SVERIGES RIKSBANK
SE-103 37 Stockholm
(Brunkebergstorg 11)

Tel +46 8 787 00 00
Fax +46 8 21 05 31
registratorn@riksbank.se
www.riksbank.se

Minutes of the Executive Board's monetary policy meeting, No. 1

DATE: 14 February 2011

TIME: 9 a.m.

PRESENT:

Stefan Ingves, Chairman
Karolina Ekholm
Lars Nyberg
Barbro Wickman-Parak
Lars E.O. Svensson
Svante Öberg

Leif Pagrotsky, Vice Chairman of the General Council

Sigvard Ahlzén
Carl-Johan Belfrage
Claes Berg
Heidi Elmér
Eric Frieberg
Mia Holmfeldt (§1)
Ann-Christine Högberg
Per Jansson
Johanna Jeansson
Jesper Johansson
Pia Kronestedt-Metz (§1)
Tomas Lundberg
Pernilla Meyersson
Marianne Nessén
Cecilia Roos Isaksson
Lena Strömberg (§1)
Ulf Söderström
David Vestin
Staffan Viotti

It was noted that Carl-Johan Belfrage and Johanna Jeansson would prepare draft minutes of § 1, 2 and 3 of the Executive Board's monetary policy meeting.

§ 1. Economic developments

Lena Strömberg of the Financial Stability Department began by presenting recent developments regarding financial stability with a focus on the turbulence regarding public finances in Europe. The interest rate differential for ten-year government bonds (in relation to Germany) in countries with weak public finances has decreased since the turn of the year. However, as this is primarily due to increasing bond rates in Germany, the interest rates are still close to last year's peak levels in, for example, Ireland, Portugal and Spain. This entails continued high refinancing costs for these countries. The banks there still have limited access to the capital markets and in Spain only the major banks have had direct access to capital from the financial markets so far this year. The Swedish banks, on the other hand, currently have access to both short-term and long-term funding.

Pia Kronestedt Metz of the Monetary Policy Department reported on developments on the financial markets. Monetary policy expectations in terms of forward pricing have shifted upwards since the monetary policy meeting in December and no longer deviate as much from the Riksbank's repo rate path. Surveys and market newsletters also indicate that monetary policy expectations have shifted upwards and are now on average slightly above the proposed repo-rate path in the draft Monetary Policy Report. It appears that an increase at today's meeting is generally expected by the market participants, many of whom also expect an upward adjustment of the repo-rate path compared with the path in the Monetary Policy Update in December. Monetary policy expectations have also increased in the United States, the euro area and the UK against the background of higher inflation outcomes and improved incoming macro data. This has also contributed to an increase in government bond rates in the United States, the euro area, the UK and Sweden since the monetary policy meeting in December. The Swedish krona remains at the stronger level that applied in early February and several market participants believe that the krona will continue to strengthen in the period ahead, above all against the US dollar.

Per Jansson, Head of the Monetary Policy Department, presented the draft Monetary Policy Report which, in the assessment of the Monetary Policy Department, will gain the support of the majority of the members of the Executive Board. He began by noting that the forecasts in the draft Report were discussed by the Executive Board at meetings held on 2, 3 and 7 February. Since then, new statistics for industrial production and new orders in Sweden have become available. As a result of these and other statistics, the assessment now is that growth in the latter part of 2010 was marginally weaker than previously estimated.

The labour market statistics received since the Monetary Policy Update was published in December show that unemployment was somewhat lower than expected in the fourth quarter. The prices of food, energy and other commodities have continued to rise and this is reflected to a certain extent in higher inflation expectations one to two years ahead. However, a stronger krona has limited the impact of dollar-denominated commodity prices on inflation. In December, inflation was 0.1 percentage points higher than expected as a result of unexpectedly high energy prices.

The international recovery is continuing, although there are still risks in the United States and the euro area. Outcomes and indicators in Sweden are still strong but the growth of GDP in Sweden is now entering a calmer phase. Resource utilisation will normalise during the forecast period. CPIF inflation will fall below 2 per cent where it is expected to remain until mid-2013 as a result of a strong krona, low domestic cost pressures and the fact that the effects of the energy-price increases will fall out of the figures. Thereafter, CPIF inflation is expected to reach around 2 per cent. CPI inflation, which is also affected by the Riksbank's repo-rate increases, will gradually rise and reach just over 2.5 per cent in early 2014. According to the forecast, the repo rate will gradually be increased to just over 3.6 per cent in early 2014.

Compared to the Monetary Policy Update in December, the development of the labour market is expected to be stronger. Abroad, rising commodity prices will lead to higher inflation and higher policy rates. The commodity-price increases are expected to lead to higher inflation than predicted in the preceding forecast in Sweden too. This primarily relates to the next 12 months, but certain effects will linger. It is expected that the repo rate will be increased at a somewhat faster rate and, compared with the Monetary Policy Update in December, the forecast for the repo rate is now 0.2 percentage points higher at the end of 2012 and 0.1 percentage points higher at the end of the forecast period.

§ 2. Economic outlook abroad

First Deputy Governor **Svante Öberg** began by saying that he supported the forecasts for the economic outlook abroad presented in the draft Monetary Policy Report. He added that the picture presented in December remains largely unchanged. GDP growth and inflation are now expected to be somewhat higher and interest rates have risen. However, growth is still moderate, core inflation is low and unemployment is high in the developed countries, while growth is high and inflation is rising in the emerging economies. And there is still a risk that growth prospects will deteriorate.

