



Inflation targeting and leaning against the wind

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Outline

- Should standard flexible inflation targeting be combined with some leaning against the wind, in order to promote financial stability?
- Leaning strongly promoted by BIS (incl. latest Annual Report)
- Skepticism against leaning elsewhere, but debate continues
- Sweden a case study: Quite aggressive leaning since summer 2010, because of concerns about household debt
- Outcome now: Zero or negative inflation, very high unemployment, most likely higher real debt, zero policy rate
- Was Riksbank leaning justified?



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Editorial in FT, Oct 30, European edition

10/30/2014

Tactic of 'lean against the wind' has failed Sweden - FT.com

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October 29, 2014 6:23 pm

Tactic of 'lean against the wind' has failed Sweden

The Riksbank erred when it tightened policy to fight a housing bubble



A view of central Stockholm from Strandvägen, a waterfront street in the upmarket Östermalm district

Four years ago Sweden appeared to be a model for the global recovery. A monetary policy innovator, it had brought in negative interest rates in 2009. Having already cleaned up its banks and taken strenuous efforts to spruce up a hitherto overtaxed economy, it was rewarded with growth above 6 per cent. It looked as though the Swedes would show others the way out of recession.

Sweden did indeed provide an example, but not one that others should follow. From 2010 the Riksbank started to tighten monetary policy. Initially the reason was concern about rising prices, but as inflation fell the Riksbank appeared to downplay its statutory objective of keeping inflation to "around 2 per cent per year", and instead started to set interest rates with an eye on high levels of household debt. Even as the eurozone stumbled into crisis, Sweden's policy rate rose progressively to the middle of 2011, and has only fallen gradually during the intervening years of weak growth.

This week the Riksbank cut its main interest rate to zero, in what must be a final recognition that for too long its monetary stance was much too tight. Alongside persistently low inflation, unemployment has stayed well above the low levels the Swedes are accustomed to. Lars Svensson, a former member of the Riksbank board and recently its foremost critic, argued that unnecessarily tight policy has cost the Swedish economy about 60,000 jobs.



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Leaning against the wind

- Tighter monetary policy than justified by stabilizing inflation and resource allocation (unemployment)
- Purpose is to moderate financial "imbalances" and threats to financial stability
- Presumes (Smets 2013):
 - (1) Macroprudential instruments or policies are ineffective
 - (2) A higher policy rate has a significant negative impact on threats to financial stability
- My view:
 - Condition (1) varies from country to country
 - Condition (2) has little theoretical and empirical support. But may vary depending on the structure of the financial sector (competitive/oligopolistic, shadow banking...)
 - Local conditions matter; do not directly apply experiences from one economy to other economies



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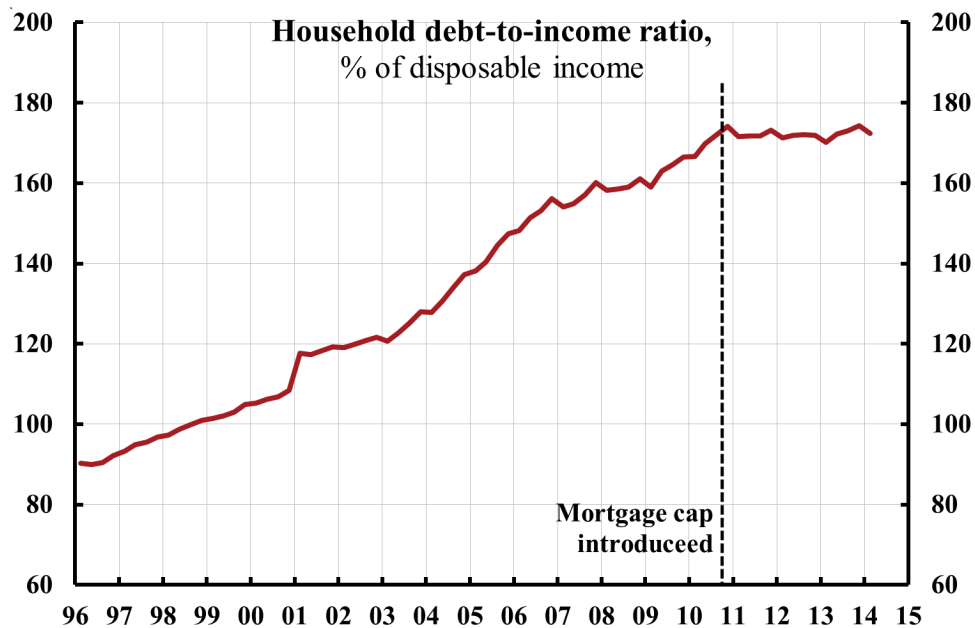
Case study: Sweden

