

Karolina Ekholm: Role model or warning example? Swedish experiences of taking indebtedness into account in monetary policy decisions

Speech by Ms Karolina Ekholm, Deputy Governor of the Sveriges Riksbank, to a meeting at the Confederation of Swedish Enterprise, Stockholm, 14 March 2014.

* * *

The views expressed in this speech are my own and are not necessarily shared by the other members of the Executive Board of the Riksbank. I would like to thank Carl-Johan Belfrage for his help in writing this speech, along with Mikael Apel, Marianne Sterner, Ulf Söderström and David Vestin for their views on earlier versions.

Today I shall talk about what has been the actual source of dissension among the Executive Board of the Riksbank for several years, namely to what extent household indebtedness should be taken into account in the monetary policy decisions. It may appear unnecessarily retrospective to focus on the earlier dissension when the Executive Board has actually been unanimous on the monetary policy assessments made since December last year. But I believe that there are important lessons to be learnt both by us in Sweden and those abroad, with regard to how the policy conducted may have brought us to where we are now.

Swedish monetary policy has recently been one of the clearest examples of a policy that has tried to counteract the build-up of debt with reference to high indebtedness being a threat to financial stability. This type of monetary policy is known as leaning against the wind, and in this case the wind would be growth in household debt. Household indebtedness has affected the monetary policy assessment in Sweden in earlier periods, too, but it is primarily since autumn 2012 that it has explicitly been cited as a reason for a higher repo rate than is strictly justified by the prospects for inflation and resource utilisation.¹ Although other central banks have also referred to high indebtedness and mentioned financial stability risks in connection with monetary policy decisions, few central banks have faced such a clear conflict of objectives as the Riksbank. What this entails is either to keep the repo rate higher to slow down the build-up of debt, or to keep it lower to bring up an inflation that has long been below target at the same time as resource utilisation has been low.

Personally, I have been sceptical of the policy conducted, which has meant that I entered reservations against the decisions over a long period of time. Now that inflation has recently moved even further away from the target, the Executive Board has been able to agree on the monetary policy decisions. The repo rate was cut most recently in December last year and the repo-rate path was lowered.

Why inflation has been so low is something of an open question. I believe that the policy conducted has been an important contributory factor. At the same time, I believe that its effects on household indebtedness have been minor. In my view, the experiences of including indebtedness in the balance when making monetary policy decisions in Sweden are therefore not particularly positive.

Swedish monetary policy leaning against the wind

The Riksbank has recently been much clearer about how the risks linked to housing prices and household indebtedness have affected the monetary policy decisions.² The risks have

¹ The minutes of the monetary policy meetings in 2005 and 2006 show that the Executive Board took into account the then very rapid increase in household indebtedness and housing prices (see, in particular, the minutes of the monetary policy meetings in April 2005 and February 2006). At the monetary policy meeting in December 2009 I myself mentioned developments in household debt and housing prices as a reason for not cutting the repo rate.

² In the summary of the Monetary Policy Report published in October 2012, it is explained that the repo-rate path “is expected to go hand in hand with households’ debt ratios not rising”. The introduction to the Monetary

been allowed to justify a higher repo rate than the prospects for inflation and resource utilisation would have indicated. Thus, one can say that the Riksbank has practised what is known in central bank contexts as leaning against the wind, to counteract a potentially harmful growth in debt.

The advantages and disadvantages of this type of monetary policy stance have been discussed at length, both in academic circles and among central bank representatives, particularly after the global financial crisis. Some say that the experiences from the financial crisis provide support for a monetary policy that is adjusted so that it counteracts financial imbalances such as price bubbles and excessive indebtedness, while others say that monetary policy is normally unsuitable for these purposes and should instead focus entirely on inflation and resource utilisation.³ My own opinion is closer to the latter perception than the former. I believe that while of course there may be situations in which it is justified to try to dampen a general credit boom, it is better to use other tools than monetary policy to influence indebtedness among households and developments on a specific market, such as the housing market.

In the case of Sweden, one can claim that the repo rate has for several years been set higher than is strictly justified by inflation and resource utilisation.⁴ But household indebtedness was not explicitly mentioned as a reason until the repo-rate decision in October 2012. The repo rate had then been gradually cut from 2 per cent at the end of 2011 to 1.25 per cent in September 2012. In October 2012, the repo rate was then held unchanged and household debt was for the first time treated as a factor in the monetary policy deliberations, both in the Monetary Policy Report and the press release on the repo-rate decision. However, the repo rate was cut further, to 1 per cent in December 2012. It then remained at this level for one year, until December 2013, despite low inflation and an inflation forecast that had been revised down substantially, as well as unemployment that seemed stuck at around 8 per cent. In December 2013, the repo rate was cut further to 0.75 per cent. During the period between December 2012 and December 2013, I felt that the consideration given to household indebtedness was preventing the further repo-rate cut that I considered justified.