Mr Öberg wanted to take up the issue of the rapid increases in energy and commodity prices. He said that developments are now reminiscent of the situation before the crisis when the prices of crude oil, food and other commodities increased dramatically and pushed up inflation around the world. Energy and commodity prices have increased rapidly now too. The Riksbank's forecasts are based on the assumption that energy and commodity prices will largely remain unchanged at the current level during the forecast period. However, Mr Öberg said that there is a risk that prices will continue to rise because the strong demand growth in the emerging economies will drive up the demand for energy and commodities.

The Report contains an alternative scenario that illustrates the consequences of continued increases in energy and commodity prices. This scenario leads to higher inflation and higher interest rates. This is less important to the United States than to Europe. In the United States, monetary policy focuses on growth, unemployment and core inflation. Inflation in the United States rose to 1.5 per cent in December, but core inflation was only 0.8 per cent. In the euro area, the primary focus is on HICP inflation, which rose to 2.4 per cent in January. In those emerging economies where there are signs of overheating, rising energy and commodity prices may increase the already high rate of inflation. Rising food prices may lead to considerable problems in many poor countries.

Deputy Governor **Lars E.O. Svensson** declared that he largely shared the view of developments abroad presented in the draft Monetary Policy Report with regard to inflation and GDP. In the case of assumptions concerning policy rates abroad he said, as on previous occasions, that it is normally best to base these assumptions on foreign market rates and implied forward rates. There will then be no conflict between these assumptions and the long-term foreign market rates that affect the exchange rate, and thus no conflict between the forecast for foreign policy rates and the determination of the exchange rate. According to Mr Svensson, this has been a problem at earlier monetary policy meetings – a subject that he discussed in a speech held on 24 November 2010.[1] This time there are no significant differences between TCW-weighted, adjusted implied forward rates and the main scenario's assumptions about foreign policy rates in the first two years, but some differences in the longer term.

Deputy Governor **Karolina Ekholm** began by saying that, as at previous meetings, she shared the view of inflation and GDP growth presented in the main scenario. However, she reminded the meeting that she has previously been sceptical about the forecasts for foreign policy rates, which have been well above the market's expectations as measured in terms of adjusted forward rates. As Mr Svensson had already pointed out, however, it now appears that market expectations have shifted upwards recently so that they do not significantly deviate from the Riksbank's assumptions at the moment, at least for the first two years of the forecast period.

Ms Ekholm pointed out that one of the important reasons why she has previously opposed the forecast for foreign policy rates has been that she has assessed the prevailing situation regarding public finances in the United States and Europe as being so problematic that it has not been reasonable to believe that fiscal policy would be able to play the role going forward that it has done historically. This is also one of the reasons why she does not believe that historical patterns serve as a particularly good guide to what one can expect of monetary policy in the future given the outlook for growth and inflationary pressures. In the United States, the UK and large parts of the euro area the recovery is still sluggish and there is no scope to use fiscal policy to give an extra boost to the recovery. All that remains, therefore, is a relatively expansionary monetary policy.

The implications that such an assumption would have for monetary policy in Sweden are discussed in an analysis in the draft Monetary Policy Report. In the article "Lower policy rates in Sweden and abroad" the Riksbank's macroeconomic model Ramses is used to analyse which repo-rate path would be chosen, in line with historical patterns, if it is assumed that foreign policy rates will remain low for a longer period of time than assumed in the main scenario. In this analysis, the proposed repo-rate path is clearly lower than the one in the main scenario, even though it is associated with a rate of CPIF inflation that is below 2 per cent for the entire forecast period. The assumption concerning how foreign policy rates will develop can thus have major consequences for how we view the monetary policy decision in Sweden.

Forward rates have now shifted upwards somewhat compared to the scenario in the article. Towards the end of the forecast period, however, there is still a difference between market expectations as indicated in forward rates and the forecast in the main scenario, and Ms Ekholm's assessment was still that adjusted implied forward rates provide a better forecast in this case.

Deputy Governor **Lars Nyberg** began by noting that things have been relatively calm on the financial markets so far this year. The European countries that have shaky public finances and weak banks have, despite this, been able to borrow quite a lot of money.

[1] L.E.O. Svensson, "Some problems with Swedish monetary policy and possible solutions" speech held in Stockholm, 24 November 2010.

Nevertheless, he felt that the situation could still not be regarded as stable. There are still expectations that Portugal will need to ask the IMF and the European support fund for help, and there are still many questions concerning the situation of the Spanish savings banks. Confidence in the ability of Belgium to sort out its public finances has also declined. In addition, uncertainty is increasing about what a new Irish government may wish to do about writing down the debts that the old government took over from the banks and promised to pay. Mr Nyberg said that given this background he would not be surprised if the spring was marked by one or two periods of increased turbulence, growing uncertainty and declining risk propensity on the markets.