- Riksbank has been leaning against the wind since summer of 2010, referring to concerns about household debt
- This has led to inflation far below the target and unemployment far above a long-run sustainable rate
- With inflation much below expectations, it arguably also led to higher real debt than expected and planned for

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**

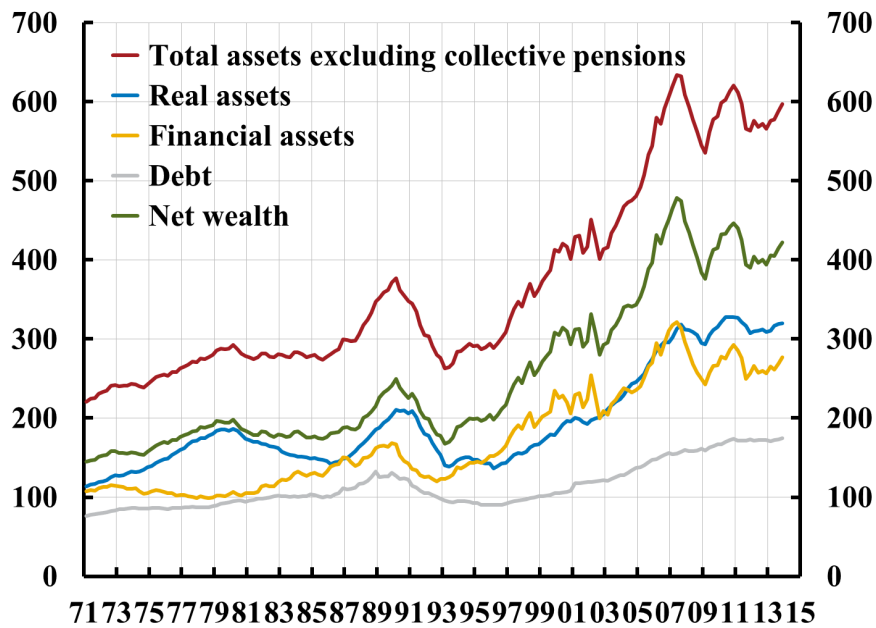
Household debt-to-income ratio (% of disposable income)



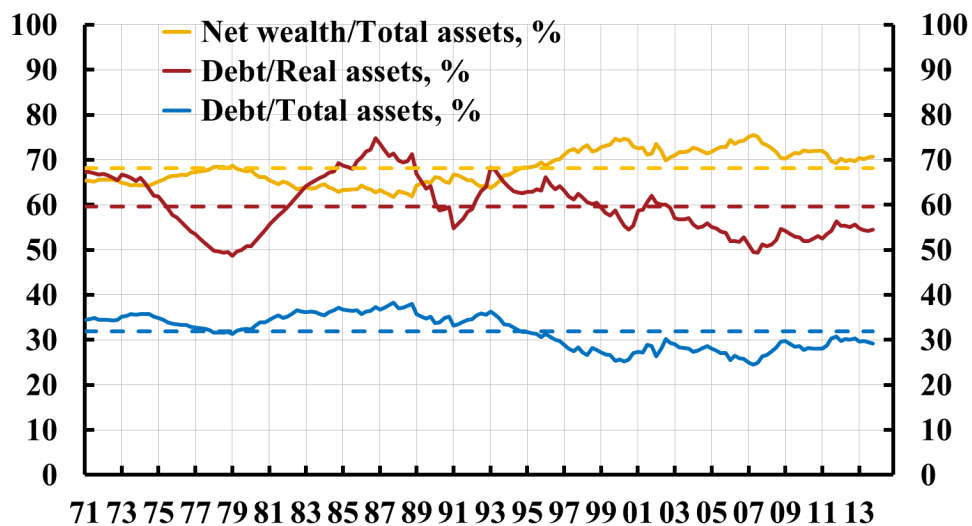
Why lean? What is the problem?

- Household debt is high relative to disposable income
- But debt-to-income ratio is quite stable since LTV cap of 85 % introduced in Oct 2010
- **And debt is normal relative to assets**