Others also lean, but under different circumstances

We in Sweden are far from alone in feeling that rising indebtedness driven by rising house prices poses a threat to financial stability. Other central banks have also given explicit consideration to such threats when formulating their monetary policy. Of those countries that are comparable with Sweden in the sense that they are developed economies with inflation targets, Norway, Canada, Australia and New Zealand are the ones that can be said to have conducted a monetary policy that to some extent leans against the wind. Sweden does however stand out in that inflation has been clearly below the target in recent years, at the same time as unemployment has been relatively high.⁵

Policy Update published in April 2013 states that the monetary policy conducted “is expected to stimulate economic developments and inflation at the same time as taking into account the risks linked to households’ high indebtedness”. An article in the Monetary Policy Report published in July 2013 presents a conceptual framework for taking into account financial imbalances in the monetary policy assessment.

³ For a review and categorisation of various points of view on the question of how monetary policy should give consideration to financial stability, see Smets, Frank (2013).

⁴ See Svensson (2011).

⁵ In Canada, inflation has also been below the target for a period of time, but before this situation arose, unemployment had fallen back to its pre-crisis average. New Zealand had an inflation rate in the lower end of its target interval of 1–3 per cent during a few quarters before they began to say in early 2013 that they did not want to see increased financial stability risks as a result of developments in the housing market. They have not, however, expressly spoken of a trade-off between bringing up inflation and subduing developments in the

The situation in Norway has been similar to ours, in that inflation has also been clearly below the target for a relatively long time, from the beginning of 2011 until the middle of 2013. Since spring 2010, Norges Bank has often discussed the build-up of imbalances linked to a low interest rate as a factor that is included in its monetary policy deliberations. But there are clear differences here, too. Throughout this period they have had a resource utilisation that was close to or even above the normal level. Unemployment has been close to a low historical average.

Although it is of course difficult to compare and assess different central banks' deliberations, the repo-rate decisions in Sweden during most of 2013 would appear to be one of the clearest examples of a monetary policy that leaned against the wind. When the prospects for inflation fell, the repo rate was held unchanged with explicit reference to household debt. This makes it interesting both for us in Sweden and for central banks in other countries to assess how successful the policy has been. It is far too early to make a complete assessment. But as there is a substantial need to manage financial imbalances in some countries, and there is a discussion on the role of monetary policy in this context, it may nevertheless be useful to make a preliminary assessment of the policy.

Swedish inflation moving further from the target

CPIF inflation was around 2 per cent in 2010, when the increases in the repo rate began after the record-high cuts in connection with the global financial crisis. But since then inflation has fallen and CPIF inflation has been around 1 per cent for a couple of years. Last autumn, inflation fell further. It is now very low; in February CPI inflation was -0.2 per cent and CPIF inflation was $+0.4$ per cent. We have been able to observe that it is a broad-based decline in inflation, to the extent that all major components are affected.⁶

Low inflation has come to be a widespread phenomenon and many countries and regions have recently reported inflation rates clearly below their targets. Inflation has fallen particularly sharply in the euro area. The fact that this happens in a situation where there is plenty of spare capacity – which is the case in large parts of the euro area – is not particularly surprising. However, the downturn in Swedish inflation is larger and has been going on for longer than in other countries. And the question is why...

One possible reason, which was also discussed in an article in the latest Monetary Policy Report in February, is that Swedish companies have not been passing on their cost increases to consumers as much as is normal.⁷ They have thus not increased their prices to the extent that one might expect, given the historical relationships with unit labour costs and import prices faced by producers. There may be several reasons for this, but one is that margins may decline when economic activity is weak, which is also noted in the article. Current research using US data implies that price mark-ups vary positively with the business cycle.⁸

Another reason may be that the weak development in the euro area has hit Swedish exports hard and that this has contributed to resource utilisation being lower than normal over a long period of time. With low resource utilisation one can expect that inflation will be pushed down as the pressure on wage and price increases will be low. The weak international demand is of course one factor that is beyond the Riksbank's control and in this sense monetary policy

housing market. In the case of Australia, there are no clear signs that they have faced this kind of trade-off during the period following the financial crisis. This is clearer for the period 2002–2004, but then inflation stayed within the target interval of 2–3 per cent and was only close to the lower interval limit for one quarter.

⁶ See Sveriges Riksbank (2014a).

⁷ See Sveriges Riksbank (2014a).

⁸ See Nekarda and Ramey (2013).

cannot be blamed for the low inflationary pressure. At the same time, it is the role of monetary policy to counteract this type of downward pressure to stabilise inflation around the target.

