

---

## **Monetary policy and financial-stability are different and normally best conducted independently**

Lars E.O. Svensson

## **Abstract**

*The I Theory of Money argues that price stability and financial stability, and hence monetary policy and financial stability policy, are inseparable. But monetary policy and financial stability policy are different and distinct, in the sense that they have different objectives and different suitable instruments, even when the same authority is in charge of both. As is the case for fiscal policy and monetary policy, in normal times monetary and financial stability policies are most likely best conducted independently, but with each taking the conduct of the other policy into account. Sweden provides a bad example of aggressive leaning against the wind, with high costs in terms of excessively low inflation, overly high unemployment and a higher real debt burden for households.*

## **1 The I theory of money**

According to Brunnermeier and Sannikov (2014), in their I Theory of Money, price stability and financial stability are inseparable. Consequently, monetary policy and financial stability policy would be inseparable. This is very different from a more conventional view, according to which monetary policy and financial stability policy (micro and macro-prudential policy) are separate policies, with different objectives, different suitable instruments and, depending on the economy in question, different authorities in control of the instruments and accountable for achieving the objectives.

Furthermore, as far as I can see, the I Theory of Money is not yet fully developed to deal with the standard issues in monetary policy, for instance, how monetary policy affects inflation and unemployment. In particular, the version of the I Theory that I have seen has flexible prices and wages, whereas in the conventional view of monetary policy, stickiness of prices and wages is essential for a realistic and relevant view of the transmission mechanism.

## **2 How to distinguish between monetary policy and financial stability policy?**

When we discuss different economic policies, we distinguish policies according to their objectives, instruments and the authorities controlling the instruments and being responsible for achieving the objectives. For instance, fiscal policy and monetary policy have distinct and different objectives, instruments and responsible authorities. Still there is considerable interaction, in that the objectives of fiscal policy are affected by monetary policy and vice versa. Therefore, good fiscal policy has to take the effects of monetary policy on the fiscal policy objectives into account, and vice versa. But they are clearly separate policies. Similarly, financial stability policy and monetary policy are separate policies, although with some interaction, sometimes considerable.

Regarding monetary policy, for flexible inflation targeting, the objective is price stability and real stability. More concretely, the objective is to stabilise inflation around an inflation target and resource utilisation around a long-run sustainable rate. The instruments are, in normal times, the policy rate and communication. The latter includes publishing forecasts of the target variables, such as inflation and unemployment, and possible forward guidance, such as publishing a policy rate path, a forecast for the policy rate. In crisis times, the set of instruments include balance sheet policies, such as asset purchases (quantitative easing), fixed rate lending at longer maturities, and foreign exchange interventions. The authority controlling the instruments and responsible for achieving the objectives is the central bank.

Regarding financial stability policy, the objective is financial stability. The definition of financial stability is not as clear and obvious as the definition of price stability. A definition that I prefer is that the financial system can fulfil its three main functions (transforming saving into financing, providing risk management and transmitting payments) with sufficient resilience to disturbances that threaten these functions. The crucial part of the definition is arguably sufficient resilience. In the future there will be unavoidable disturbances and shocks to the financial system, very likely from unexpected directions and of unexpected kinds. The crucial thing is then that there is sufficient resilience to disturbances.

The instruments of financial stability policy are, in normal times, supervision, regulation and communication, including capital and liquidity requirements, loan-to-value (LTV) caps, financial stability reports, and so on. In crisis times, further instruments include acting as lender of last resort, variable rate lending at longer maturities (credit easing), guarantees, bank resolution, capital injections, asset purchases, and so on.

The authority or authorities controlling the instruments vary across countries and may include the financial supervisory authority, the central bank, the ministry of finance, the national debt office, a separate bank resolution authority, and so on.

### **3 Monetary policy and financial policy are different and distinct**

Clearly, from the above perspective, monetary policy and financial policy are different and distinct policies. This is also the case when the same institution, the central bank, is in charge of both policies.

