Lars E O Svensson: Monetary policy and employment – monetary policy is too tight

Speech by Prof Lars E O Svensson, Deputy Governor of the Sveriges Riksbank, to the Swedish Trade Union Confederation, LO, Stockholm, 16 January 2013.

* * *

I would like to thank Karolina Ekholm, Gabriela Guibourg, Kerstin Hallsten, Per Jansson, Kerstin af Jochnick, Pernilla Johansson, Ulf Söderström, Staffan Viotti and Anders Vredin for useful comments and discussions. Anna Lidberg and Marianne Sterner have contributed to this speech. The views expressed here are my own and are not necessarily shared by the other members of the Executive Board of the Riksbank or by the Riksbank's staff.

Monetary policy is too tight in Sweden

Although I am myself a member of the Executive Board of the Riksbank, it is hardly a secret that I see major problems with Swedish monetary policy. In a shorter-run perspective one can note that both CPI and CPIF inflation are now significantly below the inflation target of 2 per cent, and that unemployment is way above a reasonable long-run sustainable rate. There is no doubt that monetary policy has contributed to this, in that it has been too tight since the Riksbank began raising the policy rate in the summer of 2010. This may of course sound strange given that the policy rate is at a historically low level. But both short and long nominal and real interest rates have shown a negative trend since the mid-1990s and have fallen in Sweden and the rest of the world. This makes it misleading to now make direct historical comparisons of the level of the policy rate. The fact that monetary policy has been and still is too tight becomes clearer when one sees that the policy rate and the short real rates in Sweden have been raised since 2010, and then have been kept high in comparison with policy rates and the short real rates in the euro area, the United Kingdom and the United States. This is despite the fact that inflation in Sweden is significantly lower than in these economies while unemployment is about as high as in the United Kingdom and the United States (Figures 1–3). After having been close to the target in early 2010, CPIF inflation in Sweden has also since trended downwards to a rate of one per cent or below.[1]

Average inflation too low and average unemployment unnecessarily high since 1997

In a longer perspective, one can note that since 1997, when inflation expectations had been anchored to the inflation target, the average rate of inflation in Sweden measured using real-time data for the CPI has been 1.4 per cent, that is, 0.6 per cent below the target for the CPI, which is 2 per cent. This is in stark contrast to the situation in countries such as Australia, Canada and the United Kingdom which have had a fixed inflation target as long as Sweden. In these countries, the rate of inflation has been at or very close to the inflation target (in the case of the United Kingdom until the end of 2007).[2] As, according to the Prospera surveys, inflation expectations in Sweden have been firmly anchored to the target since 1997,

---

[1] See Svensson (2011) for a comparison of monetary policy in Sweden and the United States since the summer of 2010, including which monetary policy has been better balanced.

[2] As discussed in Svensson (2012d), Australia has had an inflation target in the form of an interval between 2 and 3 per cent, that is, with a midpoint of 2.5 per cent, since the middle of 1993. Average inflation for the period 1997–2011 was 2.7 per cent. Canada has had an inflation target since 1991 and the target has been 2 per cent since 1995. Average inflation for the period 1997–2011 was 2.0 per cent. The United Kingdom has had an inflation target since the end of 1992. From 1996 to 2003 the target was 2.5 per cent measured using the RPIX index. Average RPIX inflation for the period 1997–2003 was 2.4 per cent. Since 2004, the target has been 2 per cent measured in terms of the CPI. Average CPI inflation for the period 2003–2007 was 2.0 per cent. During the period 2008–2012, the rate of inflation has exceeded the inflation target in the United Kingdom. However, this is compatible with an optimal monetary policy when unemployment, as in the case of the United Kingdom, exceeds a long-run sustainable rate.

average inflation has thus been significantly lower than these expectations. According to established theoretical and empirical research concerning the link between inflation and unemployment – the so-called expectations-augmented Phillips curve – this means that the average rate of unemployment since 1997 has been higher than necessary, according to my calculations approximately 0.8 percentage points too high, which is equivalent to about 38,000 unemployed people in Sweden (Svensson 2012b, d).[3]

Monetary policy is an inappropriate instrument for limiting household indebtedness

Monetary policy is thus tight at the moment, with a higher real short rate than abroad, an inflation rate significantly below the target, and unemployment well above a reasonable long-run sustainable rate. A possible explanation for this tight monetary policy is that it has aimed to limit household indebtedness, measured as the ratio between debt and disposable income.[4] However, as I will soon explain in more detail, according to established theoretical and empirical research, monetary policy has only a very limited short-run impact on the household debt ratio and – when inflation is low and stable – no long-run impact. A tight monetary policy thus instead leads to inflation being too low and unemployment being too high, without having a tangible effect on potential risks arising from household indebtedness. In practice, monetary policy has to some extent neglected the price stability objective and led to unnecessarily high unemployment. Against this background, it is remarkable that monetary policy in Sweden nevertheless seems to have been aimed at influencing household indebtedness. Any problems arising from household indebtedness could be better managed by other means than the policy rate, such as mortgage caps and tax regulations, which, unlike monetary policy, are effective in both the short run and long run (Svensson 2012c).

The Riksbank's mandate – price stability and the highest sustainable employment – demands a lower policy rate and policy-rate path

I thus believe that monetary policy should be more expansionary than it is at present, that is, the policy rate and the policy-rate path should be lower. The Riksbank's mandate should, in line with the Sveriges Riksbank Act and its preliminary works, be interpreted as price stability and the highest sustainable employment (Svensson 2012b).[5] The highest sustainable employment is in practice the same as the lowest sustainable rate of unemployment. Every monetary-policy decision thus entails setting the repo rate and selecting the repo-rate path that best stabilises inflation around the inflation target and unemployment around a long-run sustainable rate.[6]

---

[3] Andersson, Palmqvist and Österholm (2012) discuss the Riksbank's target attainment during a different period, that is a period beginning in 1995 instead of in 1997, which gives an average of 1,5 per cent for CPI-inflation in 1995–2011 instead of 1.4 per cent. During 1995–1996, CPI inflation was 1.8 per cent, which increases the average. However, in 1995 and early 1996, inflation expectations according to Aragon Fondkommission's surveys were significantly above the target, which all else being equal increases inflation and requires a higher rate of unemployment to attain the target (Svensson 2012d). Inflation expectations do not become anchored around the target until the latter part of 1996. The period from 1997 and onwards is therefore more relevant for assessing target attainment and the real economic costs of falling below the target.

