Monetary policy and financial stability

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Questions

- Did monetary policy contribute to the financial crisis?
- Does monetary policy need to be reformed?
- Should monetary policy "lean against the wind"?
- Should tight monetary policy be used to restrict household debt and/or housing prices?
- What are sustainable levels of household debt?
- What are effective instruments to affect household debt?
- Are borrowers (households and firms) and lenders (banks) sufficiently resilient to disturbances?
- What are effective instruments to affect the resilience to disturbances of borrowers and lenders?

Central banking and economic policies

- Central banking: Three core functions
  - Monetary policy
  - Financial-stability policy (financial policy: micro- and macro-prudential policy)
  - Asset management
- Here: Focus on monetary policy and financial-stability policy

Economic policies

- Economic policies: Objectives, instruments, responsible authorities
  - Monetary policy: Objectives, instruments, central bank
  - Financial-stability policy: Objectives? (What is financial stability?), Instruments? (Which are most suitable?), Responsible authorities (One or several? Central bank?)
  - (Fiscal policy)

Monetary policy

- Objectives
  - Riksbank Act: “The objective of the Riksbank’s activities shall be to maintain price stability. The Riksbank shall also promote a safe and efficient payments system.”
  - Government Bill: “As an authority under the Riksdag, the Riksbank shall also, without prejudice to the price-stability target, support the goals of the general economy policy with the purpose of achieving sustainable growth and high employment.”

Monetary policy

- Objective
  - Price stability (and real stability)
  - Stabilize inflation around inflation target and resource utilization around long-run sustainable rate
- Instruments
  - Normal: Policy rate, policy-rate path, communication
  - Crisis: Fixed-rate lending at longer maturities, asset purchases (quantitative easing), …
- Authority
  - Central bank

Financial-stability policy

- Objective
  - Financial stability: The financial system can maintain its basic functions (to submit payments, transform saving into financing, and allow risk sharing and risk management) and has sufficient resilience to disturbances that threaten these functions
- Instruments:
  - Normal: Supervision, regulation, reports
  - Crisis: Lending of last resort, variable-rate lending longer maturities (credit easing), guarantees, capital injections, asset purchases, bank resolution, …

Financial-stability policy

- Authorities
  - In Sweden, responsibility is shared
    - Normal times (crisis prevention): FSA, MoF, (Riksbank)
    - Crisis times (crisis management): FSA, Riksbank, SNDO, MoF
  - Varies across countries

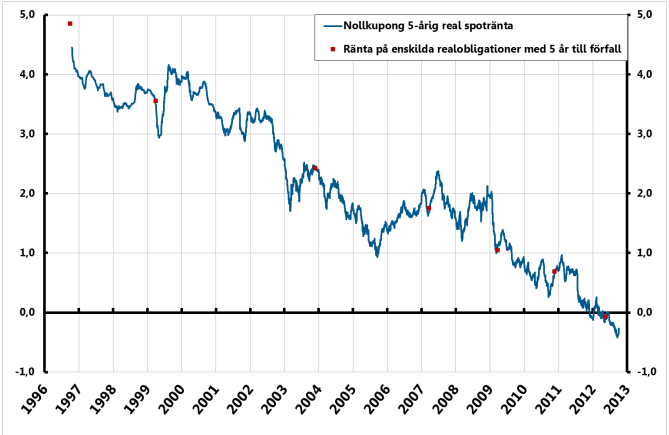
Monetary policy and financial-stability policy

- Different policies: Objectives, instruments, authorities
- Do they need to be coordinated?
- Financial-stability policy failed
- Did monetary policy fail?

What caused the financial crisis?

- Macro conditions: Global imbalances, falling long and short real interest rates, Great Moderation, underestimation of risk, credit expansion (Bean 2009, EEA Schumpeter Lecture)

Swedish 5-year zero-coupon real rate and single 5-year real bonds



Källor: Riksbanken och Riksgäldskontoret

What caused the financial crisis?