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

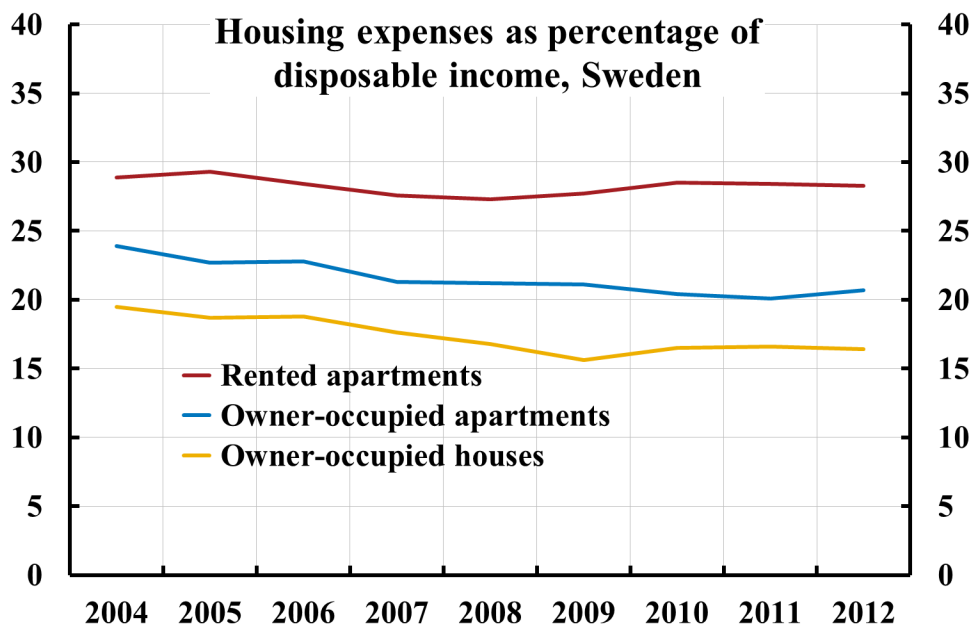


Swedish households' net wealth and debt relative to assets



Why lean? What is the problem?

- 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**



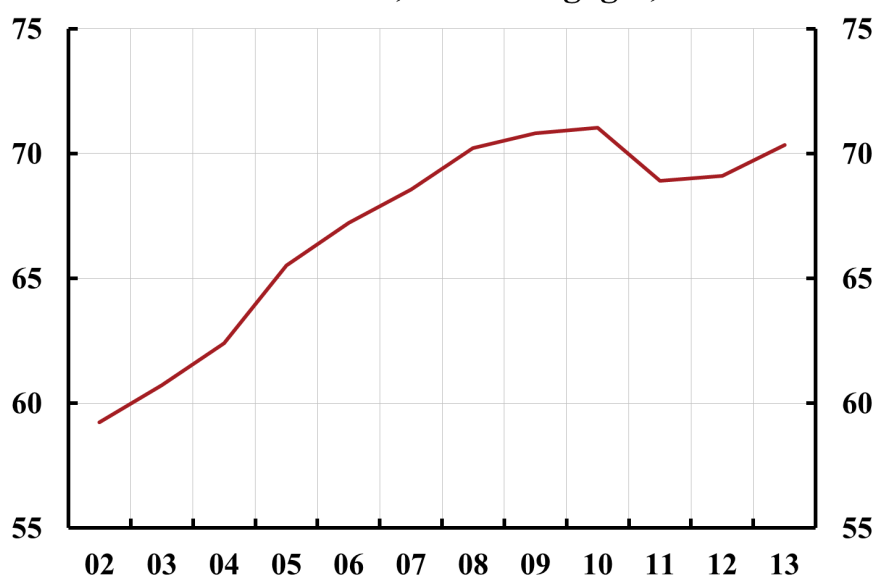
Why lean? What is the problem?

- 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
- Average LTV for new mortgages has stabilized around 70 %



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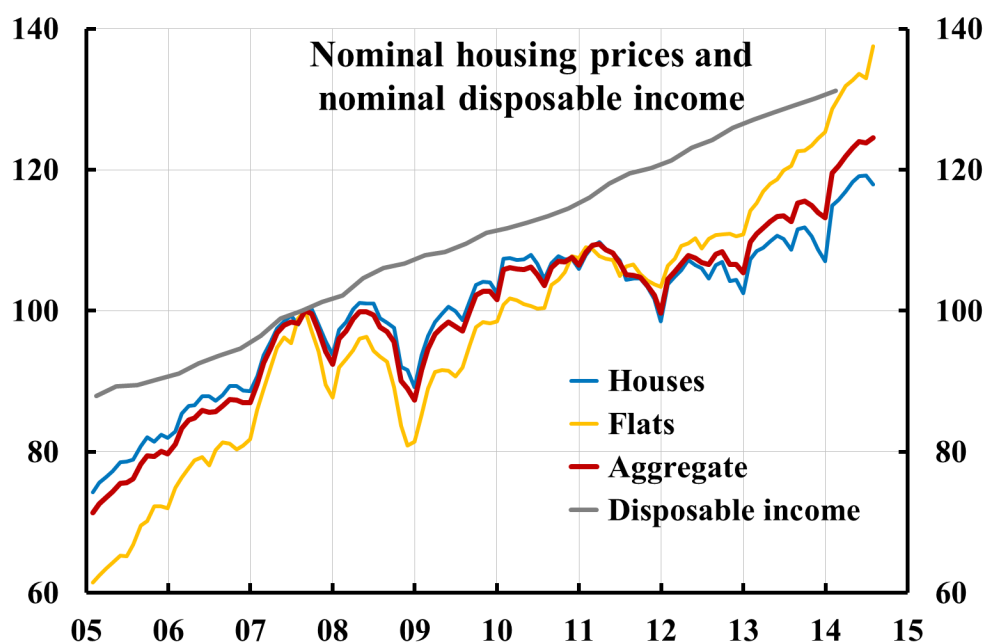
Loan to value, new mortgages, %



