Financial-stability policy: The Swedish experience

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The views expressed in this presentation are those of the author and do not necessarily represent those of the IMF or IMF policy.

Outline

- The institutional design of financial-stability policy in Sweden
- Actual financial-stability policy
- The Riksbank's leaning against the wind

Institutional design of financial-stability policy

- In August 2013, the Swedish government announced new strengthened framework for financial stability in Sweden
- Clarified the roles and responsibilities of the relevant authorities
- Created a Financial Stability Council

The role of the Swedish FSA, *Finansinspektionen*

- Has main responsibility for micro- and macroprudential policy
- Controls all micro- and macroprudential instruments (including the counter-cyclical capital buffer)
- Efficiency and accountability are the reasons for the main responsibility and all instruments in one authority
- Since some political (distributional) consequences (for instance, LTV ratios), financial-stability policy ultimately the government's responsibility (the FSA is an authority under the government).

A new Financial Stability Council

- Chair: Minister of Financial Markets
- Members: Director General of the FSA, Director General of the National Debt Office (Bank Resolution Authority), Governor of the Riksbank
- Forum for discussions between Gov't, FSA, NDO, and Riksbank about financial stability and any need for actions
- Normally 2 meetings per year; published minutes after 2 weeks. Office and working group
- No decisions in FSC: Each authority decides within its area of responsibility
- In crises, FSC leads crisis management

FSA actions

- Micro- and macroprudential regulation and supervision
- Semi-annual Financial Stability Report
- Annual Mortgage Market Report
  - Individual data on new mortgages: Monitors and reports lending standards, debt-service capacity, borrowers' resilience to disturbances (increased mortgage rates, housing price falls, income losses due to unemployment) Link to slide 38
- Introduced 85% LTV ratio in Oct 2010 (LTV stable afterwards)
- Recommended individually adjusted amortization plans
- Increased risk weights on mortgages to 25%
- Introduced 16% CET1 capital requirement for systemically important banks (Note IMF team preliminary results: 15% capital would have avoided 80% of banking crises in advanced economies since 1970)

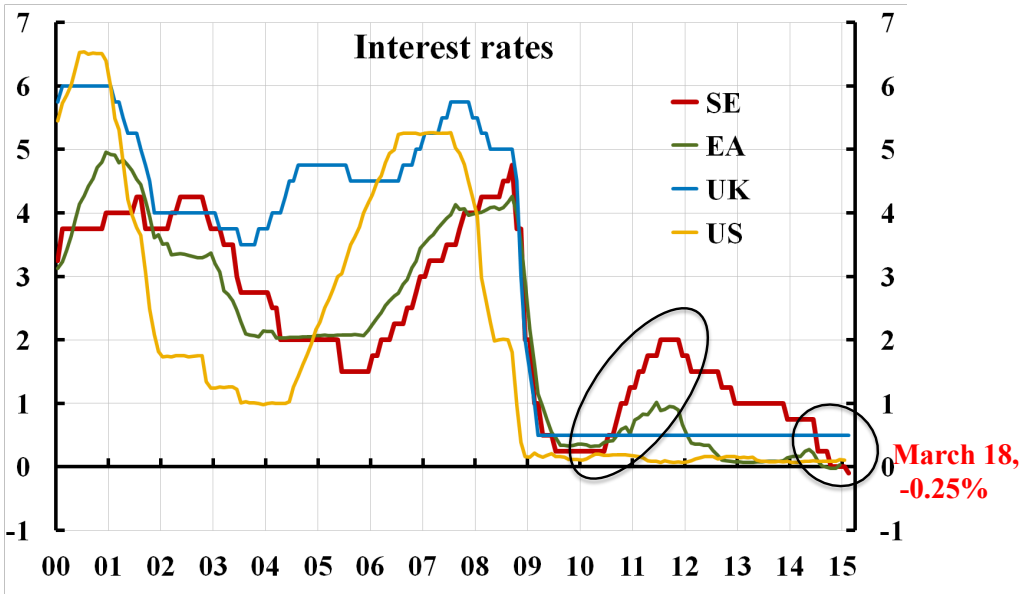
The Riksbank

- No change in objectives: Price stability (2% CPI inflation target). Support general economic policy with the aim to achieve sustainable growth and high employment. Promote safe and efficient payment system.
- No micro- or macroprudential tools (lending of last resort during crises)
- Financial-stability department
- Semi-annual Financial Stability Report
- Active in Financial Stability Council
- Active in public debate
- Controversial aggressive leaning against the wind 2010-2012