[4] See, for example, Ingves (2012) and Per Jansson's comments in the minutes of the monetary policy meeting held in October 2012 (Sveriges Riksbank 2012c, page 21).

[5] Chapter 1, article 2 of the Sveriges Riksbank Act (SFS 1988:1385) states that "the objective of monetary policy is to maintain price stability". According to the government bill (Swedish government 1997, page 1), that proposed the act also states that "as an authority under the Riksdag, the Riksbank, without prejudice to the inflation target, should furthermore support the goals of general economic policy with the aim to achieve sustainable growth and high employment". High employment should be interpreted as the highest sustainable rate of employment. The idea behind the bill is hardly that there is any conflict between "sustainable growth" and "high employment". See Svensson (2012b) for a further discussion of this.

[6] It may be interesting to note in this context that the Riksbank has in principle the same mandate as the Federal Reserve. According to the Federal Reserve Act, the US central bank should "promote effectively the

Against this background, I have in recent years advocated a significantly lower policy rate and policy-rate path in order to attain an inflation rate closer to the target and an unemployment rate closer to a long-run sustainable rate. As unemployment has been high for a long time and is therefore becoming entrenched, a particularly expansionary monetary policy is now needed to bring unemployment down to a long-run sustainable rate. The inflation rate must therefore be temporarily allowed to overshoot the target. In the longer run, it is a case of conducting a monetary policy that provides an average rate of CPI inflation at or close to the target and of not repeating the policy that has led to unnecessarily high unemployment since 1997.

I will now go on to discuss why a more expansionary monetary policy would not have any significant effects on the potential risks associated with household indebtedness, what the costs of the tight monetary policy are in the short and long run in terms of increased unemployment, what determines the long-run sustainable rate of unemployment, how we should view the arguments put forward that monetary policy cannot do very much about the high rate of unemployment and why a more expansionary monetary policy with inflation temporarily above the target is needed to bring unemployment down to a long-run sustainable rate.

Monetary policy has limited short-run effects on household indebtedness and – with low and stable inflation – no long-run effects

As I said earlier, a possible explanation for the tight monetary policy is that in practice the aim has been to limit household indebtedness, that is, the household debt ratio. As far as I can see, there is a misunderstanding here about what monetary policy can achieve with regard to household indebtedness. As I pointed out in a speech in November last year (Svensson 2012c) and at the monetary policy meeting in December (Sveriges Riksbank 2012d), according to established theoretical and empirical research, including the Riksbank's own studies and calculations, for example Riksbank (2011), monetary policy has very little short-run impact on household indebtedness and, with low and stable inflation, no long-run impact.

Household debt has risen to approximately 170 per cent of disposable income. The debt is mainly mortgages, so in order to understand the development of debt and whether it is a problem, we must understand developments in housing prices and the value of housing. Households' real assets (owner-occupied homes, second homes and condominiums), have grown in pace with their debt and there is a stable relationship between them. The loan-to-value ratio, the ratio of debt to real assets, has been relatively stable and has remained in the interval of 50–60 per cent since the mid-1990s (Figure 4).

There has been considerable research into how housing prices are determined. As Englund (2011) shows in the Riksbank's inquiry into the risks in the Swedish housing market, the fundamental value of housing is largely determined by the long real mortgage rate after tax and the value of the housing services provided by the housing. The value of the housing services in turn has a stable relationship to disposable income (housing costs comprise 25–30 per cent of disposable income).[7] Put simply, the after-tax mortgage rate determines how much a homeowner is prepared to pay for his or her home for the housing costs to be 25 to 30 per cent of the homeowner's disposable income. This means that the relationship between housing prices and disposable income is largely determined by the long real mortgage rate after tax, including the effects of wealth and property taxes. As Englund

goals of maximum employment and stable prices". In this case too, maximum employment means maximum sustainable employment. The Federal Reserve Board (2012) also emphasises the longer-run normal rate of unemployment.

[7] Statistics Sweden (2012, table 9.1.8).

demonstrates, developments in Swedish housing prices in relation to disposable income are largely explained by a strongly negative trend in long real mortgage rates after tax since the mid-1990s.

The established view of monetary policy is that it is not able to affect short and long real interest rates in the long run. It can only affect the long real mortgage rate after tax in the long run to the extent that the rate of inflation for a given tax system affects real tax deductions and real wealth and property taxes. An inflation target and low, stable inflation mean that this opportunity for influence disappears. Then monetary policy will no longer have any long-run effect on housing prices in relation to disposable income.[8]

Monetary policy could still affect the debt ratio if it could influence the loan-to-value ratio. A higher policy rate might limit the debt ratio if it led to a lower loan-to-value ratio, if there was a negative relation between the policy rate and the loan-to-value ratio. As can be seen in Figure 5, however, there is hardly any support for such a relation. Thus, there does not seem to be any support for the view that monetary policy could affect indebtedness in the long run.

In the short run, that is a few years ahead, monetary policy has very little effect on housing prices and even less on the debt ratio, as the debt ratio's numerator and denominator move in the same direction in the short run. At the latest monetary policy meeting (Sveriges Riksbank 2012d) I mentioned a typical result from empirical estimates, namely that a one percentage point higher policy rate for four quarters leads to just over 2 per cent lower housing prices and debt than would otherwise be the case. At the same time, GDP and disposable income become just over one per cent lower than they would otherwise have been, while unemployment becomes just over 0.5 percentage points higher, which corresponds to about 25,000 jobs given the current number of individuals in the labour force, approximately 5 million. The debt ratio's numerator is thus just over 2 per cent lower and the denominator just over one per cent lower, so that the debt ratio is just over one per cent lower than it would have been otherwise. Thus, a one per cent lower debt ratio costs about 25,000 jobs. This is roughly the same relationship that I have mentioned earlier (Svensson 2012c), that 10 per cent on housing prices costs 6 per cent of GDP and 3 percentage points unemployment, that is, 150,000 jobs.[9]

As far as I can see, there is thus no support for the view that monetary policy could tangibly limit the debt ratio in the short run without major costs in the form of lower inflation and higher unemployment. Other means must be used to influence the debt ratio, such as mortgage caps and tax regulations; means that can affect the loan-to-value ratio or long real mortgage rates after tax in both the long run and short run.