Mr Nyberg said that the upward shift in forward rate curves in recent days was somewhat surprising. It remains to be seen whether this should be related to rising inflation expectations or better growth prospects, or to something else in addition to these factors. It is undeniable, however, that concern has increased about inflation gathering pace around the world again as a result of the rapid increases in oil and commodity prices. The increases in food prices have been so large that they risk creating political problems in a number of developing countries. Mr Nyberg said that the discussion in the late autumn about how the global economy would cope with deflation now appears to be dead and buried.

With regard to real developments abroad, Mr Nyberg felt that there was not much to be added to the draft Monetary Policy Report. It was possibly worth mentioning that it now appears that there has been a significant turnaround in the development of the Baltic countries, which was a source of concern only a year or so ago. In 2009, the export industry underwent a necessary restructuring process and has now begun to rapidly regain its competiveness and make money. Foreign investment capital is now also reaching the manufacturing industry and not only, as previously, the property and financial sectors. It is possible that this development has been so rapid that the politicians have missed the chance to carry out the type of structural reforms that can only be implemented during a crisis. In Latvia, it appears that the planned reforms in the areas of healthcare and education now will not move beyond the planning stage.

Deputy Governor **Barbro Wickman-Parak** also supported the forecasts for growth in the years ahead and the forecast of international policy rates in the draft Monetary Policy Report. Many had already mentioned that monetary policy expectations abroad, as indicated by market pricing, have shifted upwards and are now closer to the Riksbank's forecast. She believed that this shows that there are problems associated with basing policy-rate forecasts on forward rates as they can fluctuate back and forth over a short period of time.

The picture of international developments presented in the draft Monetary Policy Report is roughly the same as in December. In the case of the United States the situation looks a little brighter, but there is still considerable uncertainty about growth further ahead due to the tightening of fiscal policy that will be required.

The growth forecast for the euro area remains the same as in December and it should be possible to attain the moderate rate of growth in the forecast. It cannot be ruled out that things may even go a little better for the core countries that do not have acute problems with their public finances. Although many countries face considerable long-term adjustment problems, the more acute concern on the financial markets about the state of public finances has faded, at least for the moment. However, this may change, as Mr Nyberg had already pointed out.

Inflation has once again become a theme in the wake of high commodity prices and, as Mr Öberg pointed out earlier, the impact will differ slightly from country to country. This is a bigger problem in the emerging economies as many of them do not have spare capacity, which is already reflected in the fact that inflation is increasing.

Governor **Stefan Ingves** said that he also shared the description and view of international developments presented in the draft Monetary Policy Report. Although the recovery in the United States has now been underway for some time, difficult questions still remain concerning unemployment and how long it will take before the housing market recovers. This complicates the picture of the recovery there.

Mr Ingves continued by saying that the management of sovereign debt problems in Europe is a process that will take many years and one that is difficult to address from a business cycle perspective. This will of course affect developments in those countries that must undergo a period of sovereign debt consolidation. Mr Ingves also pointed out that it was already in the summer of 2007 that the ECB lent euro to the banks on special terms for the first time. Now, after three and a half years, this lending is continuing and it is unclear how substantial the problems in the banking sector are. Such a sluggish and diffuse process for managing bank problems will continue to slow down growth in those countries that receive the main part of the ECB's lending.

Mr Ingves pointed out that there is nevertheless good growth around the world and that world trade has recovered. This is having a considerable positive effect on the Swedish economy but, unlike previously and as a consequence of the positive real developments, the focus is now shifting to future inflation as the result of rising food, commodity and energy prices. Long-term interest rates have begun to rise in some areas and moves are now being made to tighten monetary policy, although Europe and the United States are exceptions at the moment.

As economic activity improves the global imbalances will once again come into focus but, as previously, using the exchange rates to make the required adjustments will not be permitted in a number of emerging economies. Mr Ingves noted, however, that as the rate of inflation in, for example, the BRIC countries is in the range of 5-10 per cent, real appreciation is anyway taking place in those countries that are growing most rapidly. This also benefits Sweden as the rate of inflation in Sweden will be much lower, and this will mitigate the effects of the nominal appreciation of the krona. It is also likely that these developments will contribute to a continued current account surplus in Sweden.

§ 3. Economic developments in Sweden and the monetary policy discussion

First Deputy Governor **Svante Öberg** began by saying that he largely supports the forecasts for the Swedish economy presented in the draft Monetary Policy Report. The Swedish economy is growing rapidly, employment is rising, unemployment is falling and inflation is close to the target of 2 per cent. The forecasts for GDP growth and inflation have been revised upwards somewhat and the forecast for unemployment has been revised downwards somewhat since December. Mr Öberg also supported the proposal to raise the repo rate by 0.25 percentage points to 1.50 per cent.

With regard to the repo-rate path, however, his assessment still was that it will be necessary to increase the repo rate by 0.25 per cent at each of the year's six meetings. Mr Öberg reminded the meeting that the repo rate is still very low. The market's repo rate expectations have shifted upwards and he noted that an increasing number of bank economists share the assessment that the Riksbank will need to increase the repo rate to 2.75 per cent by the turn of the year. However, Mr Öberg said that, given the degree of uncertainty, the difference between his view and the presented repo-rate path was not large enough for him to enter a reservation against the Report. The most important thing as far as he was concerned was that the Riksbank continued to increase the repo rate meeting by meeting. The repo-rate path is, after all, only a forecast.