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- Average LTV for new mortgages has stabilized around 70 %
- **Housing prices have not increased faster than disposable income since 2007**



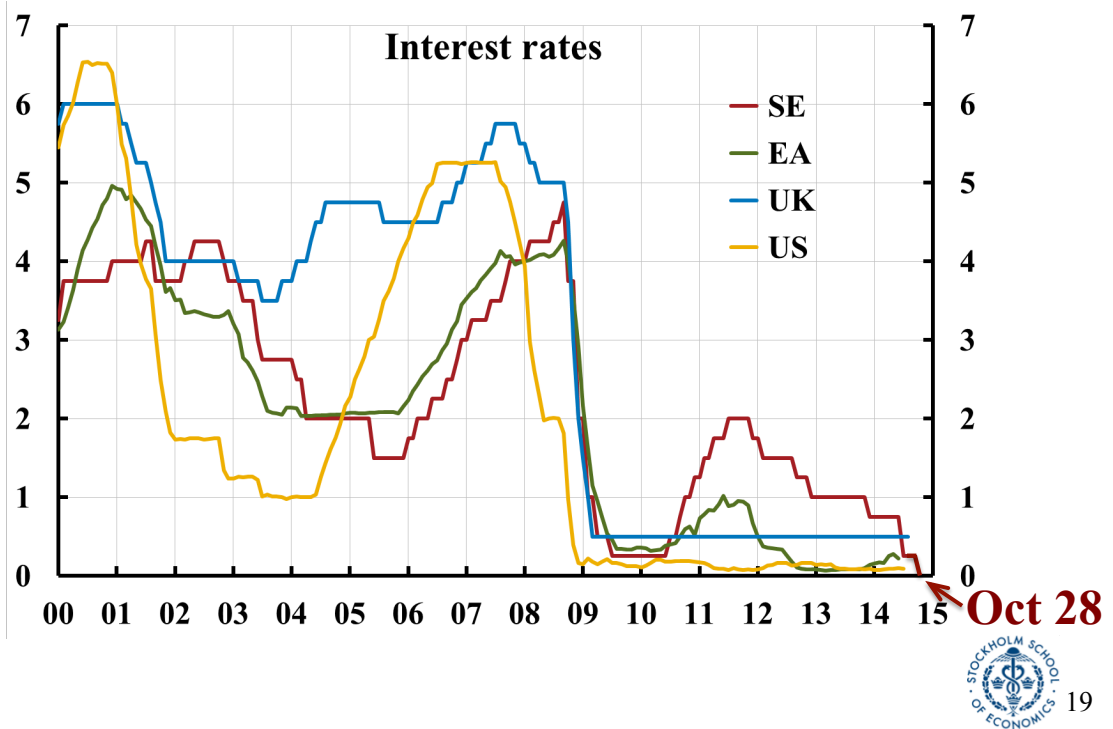
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- Average LTV for new mortgages has stabilized around 70 %
- Housing prices have not increased faster than disposable income since 2007
- Housing prices are in line with fundamentals (disposable income, mortgage rates, tax changes, urbanization, construction...)