What does a tight monetary policy cost?

As I mentioned earlier, CPI inflation measured using real-time data has averaged 1.4 per cent since 1997, that is, 0.6 percentage points below the target. Has this had any consequences for the real economy? The standard response to the question of whether missing a target leads to real-economic costs is no. This is because average unemployment, according to established theoretical and empirical research, is independent of monetary policy and the inflation rate. However, this presupposes that inflation expectations adjust to

---

[8] The fact that the monetary policy conducted in the period 1997 to 2011 led to an unemployment rate that on average was 0.8 percentage points higher than would have been the case if the average inflation rate had been on target means that average disposable income has been lower – that is, that disposable income has grown at the same average rate but at a somewhat lower level. However, this does not affect the ratio between average housing prices and disposable income – which depends on the low mortgage rate after tax – and thus, at a given loan-to-value ratio, not the debt ratio either.

[9] See Assenmacher-Wesche and Gerlach (2010), Claussen, Jonsson and Lagerwall (2011) and Kuttner (2012) for similar results regarding the impact of monetary policy on housing prices.

actual inflation and thus fall if the rate of inflation falls. The long-run Phillips curve, which illustrates the relationship between average inflation measured along the vertical axis and average unemployment measured along the horizontal axis, then becomes vertical and average unemployment thus becomes independent of the average rate of inflation.

We can see this in Figure 6, which shows unemployment along the horizontal axis and CPI inflation along the vertical axis for the years 1976–2012. We can see that during the 1970s and 1980s, there was no systematic relationship between inflation and unemployment. The long-run Phillips curve, the long-run relationship between inflation and unemployment, could be said to be vertical.

When inflation expectations are anchored, inflation and unemployment are interlinked

However, from 1998 and onwards things look different (the red observations in Figure 6). When inflation expectations are anchored to the target but inflation varies, a systematic trade-off arises between inflation and unemployment. The black line shows an estimated long-run Phillips curve for the period, a curve that is not vertical but sloping. The estimated slope is 0.75.[10] This means that a one per cent higher average rate of unemployment is associated with a 0.75 per cent lower average rate of inflation. This in turn means that a 0.6 percentage points lower rate of inflation than the target from 1997 entails a 0.6/0.75 = 0.8 percentage points higher average rate of unemployment. The average number of people in the labour force over the past 15 years has been about 4.7 million. 0.8 per cent of 4.7 million is about 38 000. We can thus say that the cost in terms of unemployment of the fact that the average rate of inflation has fallen below the target is approximately 38,000 unemployed.[11]

As explained in my paper (Svensson 2012d) the sloping long-run Phillips curve is arguably relevant only when the average rate of inflation deviates moderately from inflation expectations and the target (for example deviations less than plus/minus one percentage point). In the case of larger average deviations it is likely that inflation expectations will eventually adjust.

Inflation closer to the target would mean 65,000 fewer unemployed

An increase in unemployment of about 38,000 people is the average cost for the tight monetary policy conducted during the period from 1997 to the end of 2011. So what is the cost of the tight policy being conducted now? How much lower would unemployment be now if a more expansionary monetary policy had been conducted during the past two years, as consistently advocated by my Executive Board colleague Karolina Ekholm and myself since summer 2010?

Let us assume that inflation would have been one percentage point higher and thus been closer to the target now. According to my working paper (2012d), the slope of the long-run Phillips curve, 0.75, is not only relevant in the long run, but also a year or so ahead. A rate of

---

[10] See Svensson (2012d). A 95 per cent confidence interval for the slope is given by 0.75 ± 0.35, that is an interval between 0.4 and 1.1.

[11] The estimate is of course uncertain. As shown in Svensson (2012d), a 95 per cent confidence interval for the point estimate 0.8(=0.6/0.75) percentage points is an interval between 0.6/1.1= 0.55 percentage points and 0.6/0.4 = 1.5 percentage points. This corresponds to a 95 per cent confidence interval for the estimate 38,000 unemployed between 26,000 and 70,000.

During the period 1997–2011, inflation measured using the CPIX/CPIF in real time (CPIX to the end of March 2008 and the CPIF thereafter) was 1.6 percentage points, that is 0.4 percentage points below the target. If the long-term Phillips curve is estimated using the CPIX/CPIF instead of the CPI, the slope is less sharp and estimated with less precision. Despite minor target deviations, the costs in terms of an increased average rate of unemployment will then be higher, but with a larger confidence interval. The link between inflation and unemployment is thus stronger for inflation measured using the CPI than for inflation measured using the CPIX/CPIF.

inflation that is one percentage point higher thus leads to unemployment that is about 1/0.75 = 1.3 percentage points lower.[12] With the current number of people in the labour force, 5 million, 1.3 percentage points corresponds to about 65,000 fewer people unemployed.[13]

According to the example I mentioned earlier, a debt ratio that is one per cent lower costs about 25,000 more unemployed. This means that a more expansionary monetary policy, with 65,000 fewer people unemployed, would have increased the debt ratio by about 65,000/25,000 = 2.6 per cent. That is, the debt ratio would have increased in the space of a few years from about 170 per cent of disposable income by about 4 percentage points to about 174 per cent.[14] It is difficult to believe that this would have increased potential risks related to household indebtedness to an extent that is worth more than 65,000 jobs. And as I said, in the longer run the debt ratio is not affected at all, and thus there is no effect on potential risks.