Importantly, price stability does not imply financial stability. Monetary policy can achieve price stability, but it cannot achieve financial stability. There is no way monetary policy can achieve sufficient resilience of the financial system; there is obviously no way monetary policy can ensure that there is sufficient capital and sufficient buffers in the financial system.

Furthermore, financial stability policy cannot achieve price stability. Financial stability policy can achieve financial stability, but it cannot stabilise inflation around the inflation target and unemployment around a long-run sustainable rate.

Thus, both policies are needed to achieve both monetary policy objectives and financial stability objectives.

Still, there is interaction between the two policies. Financial stability policy affects financial markets, spreads between different interest rates and lending by banks. This way it indirectly affects inflation and resource utilisation. Monetary policy affects resource utilisation, credit losses and assets prices. This way it indirectly affects balance sheets and leverage. Thus, there is interaction between the two policies, as there is interaction between fiscal policy and monetary policy.

My view is that, in normal times, it is best to conduct monetary policy and financial stability policy independently, with each policy taking the conduct of the other policy into account in order to best achieve its objectives. This is similar to how monetary policy and fiscal policy are conducted. In game theory terms, it corresponds to a Nash equilibrium rather than a cooperative equilibrium. Bean (2014) provides a thorough discussion of why and how monetary policy and financial stability policy can achieve a good outcome by focusing on their own respective objective.

#### **4 What if monetary policy posed a threat to financial stability?**

There could arise situations when monetary policy might pose a threat to financial stability even when it fulfils the monetary policy objectives. Normally, the financial stability authority should be able to contain such threats with its available instruments. But how should a situation be handled when the threat cannot easily be contained?

The August 2013 forward guidance by the Bank of England's Monetary Policy Committee (MPC) provides an example of how to handle such a situation (Bank of England, 2013). The MPC agreed its intention not to raise the policy rate until the unemployment rate had fallen to a threshold of 7%, subject to three "knockouts" not being breached. The third knockout was the Financial Policy Committee (FPC) judging that the stance of monetary policy posed a significant threat to financial stability that could not be contained by the substantial range of mitigating policy actions available to the FPC, the Financial Conduct Authority and the Prudential Regulation Authority in a way consistent with their objectives.

Thus, according to this example, the financial stability authority should warn the monetary policy authority if monetary policy poses a threat to financial stability that the financial stability authority cannot contain with its available policy instruments. Then the monetary policy authority may choose to adjust monetary policy, tightening, that is, leaning against the wind, or loosening, depending on the situation. This clarifies the responsibility of each authority and makes it possible to hold them accountable.

So, is there any role for monetary policy in maintaining financial stability? If financial policy is ineffective or inappropriate, monetary policy may have to be adjusted (to be tighter or looser, depending on the situation). This means using monetary policy, as a last line of defence, when the first line of defence, financial stability policy, is failing. But normally, that defence is unlikely to be needed.

#### **5 Sweden, a bad example of leaning against the wind as a first line of defence**

Sweden provides a bad example of aggressive leaning against the wind as a first line of defence against perceived risks from household debt.

The background is that Swedish households' debt has risen, and the debt-to-disposable income ratio, the debt ratio, is high. But assets have risen at least as much as the debt, so the ratio of debt to assets is not high. Asset prices, including house prices, are in line with fundamentals. The ratio of debt service to disposable income is low.

One may discuss what risks the current situation poses, but, in any case, Finansinspektionen (the Swedish financial supervisory authority), has taken several actions. It issues a regular mortgage market report (Finansinspektionen, 2014), where it uses individual data on new borrowers to show that lending standards are high and that borrowers' debt-service capacity is good. In particular, it uses the individual data to conduct stress tests. It has concluded that that borrowers' resilience to disturbances, in the form of mortgage rate increases, house price decreases and income losses due to unemployment, is sufficient. Furthermore, Finansinspektionen introduced an LTV cap of 85% on mortgages in October 2010. Since then the household debt ratio has stabilised. The average LTV ratio for new mortgages has also stabilised, at around 70%, so the average equity is as high as 30%. Finansinspektionen has also increased the risk weights on mortgages to 25%, increased capital requirements to 16.4% CET1 for systemically important

banks and recommended that lenders suggest individually adapted amortisation plans to borrowers. Clearly, Finansinspektionen has done a lot. It judges that current actions are sufficient to contain any risks, but it is monitoring the situation closely and is prepared to take further action if justified.

