



# Monetary policy the last few years and household debt

Lars E.O. Svensson

Web: [larseosvensson.se](http://larseosvensson.se)

Blog: [Ekonomistas.se](http://Ekonomistas.se)

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Department of Economics, Stockholm School of Economics, P.O. Box 6501, SE-113 83 Stockholm, Sweden, [www.sse.edu](http://www.sse.edu)

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## Outline

- The mandate for monetary policy
- Monetary policy in the last few years
- What is the problem with household debt?
- The Riksbank's framework for monetary policy and household debt
- Are household mortgage rate expectations too low?
- Lowflation/deflation and debt:  
A higher real debt burden



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# The monetary policy mandate

- Sveriges Riksbank Act
  - "The objective for monetary policy shall be to **maintain price stability**"
- Government bill
  - "In addition, as an authority under the Riksdag, the Riksbank, without prejudice to the price stability target, is to support the goals of general economic policy with the aim to achieve sustainable growth and **high employment**".
  - High employment = highest sustainable rate of employment
- Price stability and the highest sustainable rate of employment
  - Highest sustainable rate of employment = the lowest sustainable rate of unemployment
  - Stabilize inflation around the inflation target and unemployment around a long-run sustainable rate



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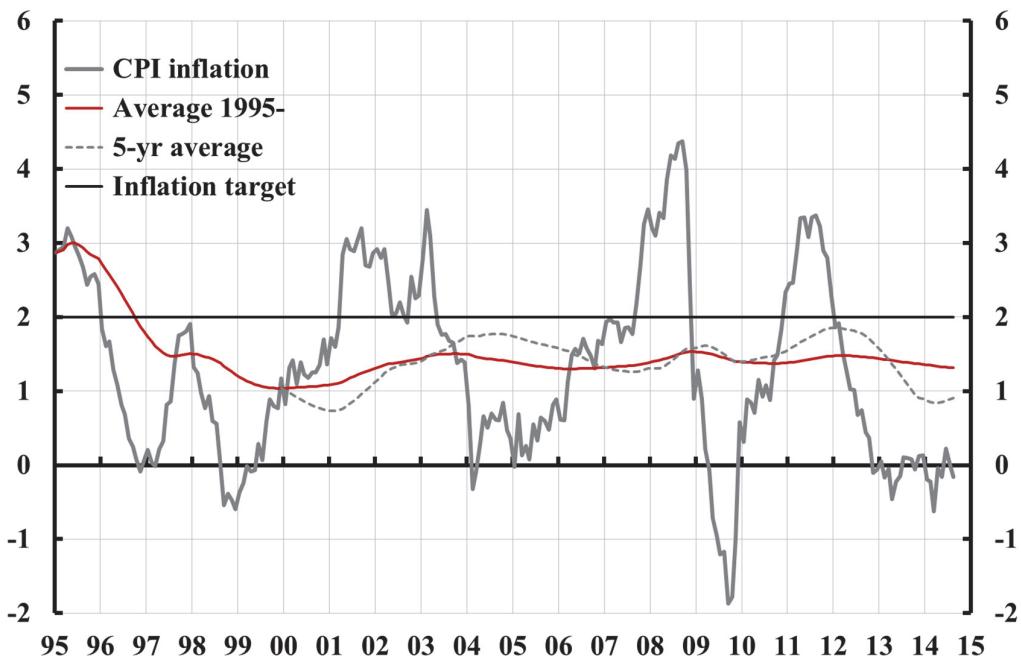
# The monetary policy outcome in recent years

- Inflation is well below the target
- Unemployment is well above a long-run sustainable rate



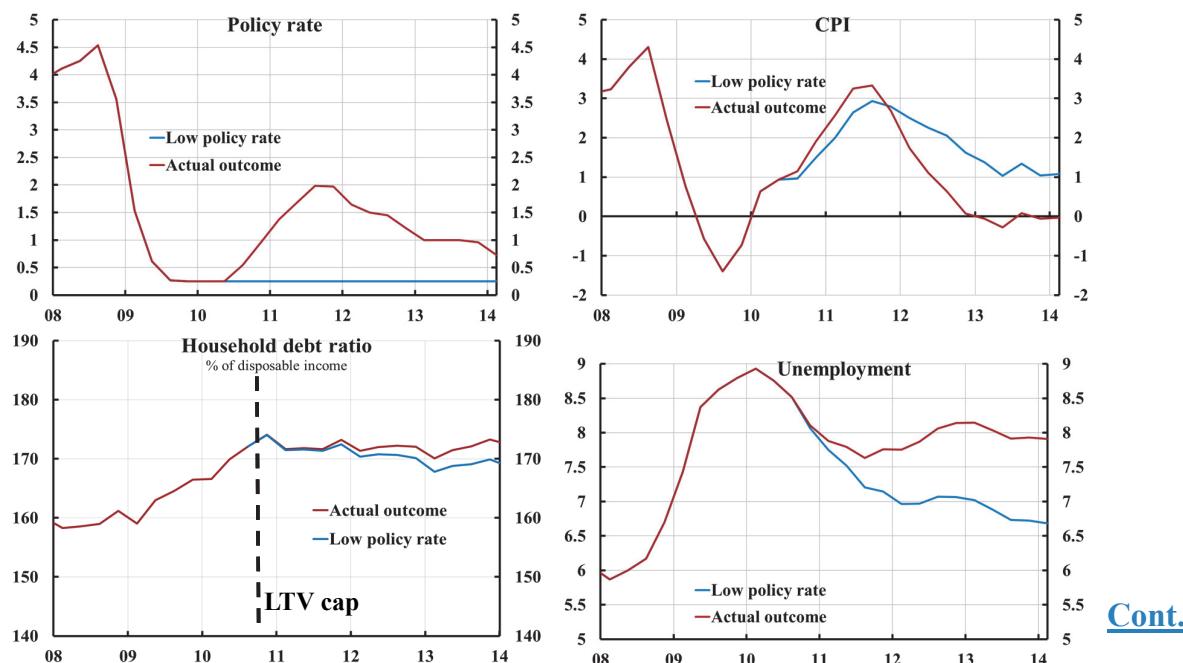
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# Target achievement: Average inflation significantly below target



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



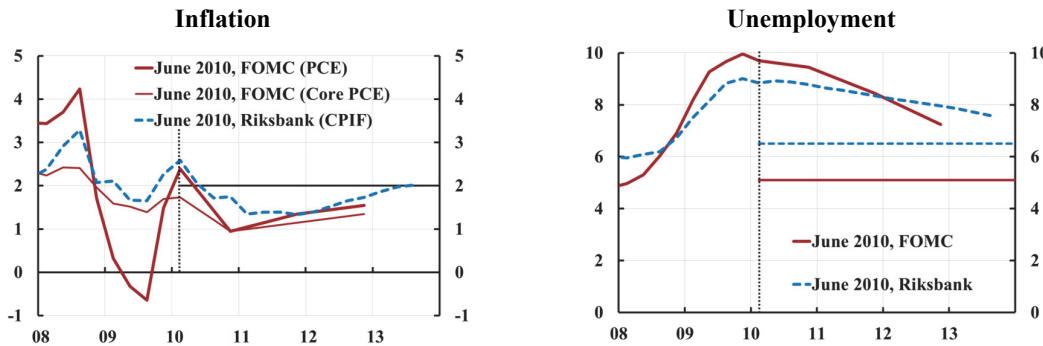
Cont.