Moreover, as unemployment is so high to start with, I would like to have seen monetary policy become so expansionary that inflation temporarily overshot the target. An even higher rate of inflation would by now have reduced unemployment by even more than 65,000 people.[15]

The long-run sustainable rate of unemployment depends on how the labour market works and on structural conditions

If we are to stabilise unemployment around a long-run sustainable rate, we must have a view of what this rate is. However, the long-run sustainable rate of unemployment is a concept and a quantity that cannot be measured directly; it must be estimated in different ways. The long-run sustainable rate of unemployment refers to the unemployment rate when the economy is in what is referred to by economists as a "steady state". When the economy is in steady state, it is in a long-run equilibrium where the effects of all shocks to which the economy has been exposed have worn off, and the expectations of inflation and other variables are fulfilled. It is often called the (long-run) natural rate of unemployment.[16] It can be seen as the forecast for unemployment in the very long run (under the assumption that inflation expectations are realised).

Long-run sustainable unemployment, unlike long-run average inflation, is independent of monetary policy. It is determined by structural conditions in the economy, such as how the labour market and wage-setting function, what the replacement ratio of unemployment insurance is, by the systems for sick pay and income tax and by the demographic

---

[12] An estimate using the Riksbank's model, Ramses, in accordance with the effects of various repo-rate paths as described in Svensson (2010), leads to roughly the same estimate of 1.3 percentage points.

[13] A 95-per cent confidence interval for the point estimate 1.3(=1/0.75) percentage points gives an interval between 1/1.1= 0.9 percentage points and 1/0.4=2.5 percentage points, corresponding to a confidence interval for the estimate 65,000 unemployed between 45,000 and 125,000.

[14] 2.6 per cent of 170 per cent is about 4 per cent.

[15] Moreover, according to one of Qvigstad's (2005) criteria for a good policy rate path – applied to unemployment – inflation should normally overshoot the target when unemployment exceeds its long-run sustainable rate.

[16] As Rogerson (1997) points out, there are different definitions of "the natural rate of unemployment", but he convincingly claims that the only definition of equilibrium unemployment that is well-specified and unambiguous is the one corresponding to unemployment in steady state. Academic literature contains different definitions of short-run and time-varying equilibrium unemployment, such as short-run NAIRU (short-run Non-Acceleration Inflation Rate of Unemployment – the rate of unemployment that will lead to a constant rate of inflation in the short run) and flexi-price unemployment (the rate of unemployment that would arise if prices and wages were flexible). These definitions are very dependent on models and not very robust, as they rely on such a large number of assumptions. Blanchard and Gali (2010) give some theoretical support for why monetary policy should be aimed at stabilising unemployment around a steady-state level, in addition to stabilising inflation around the inflation target.

composition of the population. If these structural conditions change over time, the long-run sustainable rate of unemployment will also change. There is evidence that the labour market reforms, tax deductions for those who work and changes in the sick pay and unemployment insurance in recent years have contributed to reducing the long-run sustainable rate of unemployment (Swedish Ministry of Finance 2011, Sveriges Riksbank 2012a).

As the long-run sustainable rate of unemployment is determined by the functioning of the economy and structural conditions, but is not directly observable, it must be estimated using various econometric and statistical methods. Different authorities have obtained different results. The Swedish Ministry of Finance (2011) has made what is so far the most thorough and detailed estimate for long-run sustainable unemployment, and concludes that the rate is 5 per cent. The estimate is made in two stages. In the first stage, a long-run sustainable rate of unemployment is estimated for the year 2006, the year before the government began its reforms in the labour market area. This estimate results in a long-run sustainable rate of unemployment of 6.6 per cent. In the second stage, the effects of demographical changes in the labour force are estimated, as well as the effects of an unchanged ceiling for the unemployment benefit and structural reforms. This results in a reduction of the long-run sustainable rate of unemployment of 1.6 percentage points, to 5 per cent (Ministry of Finance 2011, Table 1.1). The National Institute of Economic Research (2012) estimates a time-dependent equilibrium unemployment rate that reaches 6 per cent in 2020, so 6 per cent could be regarded as the Institute's estimate of long-run sustainable unemployment. An average of the Ministry of Finance's and the National Institute of Economic Research's estimates would then be 5.5 per cent, way below the current rate of unemployment.

The fact that inflation has been lower than inflation expectations means that the long-run sustainable rate of unemployment may have been overestimated

The Riksbank (2012a) presents a briefer estimate of long-run sustainable unemployment in the form of the interval 5–7.5 per cent, thus with a midpoint of 6.25 per cent. Long-run sustainable unemployment is calculated in two stages, as by the Ministry of Finance (2011). In the first stage, long-run sustainable unemployment in 2006 is estimated in the form of the interval 6.5–7.5 per cent, that is, with a midpoint of 7 per cent (to be compared with the Ministry of Finance's corresponding estimate of 6.6 per cent). The second stage entails estimating the effect of government reforms and changes in the composition of the labour force on long–run sustainable unemployment since 2006, in the form of an interval of 0 to 1.5 percentage points, that is, with a midpoint of 0.75 percentage points (to be compared with the Ministry of Finance's corresponding estimate of 1.6 percentage points). When this interval is deducted from the first one, we get an interval of 5–7.5 per cent, with a midpoint of 6.25 per cent (to be compared with the Ministry of Finance's corresponding estimate of 5 per cent).

The Riksbank uses as a base in the first stage the average rate of unemployment during the period 1999–2006, that is, about 7 per cent, which is then made into a midpoint in the estimated interval of 6–7.5 per cent. This can be regarded as an estimate of long-run sustainable unemployment up to 2006, before the government's reforms. However, the estimate disregards the fact that average inflation has undershot average inflation expectations. As I explain in an annex to the minutes from the meeting in July 2012 (Svensson (2012a)), this difference between inflation and inflation expectations means that average unemployment becomes a biased estimate of the long-run sustainable rate of unemployment. When I take this difference into account, I reach the conclusion that the bias is approximately 0.75 percentage points. All else being equal, the Riksbank's estimate should then be reduced by 0.75 percentage points, whereby the Riksbank's final interval after the adjustment will be 4.25–6.75 per cent, with a midpoint of 5.5 per cent.