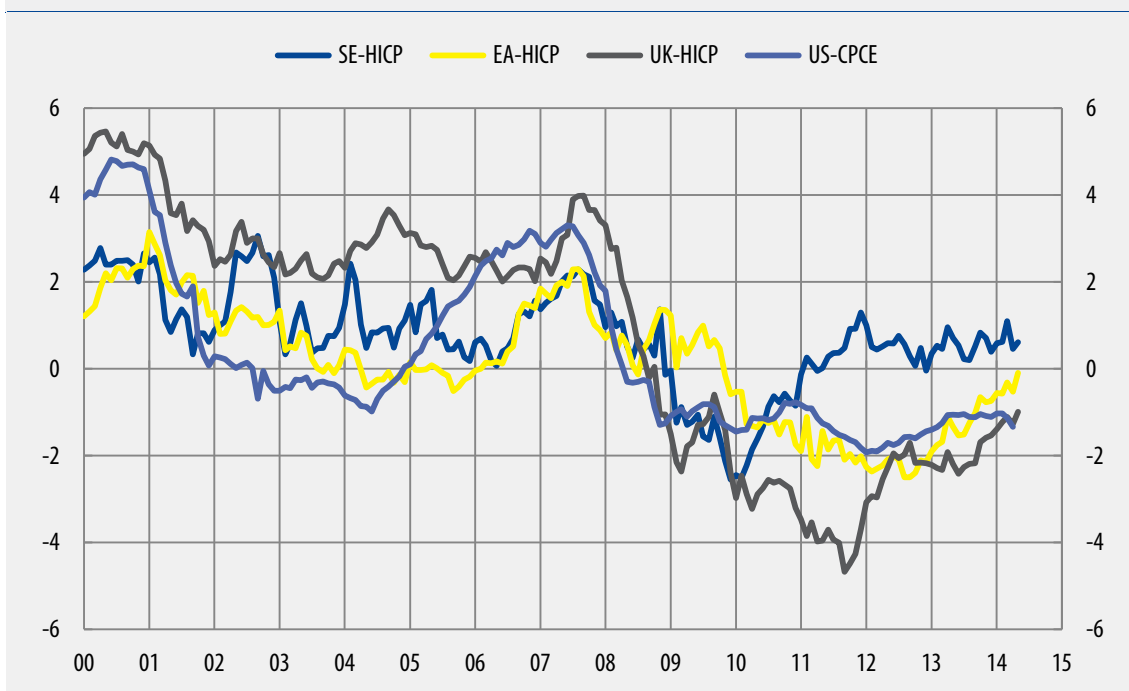
Sveriges Riksbank started to tighten monetary policy in the summer of 2010. The policy rate was raised steadily from 0.25% in July 2010 to 2% in July 2011. Sveriges Riksbank did this in spite of the actions of Finansinspektionen, and in spite of an inflation forecast in July 2010 that was below target and an unemployment forecast that was much above the Riksbank's estimated long-run sustainable rate (Svensson, 2011).

As a result of this tightening, CPI inflation has been zero or even negative over the last two and a half years, much below the 2% target for CPI inflation. The unemployment rate has remained high at around 8% and long-term unemployment has increased. Furthermore, the household debt burden has become higher, since the real value of nominal debt has become about 5% greater in the last two and a half years than it would have been if inflation had been on target.

Recently, Sveriges Riksbank published its own calculations on the impact of a higher policy rate on household debt. According to these calculations, a higher policy rate has a very small and uncertain impact on household real debt and the debt ratio, and the effect on any risks with household debt are even smaller (Sveriges Riksbank, 2013, 2014). As discussed in Svensson (2014), the Riksbank's estimates imply that the benefit of a higher policy rate, expressed in terms of a lower expected future unemployment rate, due to lower probability and less depth of a future crisis, is only about 0.4% of the cost in terms of higher unemployment over the next few years. Furthermore, the Riksbank's calculations and discussion disregard the fact that a lower price level than expected has actually increased the household debt burden.