- Macro conditions: Global imbalances, falling long and short real interest rates, Great Moderation, underestimation of risk, credit expansion (Bean 2009, EEA Schumpeter Lecture)
- Distorted incentives: Extreme leverage levels and risk-taking, lack of due diligence, securitization of mortgages, fraud
- Regulatory and supervisory failures: Underestimation or disregard of the fragility of the financial sector
- Information problems: Complex asset-backed securities, huge hidden balance-sheet liabilities
- Specific circumstances: US housing policy, subprime lending
- Little or nothing to do with monetary policy

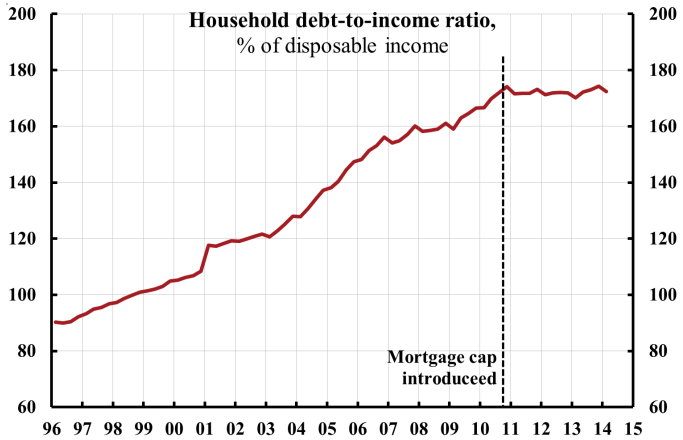
Lessons from the financial crisis?

- Price stability not enough for financial stability
- Interest-rate policy not enough for financial stability (monetary policy cannot prevent financial crises)
- It was financial-stability policy that failed, not monetary policy
- A new reformed financial-stability policy is needed
- Flexible inflation targeting worked fine before, during, and after the crisis (when not used to restrict household debt – lean against the wind)

Is household debt and housing prices a problem? Are they at sustainable levels?

- Household debt is high relative to disposable income
- But debt ratio has been stable since LTV cap of 85 % in Oct 2010

Household debt-to-income ratio
(% of disposable income)



Is household debt and housing prices a problem? Are they at sustainable levels?

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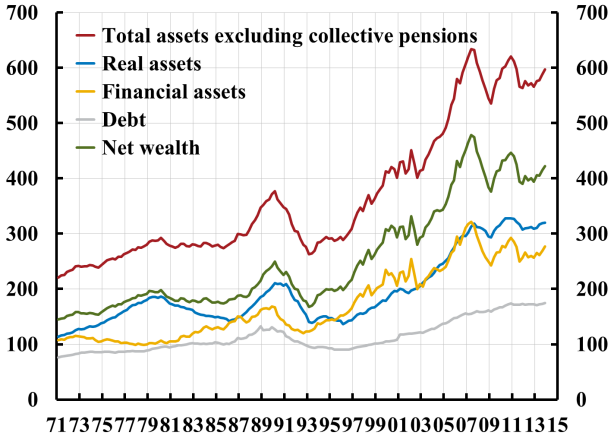
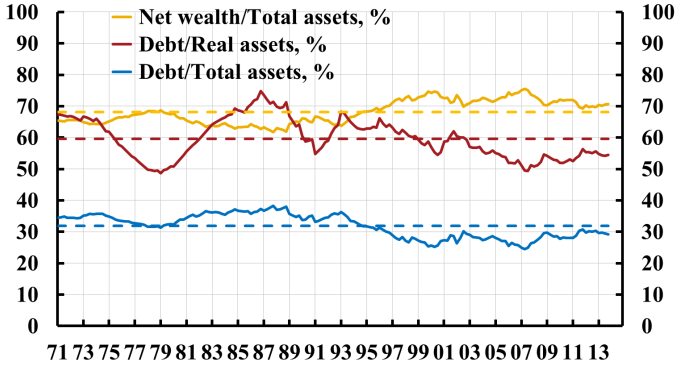
- But debt ratio is stable since LTV cap of 85 % in Oct 2010
- And debt is normal relative to assets

Household debt and assets (excluding collective pensions), % of disposable income



Swedish households' net wealth and debt relative to assets



Is household debt and housing prices a problem? Are they at sustainable levels?