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

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# Fed and Riksbank, June/July 2010

## Similar forecasts, very different policies

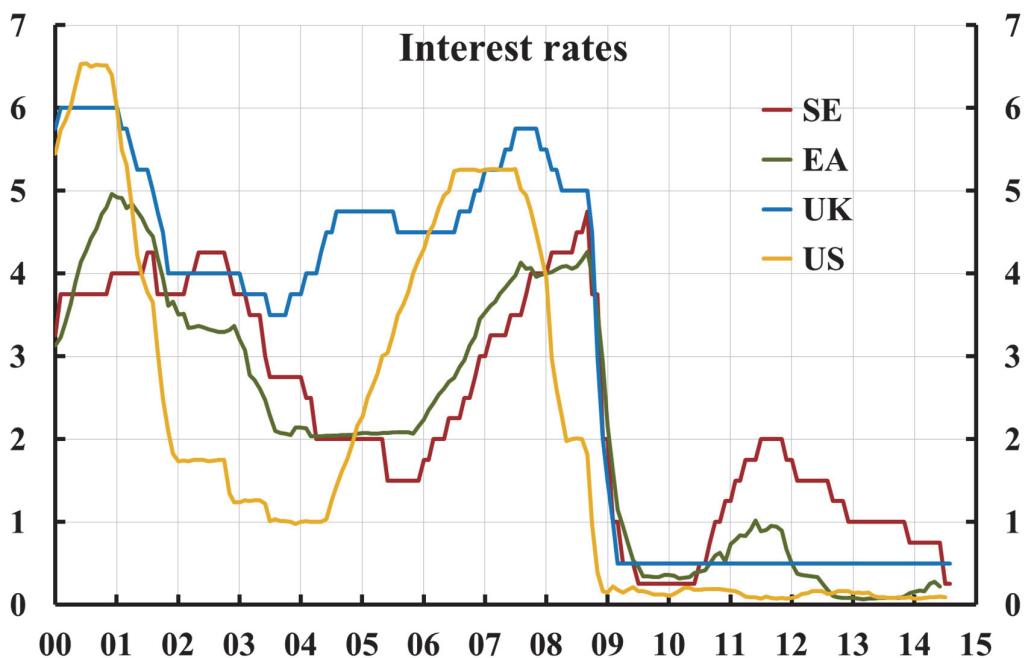


Svensson (2011), “Practical Monetary Policy: Examples from Sweden and the United,” *Brookings Papers on Economic Activity*, Fall 2011, 289-332.



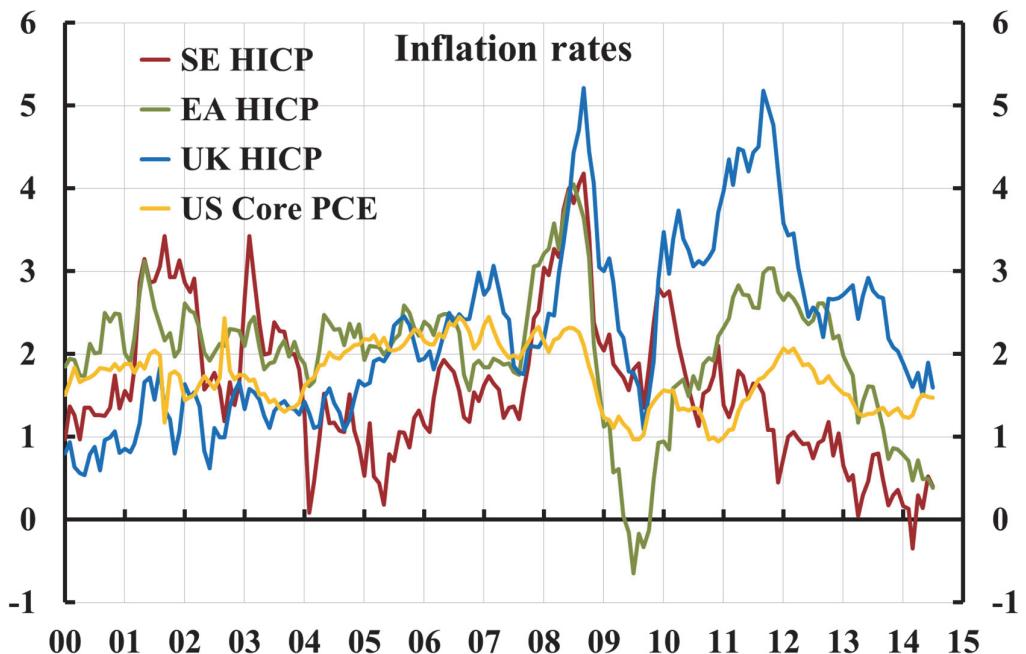
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## Policy rates in Sweden, UK, and US; Eonia rate in euro area