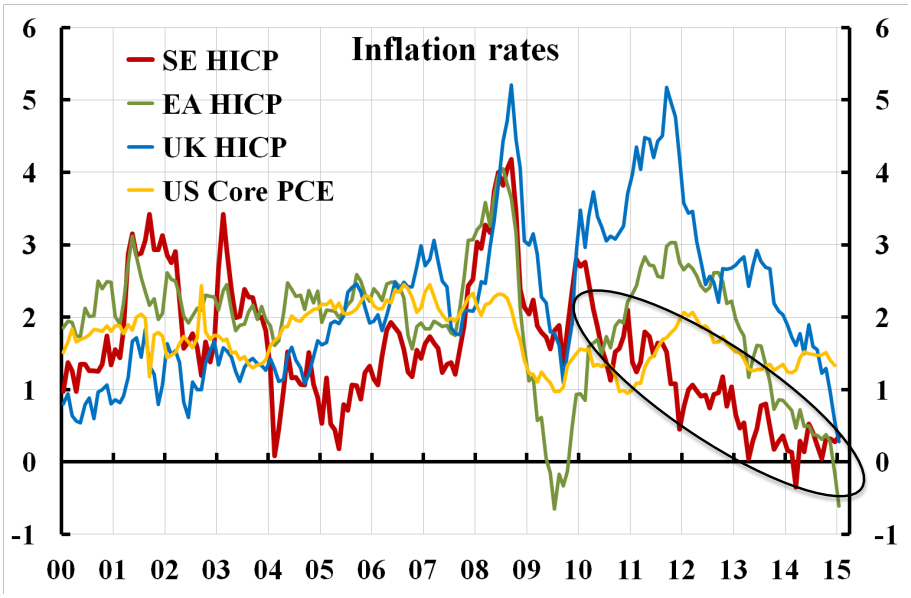
The Riksbank's leaning against the wind

- Quite aggressive leaning since summer 2010, because of concerns about household debt
- Outcome April 2015: Zero/ negative inflation, very high unemployment (8%), most likely higher real debt, policy rate -0.25%
- Cost of leaning: Worse macro outcome next few years (higher unemployment, lower inflation)
- Benefit: Better expected future macro outcome (less debt growth, lower probability a future crisis, less severe crisis)
- No cost-benefit analysis done before policy
- Assumption (gut feeling) that benefits are larger than costs

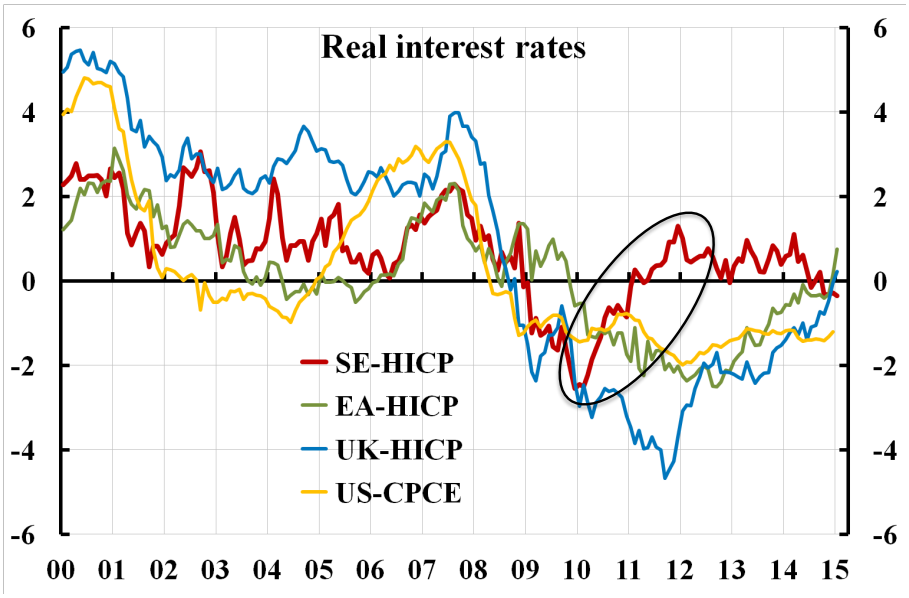
Policy rates in Sweden, UK, and US; Eonia rate in euro area



Inflation in Sweden, euro area, UK, and US



Real policy rate in Sweden, UK, and US, real Eonia rate in euro area



Cost-benefit analysis 1

- Riksbank estimates MPR Feb 2014, Schularick-Taylor 2012, Flodén 2014
- Consider cost and benefit in terms of unemployment of 1 pp higher policy rate for 4 quarters
- Cost: 0.5 pp higher unemployment next few years

Cost-benefit analysis 2

- Benefit 1: Lower probability of crisis
  - 0.25% lower real debt in 5 years (RB)
  - 0.02 pp lower probability of a crisis (ST), 5 pp higher unemployment in crisis (RB)
  - 0.001 pp lower expected future unemployment
- Benefit 2: Lower increase in unemployment in crisis
  - 0.44 pp lower DTI in 5 years (RB)
  - 0.009 pp lower increase in unemployment in crisis (Flodén)
  - Assume high probability 10% of crisis (ST 4%)
  - 0.0009 pp lower expected future unemployment
- Total benefit: 0.0019 pp lower expected future unemployment

Cost-benefit analysis 3

- Benefit: 0.0019 pp lower expected future unemployment
- Cost: 0.5 pp higher unemployment next few years
- Benefit/Cost ≈ 0.4%
- Cost/Benefit ≈ 250

- Additional cost: Inflation below households' expectations increases real debt burden
- The real value of a given nominal debt taken out in Nov 2011 is now more than 6 percent lower than if inflation had been 2%