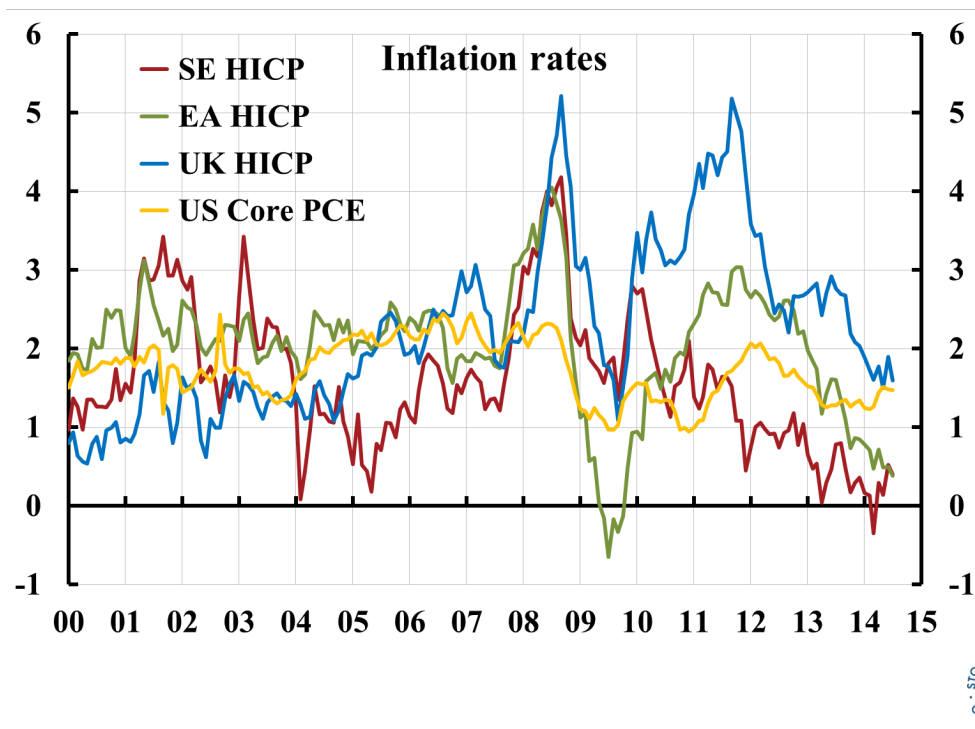
Why lean? What is the problem?

- 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
- Macprudential tools and policy are arguably effective and good in Sweden

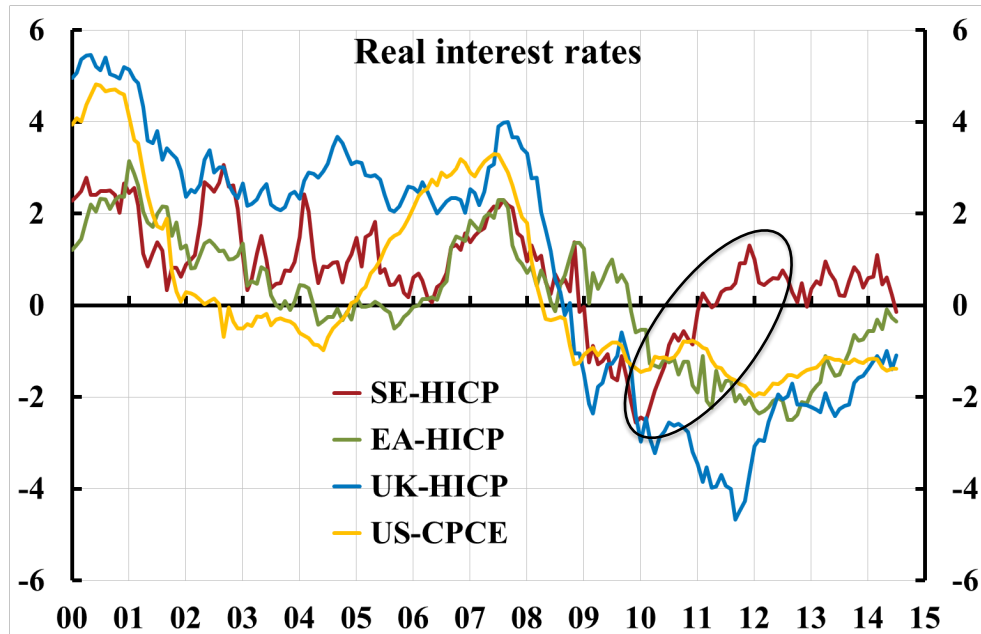
The leaning: Policy rates in Sweden, UK, and US; Eonia rate in euro area