Figure 1 illustrates the dramatic tightening made by Sveriges Riksbank in 2010. It shows real policy rates for Sweden, the United Kingdom and the United States, and the real EONIA rate for the euro area. We see that the central banks lowered their real rates in 2008 and 2009 to negative numbers, the ECB a little slower than the others. But from the beginning of 2010 to the end of 2011, the real policy rate in Sweden increased from minus 2.5% to plus 1% at the end of 2011, an increase of a full 2.5 percentage points. This increase was due to both the Riksbank's increase in the policy rate and the fall in inflation.

**Figure 1 – Real policy rates for Sweden, the United Kingdom and the United States; real EONIA rate for the euro area**



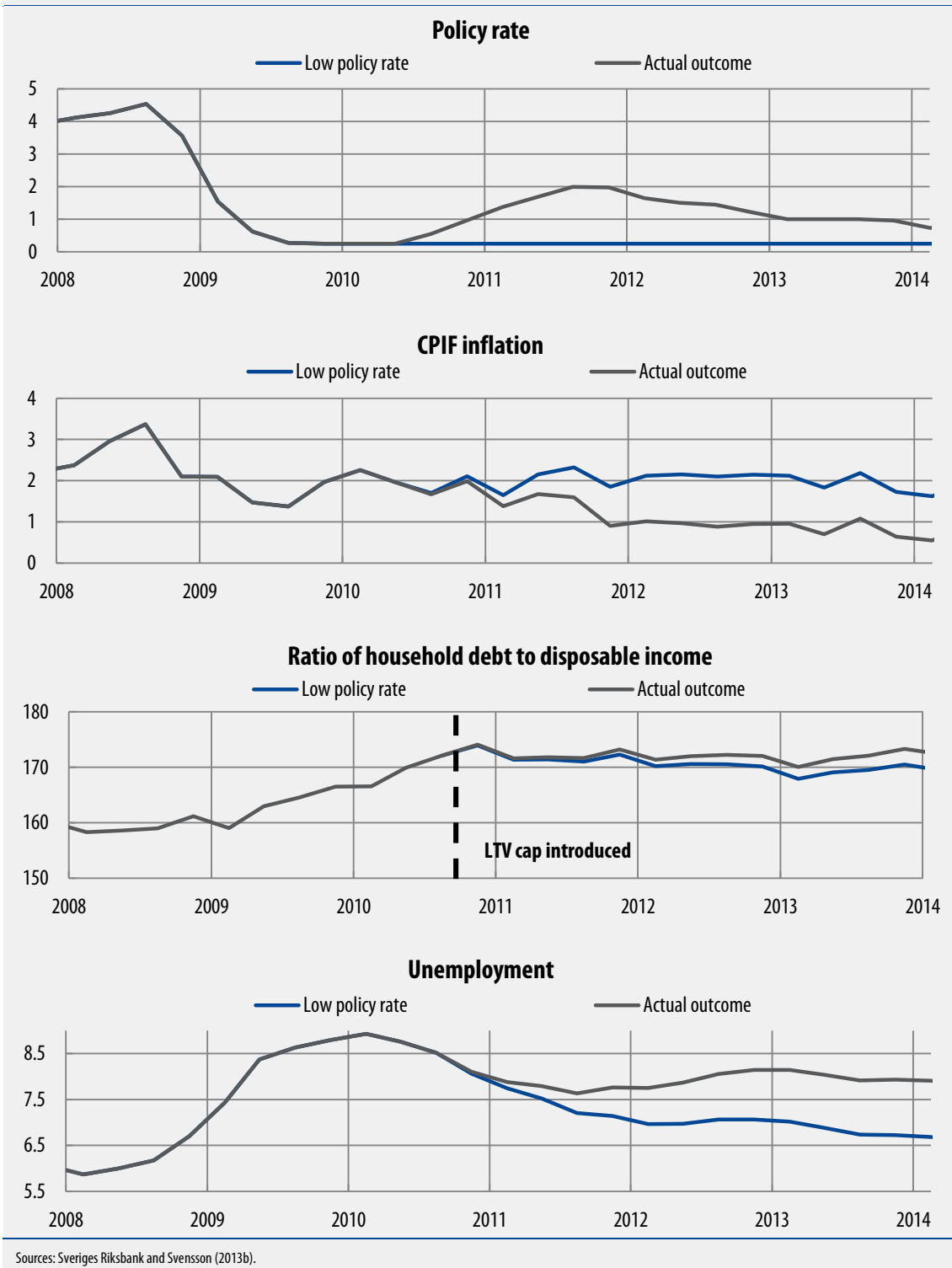
Source: Datastream.