The estimates made by the Ministry of Finance and the National Institute of Economic Research do not take into account the fact that average inflation has been lower than inflation expectations, either, so their estimates may also need to be adjusted downwards

somewhat. The average of the Ministry of Finance's and the National Institute of Economic Research's estimates so far and of the Riksbank's estimate after my adjustment is in any case be 5.5 per cent. While awaiting new estimates that take into account the bias that average inflation lower than average inflation expectations entails, I will use 5.5 per cent as my own assessment of long-run sustainable unemployment.

More expansionary monetary policy can reduce unemployment

Can a less tight monetary policy really reduce unemployment in our present situation? I think it can.

Expansionary monetary policy improves matching…

It is often said that the matching of jobseekers to job vacancies is not functioning as well now as it did before, and that monetary policy cannot do anything about this.[17] The discussion in the Fiscal Policy Council's report for 2012 (Fiscal Policy Council 2012) is relevant in this context. This shows that matching for both experienced and inexperienced labour is sensitive to demand fluctuations and improves when demand in the labour market improves. It is however more sensitive to economic fluctuations in the case of inexperienced labour. This means that if the demand for labour increases, matching improves most for inexperienced labour.

The business cycle, and thus monetary policy, therefore plays a role for the matching process, and a more expansionary monetary policy that leads to a higher demand for labour improves matching most for the vulnerable groups. Monetary policy can thus contribute to improving matching in the labour market. The deficiencies in matching are, in the current economic downturn, an argument in favour of more, not less, expansionary monetary policy.

…and gives vulnerable groups of unemployed a better chance of getting jobs

It is also often said that more of those in vulnerable groups with a high rate of unemployment, such as young people and people born abroad, have entered the labour market and that this, rather than the business cycle, explains why unemployment has increased.[18] However, it is the vulnerable groups that are most sensitive to economic fluctuations. They are the first to be given notice of redundancy if they have a job, and they are the last to be offered a job if they are unemployed. They are thus more vulnerable to fluctuations in the demand for labour and if they are to get jobs and work experience if they are unemployed, we need to have a very large demand for labour and thus very expansionary monetary policy. As a large share of the labour force now has job chances that are sensitive to demand, one could claim that employment as a whole has now become more sensitive to demand fluctuations. Increased demand could then have greater effect on employment and unemployment than it did before. The fact that more people in vulnerable groups have now entered the labour market is thus an argument in favour of a more, not a less, expansionary monetary policy.

High unemployment over a long time requires more expansionary monetary policy to bring down unemployment

The fact that unemployment has been high over a long period of time has meant that long-term unemployment has increased. It is a well-known phenomenon that long-term unemployed have greater difficulty in obtaining jobs, for several reasons. A person who finds

---

[17] See, for instance, Sveriges Riksbank (2012c).

[18] According to the Swedish Public Employment Service, there are four groups who have a relatively vulnerable position on the labour market and who find it difficult to get a new job if they become unemployed: those born outside Europe, people with less than upper-secondary school education, people in the age group 55–64 and people with a physical disability which reduces their capacity to work.

themself outside of the labour market suffers not only personal loss and a feeling of isolation, they also find that their skills become outdated after a while, which makes it more difficult to get a new job. A high rate of unemployment over a long period of time can become entrenched and requires a very large demand for labour so that the long-term unemployed can find work. One says that unemployment becomes persistent. The longer unemployment has been high, the more difficult it is, the longer it takes and the larger the labour demand that is needed to bring down unemployment. The fact that unemployment has been high for a long time and that long-term unemployment has increased, is also an argument now for a more, rather than a less, expansionary monetary policy.

Temporarily high inflation is needed to reduce unemployment

One consequence of high unemployment over a long period of time and of unemployment tending to become entrenched at higher rates, is that inflation will be higher for a given rate of unemployment. This means that a sufficiently large demand for labour to bring down the high unemployment towards a long-run sustainable rate will lead to higher inflation than normal for a period of time. It is therefore important to allow inflation to overshoot the target for a number of years. This would be a necessary cost that should be weighed against the gain of bringing down unemployment. As inflation on average has fallen below the target, an inflation rate above the target would at present also have the advantage that average inflation over a long period would come closer to the target, something that would contribute to avoiding the unnecessarily high average unemployment that earlier policies have caused.

According to Prospera's surveys, inflation expectations have stabilised at 2 per cent from 1997, despite average inflation being lower. Inflation expectations would thus probably be stable even if inflation were to overshoot the target for a period of time.

Summary: Monetary policy too tight

My conclusion is that monetary policy in Sweden is and has been too tight. Real short interest rates are much higher in Sweden than in the euro area, the United Kingdom and the United States from 2010 onwards, despite the fact that inflation in Sweden is significantly lower than in these economies and it is now well below the target at the same time as unemployment is as high as, or higher than, in the United Kingdom and the United States. The cost of the tight monetary policy in terms of unemployment is high, both in a short and long-run perspective. In practice, monetary policy has to some extent neglected the price stability objective and led to unnecessarily high unemployment.

According to extensive theoretical and empirical research, monetary policy normally has little effect in the short run on housing prices and household indebtedness, compared with its effects on inflation and unemployment, and when inflation is low and stable, it has no long-run effects on housing prices and indebtedness. A tight monetary policy aimed at limiting household indebtedness then leads to inflation being too low and unemployment too high, without having a tangible effect on potential risks arising from household indebtedness. Monetary policy should therefore not be used to try to influence housing prices and indebtedness. Against this background, it is remarkable that monetary policy in Sweden nevertheless appears to have been aimed at influencing household indebtedness in the short and long run, resulting in large costs to the real economy, despite the lack of support for this stance in both scientific research and previous experience.

Monetary policy should aim to stabilise inflation around the target and unemployment around a long-run sustainable rate. It should also be aimed at keeping inflation around the target on average over a longer period of time, to avoid repeating the policy than has led to unnecessarily high unemployment since 1997. The long-run sustainable rate of unemployment depends on the way the labour market functions and on structural conditions, and it must be estimated using empirical methods. These estimates should take into account

the fact that average inflation has been lower than the average inflation expectations since 1997, to avoid a bias in estimating the long-run sustainable rate of unemployment.