Mr Öberg believed that there were several reasons for continuing to raise the repo rate. Both CPI and CPIF inflation were 2.3 per cent in January, and thus above the inflation target of 2 per cent. The Riksbank's forecast is an average of 2.4 per cent per year for CPI inflation and 1.8 per cent per year for CPIF inflation during the forecast period with the proposed repo-rate path. Given the degree of uncertainty, this is sufficiently close to 2 per cent per year.

Mr Öberg's assessment was also that the inflation risks are mainly on the upside. In the Business Tendency Survey of the National Institute of Economic Research, an unusually large proportion of the companies say that they intend to increase their prices, while the prices of energy and commodities may rise more than expected by the Riksbank. Inflation expectations five years ahead are still firmly anchored to the inflation target of 2 per cent. Mr Öberg said that this is positive and indicates that monetary policy continues to enjoy a high level of credibility. At the same time, inflation expectations one and two years ahead have risen. Resource utilisation measured using the Riksbank's RU indicator was already back to a normal level in the fourth quarter of 2010 and Mr Öberg said that the GDP gap in the first quarter of 2011 is back to normal. The shortage of labour is already higher than normal in several sectors.

According to the current forecasts, resource utilisation will be somewhat higher than normal and rising at the end of the forecast period, and Mr Öberg said that this is not appropriate considering the inflationary pressures after the end of the forecast period.

Employment has increased by 100,000 and unemployment has fallen by almost one percentage point over the last 12 months. Mr Öberg said that such a rapid improvement may lead to problems in the wage negotiations that will begin in the autumn. Wage formation has worked well in the last 15 years and this has helped to keep inflation at a low and stable rate. Conducting wage negotiations in a situation where there is overheating on the labour market would not be good.

If inflation is higher than estimated by the Riksbank, there may be a need to increase the repo rate more rapidly than outlined in the main scenario of the draft Monetary Policy Report. Mr Öberg said that in this case it is quite possible that the Riksbank will need to increase the repo rate by more than 0.25 percentage points at one or more meetings and that it will be necessary to increase the repo rate to 4 per cent already next year.

Deputy Governor **Lars E.O. Svensson** said that he advocated an unchanged repo rate of 1.25 per cent and a repo-rate path that then increases at a steady rate to a level of 3.25 per cent by the end of the forecast period. Mr Svensson advocated a lower repo-rate path because the repo-rate path in the main scenario entails an intended monetary policy that, in his opinion, is not well balanced. This is because the main scenario includes a CPIF forecast under the target and an unemployment forecast higher than a reasonable sustainable rate throughout almost the entire forecast period. Mr Svensson said that this can hardly be called "balance" in the economy. Leaving the repo rate unchanged now and then adopting a lower repo-rate path would lead to higher CPIF inflation closer to 2 per cent and a lower rate of unemployment closer to a sustainable rate. In his opinion, target attainment would thus be better for both inflation and unemployment.

As Mr Svensson has pointed out at previous meetings, the main scenario does not meet the well-known necessary but not sufficient condition for a well-balanced monetary policy postulated by Jan Qvigstad, the Deputy Governor of Norges Bank.[2] Applied to inflation and unemployment, this condition means that the inflation gap (the difference between inflation and the inflation target) and the unemployment gap (the difference between the rate of unemployment and its sustainable rate) should have the same sign. As the inflation gap is negative and the unemployment gap is positive for the main scenario for the major part of the forecast interval, this condition is not met for the main scenario. Instead, the gap for both can be reduced with a lower repo-rate path and thus target attainment for both inflation and unemployment can be improved.

Mr Svensson pointed out that Mr Qvigstad's condition for a well-balanced monetary policy is also a condition for an efficient monetary policy. An efficient monetary policy means that it is not be possible to increase target attainment for inflation without reducing target attainment for unemployment. If it is possible to increase target attainment for both then monetary policy is inefficient.

Mr Svensson said that the fact that monetary policy is not well-balanced for the main scenario is clearly illustrated by Figures 2:17 and 2:19 in Chapter 2 of the draft Monetary Policy Report. Figure 2:17 shows that a lower repo-rate path gives a lower forecast for unemployment than in the main scenario, while Figure 2:19 shows a higher CPIF forecast closer to 2 per cent.

Mr Svensson continued by saying that it is perhaps possible to object to this reasoning and claim that we should look at other measures of resource utilisation than just the gap between unemployment and a sustainable rate of unemployment. With other measures of resource utilisation the conclusions may perhaps not be as clear. However, Mr Svensson said that after almost four years of practical experience and a lot of thought, he had come to the conclusion that when assessing whether monetary policy is well-balanced there are good reasons to primarily use the gap between unemployment and a sustainable rate of unemployment as a measure of resource utilisation. Other measures, such as the output gap, the hours gap, the RU indicator, capacity utilisation and so on can play a role in assessing inflationary pressures and producing inflation forecasts, but not in assessing whether monetary policy is well-balanced with regard to resource utilisation.

2 J. Qvigstad, "When does an interest rate path 'look good'? Criteria for an appropriate future interest rate path - A practician's approach", Staff Memo 2005/6, Norges Bank.