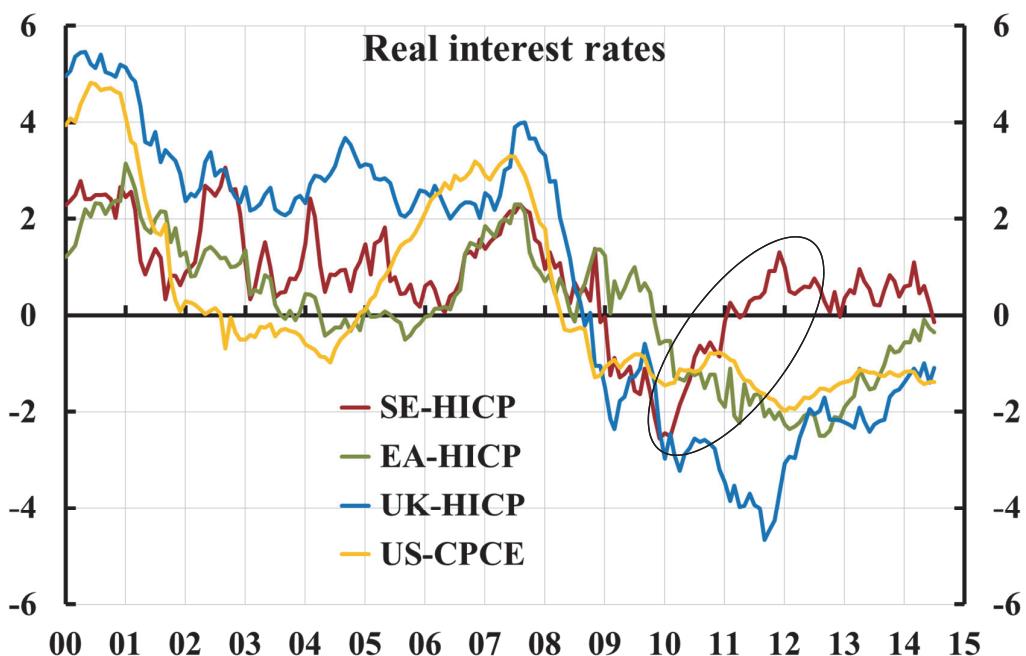


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## Inflation in Sweden, euro area, UK, and US



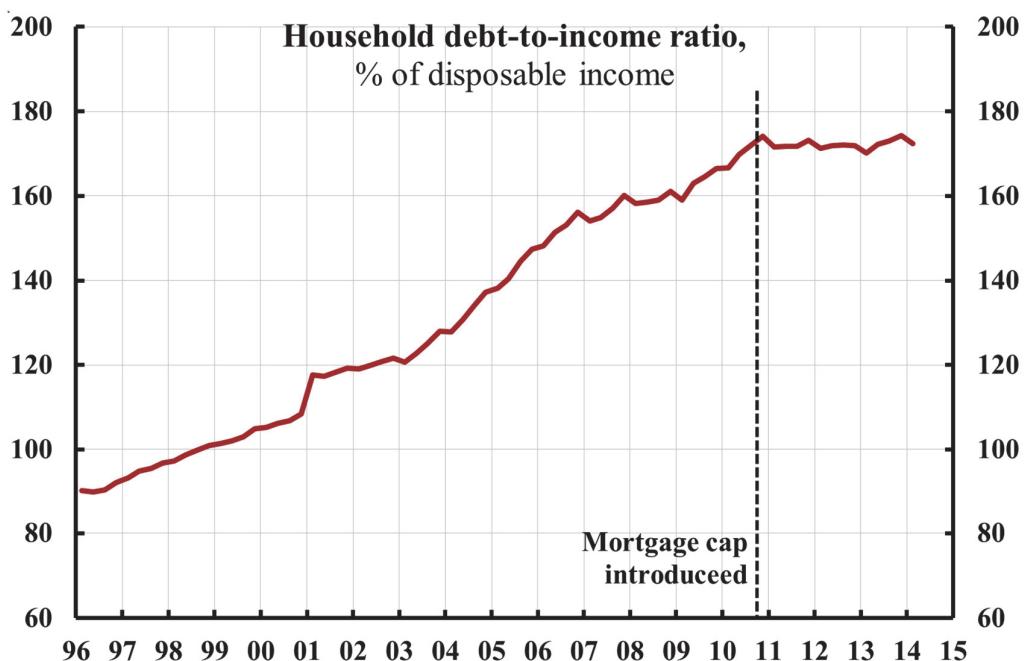
## Real policy rate in Sweden, UK, and US, real Eonia rate in euro area



# Why lean? What is the problem?

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

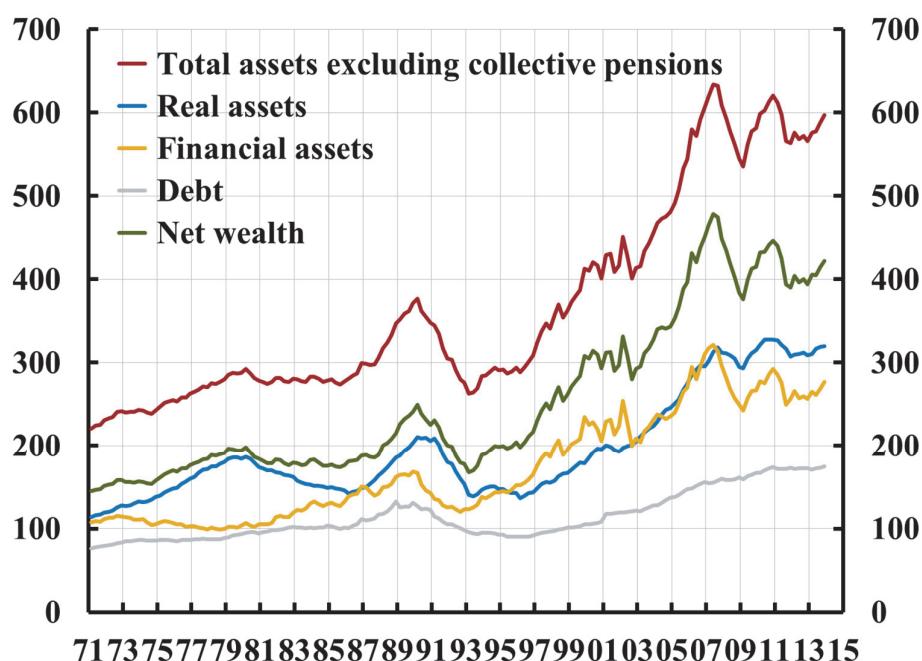
## Household debt-to-income ratio (% of disposable income)



