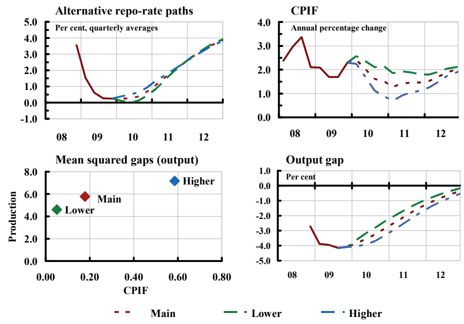
Riksbank, February 2010



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Implementation: Mean squared gaps

- Unemployment gap more robust than output gap?
  - Unemployment measured frequently, high precision, no revisions
  - Transparent estimation and debate about equilibrium unemployment within and outside the central bank
  - Equilibrium unemployment less easy to manipulate?
  - Bernanke: “Longer-run sustainable rate of unemployment”
- What about discretion vs. commitment?

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