As there are so many ways of measuring resource utilisation one might think that it would be better to get and "overall assessment" based on a large number of indicators. However, it is a well-established insight that inflation targeting in which the attainment of the inflation target is measured using an “overall assessment” based on a large number of different price indices does not work. The problem is that it is often possible to find some index that comes relatively close to the target. Almost any monetary policy can be justified with the help of a clever selection of indices. Therefore, if the target and target attainment are to mean anything, then one single index must be used.

Similarly, Mr Svensson said, it is not appropriate to use a large number of different measures of resource utilisation. Again, the problem is that it is often possible to find some measure that comes relatively close to normal resource utilisation. Almost any monetary policy can be justified with the help of a clever selection of measures of resource utilisation.

Mr Svensson said that the problem is in fact worse for resource utilisation than for inflation. This is because any measure of resource utilisation also involves determining what is a normal level for the measure concerned. For the output gap and the hours gap it is a case of determining the level and forecast for potential GDP and potential hours worked. This can be done using several different, far-from-transparent methods and assumptions and leaves substantial scope for arbitrary judgements. A particular monetary policy can therefore be justified by making a clever choice of both measures and the normal levels assumed.

Mr Svensson said that there are several reasons why he has come to the conclusion that – given that only one measure of resource utilisation should be used – the unemployment gap is the most appropriate measure. Unemployment is measured often and is not revised. GDP on the other hand is measured less often and major revisions are made. Unemployment is very important to the general public. It is directly related to welfare - one of the worst things that can happen to a household is that one of the members of the household loses his or her job. Unemployment is also the indicator of resource utilisation that is best known and best understood by the public. According to the preparatory materials to the Sveriges Riksbank Act, the Riksbank should also support the objectives of general economic policy. One of the main objectives of economy policy in Sweden is to limit unemployment, for example by improving the functioning of the labour market and improving the incentives to look for work.

The difficult thing about using the unemployment gap as an indicator of resource utilisation is to determine the normal rate of unemployment, that is the lowest sustainable rate of unemployment, hereafter referred to as sustainable unemployment. However, the problems associated with determining this rate are not greater, in fact they are probably smaller, than the problems associated with determining potential output and potential hours.

The sustainable rate of unemployment can be expressed as a stable percentage – for example 5.5 or 6 per cent. It changes slowly and lies within a limited range. Potential GDP, on the other hand, is a variable target, a stochastic process that in the view of many is reminiscent of a random walk with drift. The sustainable rate of unemployment can be determined using several different and well-established methods – structural search models similar to those developed by Diamond, Mortensen and Pissarides, so-called UC-models, DSGE models and NAIRU estimates. The results of these different methods can be compared and their robustness and reliability assessed. This can be done and discussed in an open debate within and outside the central bank, with internal and external economists who are specialists in the field of labour market research using micro and macro methods. A major advantage in this context is that Sweden has a tradition of independent and high-class labour market research at universities and independent research and evaluation institutes.

It is simple and transparent to perform sensitivity analysis in the form of various assumptions about the sustainable rate of unemployment. If different members of the Executive Board make different assessments of the sustainable rate of unemployment, they can simply and clearly explain how this affects their decisions.

Determining potential GDP, however, is like shooting at a moving target that is reminiscent of a random walk with drift. Estimating and assessing potential GDP and potential hours leaves great scope for arbitrary judgments. In practice, such estimates will to a large extent be based on so-called HP filtering, which means that in reality the potential levels will be mechanical moving averages of actual values without a particularly detailed and convincing analysis. Such measures are inadequate and unreliable. For example, they do not take into account the type of shock the economy is exposed to, for instance whether it is a demand or a supply shock.

In practice it is impossible for outsiders (and most people at the Riksbank, including the members of the Executive Board) to verify and assess the calculations of potential production and hours that are performed. Compared to other measures of resource utilisation, the unemployment gap offers the best possibility for external and internal verification and assessment of the assumptions about, and the calculations of, the sustainable rate of unemployment.