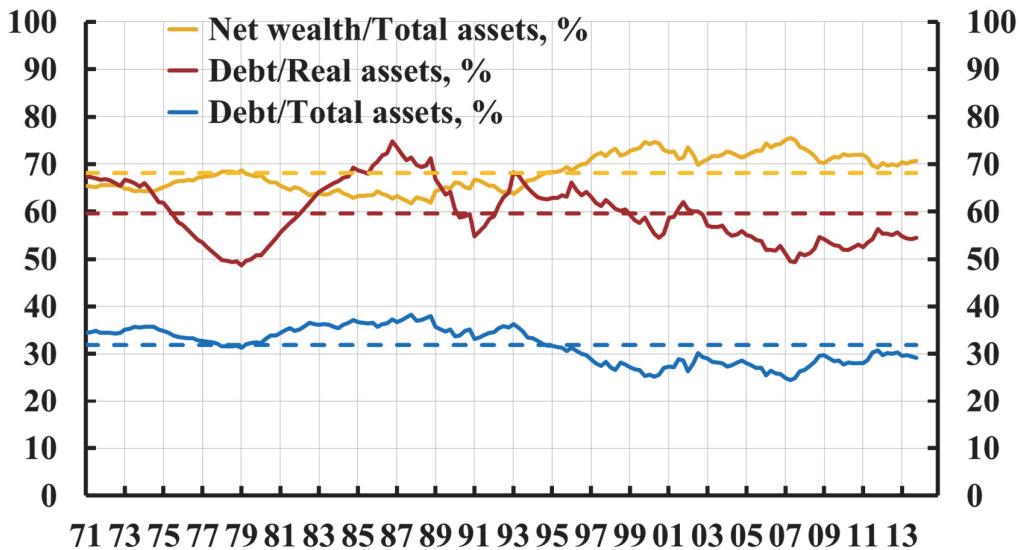
# Why lean? What is the problem?

- Household debt is high relative to disposable income
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- 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

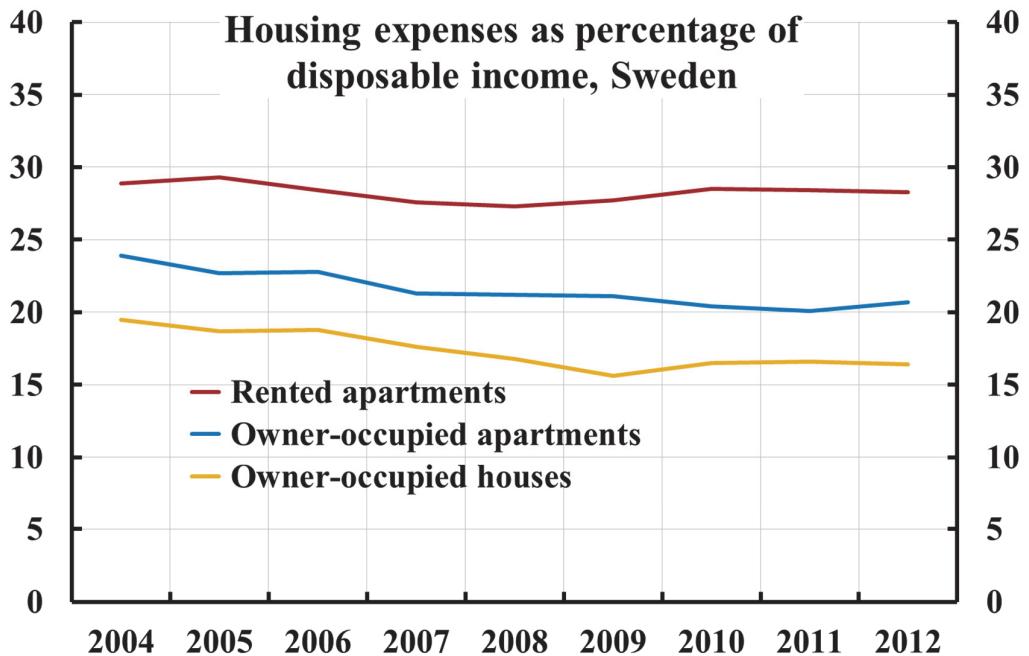


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## Why lean? What is the problem?

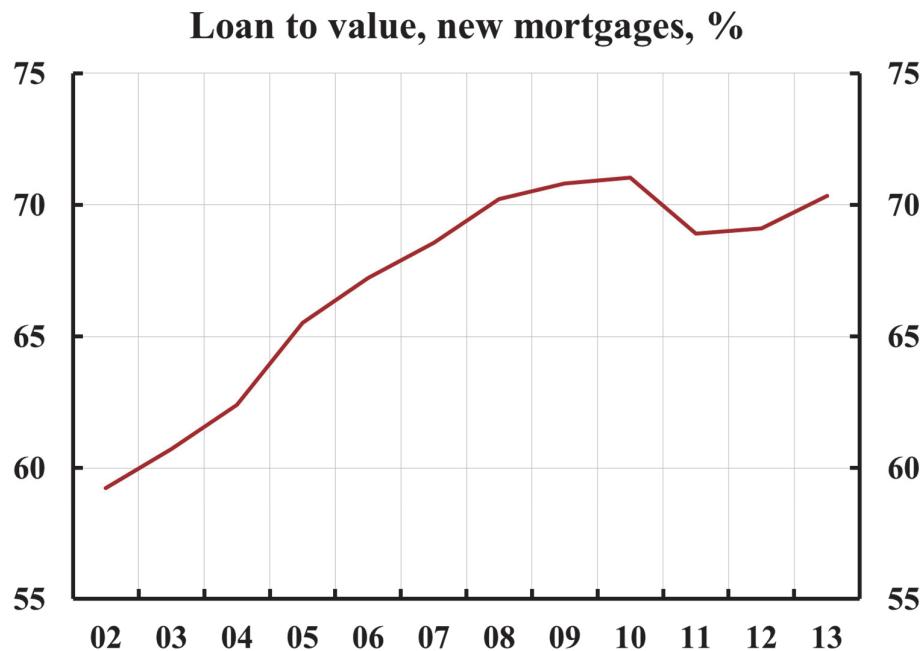
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- **Housing expenditure is not high**

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## Why lean? What is the problem?

- Household debt is high relative to disposable income
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- Housing expenditure is not high
- **Average LTV for new mortgages has stabilized around 70 %**



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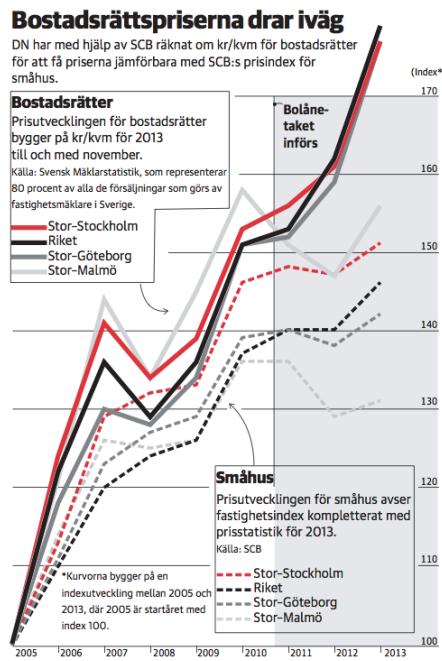
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- **Housing prices have not increased faster than disposable income since 2007**