Monetary policy may have contributed in different ways

Personally, I believe that the monetary policy conducted is an important contributory factor to the fall in inflation. The fact that household indebtedness is taken into account in the monetary policy decisions – and the repo rate is thus held somewhat higher than the prospects for inflation and resource utilisation have justified – has probably made the krona stronger than it would otherwise have been and also held back domestic demand. When the krona appreciates, this has both a direct effect on inflation, which is pushed down when import prices fall, and an indirect effect in that the demand for Swedish-produced goods and services is affected negatively.

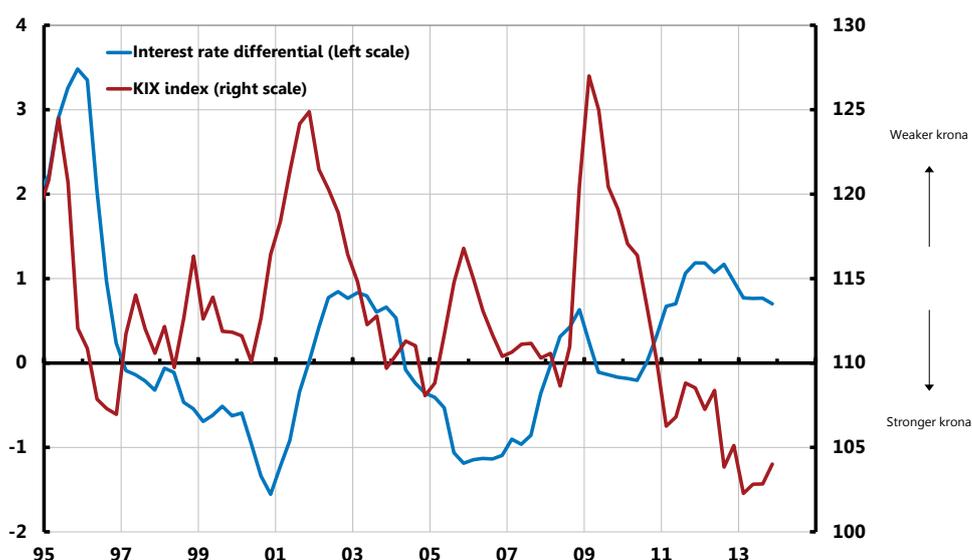
Strong krona contributes to low inflation

The possibility for monetary policy to steer the exchange rate is limited, but there is nevertheless reason to believe that the krona has become stronger than it would otherwise have been because of our leaning against the wind. If foreign exchange market participants see an increased difference between the yield on a Swedish treasury bill and the yield on foreign equivalents, the Swedish treasury bills and thus the Swedish krona will be more attractive and therefore more expensive – that is, the krona will appreciate. Although it is difficult to see clear links between observed exchange rates and interest rate differentials, a positive interest rate differential usually coincides with a strong krona (see Figure 1). The difficulty in seeing clear links is due to expectations having considerable significance for trade on the financial markets. The market rates and the krona rate do not change when the Riksbank makes its repo-rate decisions, they change when market participants' expectations of future repo-rate decisions change.

Figure 1.