Notes: Real interest rates are constructed as nominal rates minus HICP inflation for the euro area, Sweden and the United Kingdom, and as the nominal rate minus core PCE inflation for the United States.

In Figure 2, the grey lines show the actual outcome for the policy rate, CPIF inflation (CPI inflation excluding the effect of changes in the mortgage rate on housing costs), the unemployment rate, and the household debt-to-income ratio. The introduction of the 85% LTV cap is marked as a vertical dashed line in the panel for the household debt ratio.

The blue lines in Figure 2 shows a counterfactual outcome under the assumption of a policy rate held at 0.25% since July 2010. The counterfactual outcome for CPIF inflation and unemployment is calculated using the Riksbank's main model, the DSGE model Ramses. In the counterfactual outcome, CPIF inflation would have remained close to 2% and the unemployment rate during 2013 would have been about 1.2 percentage points lower. The cost of the Riksbank's actual policy in terms of higher unemployment and lower inflation is substantial.

**Figure 2 – Actual and counterfactual outcome in Sweden for the policy rate, CPIF inflation, the unemployment rate and household debt-to-disposable income ratio (percentages)**

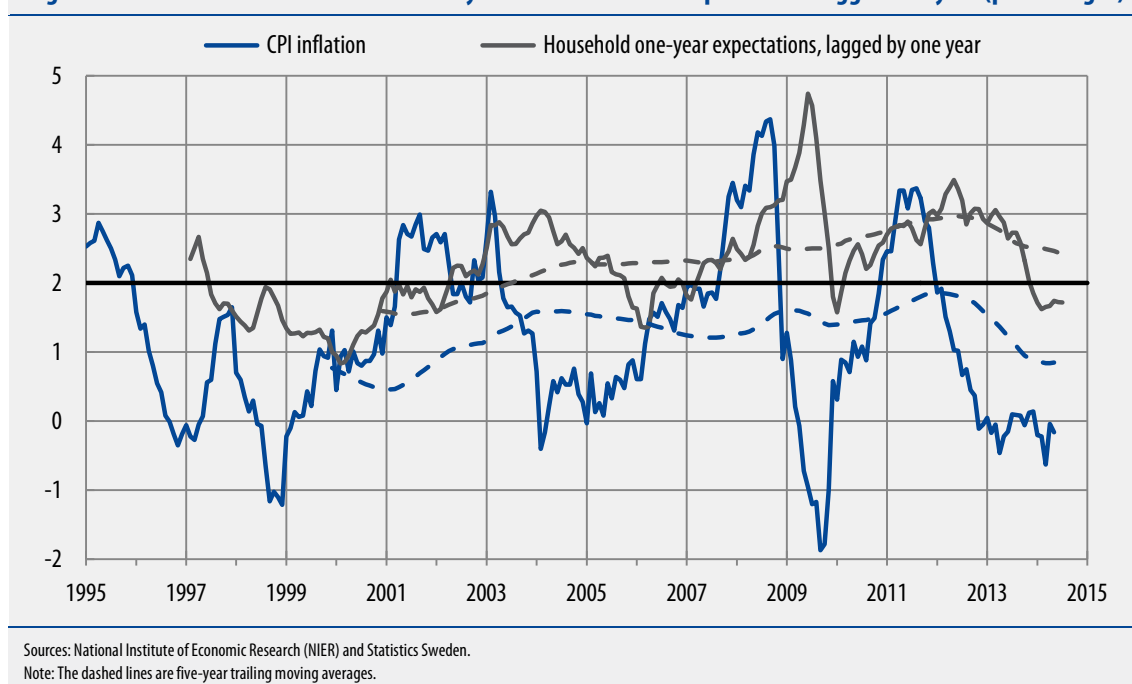