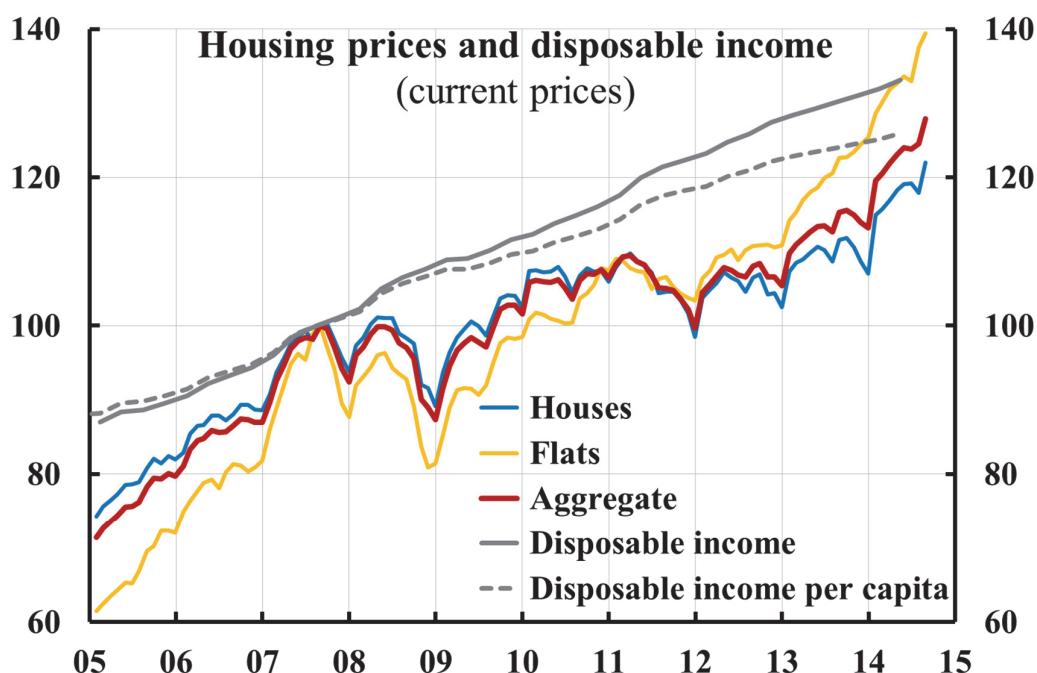


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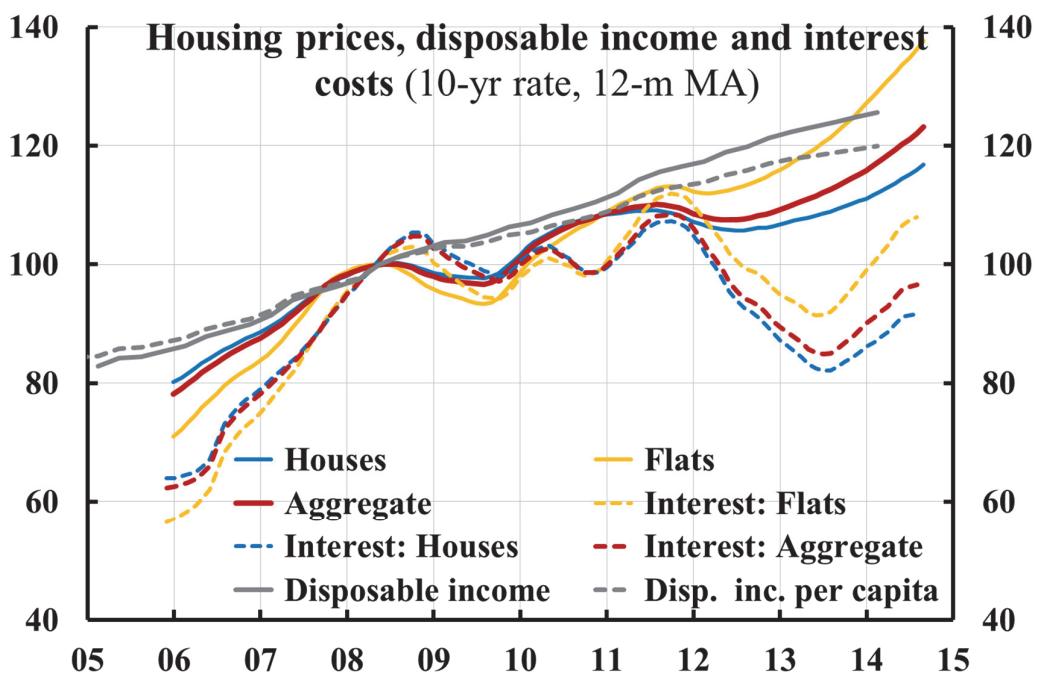
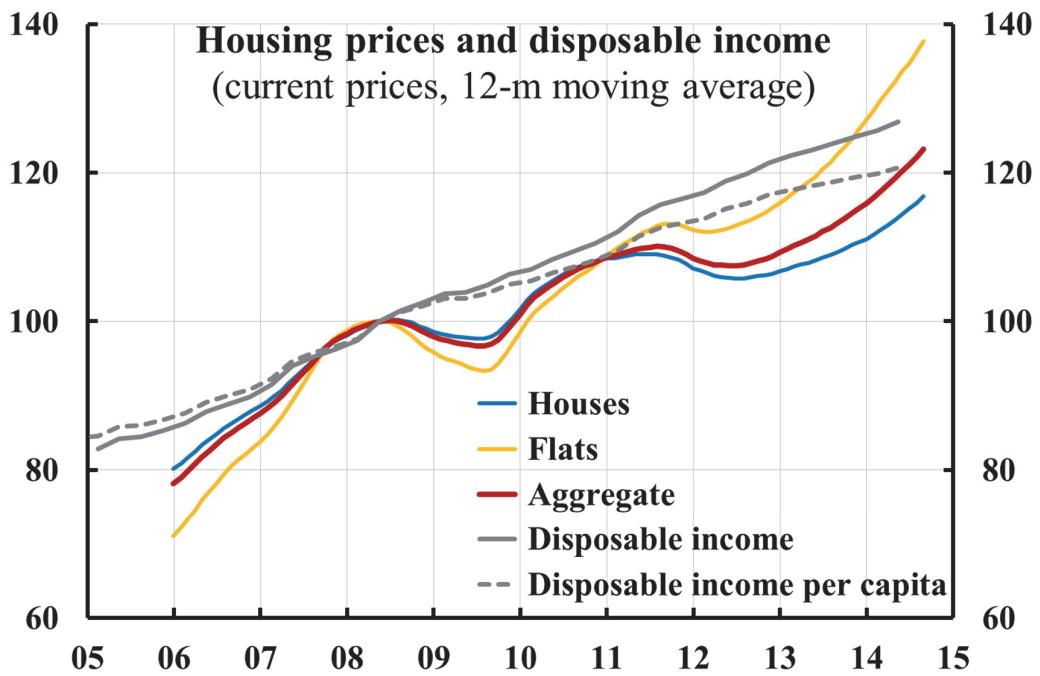
# Scaremongering? Dagens Nyheter, January 15, 2013



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# Why lean? What is the problem?