Interest rates and exchange rates

Percentage points and index, 18 November 1992=100, quarterly average

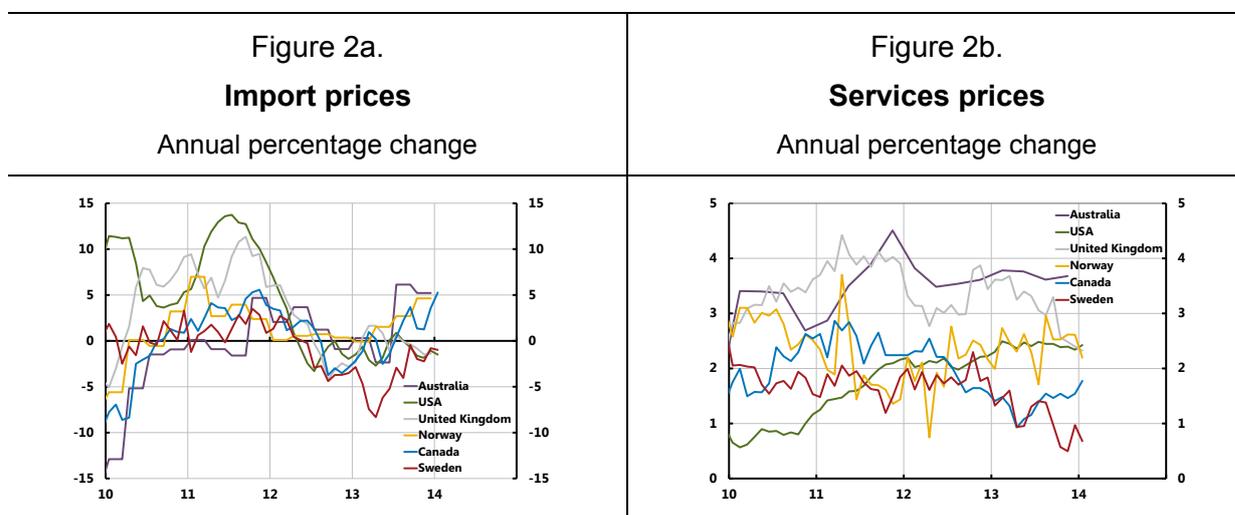


Sources: National sources and the Riksbank

The effect on the krona has thus arisen when expectations of the repo rate have changed, rather than when repo-rate decisions have been made. The expectations have probably been affected gradually, as the significance of the indebtedness for the decisions has become clearer. Moreover, exchange rates are at the same time affected by several factors that are connected with both expectations and market functioning. This makes it difficult to see with the naked eye how a particular monetary policy stance will affect the krona rate – unless it entails a large, sudden and unexpected deviation from earlier patterns. But nevertheless, consideration to household indebtedness and developments on the housing market have entailed a larger interest rate differential in relation to other countries, and thus probably a stronger krona, than we would have had otherwise.

Between spring 2010 and autumn 2013, the interest rate differential in relation to other countries measured in terms of the KIX⁹ index increased by around one percentage point. During this period the krona strengthened by around 10 per cent and we were forced to revise our exchange rate forecasts in a stronger direction on several occasions. One possible explanation is that the forecast did not fully reflect the large interest rate differential that monetary policy entailed.

One consequence of the strong development of the krona is that Swedish import prices have fallen in absolute terms and fallen more than other countries' import prices (see Figure 2a). This puts downward pressure on inflation. Another consequence is that the international competitiveness of domestically-produced goods and services deteriorates. This could be reflected in lower sales volumes and, to the extent the firms instead prefer to guard their market shares, lower price mark-ups. A strong krona, combined with weak demand from abroad, has meant that the situation for the export industry has been particularly hard pressed, which has probably led to low wage increases in the manufacturing sector. As this sector is traditionally a wage leader, the low wages may have spread to the rest of the Swedish economy and in this way have contributed to the low inflationary pressures.



Note. In Figure 2b, the data for Australia is quarterly, while the data for other countries is monthly. For Sweden, Norway, the euro area and the United Kingdom, the data refers to services prices in the HICP and for others in the CPI.

Sources: National sources and Statistics Sweden

⁹ The KIX index for policy rates only includes the euro area, Norway, the United Kingdom and the United States. Its composition has been governed by the relevance of the respective country's policy rate for pricing on the foreign exchange and financial markets. For a more detailed explanation, see Sveriges Riksbank (2012).

Slower domestic demand and low inflation expectations also contribute

The impact of monetary policy via the exchange rate can be primarily observed in prices of internationally-traded goods. However, a monetary policy that leans against the wind also has effects on inflation in that it dampens domestic demand. Such effects probably leave a mark on the development of service prices, as services are not traded internationally to the same extent as goods.

Increases in services prices have been small in Sweden since the end of 2012 – both compared with normal developments and compared with other countries (see Figure 2b).

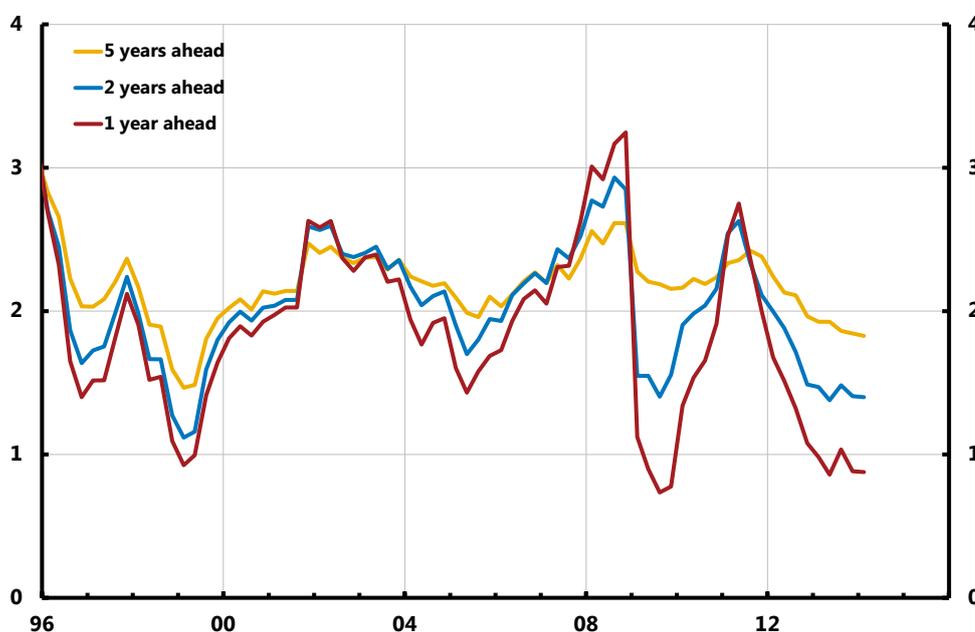
A further explanation for the abnormally low price increases could be expectations of an abnormally low future inflation rate. In monetary policy analysis one usually assumes that there is a forward-looking element in the pricing, as it may be perceived as costly to change prices. If one is expecting weak demand and thus low price increases in the future, one will not want to increase one's prices very much today. Expectations of a low future inflation rate can thus become self-fulfilling and this is something we would prefer to avoid, as it makes it more difficult to attain the inflation target in the future.