Conclusions 1

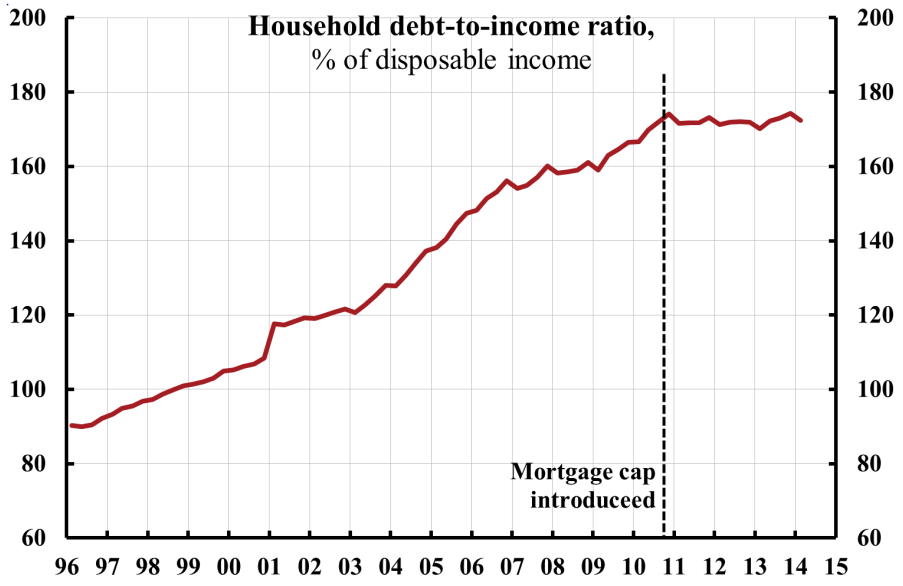
- Swedish institutional design of financial-stability policy may work well
- Other designs may also work well
- Important to consider efficiency and accountability
- Avoid splitting responsibility and instruments across authorities

Conclusions 2

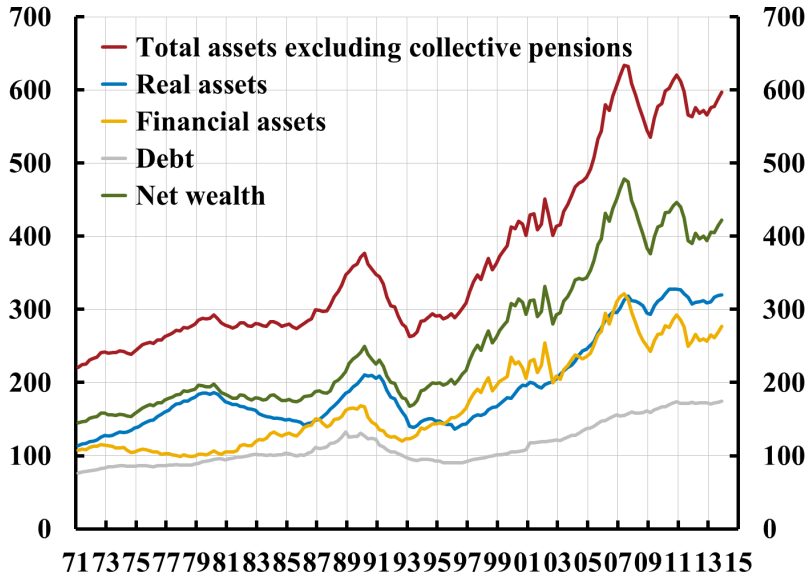
- Do not use monetary policy for financial-stability purposes without cost-benefit analysis
- Micro- and macroprudential policy should in most circumstances be much more effective in reducing probability and severity of financial crises
- In practice, most likely no choice but to use micro- and macroprudential policy for financial stability
- Important caveat: Economies and their financial sectors are very different. Must be analyzed individually. Never directly apply conclusions from one economy to other economies

Extra slides

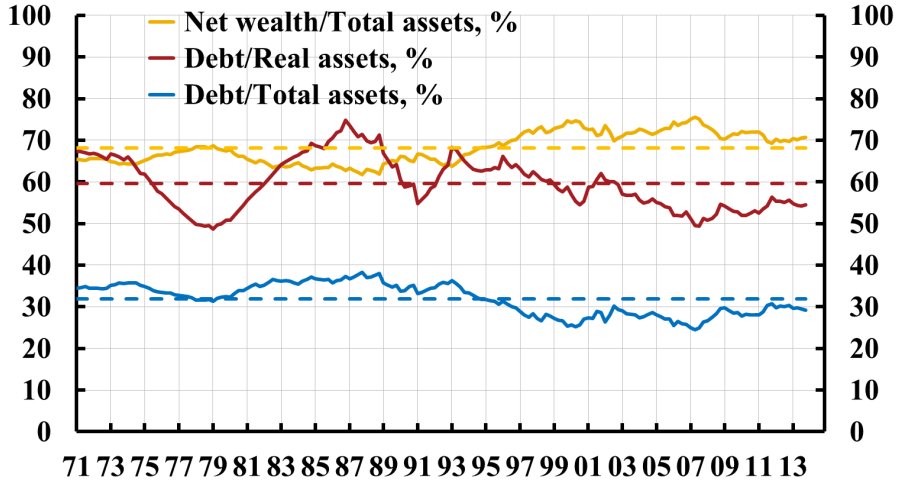
Household debt-to-income ratio
(% of disposable income)