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- 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
- 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 changes, urbanization, construction...)**



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# Why lean? What is the problem?

- 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 in Sweden



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## Riksbank's case for leaning against the wind

- Governor Ingves: "When interest rates are low, people borrow more. If you borrow too much, sooner or later there are problems."

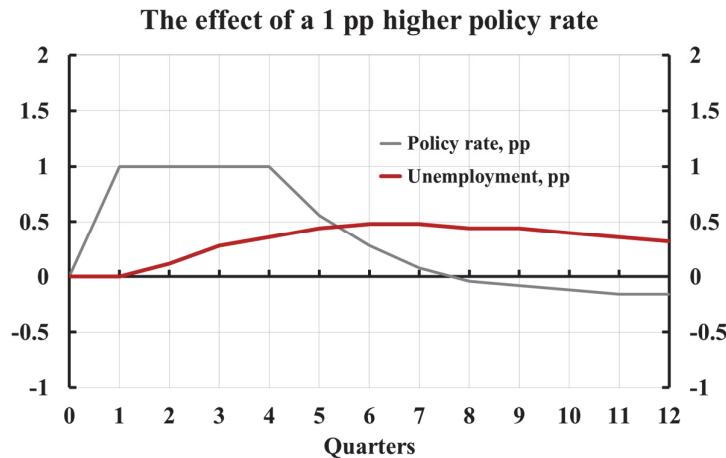


## Riksbank's case for leaning against the wind I

- 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

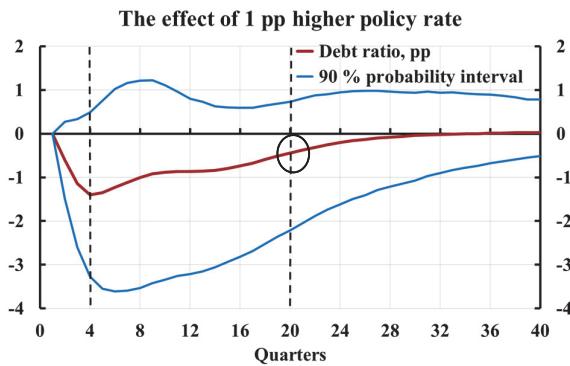
- Schularick and Taylor (2012):  
5 % lower real debt in 5 yrs  
implies 0.4 pp lower probability  
of crisis  
(average probability of crises  
about 4 %)
  - Riksbank MPR Feb 2014, box:
- The effect of 1 pp higher policy rate
- 
- | Quarters | Real debt, % |
|----------|--------------|
| 0        | 0.0          |
| 4        | -0.1         |
| 8        | -0.3         |
| 12       | -0.5         |
| 16       | -0.7         |
| 20       | 0.0          |
| 24       | 0.1          |
| 28       | 0.2          |
| 32       | 0.25         |
| 36       | 0.28         |
| 40       | 0.3          |
- 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

<b>Cost:</b> Higher unemployment during the next few years, percentage points	0.5
<b>Benefit:</b> 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
<b>Total benefit, percentage points</b>	0.0019
<b>Total benefit as a share of the cost</b>	0.0038

- Riksbank case does not stand up to scrutiny

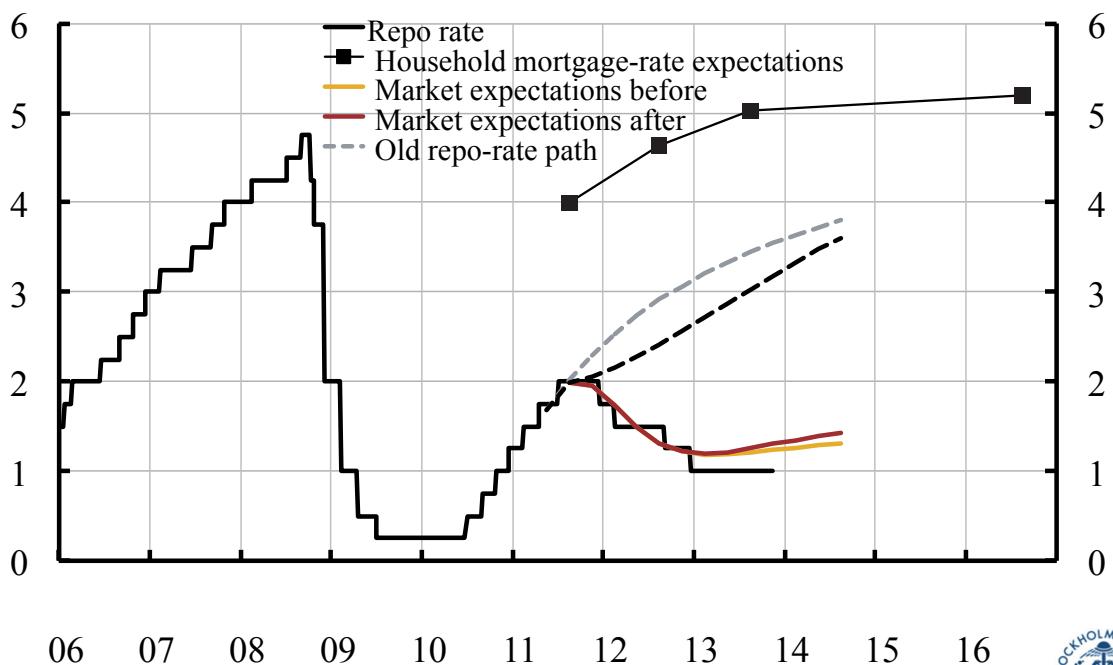


## Riksbank II: Households' mortgage-rate expectations are too low

- Households' expectations of mortgage rates in 5 years are low compared to a normal policy rate of 4% and a normal spread
  - But who believes in “normal” interest rates in 5 years?
- Households' mortgage-rate expectations are low relative to the Riksbank's policy-rate path
  - But what credibility does the policy-rate path have?