According to surveys of inflation expectations among money market participants, employers' and employees' organisations as well as purchasing managers, expectations for 1 and 2 years ahead have declined recently, which may have significance for pricing behaviour. Inflation expectations 5 years ahead are fairly well anchored around 2 per cent, but it is important that the development of the past couple of years does not continue so that the longer-term expectations also end up far from the target (see Figure 3).

Figure 3.

Expected inflation

Per cent



Note. Average for all survey respondents.

Source: TNS SIFO Prospera

Resource utilisation remains lower than normal

Resource utilisation has been lower than normal for in principle the entire period since the end of 2008, when demand for Swedish exports fell heavily in connection with the global financial crisis. At the same time, developments on the labour market have been better than expected in some aspects. Although unemployment has remained around 8 per cent since the middle of 2012, employment has increased and the employment rate has risen around half a percentage point since then.

One question that sometimes arises is whether it is actually possible to bring down the current unemployment rate of 8 per cent with the aid of monetary policy. Matching on the labour market appears to have deteriorated and a larger percentage of the unemployed consist of groups that are on the periphery of the labour market. This could mean that structural unemployment is higher than before, and structural unemployment cannot be affected by monetary policy.

However, my impression is that one can at least partly determine how much of unemployment is structural by looking at wage increases. Since the wage increases are small, it is reasonable to assume that there is spare capacity in the labour market. This means there is also scope to use monetary policy to try to reduce unemployment.

Household indebtedness nevertheless remains high

The actual purpose of a monetary policy that leans against the wind is to counteract a build-up of debt that is perceived as risky. When one assesses whether the policy conducted has been appropriate, one wants to know how far one has succeeded in this.

In this context, it is important to note that the household debt ratio has remained relatively stable since autumn 2010. In 2010 three things happened that may have affected developments; the mortgage cap was introduced, the Riksbank began to raise the repo rate, and after a period of silence there were suddenly lots of statements and initiatives from the political side referring to the housing market and household indebtedness.¹⁰

It would have been interesting to be able to distinguish the separate effects of these events on indebtedness, but this is of course very difficult. One piece of the puzzle is Finansinspektionen's conclusion that the mortgage cap has had an effect. They note in their Mortgage Report in March 2013 that the mortgage cap is continuing to work and that the loan-to-value ratios for new mortgages are no longer rising.¹¹

For me as a monetary policy-maker, the decisive question is to what extent monetary policy has contributed to limiting household debt recently. If one looks at the estimates of the determinants of indebtedness used as a basis for our forecasts, one sees that the effect of the repo rate on households' debt ratios (that is, their debts in relation to disposable income) is very small.¹² A repo rate that is 0.25 percentage points higher during one year is expected to reduce the debt ratio by at most 0.3–0.4 percentage points (see Figure 4).

¹⁰ For example, in November 2010 Anders Borg warned of the risk that a housing bubble would build up, comparing developments in Sweden with those in Ireland and Iceland, and emphasising the importance of putting an early stop to it (Borg, 2010). The Liberal Party then proposed cutting the deductions for interest payments in January 2011 (Hamilton, 2011).

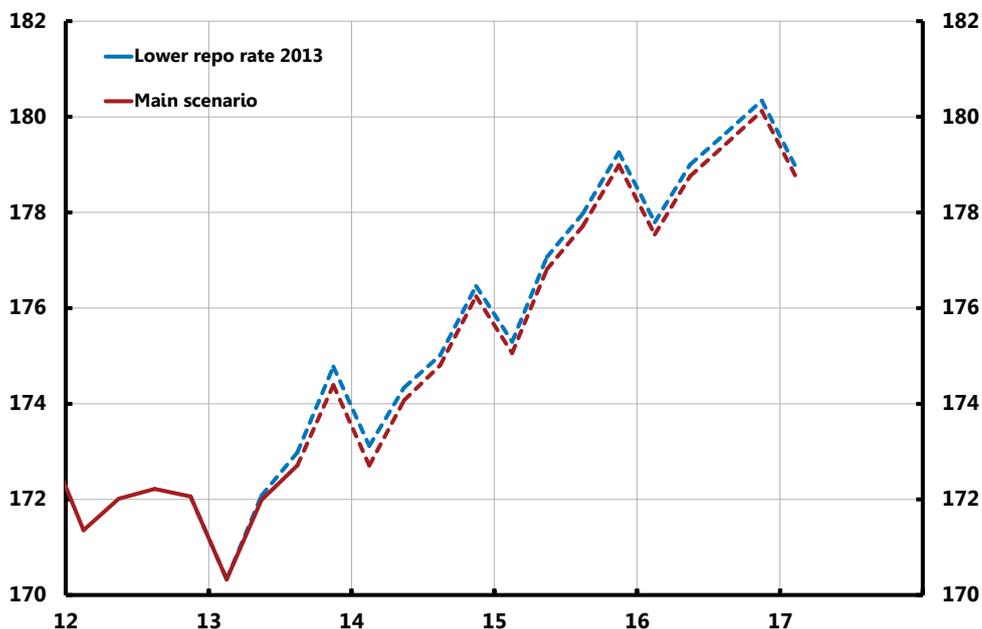
¹¹ Finansinspektionen (2013).