- Household debt is high relative to disposable income
- But debt ratio is stable since LTV cap of 85 % in Oct 2010
- And debt is normal relative to assets
- Housing expenditure is not high (15-20% of disposable income)
- Average LTV for new mortgages has stabilized around 70 %
- Housing prices have not increased faster than disposable income since 2007
- Housing prices are in line with fundamentals (disposable income, mortgage rates, tax reductions, rapid urbanization, little construction…)

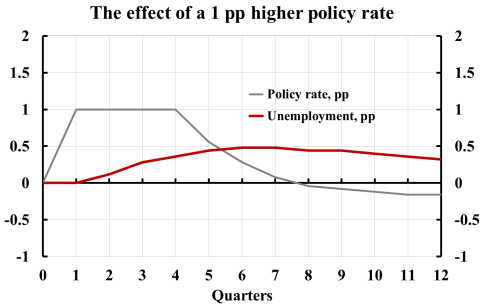
Is household debt and housing prices a problem? Are they at sustainable levels?

- And, the FSA has:
  - introduced an LTV cap of 85 %
  - introduced higher risk weights on mortgages (25 %)
  - introduced higher capital requirements (16 % CET1)
  - proposed individual amortization plans for borrowers
  - produces an annual mortgage market report, according to which
    - lending standards are high
    - households' repayment capacity is good
    - households' resilience to disturbances in the form of mortgage rate increases, housing price falls, and income falls due to unemployment is good
- Macroprudential tools and policy are arguably effective and good in Sweden

Riksbank's case for leaning against the wind

- Higher debt could imply (1) a *higher probability* of a future crisis and/or (2) a *deeper* crisis if it occurs
- Hence, a tradeoff between (1) tighter policy now with lower debt but worse macro outcome now and (2) worse expected macro outcome in the future
- Worse macro outcome now is an insurance premium worth paying
- Is that true?
- The answer can be found from the numbers in the Riksbank's own boxes in MPRs of July 2013 and February 2014, plus Schularick and Taylor (2012) and Flodén (2014)

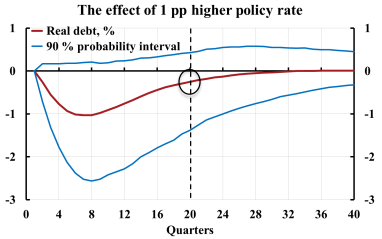
Cost of 1 pp higher policy rate: 0.5 pp higher unemployment rate in next few years



Source: Riksbank MPR July 2013, chapt. 2; Svensson, post on larseosvensson.se, March 31, 2014.

Benefit (1) of 1 pp higher policy rate: Lower probability of a crisis

- Schularick and Taylor (2012): 5 % lower real debt in 5 yrs implies 0.4 pp lower probability of crisis (average probability of crises about 4 %)
- Riksbank MPR Feb 2014, box:

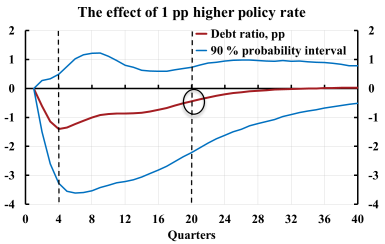


- 1 pp higher policy rate leads to 0.25 % lower real debt in 5 years
- Lowers probability of crises by 0.25*0.4/5 = 0.02 pp
- Assume 5 pp higher unemployment in crisis (Riksbank crisis scenario, MPR July 2013, box):
- **Benefit**: Expected lower future unemployment: 0,0002*5 = **0.001 pp**
- Compare to **cost**: Higher unemployment rate now: **0.5 pp**

Source: Svensson, post on larseosvensson.se, March 31, 2014.

Benefit (2) of 1 pp higher policy rate: Smaller increase in unemployment if crisis

- Flodén (2014): 1 pp lower debt ratio may imply 0.02 pp smaller increase in unemployment rate in crisis
- Riksbank MPR Feb 2014, box:



- 1 pp higher policy rate leads to 0.44 pp lower debt ratio in 5 yrs
- Smaller increase in unemployment in crisis: 0.44*0.02 = 0.009 pp
- With probability of crisis as high as 10 %, divide by 10 (Shularick & Taylor: 4 %)
- **Benefit**: Expected lower future unemployment: **0.0009 pp**
- Compare to **cost**: Higher unemployment now: **0.5 pp**

Source: Svensson, post on larseosvensson.se, March 31, 2014.