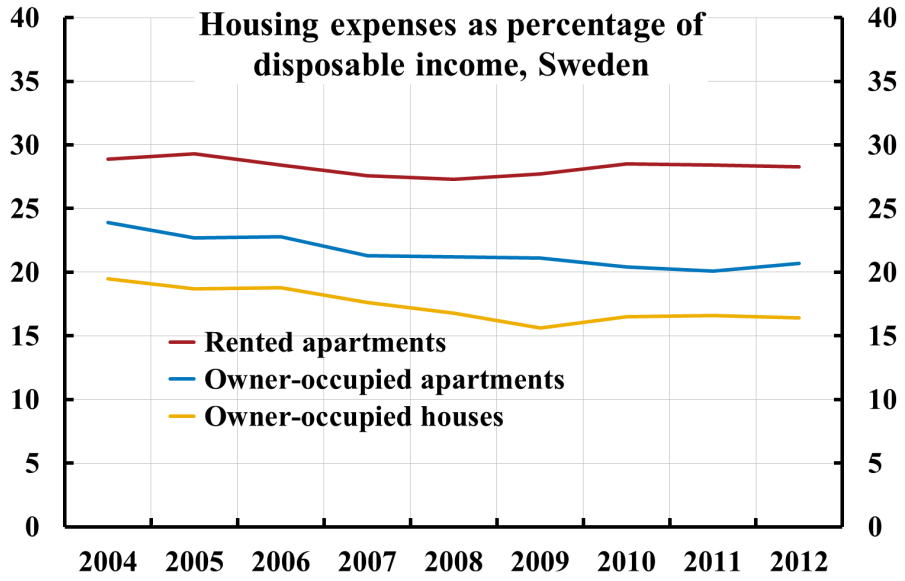


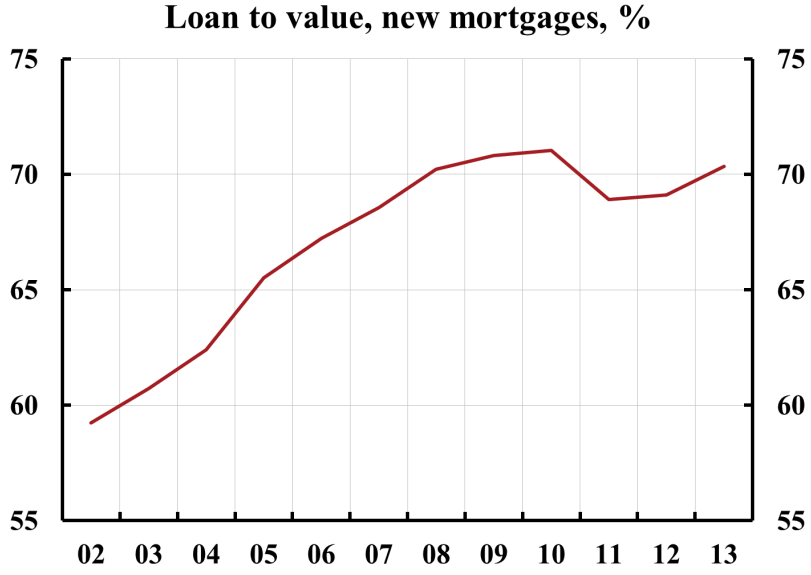
Household debt and assets (excluding collective pensions), % of disposable income



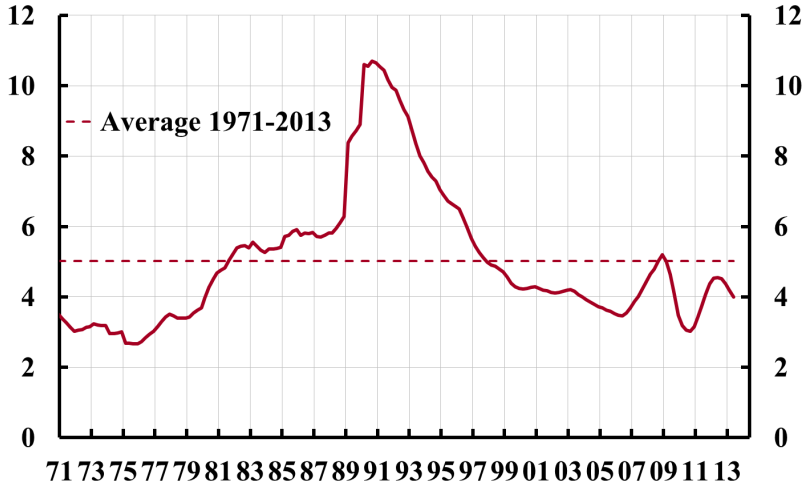
Swedish households' net wealth and debt relative to assets



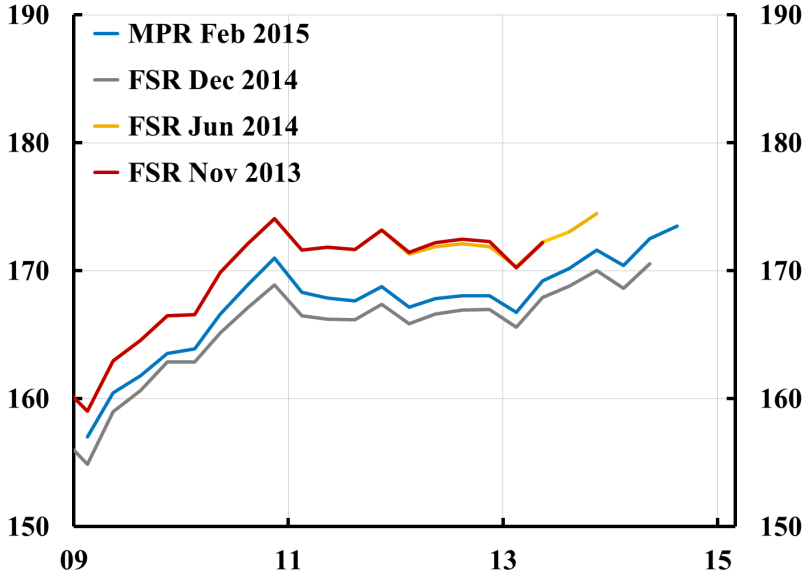

Housing expenses as percentage of disposable income, Sweden
40
35
30
25
20
15
10
5
0
Rented apartments
Owner-occupied apartments
Owner-occupied houses
2004
2005
2006
2007
2008
2009
2010
2011
2012