¹² See Laséen and Strid (2013) and Sveriges Riksbank (2014b).

Figure 4.

Household debts

Percentage of disposable income



Note. The experiment with a lower repo rate in 2013 assumes a repo rate cut from 1 per cent to 0.75 per cent at the monetary policy meeting in February 2013 and a repo-rate path that from December 2013 follows the path published in December 2013 and again in February 2014.

Sources: Statistics Sweden and the Riksbank

One would need to raise the repo rate substantially, perhaps by several percentage points, to have a tangible effect on the risks linked to indebtedness. But the effect would then also be much higher unemployment and a much lower inflation. Such a monetary policy stance does not appear appropriate, and would in any circumstance not be compatible with an inflation target.

The estimated effect of the repo rate on the debt ratio is very uncertain, so it is not impossible that the actual effect is much greater. At the same time, it is also possible that the actual effect is zero, or even that it would go in the opposite direction so that the debt ratio rises when the interest rate is raised.¹³ This could be possible, as the interest rate not only affects indebtedness, it also affects disposable incomes through its impact on economic activity and inflation. A higher interest rate is expected to have a negative effect on both indebtedness and disposable incomes. The ratio between them can therefore in principle rise or fall, even if it appears to be the latter in practice.

Although I consider that indebtedness in the Swedish household sector comprises a risk to macroeconomic developments in Sweden, I am extremely doubtful about managing this risk by means of a monetary policy that leans against the wind. The cost appears to be high: inflation is pushed down in a situation where it is already low and unemployment becomes unnecessarily high. On the other hand, the benefit appears small, quite simply because the effect on indebtedness appears small.

¹³ See Svensson (2013a).

Risks linked to household indebtedness should instead be managed by means of measures taken in other areas. The mortgage cap probably already has some impact. Finansinspektionen has also introduced a risk weight floor for mortgages and notified that it intends to raise this, which in practice will increase the banks' costs for mortgages. The Swedish Bankers' Association's recommendation to draw up amortisation plans in line with Finansinspektionen's notified requirement may also have an effect.¹⁴ Nor is there any shortage of ideas for further measures, including the introduction of countercyclical capital buffers, which they now use in Norway.

Underneath all this is a problem of a more structural nature, namely a supply of housing that has grown slowly and a housing market that is not functioning efficiently. This has most likely contributed to pushing up the price of housing and consequently indebtedness. Neither monetary policy nor measures in the field of macroprudential policy can resolve this type of structural problem; they must be managed with entirely different measures.

Do marginal differences in the repo rate play a role?

In the same way as one can question whether a repo rate that is a few tenths of a percentage point higher or lower plays any role with regard to risks linked to household indebtedness, one can also question whether it has any significance for inflation and unemployment. During the period between December 2012 and December 2013, when the repo rate was unchanged at 1 per cent, I advocated interest rate cuts of 0.25 percentage points. Is it reasonable to believe that such a small cut would have any tangible effect on developments?

Of course, we cannot know with any great degree of certainty what would have happened if monetary policy had been different than it was, but we can use economic and statistical models to assess the consequences. An analysis using the Riksbank's macro model Ramses¹⁵ indicates that a repo rate that was 0.25 percentage points lower during most of 2013 would have meant that inflation would have been a couple of tenths of a percentage point higher today (see Figure 5). This may not seem much, but it corresponds approximately to the downturn in inflation we have observed since the start of 2013 and these are important tenths of a percentage point in a situation where inflation has already been low for a long time.¹⁶

The effect could be greater if one took into account the fact that a lower repo rate in 2013 would probably have affected expectations of future monetary policy during 2014 and onwards. Moreover, I was not merely advocating a lower repo rate, but also a lower repo-rate path during this period. A lower repo-rate path should have affected expectations of future monetary policy in an expansionary direction and thereby contributed further to higher inflation.

¹⁴ Swedish Bankers' Association (2013).