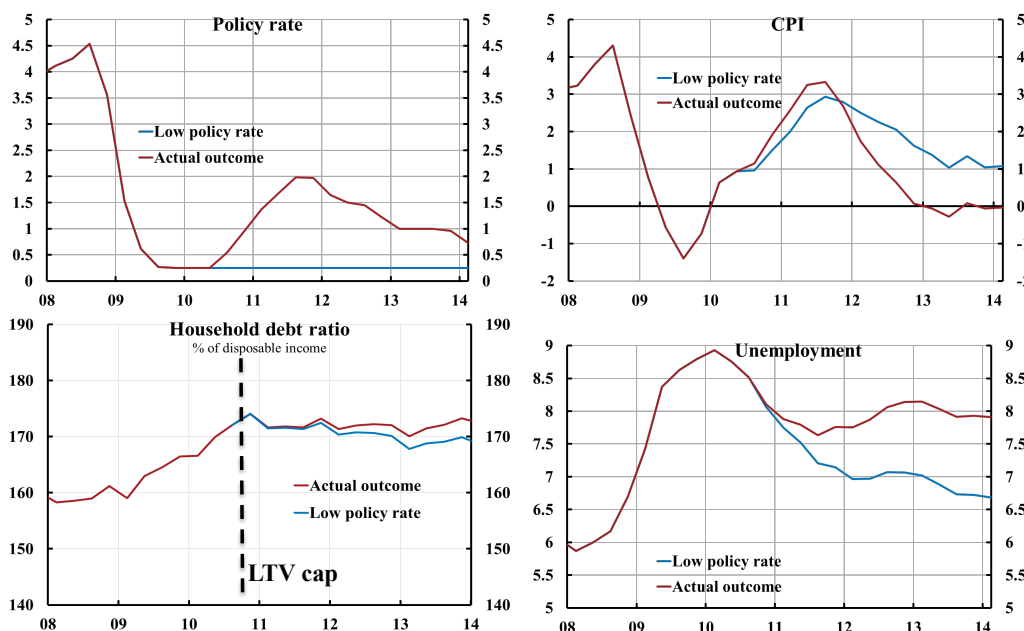
The leaning: Inflation in Sweden, euro area, UK, and US



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



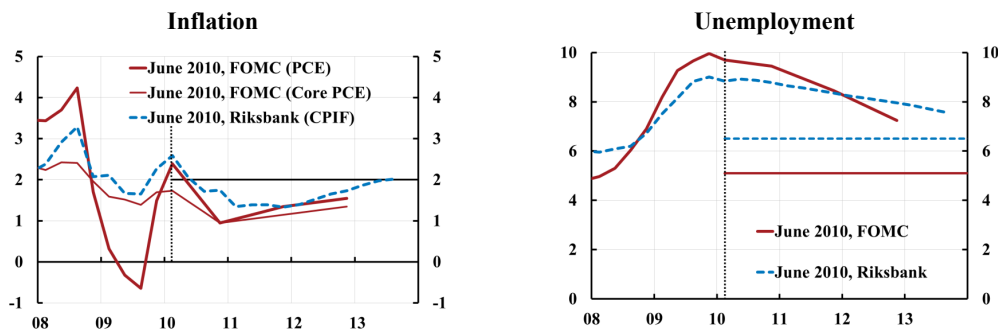
Ex post evaluation: Policy-rate increases from summer of 2010 have led to inflation below target and higher unemployment (and probably a higher debt ratio)



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

Cont.

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

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



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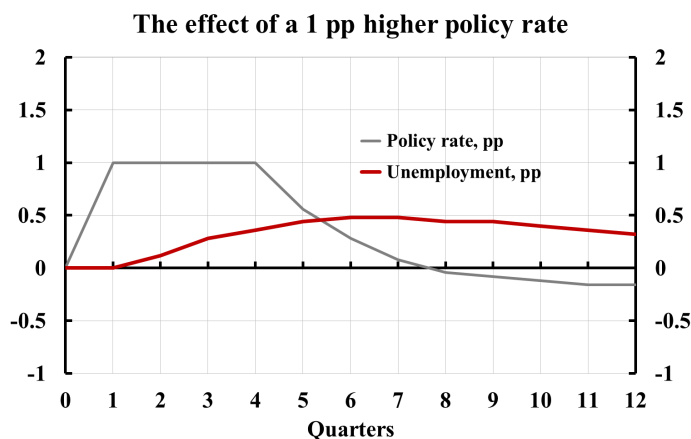
Riksbank's case for leaning against the wind

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



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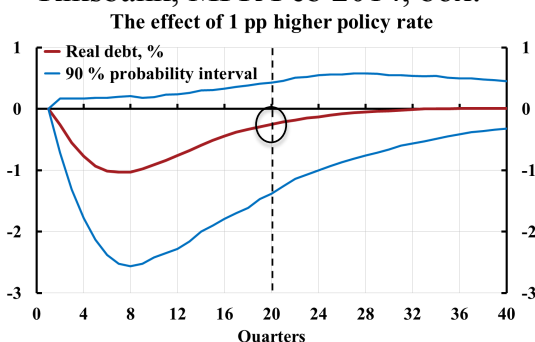
Cost of 1 pp higher policy rate: 0.5 pp higher unemployment rate