The problems with poorer matching, increasing long-term unemployment and a larger share of vulnerable groups on the labour market are arguments in favour of a more, not less, expansionary monetary policy so that we can bring down the high unemployment to a long-run sustainable rate. At present, when unemployment has been high over a long period of time, we need a particularly expansionary monetary policy, a large demand for labour and an inflation rate that is temporarily allowed to overshoot the target to bring down unemployment. As inflation on average has fallen below the target, an inflation rate above the target would at present also have the advantage that average inflation over a long period would come closer to the target, something that would contribute to avoiding the unnecessarily high average unemployment that earlier policies have caused.

References

Andersson, Björn, Stefan Palmqvist and Pär Österholm (2012), "The Riksbank's attainment of its inflation target over a longer period of time," Economic Commentary no. 4, 2012.

Assenmacher-Wesche, Katrin, and Stefan Gerlach (2010), "Monetary policy and financial imbalances: Facts and fiction", *Economic Policy* 25, pp. 437–482.

Blanchard, Olivier, and Jordi Gali (2010), "Labor markets and monetary policy: A New Keynesian model with unemployment", *American Economic Journal: Macroeconomics,* April 2010, pp. 1–30.

Claussen, Carl Andreas, Magnus Jonsson and Björn Lagerwall (2011), "A macroeconomic analysis of housing prices in Sweden", in Sveriges Riksbank (2011), pp. 67–95.

Englund, Peter (2011), "Swedish house prices in an international perspective", in Sveriges Riksbank (2011), pp. 23–6, www.riksbank.se.

Federal Reserve Board (2012), "Federal Reserve issues FOMC statement of longer-run goals and policy strategy," press release 25 January 2012, www.federalreserve.gov.

Fiscal Policy Council (2012), "Swedish fiscal policy 2012", www.finanspolitiskaradet.se.

Ingves, Stefan (2012), "Monetary policy entails a balancing act", speech in Luleå on 4 December 2012.

National Institute of Economic Research, (2012), *Wage formation report 2012,* www,konj.se.

Kuttner, Kenneth N. (2012), "Low interest rates and housing bubbles: Still no smoking gun", presented at the conference "The role of central banks in financial stability: How has it changed?" Federal Reserve Bank of Chicago, November, 2011, econ.williams.edu/ people/knk1.

Qvigstad, Jan F. (2005), "When does an interest rate path 'look good'? Criteria for an appropriate future interest rate path – A practician's approach", Staff Memo No. 2005/6, Norges Bank.

Rogerson, Richard (1997), "Theory ahead of language in the economics of unemployment", *Journal of Economic Perspectives* Vol. 11 No 1, 73–92.

SFS 1988:1385, Sveriges Riksbank Act in its wording as of 1 July 2011, Sveriges Riksdag (the Swedish parliament).

Statistics Sweden (2012), Housing and construction statistics yearbook 2012, table.

Svensson, Lars E.O. (2010), "Why a lower repo-rate path?" speech in Umeå, 24 February 2012, www.larseosvensson.net .

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. (2012a), “Adjustment of the Riksbank’s estimate of long-run sustainable rate of unemployment”, annex to Sveriges Riksbank (2012b), www.larseosvensson.net.

Svensson, Lars E.O. (2012b), “Different views on monetary policy”, speech in Stockholm 8 June 2012, www.larseosvensson.net.

Svensson, Lars E.O. (2012c), “Monetary policy, debt and unemployment”, speech in Stockholm 14 November 2012, www.larseosvensson.net.

Svensson, Lars E.O. (2012d), “The possible unemployment cost of average inflation below a credible target”, working paper, www.larseosvensson.net.

Swedish government (1997), *Riksbankens ställning (the position of the Riksbank)*, government bill 1997/98:40, www.regeringen.se.

Sveriges Riksbank (2011), *The Riksbank’s inquiry into risks in the Swedish housing market*, www.riksbank.se.

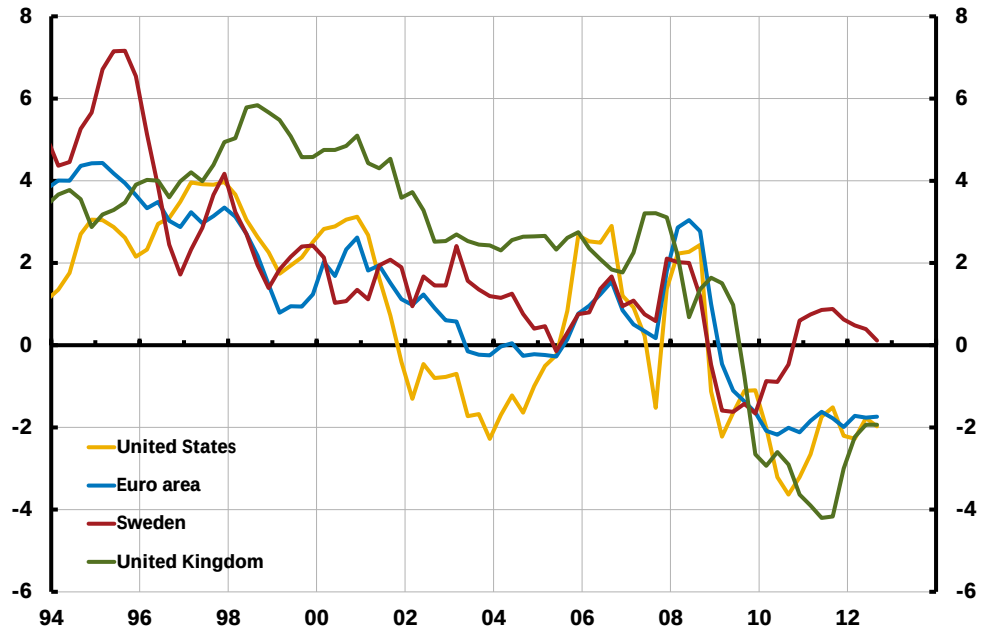
Sveriges Riksbank (2012a), “Long-run developments in the Swedish labour market”, article in *Monetary Policy Report, July 2012*, www.riksbank.se.

Sveriges Riksbank (2012b), “Minutes of the monetary policy meeting no. 3”, 3 July 2012, www.riksbank.se.