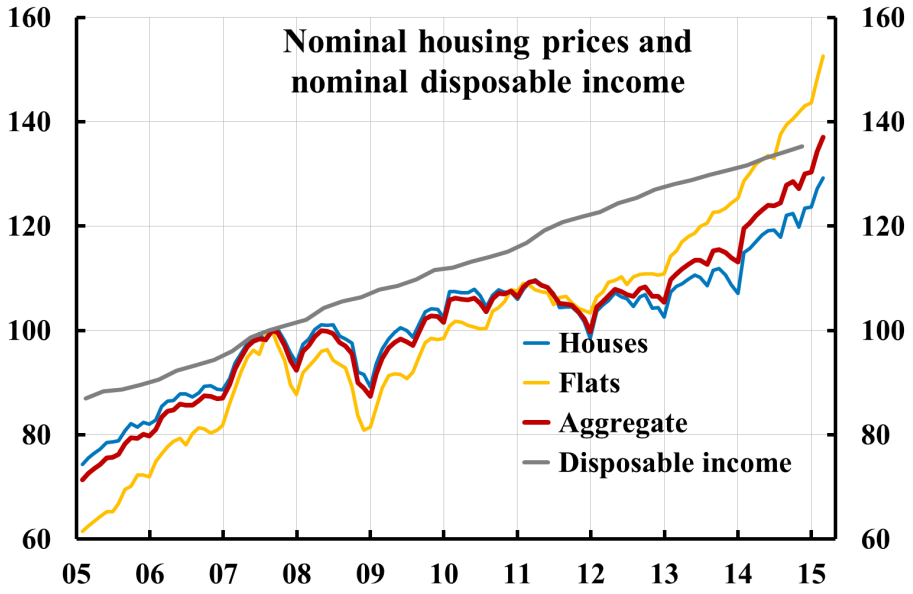

Loan to value, new mortgages, %
75
70
65
60
55
02
03
04
05
06
07
08
09
10
11
12
13