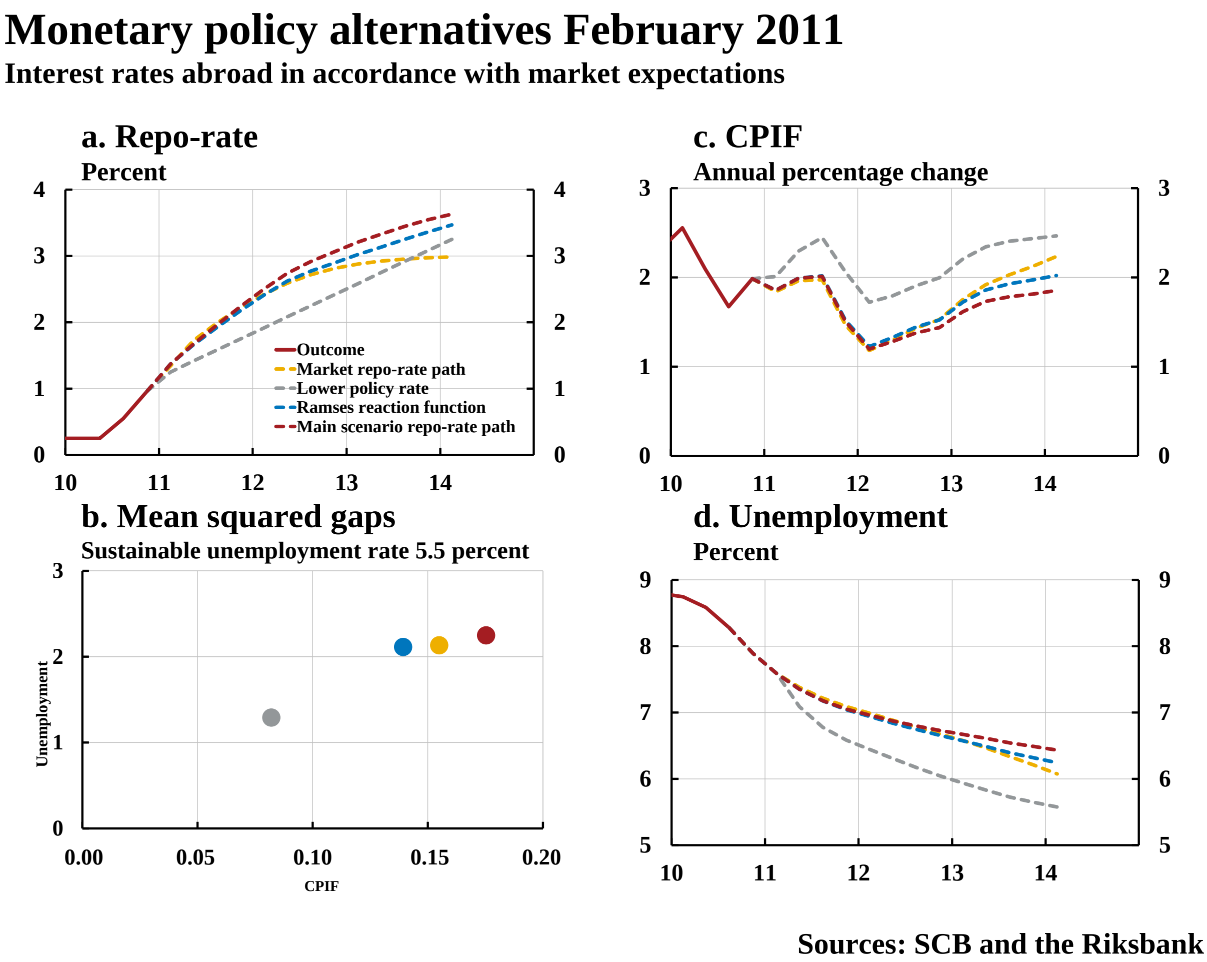
Mr Svensson's own preliminary assessment of the sustainable rate of unemployment is at present 5.5 per cent after having read some papers on the subject and discussed it with several labour market economists. However, he said that he is prepared to revise this assessment in the light of new studies, data and insights. He had recently seen several more preliminary studies and held further discussions with a number of additional specialists in the field of labour market economics. As far as he could see, it is quite possible, taking into account the most relevant circumstances and reforms, that a sustainable rate of unemployment may even be somewhat below 5.5 per cent. Finance Minister Anders Borg, recently said that it should be possible to reach a rate of unemployment of 5 per cent around 2014, and it is probably safe to assume that a lot of analysis at the Ministry of Finance lies behind this statement.

Mr Svensson concluded that monetary policy should strive to stabilise CPIF inflation around 2 per cent and unemployment around a sustainable rate. Other measures of resource utilisation can play a major role in designing forecasts for inflation and the real economy, but they are not as suitable as target variables.

Mr Svensson also said that one should not switch back and forth between the CPI and the CPIF when assessing which monetary policy is well-balanced. It is best to only use the CPIF as an "operational target" in which the short-term effects of interest-rate changes on the CPI via housing costs are excluded. One should not use the short-term direct effects of interest-rate changes on housing costs as a means of attaining the inflation target. One should not chase ones own tail, as the expression goes.

To justify the repo-rate path he advocated, Mr Svensson referred to Figure 1. The figure shows the effects of several different repo-rate paths on the CPIF and unemployment, assuming that foreign policy rates are given by implied forward rates. The red repo-rate path in panel a is the main scenario’s repo-rate path, the blue repo-rate path shows a path that is compatible with the Riksbank's historical reaction function, the yellow repo-rate path shows market expectations according to implied forward rates adjusted for maturity premiums, and the grey repo-rate path shows the path that Mr Svensson advocates in preference to the main scenario’s repo-rate path. Panels c and d show forecasts for the CPIF and unemployment for the various repo-rate paths. The red curves deviate marginally from the main scenario in the draft Monetary Policy Report as they are based on foreign policy rates being given by implied forward rates.

Figure 1



The grey repo-rate path gives a higher CPIF forecast closer to the target and a lower forecast for unemployment. Panel b shows the mean squared gap for inflation and unemployment assuming a sustainable unemployment rate of 5.5 per cent. The lower the mean squared gap, the higher the degree of target attainment. The grey repo-rate path dominates and stabilises both the CPIF and unemployment better. This is also the case if the sustainable unemployment rate is assumed to be 6 per cent instead of 5.5 per cent. The fact that unemployment falls rapidly towards a sustainable rate is particularly advantageous as it minimizes the persistence effects of higher unemployment in the form of exclusion from the labour market, losses in human capital and so on.