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 $0.25 \cdot 0.4 / 5 = 0.02$ pp
 - Assume 5 pp higher unemployment in crisis (Riksbank crisis scenario, MPR July 2013, box):

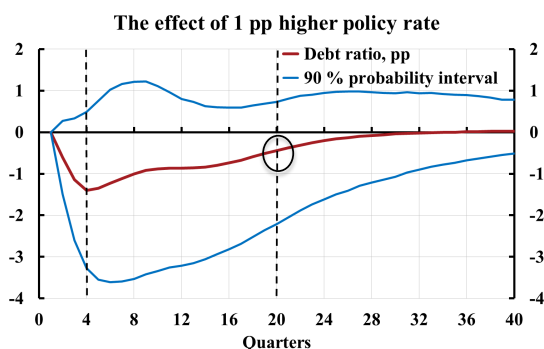


Source: Svensson, post on larseosvensson.se, March 31, 2014.

- **Benefit (1):** Expected lower future unemployment: $0.0002 \cdot 5 = 0.001$ pp
- **Cost:** Higher unemployment rate now: **0.5 pp**

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:
 $0.44 \times 0.02 = 0.009$ 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.



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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

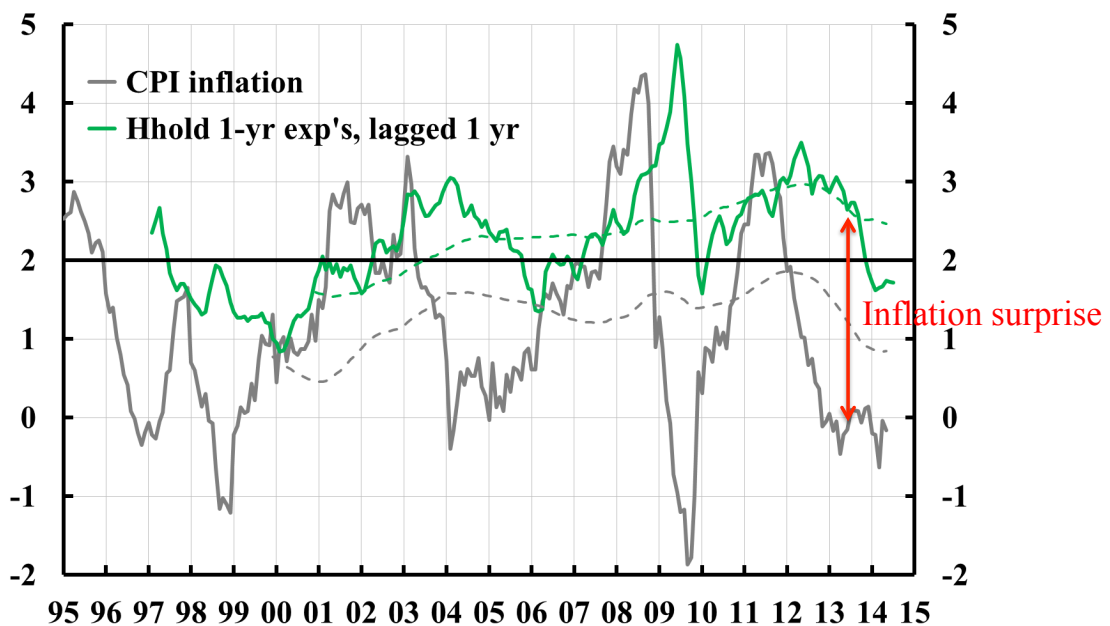


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More costs: Inflation below credible target causes negative real effects