Swedish households' interest expenditure,
% of disposable income

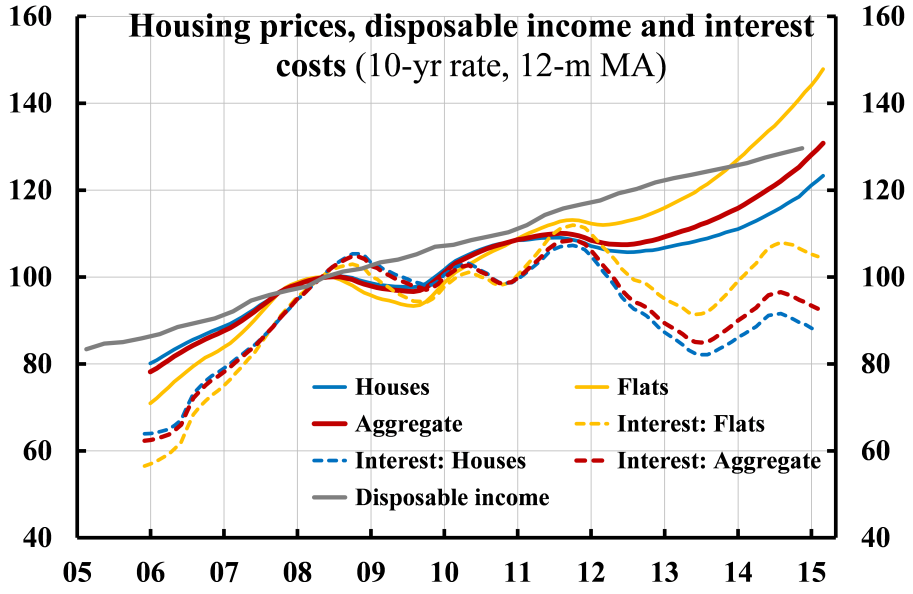


Household debt ratio, data revisions



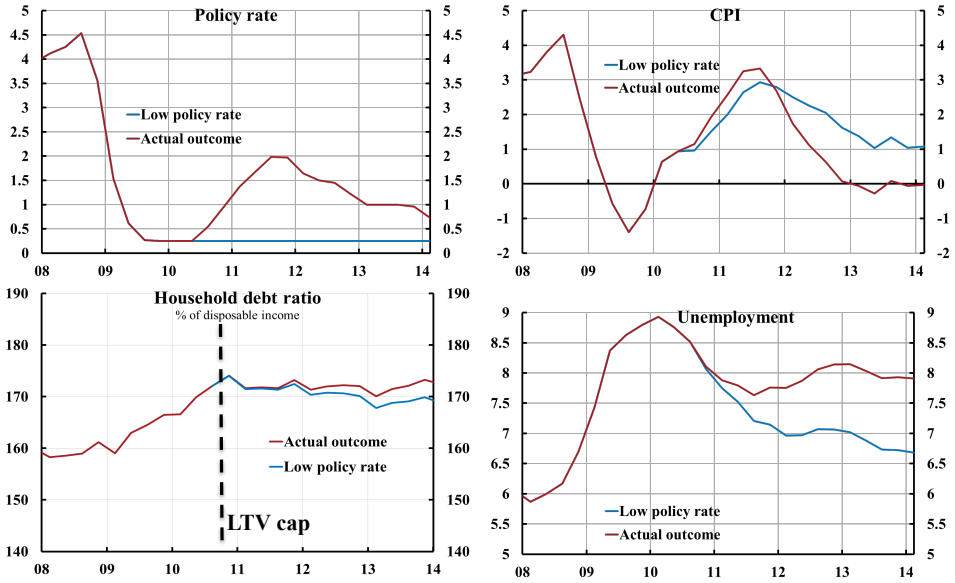

Nominal housing prices and nominal disposable income
160
140
120
100
80
60
05
06
07
08
09
10
11
12
13
14
15
Houses
Flats
Aggregate
Disposable income

25


Housing prices, disposable income and interest costs (10-yr rate, 12-m MA)
160
140
120
100
80
60
40
05
06
07
08
09
10
11
12
13
14
15
Houses
Flats
Aggregate
Interest: Flats
Interest: Houses
Interest: Aggregate
Disposable income

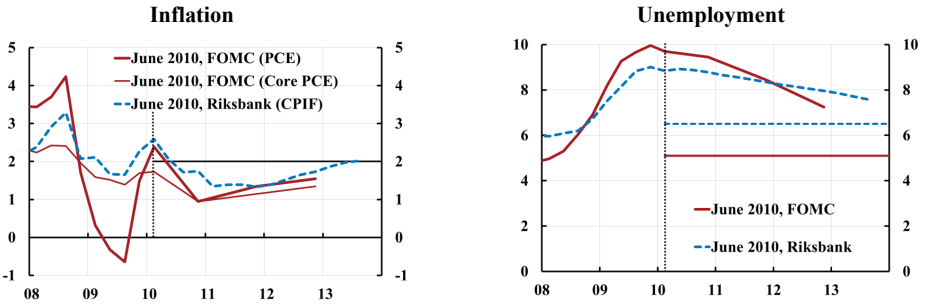
26

Ex post evaluation: Policy-rate increases from summer of 2010 have led to inflation below target and higher unemployment (and probably a higher debt ratio)



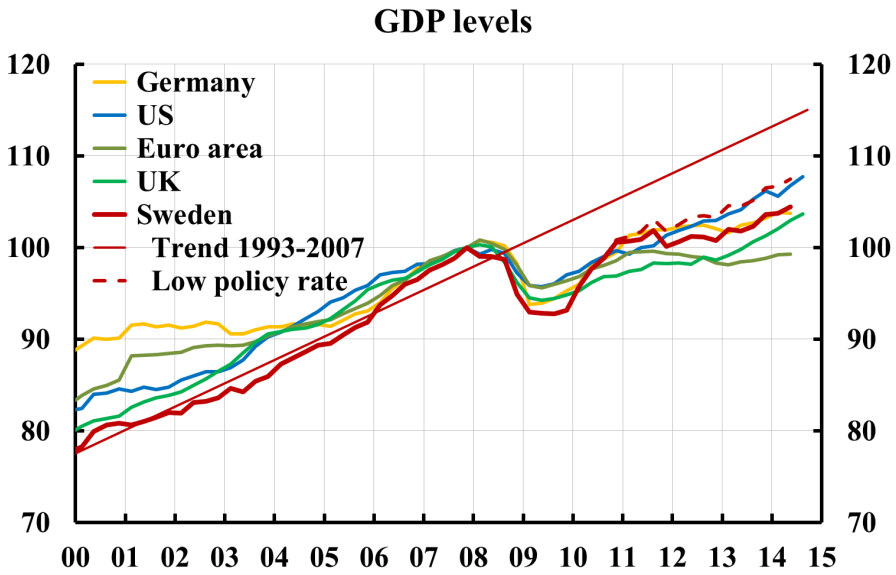
Source: Svensson (2013), "Unemployment and monetary policy – update for the year 2013," Svensson (2013), "Leaning against the wind increases (not reduces) the household debt-to-GDP ratio", posts on larseosvensson.se.

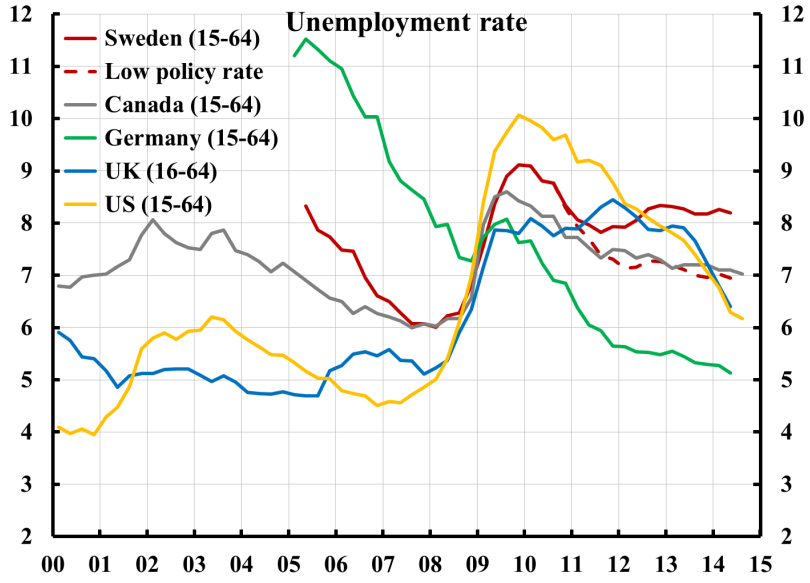
Ex ante evaluation: Compare Fed and Riksbank forecasts, June/July 2010