It may appear to be a problem that the grey repo-rate path gives a rate of CPIF inflation of around 2.5 per cent at the end of the forecast period. According to Mr Svensson, however, these forecasts overestimate the CPIF at the end of the forecast period as the CPIF forecasts in the simulations performed using the Ramses model are calculated using a standard assumption of a sustainable unemployment rate of 6.5 per cent, which he believes is too high. A lower sustainable unemployment rate would give lower inflationary pressures at the end of the forecast period and shift down the CPIF forecasts somewhat, which would increase the advantage of the grey repo-rate path.

Deputy Governor **Barbro Wickman-Parak** began by saying that her assessment at the meeting in December was that the published repo-rate path represented a well-balanced monetary policy. Not much new has happened since then. A slight slowdown in activity became apparent towards the end of the year, but forward-looking indicators indicate that the economy will continue to develop positively in the period ahead. Inflation has been surprisingly high, mainly due to higher commodity prices.

Ms Wickman-Parak said that in December she had pointed out that the Riksbank had been surprised by the strength of the economic recovery and that this could continue to be the case going forward. However, now that a new round of forecasting has been completed, her assessment was that there is nothing to justify any significant changes in the forecast for growth. This is not to say that this could not be the case further ahead, but more data is required before this can be considered.

Ms Wickman-Parak said that she therefore supported the Report’s forecasts for growth in Sweden and also the proposed repo-rate path that entails a slight upward adjustment compared to the path adopted in December. She continued by presenting the reasoning that had led her to take this stance.

The forecast for inflation has been revised upwards somewhat compared to the assessment in December due to the direct and indirect effects of rising commodity prices. In this higher forecast, CPIF inflation falls to just over 1 per cent at the end of the year before it then begins increasing again. Even if commodity prices increase somewhat further in relation to the Riksbank’s forecast, low unit labour costs and a stronger krona will act as counteracting forces. The situation is different from that in 2008, when commodity prices also increased. At that time, the Swedish economy was in a period of falling productivity and high wage increases, a combination that led to rocketing unit labour costs.

Ms Wickman-Parak said that in the short-term, the situation on the inflation front is therefore not a cause for concern. A more substantial increase in commodity prices as a result of higher growth abroad would change the situation, and this is one of several alternative scenarios in the Report.

Taking the longer-term view, as monetary policy must do, Ms Wickman-Parak believed that the development of the labour market was an important factor and that this has also been a theme of her comments at the monetary policy meetings for quite some time. In the previous economic upturn a shortage of labour arose quite soon, despite relatively high unemployment, and this gradually became more and more of a problem. At last summer's monetary policy meeting, Ms Wickman-Parak said that it was reasonable to ask whether there was a risk that the same problem would arise when the demand for labour returned. Although the government has implemented various labour market reforms, she was still uncertain about how great the effects of these reforms would be and when they would have an impact. It was therefore no accident that she has seen a great need to follow current statistics on labour shortages, remaining job vacancies and so on.

Ms Wickman-Parak noted that the supply of labour has increased, but, at the same time, shortages and remaining vacancies are rapidly increasing. Even if these have not reached alarming levels, she said that the warning signals have become successively stronger and it was no longer sufficient to study aggregated quantities such as the labour force and unemployment.

The reason is that it is not easy to state with certainty the extent to which the unemployed can easily provide the type of labour demanded. During the preparations for today's monetary policy decision, a report from the Swedish Public Employment Service, published in the autumn, was mentioned.[3] This shows that the number of individuals belonging to vulnerable groups with difficulties in obtaining work is about 120 000. These vulnerable groups include young people with a brief education, the disabled and those born abroad. This number would have been even greater, about 225 000, if many members of the vulnerable groups had not joined programmes with activity grants. More than half of the approximately 400 000 people registered with the Swedish Public Employment Service belong to one of these vulnerable groups.

Ms Wickman-Parak pointed out that she did not mean that resources in the labour market have been exhausted, but that the information she had just mentioned argues for caution in assessing the extent of the unutilised resources that can rapidly be deployed to meet increased demand for labour. According to Ms Wickman-Parak, this will be a major challenge for other policy areas such as labour market policy, and is something on which monetary policy will have no effect. Monetary policy should avoid unnecessarily restricting demand, but, at the same time, the Riksbank must remain vigilant for bottlenecks that will push up cost pressures and ultimately impair the development of the labour market.

This is a balancing act, and Ms Wickman-Parak's assessment was that it would be entirely reasonable to make the repo rate forecast a little heavier at the front – that is, to continue with gradual increases, but to increase the pace slightly. This would reduce both the risk of inflation overshooting the target at a later point and the risk of long-term inflation expectations moving away from the target.

[3] Ura 2010:7 "Arbetsmarknadsutsikterna hösten 2010" (Labour market prospects, autumn 2010), report from Swedish Public Employment Service

The question is whether the Riksbank would need to increase the repo rate more than is implied by the proposed repo-rate path? Ms Wickman-Parak reminded the meeting that she considered that monetary policy was well-balanced in December and that the adjustments made to the Riksbank's forecasts do not justify more significant adjustments to the repo-rate path.

One important precondition for the realisation of the Riksbank's forecasts for growth and resource utilisation is that households continue to consume at a strong pace. Capacity utilisation in the manufacturing sector has increased rapidly and investment is accelerating, which is necessary to avoid capacity shortages becoming a hindrance later on. Since last summer, the interest rates being charged to households and companies have increased faster than the repo rate. Above all, this applies to households' short-term mortgage rates. In addition, long-term interest rates also continually increased during the autumn.