Summarize cost and benefit of 1 pp higher policy rate

Table 1. Cost and benefit in unemployment of 1 percentage point higher policy rate during 4 quarters

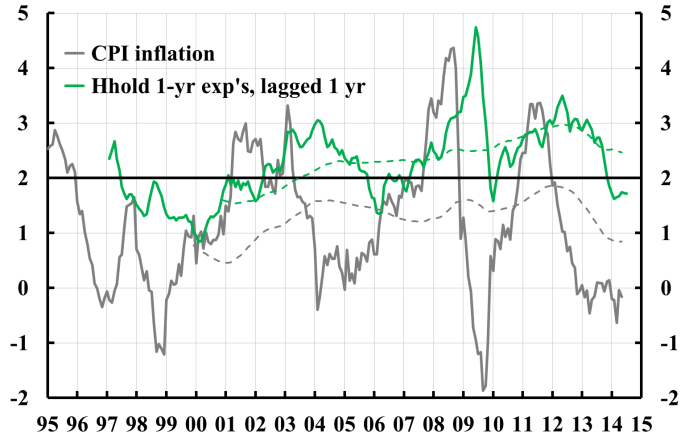
Cost: Higher unemployment during the next few years, percentage points	0.5
Benefit: Lower expected future unemployment, percentage points	
1. Because of lower probability of a crisis	0.001
2. Because of a smaller increase in unemployment in a crisis	0.0009
Total benefit, percentage points	0.0019
Total benefit as a share of the cost Should have been > 1!	0.0038

- Riksbank case does not stand up to scrutiny

More costs: Inherent flaw in leaning against the wind: Inflation below credible target causes negative real effects

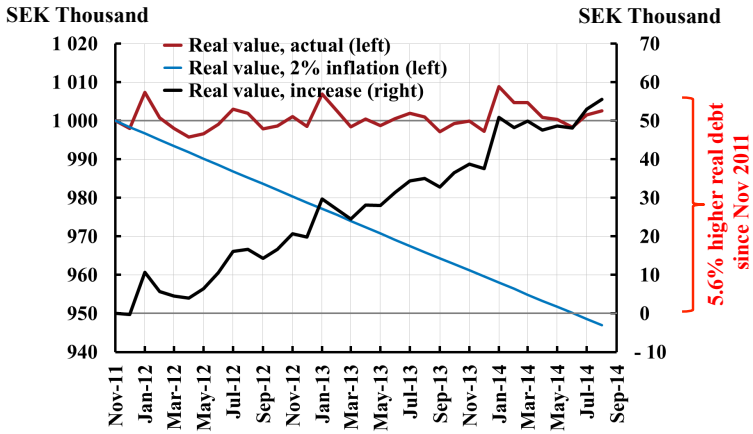
- Leaning: Lower inflation than target
- Inflation expectations anchored at target
- Lower average inflation than expected causes real effects
- Higher unemployment
- Higher *real* debt for households (additional cost of leaning against the wind)
- Fisherian "debt deflation": Inflation *less than expected*, rather than deflation per se

CPI inflation and household inflation expectations



Note: Dashed lines are 5-year trailing moving averages

The real value of an SEK 1 million loan taken out in Nov 2011, actual and for 2 percent inflation



What are effective instruments to affect borrowers' and lenders' resilience

- Resilience: Buffers, correct info, stress tests
- Borrowers: Credit reviews, information, LTV caps (LTI caps), payment capacity measures, stress tests,
- Lenders: Capital requirements: capital/unweighted assets, capital/riskweighted assets, cyclical buffer, systemic buffers,
  LCR, NSFR

Conclusions for monetary policy

- Do not treat housing prices and household debt as additional target variables
- Focus on stabilizing inflation around target and unemployment around long-run sustainable level
- Monetary policy should normally be the last line of defense of financial stability, not first line (except in special circumstances w/ very deficient financial-stability policy)
- Else poorer outcome for inflation and unemployment, less transparency, more difficult to hold central bank accountable