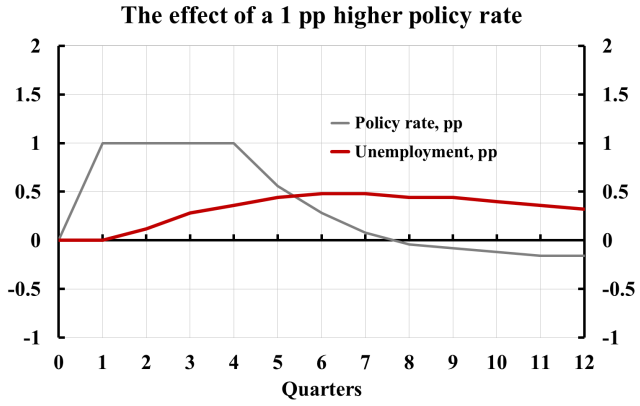
- Riksbank and Fed forecasts quite similar
- Policies very different
  - Fed: Keep policy rate between 0 and 0.25%, forward guidance, prepare QE2
  - Riksbank: Start raising the policy rate from 0.25 to 2% in July 2011
- Riksbank: Premature tightening, Sweden's 1937

Source: Svensson, Lars E.O. (2011), "Practical Monetary Policy: Examples from Sweden and the United," *Brookings Papers on Economic Activity*, Fall 2011, 289-332.


GDP levels
Germany
US
Euro area
UK
Sweden
Trend 1993-2007
Low policy rate
120
110
100
90
80
70
00 01 02 03 04 05 06 07 08 09 10 11 12 13 14 15


Unemployment rate
Sweden (15-64)
Low policy rate
Canada (15-64)
Germany (15-64)
UK (16-64)
US (15-64)
12
11
10
9
8
7
6
5
4
3
2
00 01 02 03 04 05 06 07 08 09 10 11 12 13 14 15

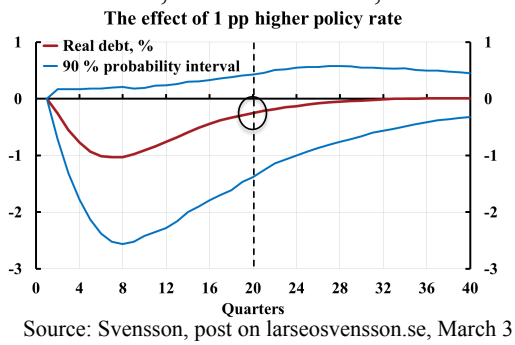
Cost of 1 pp higher policy rate: 0.5 pp higher unemployment rate



Source: 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 & 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:

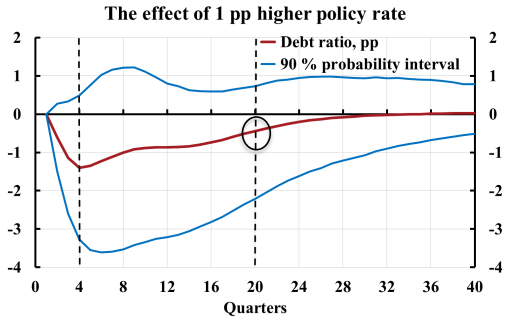


- 1 pp higher policy rate leads to 0.25% lower real debt in 5 years
- Lowers probability of crises by 0.25*0.4/5 = 0.02 pp
- Assume 5 pp higher unemployment in crisis (Riksbank crisis scenario, MPR July 2013, box):
- **Benefit (1)**: Expected lower future unemployment: 0.0002*5 = **0.001 pp**
- **Cost**: 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 (Schularick & Taylor: 4 %)
- **Benefit (2)**: Expected lower future unemployment: **0.0009 pp**
- **Cost**: Higher unemployment now: **0.5 pp**

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

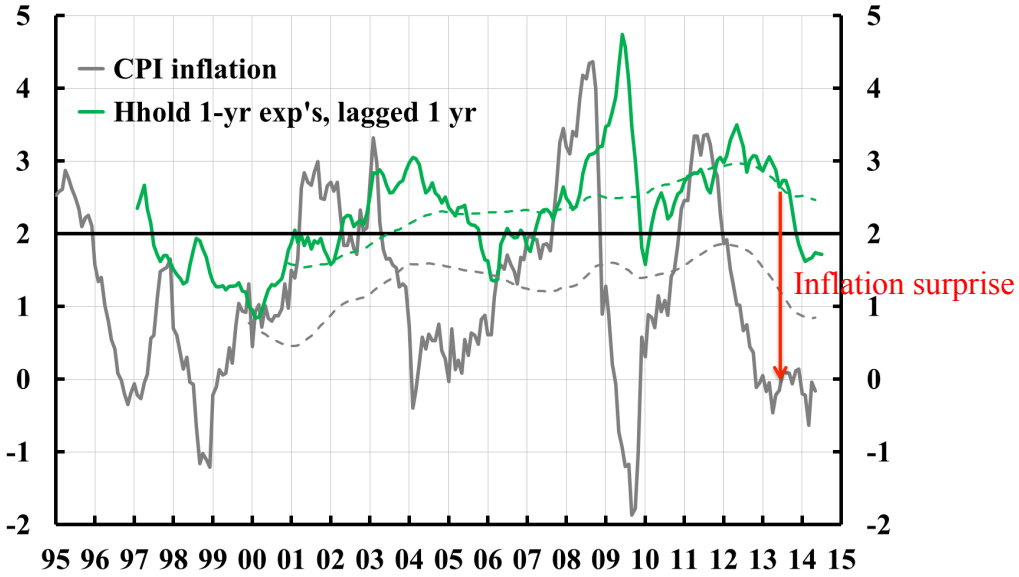
Summarize cost and benefit of 1 pp higher policy rate