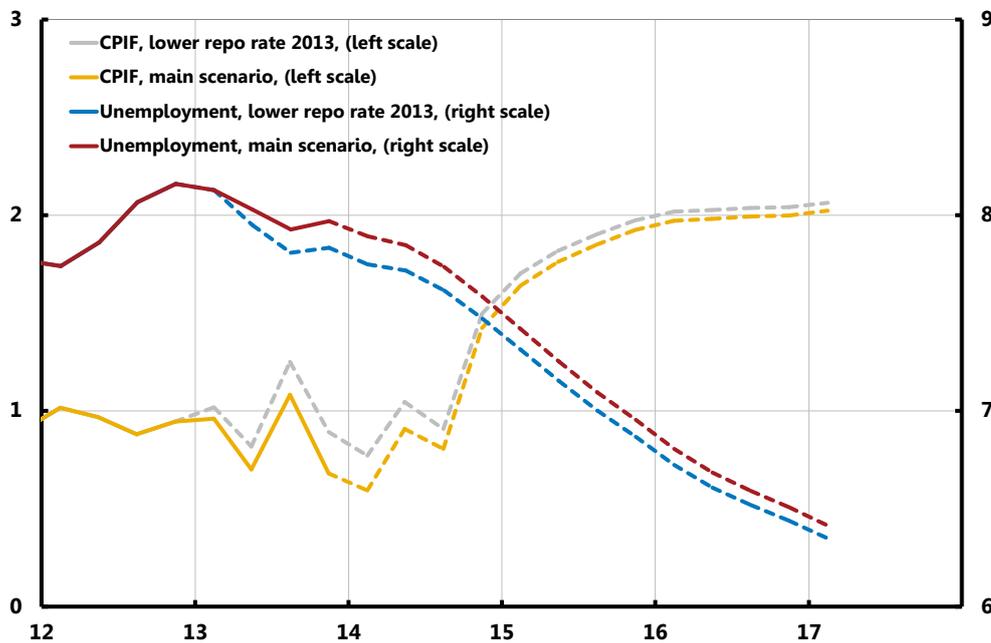
¹⁵ For a description of Ramses, see Adolfson et al. (2013).

¹⁶ A corresponding analysis of the expected consequences of holding the repo rate unchanged at 0.25 per cent since July 2010 is presented in Svensson (2013b). According to this analysis, CPIF inflation would have been around one percentage point higher than it actually was at the beginning of 2013.

Figure 5.

Alternative scenario for CPIF inflation and unemployment

Annual percentage change and percentage of labour force, seasonally-adjusted data



Note. The experiment with a lower repo rate in 2013 assumes a repo rate cut from 1 per cent to 0.75 per cent at the monetary policy meeting in February 2013 and a repo-rate path that from December 2013 follows the path published in December 2013 and again in February 2014.

Sources: Statistics Sweden and the Riksbank

The analysis can also be applied to unemployment. We see then that a repo rate 0.25 percentage points lower would have entailed somewhat lower unemployment now. The effect on unemployment is a clear economic cost of a monetary policy that leans against the wind. This must be traded off against the benefit one can expect, that is, potentially less negative consequences of a crisis caused by households' high indebtedness.

Low inflation is also a risk

In my view, there may very well be situations where it is justified to conduct a monetary policy that leans against the wind, that is, to make the policy tighter than is justified by the prospects for inflation and resource utilisation. This may be the case when there are signs of a strong general credit boom in the economy and credit assessments appear to be less and less prudent.¹⁷ However, one condition is that inflation is stabilised at least to some extent around the target. If, on the other hand, inflation is far below the target and has been so for a long period of time, such a policy may create new risks.

One such risk is that confidence in the inflation target may be undermined. If long-term inflation expectations fall and begin to deviate too far from the target, it may be difficult to stabilise inflation not just in the short run, but also in the long run. If actual inflation becomes

¹⁷ For an attempt to describe and define this type of general credit boom, see Dell'Ariccia et al. (2012).

very low, there is a greater risk of new negative shocks to the economy leading to actual deflation, which could entail substantial real economic costs. It is important to show with one's actions that it is the inflation target that is the central focus for monetary policy decisions.¹⁸

I therefore think it was very welcome that a unanimous Executive Board was able to agree on an interest-rate cut in December after the weak inflation outcomes in the autumn. Moreover, we lowered the repo-rate path, that is, our own forecast for the repo rate, quite substantially. However, there is some element of leaning against the wind even in the current repo-rate path. As described in the most recent Monetary Policy Report, an even lower repo rate is expected to bring inflation back on target sooner and steer unemployment towards a long-run sustainable level faster.

Given this, I felt at both the monetary policy meeting in December 2013 and the one in February 2014 that the alternative of an even lower repo rate needed careful consideration. My one reason for not advocating an even lower repo rate was that I felt the timing was wrong. Increasingly strong international developments and rising resource utilisation here in Sweden were nevertheless expected to lead to inflation rising gradually. It is unusual for central banks to cut their policy rates substantially or repeatedly during an economic upturn.