Sveriges Riksbank (2012c), “Minutes of the monetary policy meeting no. 5”, 24 October 2012, www.riksbank.se.

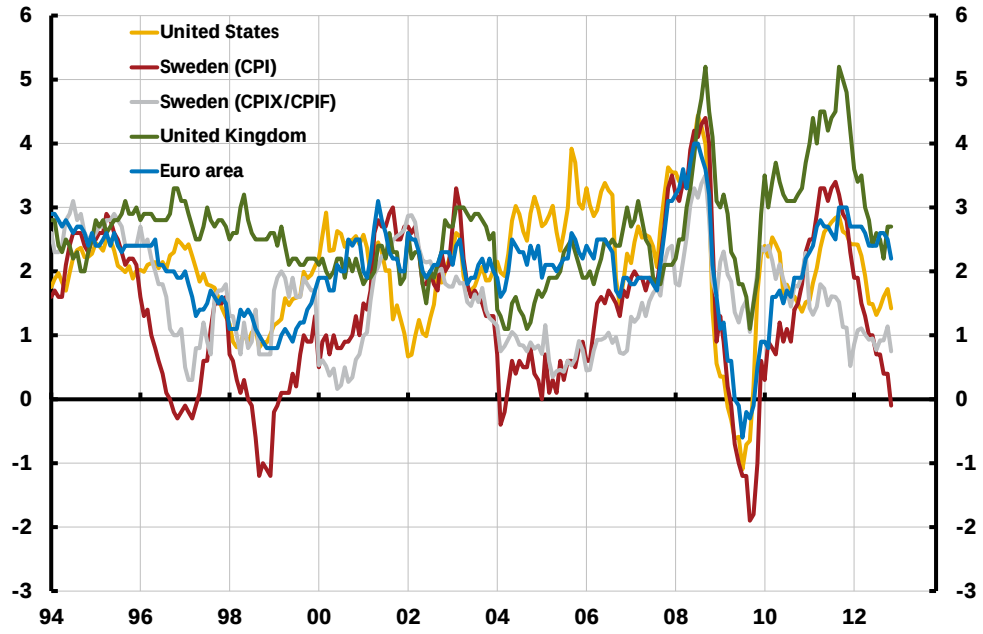
Sveriges Riksbank (2012d), “Minutes of the monetary policy meeting no. 6”, 17 December 2012, www.riksbank.se.

Figure 1. Real one-year interest rate in Sweden, the euro area, the United Kingdom and the United States
Per cent



Sources: The IMF, the OECD and the Riksbank

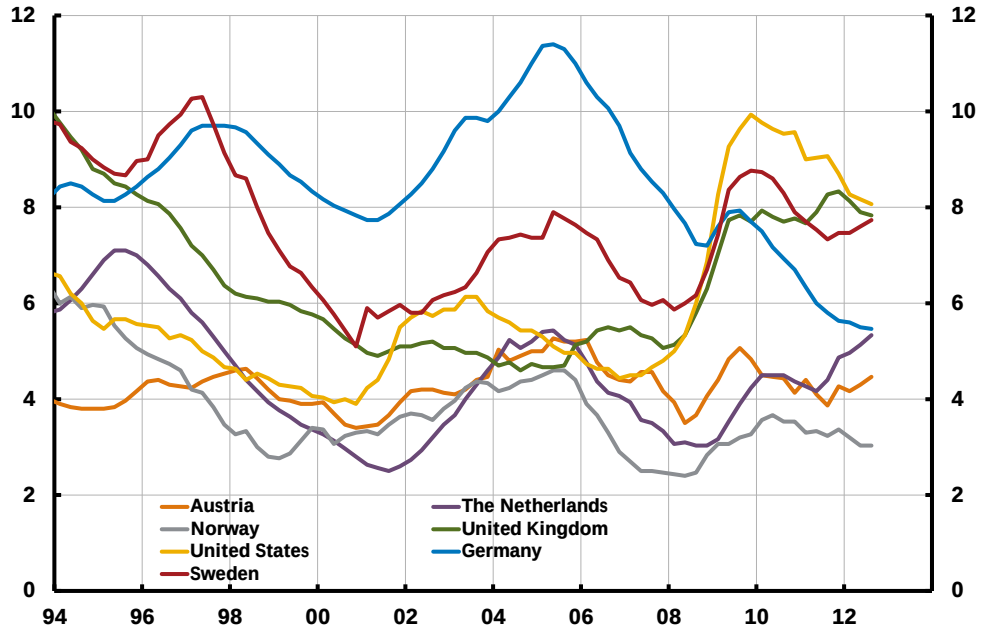
Figure 2. Inflation in Sweden, the euro area, the United Kingdom and the United States
Per cent



Note. CPIX/CPIF for Sweden shows the CPIX to the end of March 2008 and thereafter the CPIF. For the United Kingdom, the RPIX is shown to the end of 2003 and thereafter the CPI. The HICP is shown for the euro area. The PCE deflator is shown for the United States.

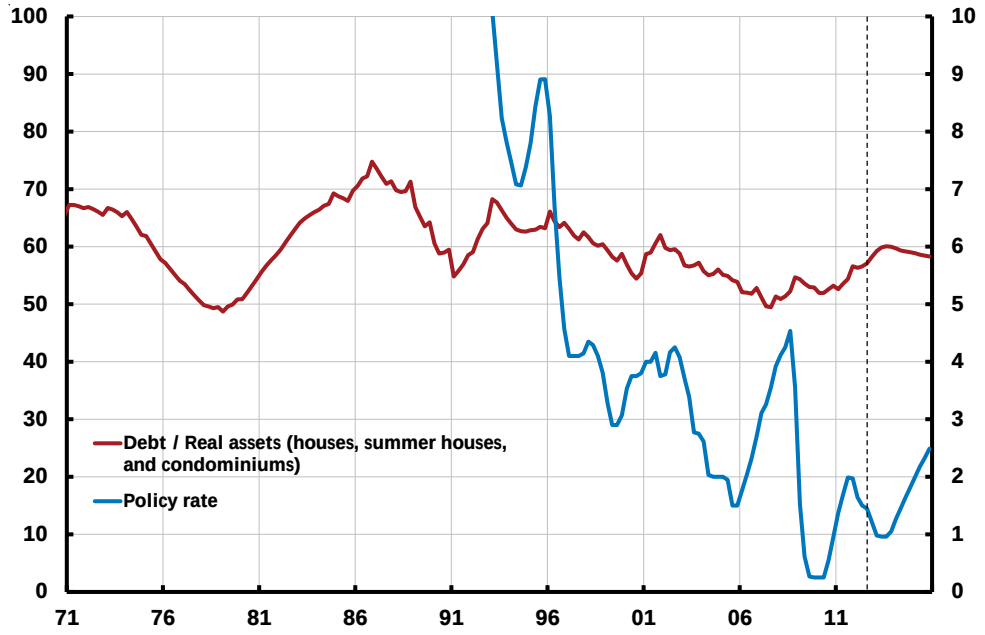
Sources: The Bureau of Labor Statistics, Eurostat, the Office for National Statistics, Statistics Sweden and the Riksbank.