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**

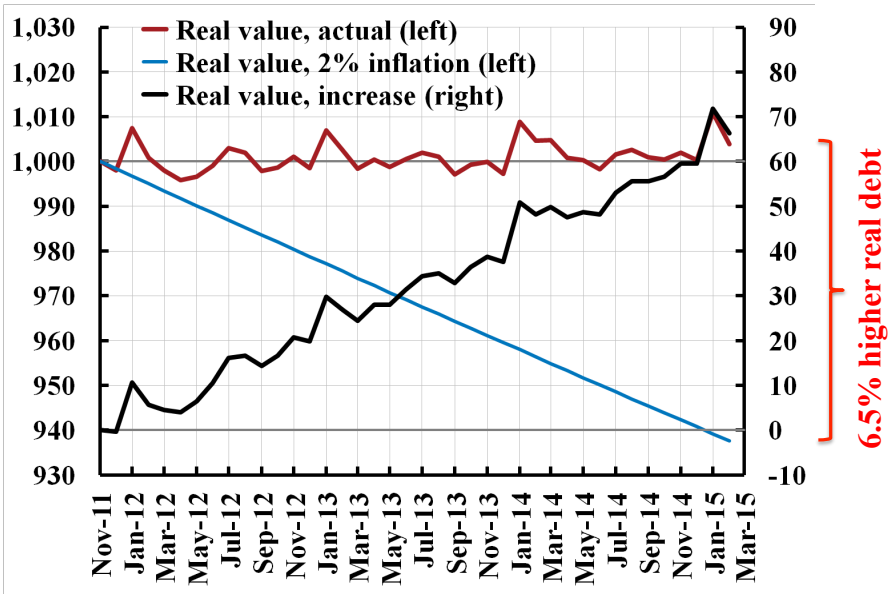
- Riksbank's case does not stand up to scrutiny

Inflation below household's expectations

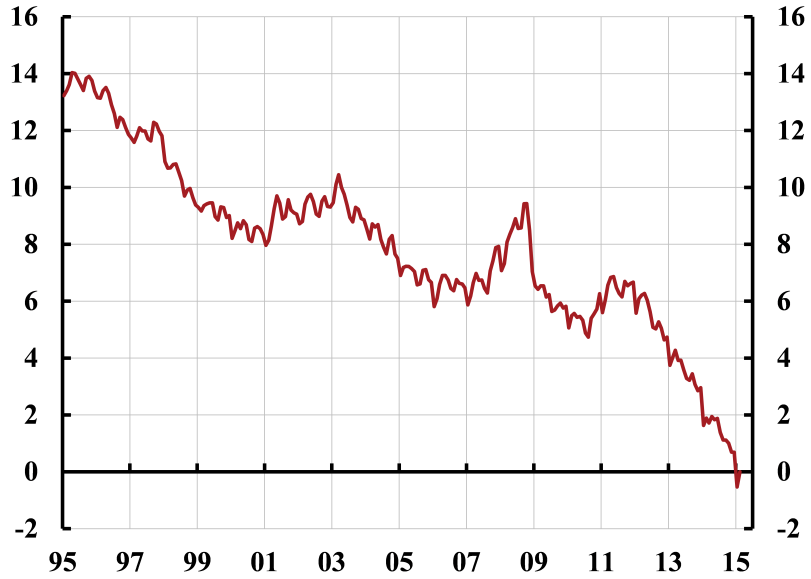


Note: Dashed lines are 5-year trailing moving averages

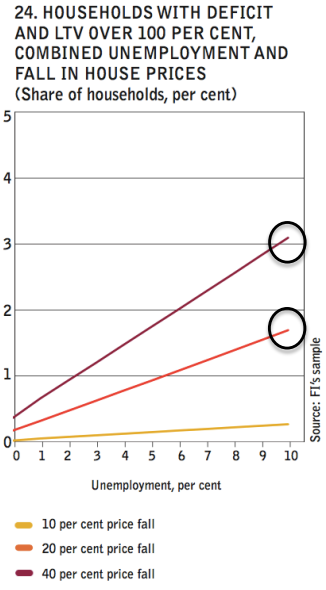
The real value of an SEK 1 million loan taken out in Nov 2011, actual and for 2 percent inflation



Percent increase to February 2015 in the real value of a given loan, compared to if inflation had been 2 percent
(depending on when the loan was taken out)



Example of a stress test in FSA's Mortgage Market Report 2015



- Assume: (1) 10 pp increase in the unemployment rate and (2) 20% housing price fall
- Q: What share of new borrowers do then have (1) a deficit in a LTLO analysis (may have to sell) and (2) an LTV ratio > 100% (must realize a loss)?
- A: Less than 2%
- Q: What if housing prices fall by 40%?
- A: About 3%
- New borrowers are *very* resilient
- Old borrowers are likely to be even more resilient

Back to slide 6