The outcome for the household debt ratio is calculated using the model in Svensson (2013a), where mortgage debt is sticky and adjusts slowly. Then a lower policy rate increases nominal disposable income faster than it increases nominal debt, in which case the debt ratio falls rather than increases. The difference

between the debt ratios at the end of 2013, which are about 174% for the actual outcome and about 170% for the counterfactual, is, however, too small to have any effect on any risks associated with household debt.

Figure 3 shows CPI inflation (the blue line) and household one-year-ahead inflation expectations lagged (the grey line). Thus, the gap between the blue and grey lines shows how much realised CPI inflation has deviated from household expectations. In the last few years, actual inflation and the actual price level has fallen substantially below the previously expected inflation and price level. This means that household real debt has become substantially larger than expected.

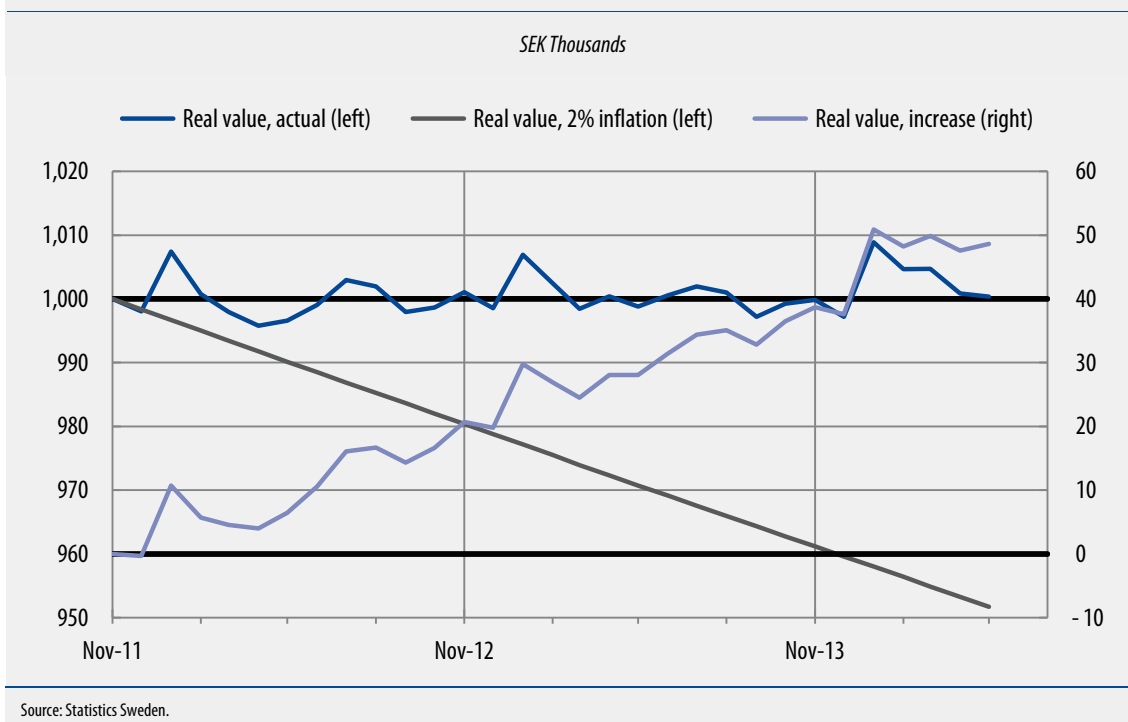
**Figure 3 – CPI inflation and household one-year-ahead inflation expectations lagged one year (percentages)**