Figure 3. Unemployment in Sweden and selected countries
Per cent



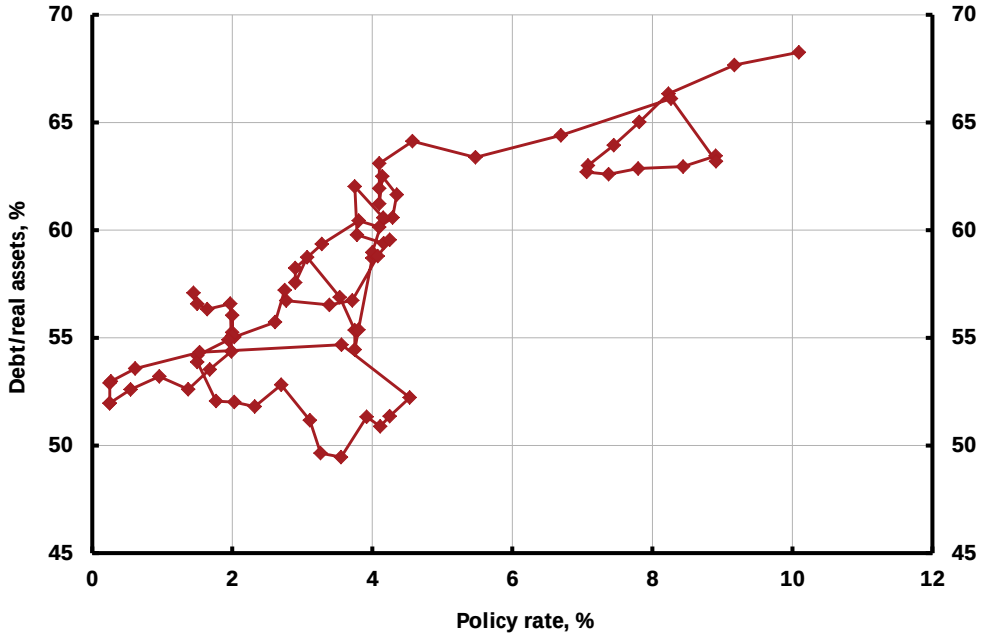
Sources: Eurostat

Figure 4. Household loan-to-value ratio (debts/real assets) and the policy rate
Per cent



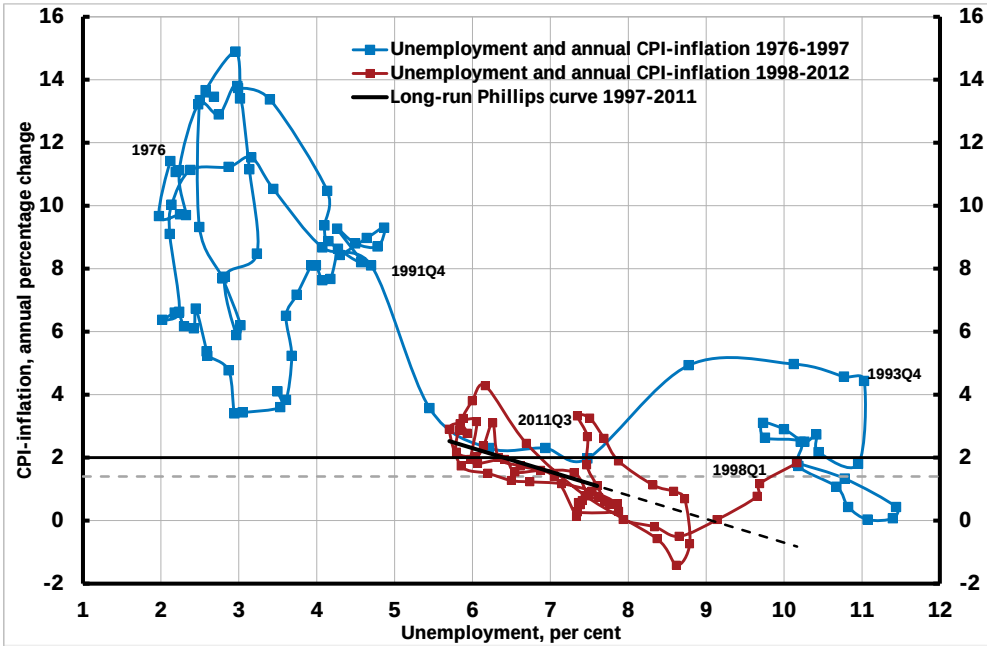
Sources: Statistics Sweden and the Riksbank

Figure 5. Household loan-to-value ratio (debt/real assets) and the policy rate (1993 Q1 – 2012 Q3)



Sources: Statistics Sweden and the Riksbank

Figure 6. Unemployment and annual CPI inflation 1976–2012 and the long-run Phillips curve 1997–2011



Note. Annual inflation from 1998 Q1 and onwards (in red) is a moving average of four quarters' quarterly inflation, that is of quarterly inflation 1997 Q1 and onwards. The long-run Phillips curve is in Svensson (2012d) estimated with quarterly inflation in the period 1997–2011. The dashed horizontal line corresponds to an average CPI inflation of 1.4 per cent.

Sources: Statistics Sweden and own calculations.