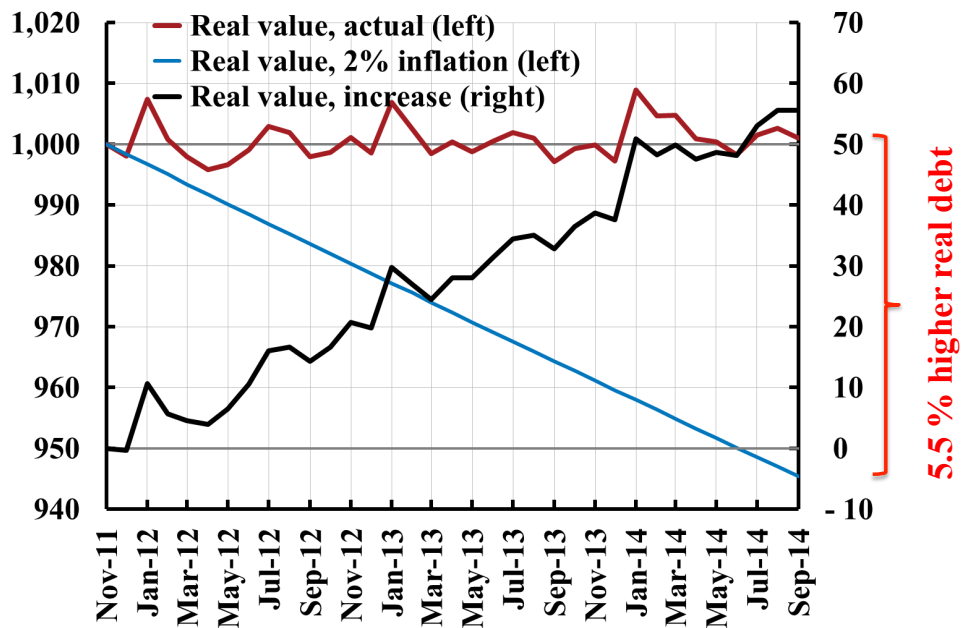
- Credible target: Inflation expectations anchored at target
- Inflation below credible target means inflation below expectations
- Causes bad real effects:
 - Higher unemployment
 - Higher *real* debt for households...
due to Fisherian “debt deflation,” inflation less than expectations
- An inherent flaw in leaning against the wind

CPI inflation and household inflation expectations

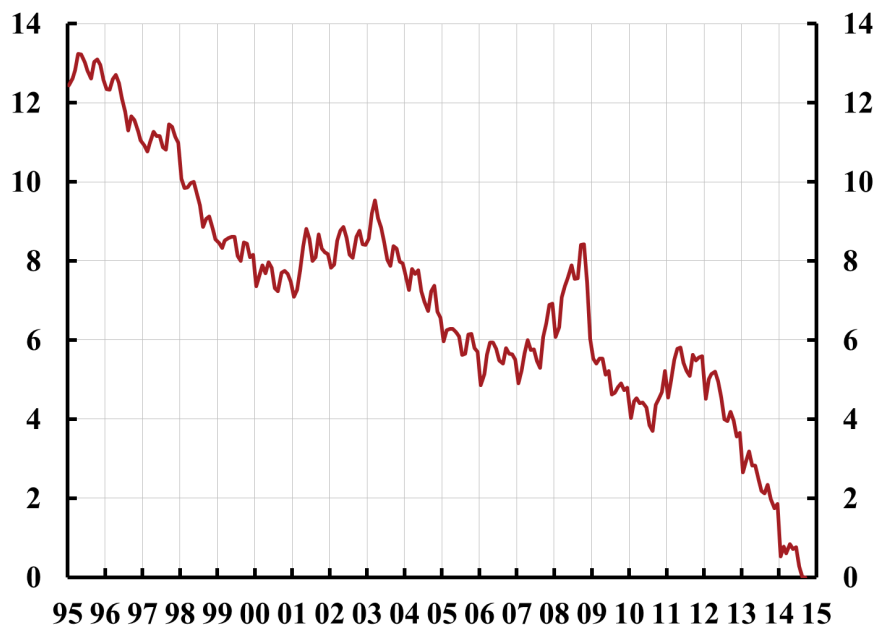


Note: Dashed lines are 5-year trailing moving averages

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



Percent increase to September 2014 in the real value of a given loan, compared to if inflation had been 2 percent (depending on when the loan was taken out)



Sum up:

Leaning against the wind and household debt

- "Leaning against the wind" counter-productive in Sweden
- Leaning implies undershooting (credible) inflation targets
- Leads to lower inflation than expected
- Leads to higher unemployment
- Leads to higher real debt (Fisherian debt deflation, inherent flaw in leaning)
- May increase debt-to-income ratio by affecting disposable income faster than nominal debt (Svensson 2013)
- May undermine the credibility of the inflation target
- Not the best way to handle any debt problem
- Generally, this points to an inherent flaw in leaning

Sum up:

Leaning against the wind and household debt

- Q: What is monetary policy's best contribution to debt issue (at least in Sweden)?
- A: Achieve inflation on target, stable growth, and lowest long-run sustainable unemployment
- Why?
- $2\% \text{ inflation, } 2\% \text{ real growth} = 4\% \text{ nominal growth}$
- Implies that disposable income and housing prices double in 18 years
- Implies that debt-to-income and LTV ratios for any given nominal debt halve in 18 years
- Good contribution to debt problems

Sum up:

Leaning against the wind and household debt

- Do not use monetary policy and leaning to deal with debt problems
- Debt problems and financial stability are better handled with other means than monetary policy: macro- and microprudential tools (lending standards, LTV cap, higher capital, risk weights...), taxes, deduction rules, etc.
- These conclusions probably apply to other economies than Sweden