In Figure 4, the grey line shows the real value of a loan of SEK 1 million taken out in November 2011, if inflation had been 2% (left axis). Then the real value of the loan would have fallen by 2% per year and been around SEK 950,000 in May 2014, two and a half years later. The dark blue line shows the actual real value of the loan. Since inflation has been about zero, the actual price level was about the same in May 2014 as in November 2011. The real value of the loan in May 2014 was hence still about SEK 1 million. The light blue line shows the difference between the dark blue and the grey lines, that is, the increase in the real value of the loan compared to if inflation had been 2% (right axis). In May 2014, the real value of the loan was SEK 50,000 higher than if inflation had been at 2%. A 5% increase in the real value of the loan over two and a half years is a substantial increase in the real debt burden of households.



**Figure 4 – The real value of a loan of SEK 1 million taken out in November 2011, actual and if inflation had been 2%**



## 6 Conclusion

*In the I Theory of Money, Brunnermeier and Sannikov (2014) argue that price stability and financial stability, and hence monetary policy and financial stability policy, are inseparable. But monetary policy and financial stability policy are different and distinct, in the sense that they have different objectives and different suitable instruments, even when the same authority is in charge of both. Monetary policy cannot achieve financial stability, and financial stability policy cannot achieve price stability. Monetary policy is needed to achieve price stability, and financial stability policy is needed to achieve and maintain financial stability. As is the case for fiscal policy and monetary policy, in normal times monetary and financial stability policy are most likely best conducted independently, but with each taking the conduct of the other policy into account. If the monetary policy stance in a given situation poses a threat to financial stability that the financial policy authority cannot contain with its available instruments, the financial stability authority may warn the monetary policy authority about this, in which case the latter authority may choose to adjust monetary policy.*

*Sweden provides a bad example of aggressive leaning against the wind, in an attempt to restrict household indebtedness, in spite of low inflation forecasts, high unemployment forecasts and strong actions by the financial policy authority to contain any risks associated with household debt. Sveriges Riksbank's policy has indeed been quite costly. It has led to inflation substantially below the target rate and unemployment substantially above a long-run sustainable rate. Furthermore, since it has led to a price level substantially below what was expected, it has led to a substantially higher real debt burden than if inflation had been kept on target. Thus, if anything, it has increased any risks associated with household debt.*

## References

- Bank of England (2013), "Monetary Policy Trade-offs and Forward Guidance", August 2013, available at <http://www.bankofengland.co.uk>
- Bean, C. (2014), "The Future of Monetary Policy", *speech given at the London School of Economics*, 20 May 2014, available at [www.bankofengland.co.uk/publications/Pages/speeches/default.aspx](http://www.bankofengland.co.uk/publications/Pages/speeches/default.aspx)
- Brunnermeier, M. and Sannikov, Y. (2014), "Monetary Analysis: Price and Financial Stability", *Monetary Policy in a Changing Financial Landscape – ECB Forum on Central Banking, May 2014*, European Central Bank, Frankfurt am Main.
- Finansinspektionen (2014), *The Swedish Mortgage Market 2014*, available at <http://www.fi.se>
- Svensson, L.E.O. (2011), "Practical Monetary Policy: Examples from Sweden and the United States", *Brookings Papers on Economic Activity*, Fall 2011, pp. 289-332
- Svensson, L.E.O. (2013a), "'Leaning Against the Wind' Increases (Not Reduces) the Household Debt-to-GDP Ratio", working paper, available at <http://www.larseosvensson.se>
- Svensson, L.E.O. (2013b), "Unemployment and monetary policy – update for the year 2013", blog post, available at <http://www.larseosvensson.se>
- Svensson, L.E.O. (2014), "Why Leaning Against the Wind Is the Wrong Monetary Policy for Sweden", *NBER 25th Annual East Asian Seminar on Economics, Unconventional Monetary Policy, 20-21 June 2014*, available at <http://www.larseosvensson.se>
- Sveriges Riksbank (2013), "Financial Imbalances in the Monetary Policy Assessment", *Monetary Policy Report*, July, Stockholm.
- Sveriges Riksbank (2014), "The Effects of Monetary Policy on Household Debt", *Monetary Policy Report*, February, Stockholm.