However, there is a risk that inflationary pressures will prove to be even weaker than we have assumed. Inflation in January and February proved to be somewhat lower than we were expecting when we made our decision in February. If we see clear signs that inflationary pressures are weaker than expected, we must continue to show through our actions that we take the inflation target seriously, by making monetary policy even more expansionary. Personally, I would be prepared to cut the repo rate even further, even if we were in the midst of an economic upturn.

Is a monetary policy that takes indebtedness into account compatible with an inflation target?

What conclusions can one draw from the Swedish case of monetary policy that takes into account indebtedness and housing prices? I would claim that the experiences so far argue against this type of monetary policy strategy. Inflation has been remarkably low and has moved further away from the target in a situation where the economy nevertheless appears to be in an upturn. Although there have been positive developments on the labour market, unemployment has remained around 8 per cent for a long time. Household debts have grown at around the same rate as disposable incomes, which mean that the debt ratio and the potential risks it entails are in principle unchanged. For me, it would appear as though the benefits have been small, while the costs have been high.

However, it is of course difficult to draw any far-reaching conclusions on the basis of what we have been able to observe so far. We quite simply do not know how the Swedish economy would have developed if the Riksbank had conducted a more expansionary monetary policy. However, the fact that inflation has been so low has changed the conditions for monetary policy. The unexpectedly low inflation was the reason why the repo rate was cut in December last year by a unanimous Executive Board, at the same time as the repo-rate path was revised down substantially. At the most recent monetary policy meetings there has been greater focus than before on inflation.

¹⁸ The Canadian central bank governor recently described monetary policy as an exercise in risk management, where the risk of inflation falling and moving even further from the target has to be weighed against the risk of financial imbalances. He emphasises that the credibility of the inflation target cannot be taken for granted, but must be earned by clearly focusing monetary policy on attaining the target (Poloz, 2013).

Perhaps the lesson here is that a monetary policy that leans against the wind is difficult to combine with an inflation target. Although there may be justification for slowing down credit growth in some situations, it may be difficult to use monetary policy for this purpose if there is an explicit inflation target. In practice, one tries to attain two targets with one single instrument and there is then a risk that one will not be particularly successful in attaining either of them.

References

Adolfson, Malin, Laséen, Stefan, Christiano, Lawrence, Trabandt, Mathias, and Walentin, Karl, (2013), Ramses II: Model description, Occasional Paper no. 12. Sveriges Riksbank.

Swedish Bankers' Association (2013), Stärk amorteringskulturen (Strengthen the amortisation culture). Press release 14 October 2013.

Borg, Anders (2010), interview response in radio programme P1-morgon 30 November 2010. Radio Sweden.

Dell'Ariccia, Giovanni, Igan, Deniz, Laeven, Luc, Tong, Hui, Bakker, Bas and Vandebussche, Jérôme (2012), Policies for Macroeconomic Stability: How to Deal with Credit Booms, *Staff Discussion Note* 12/06. The International Monetary Fund

Finansinspektionen (2013), *The Swedish Mortgage Market 2013*.

Hamilton, Carl B. (2011), Dags att minska hushållens ränteavdrag för bostadslån (Time to reduce households' interest deduction for mortgages), article on debate page of DN newspaper 5 January 2011. Dagens Nyheter.

Laséen, Stefan and Strid, Ingvar (2013), Debt Dynamics and Monetary Policy: A Note, *Working Paper* no. 283. Sveriges Riksbank.

Nekarda, Christopher J. and Ramey, Valerie A, (2013), The Cyclical Behavior of the Price-Cost Markup. *Working Paper* No. 19099. National Bureau of Economic Research.

Poloz, Stephen S. (2013), Monetary Policy as Risk Management, speech 12 December 2013. Bank of Canada.

Smets, Frank (2013), Financial Stability and Monetary Policy: How closely interlinked? Sveriges Riksbank Economic Review 3, 2013. Sveriges Riksbank.

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

Svensson, Lars E. O. (2013a), "Leaning Against the Wind" Leads to a Higher (Not Lower) Household Debt-to-GDP Ratio. larseosvensson.se.

Svensson, Lars E. O. (2013b), Some Lessons from Six Years of Practical Inflation Targeting, *Sveriges Riksbank Economic Review* 3, 2013. Sveriges Riksbank.

Sveriges Riksbank (2012), KIX index better reflects Sweden's international dependence. Article in *Monetary Policy Report*, October 2012.

Sveriges Riksbank (2014a), Perspectives on the low rate of inflation. Article in *Monetary Policy Report*, February 2014.

Sveriges Riksbank (2014b), The effects of monetary policy on household debt. Article in *Monetary Policy Report*, February 2014.