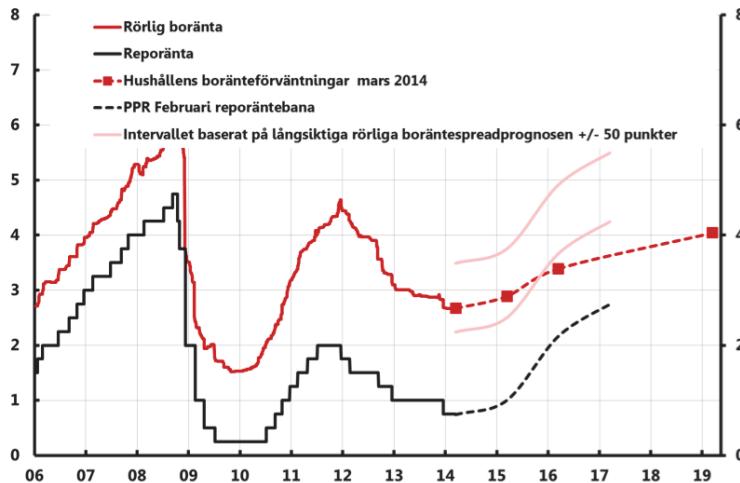


### Policy rate, policy-rate path, market expectations, and household expectations about 3-month mortgage rates: Sep 2011



# Household expectations and Riksbank policy-rate path

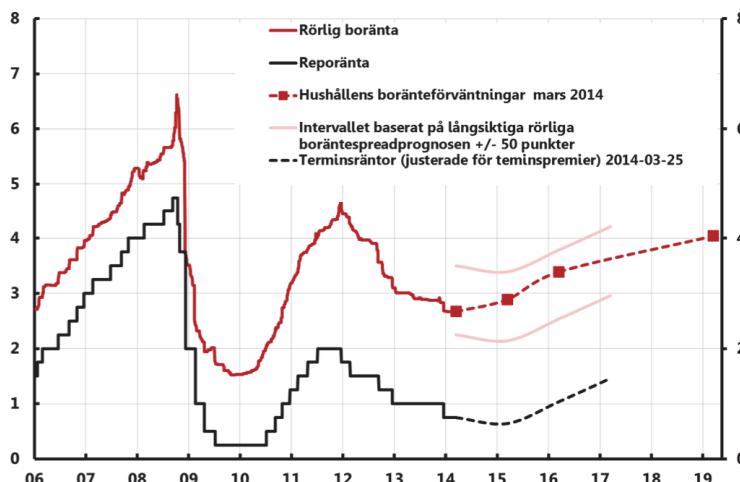
## Hushållens förväntningar och reporäntebanan



Source: Flodén, "Monetary policy and macroprudential policy" (in Swedish), LO, 2014-03-27

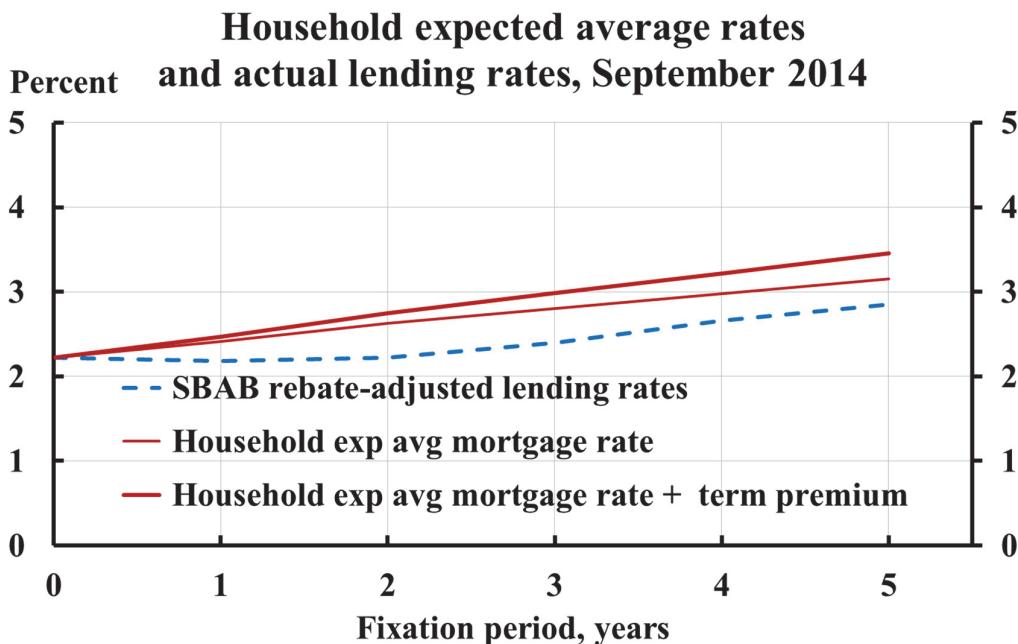
# Household expectations and market expectations

## Hushållens förväntningar och terminräntor

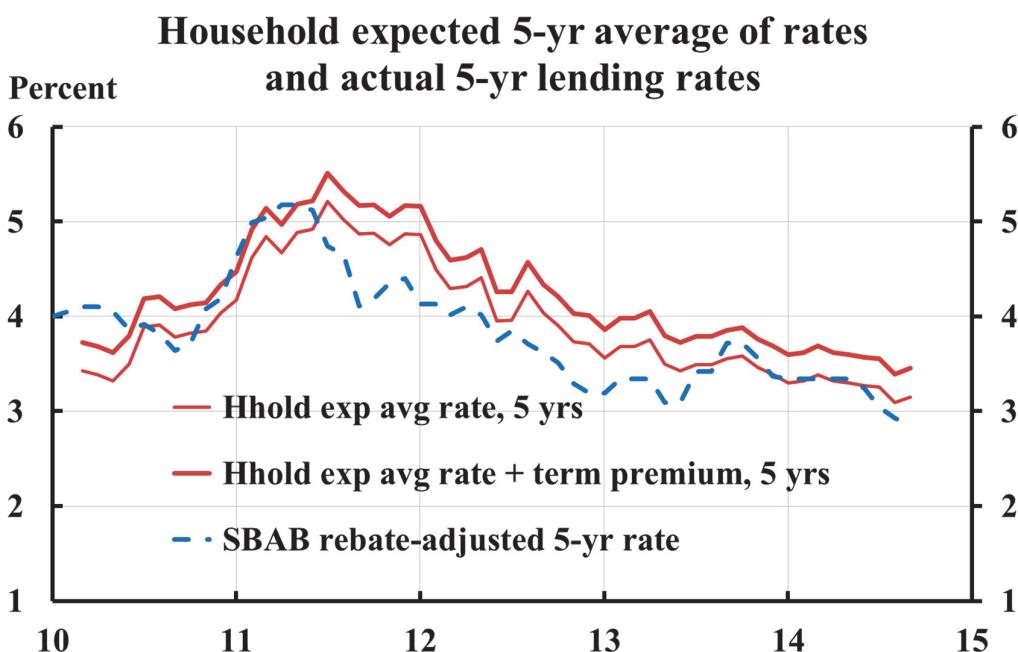


Source: Flodén, "Monetary policy and macroprudential policy" (in Swedish), LO, 2014-03-27

## Households' expected mortgage-rate costs and actual yield curve



## Households' expected 5-year mortgage-rate costs and actual 5-year mortgage rate



## **Riksbank III: Households' mortgage-rate expectations are too low**

- Households' expectations of mortgage rates in 5 years are low compared to a normal policy rate of 4% and a normal spread
  - But who believes in "normal" interest rates in 5 years?
- Households' mortgage-rate expectations are low relative to the Riksbank's policy-rate path
  - But what credibility does the policy-rate path have?
- At a closer examination, no evidence of too low mortgage-rate expectations



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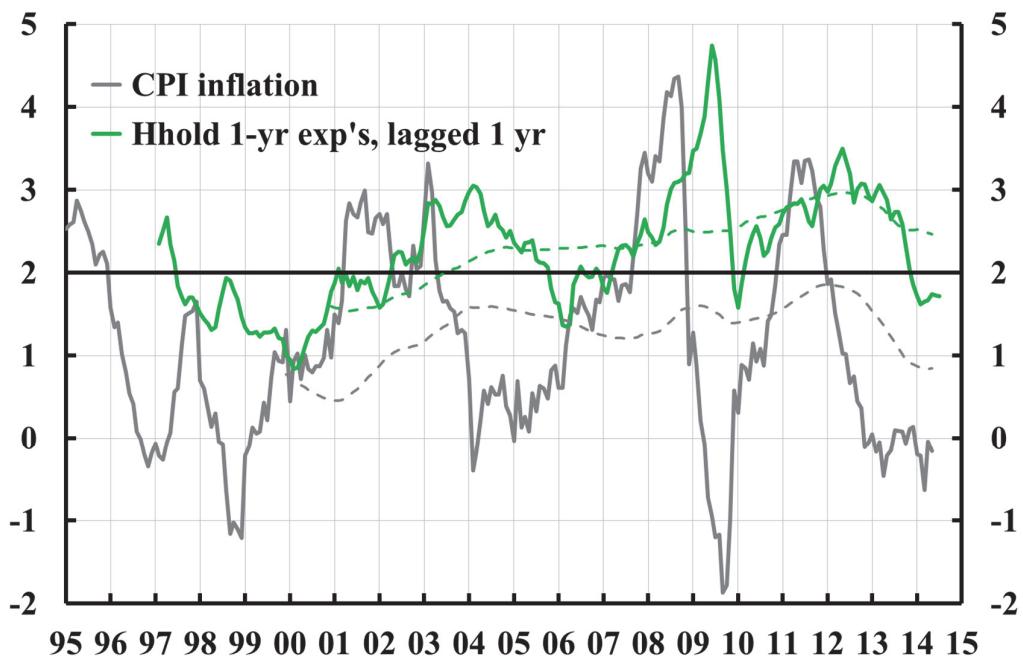
## **Lowflation/deflation and debt: A negative involuntary amortization**

- Chair Yellen: "[W]ith longer-term inflation expectations anchored near 2 percent in recent years, persistent inflation well below this expected value increases the real burden of debt for households and firms, which may put a drag on economic activity."
- Governor Ingves, in reply to a question if low inflation increases indebtedness: "Interest rates are low and then it is easy to borrow... But in this context, the inflation rate is not a particularly significant issue."



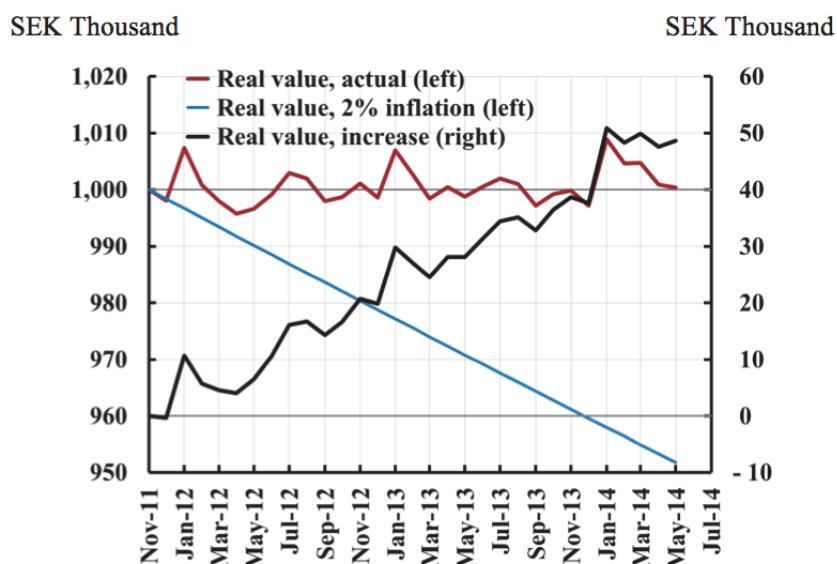
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## CPI inflation and household inflation expectations



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

Figure 7. The real value of a SEK 1 million loan taken out in November 2011, actual and for 2 percent inflation.



## Inflation below target causes real effects

- Inflation expectations anchored at target
- Lower average inflation than expected causes real effects
- Higher unemployment
- Higher *real* debt for households ...
- ... and higher LTV ratios, lower net wealth and net wealth to assets ...
- ... and higher debt ratio
- A large negative involuntary amortization!
- Also a consumer protection issue!
- Something for the Financial Stability Council!



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## Monetary policy and household debt

- "Leaning against the wind" is counter-productive in Sweden
- Inflation on target, stable growth, and lowest long-run sustainable unemployment is monetary policy's best contribution to the debt issue
- Any problems are better handled with other means: macro- and microprudential tools (LTV cap, higher capital, risk weights...), taxes, deduction rules...
- Finansinspektionen, not the Riksbank, should be the authority that decides and warns if monetary policy is a threat to financial stability that cannot be handled with the FI's tools (as in the UK)



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