A certain decline in the rate of increase of household borrowing has started to become apparent. The repo-rate increases that the Riksbank needs to implement for general economic reasons will probably lead to continued dampening, and Ms Wickman-Parak said that there are good reasons for continuing to monitor this. It is often said that the repo rate is a blunt instrument for dealing with the rapid expansion of credit. But this does not mean that it is completely ineffective.

Ms Wickman-Parak said that the aim of these comments was to illustrate the various issues that she has been struggling with in order to reach this stance. The Swedish economy needs growth in demand to reach a more normal level of resource utilisation and, to achieve this, it will be necessary to maintain a relatively low repo-rate level for some time. The Riksbank should be careful not to overdo repo-rate increases so that demand becomes restricted in a way that leads to a significantly lower level of resource utilisation than the economy can cope with without inflation accelerating. It is possible that the long-term rate of unemployment may be 5.5 per cent, as referred to by Mr Svensson. However, any analysis must also take notice of how smoothly the economy will function on the way there and be prepared to adjust the policy accordingly.

Finally, Ms Wickman-Parak explained that she supports the repo-rate path that represents the main scenario in the draft monetary policy report. If demand pressures and inflationary pressures develop more strongly than expected, this will be reflected in the Riksbank's future forecasts of growth, inflation and the repo rate, in the usual manner. She concluded by saying that she is not unsympathetic to the idea that something like this may lie ahead.

Deputy Governor **Lars Nyberg** noted that growth in the Swedish economy has again exceeded expectations. Last winter, the Riksbank's message was that "the tide has turned, but it will take time to return to previous output levels." In December, the Riksbank communicated that "Sweden is growing at a record rate". And the entire fall in GDP of just over 5 per cent in 2009 was recovered during 2010. Neither the downturn nor the upturn followed any normal cyclical pattern. Sweden has become a "Pippi Longstocking economy" without really understanding how this happened.

In light of this, raising the repo rate by a quarter of a percentage point at today's meeting, in line with the repo-rate path adopted in December, was entirely reasonable, according to Mr Nyberg. He also said that it would be reasonable to adjust the repo rate path upwards as proposed, meaning that, in all essentials, he agreed with the conclusions of the draft Monetary Policy Report. The proposed increases may be enough for this time, said Mr Nyberg. However, he was not unsympathetic to the idea that further upward adjustments of the repo-rate path may become necessary during the spring or early summer, and considered that the arguments presented by Mr Öberg in this regard were relevant.

Mr Nyberg wished to comment further on one of these arguments, namely the improvement of the labour market, which has taken place significantly faster than expected over the last year. Even though it can be difficult to determine when the capacity gap is closed at an aggregate level, certain sectors seem to be rapidly approaching a situation in which labour shortages will be a problem. This applies not least to the manufacturing sector. At the same time, companies are reporting strong profits. It would not be unreasonable for this to affect the autumn wage negotiations, and perhaps wage drift during the year even more so, particularly as wage growth was restrained during the acute crisis. It is not impossible that the wage forecast in the Monetary Policy Report may turn out to be an underestimate. This is, of course, significant for the inflation forecast.

The forward rate curve has shifted upwards, and is now quite close to the Riksbank’s repo-rate path, at least for the next 12 months or so. This seems to have taken place without any major inhibitory effect on the Swedish economy, via the rapid appreciation of the Swedish krona. This shift seems to reflect the international rise in forward rates. According to Mr Nyberg, whatever the circumstances, there is reason to devote further thought to – and perhaps question – the actual information content of international and Swedish forward rates, and the effect they should have on the Riksbank’s forecasts.

The appreciation of the krona that has gradually taken place since the previous monetary policy meeting has not been unexpected, given the strength of the Swedish economy and the increasing interest rate differential in relation to other countries. This has counteracted the inflation impulses that have arisen in the form of rising oil and commodity prices, which is positive. Still, it is worth noting that inflation expectations have increased both one and two years ahead.

Household borrowing has continued to grow, although at a somewhat slower pace. However, borrowing is growing more quickly than households’ incomes, which is not sustainable in the long run. The housing market shows possible signs of a slowdown, but it is as yet too early to determine whether this is the case. It is not unreasonable to assume that the Riksbank's repo-rate increases and Finansinspektionen's mortgage ceiling may have contributed to slowing down borrowing and market prices. Mr Nyberg said that at present it may be wise to wait and see how things develop. But there is every reason for the Riksbank to closely follow developments in lending to households and to continue discussing various instruments that may need to be used if this lending increases too quickly.

Deputy Governor **Karolina Ekholm** said that she supports the description of developments in the Swedish economy in the draft Monetary Policy Report. The recovery is continuing and appears to be moving more quickly than anticipated. There is some upward pressure on inflation through energy and food prices, but at the same time there is downward pressure through a stronger than expected krona.

However, Ms Ekholm did not support the proposed repo-rate path. Resource utilisation is still lower than normal and her interpretation of the analyses made is that it can be expected to remain lower than normal for a large part of the forecast period. Although inflation has risen recently, from all appearances underlying inflationary pressures remain low. The forecast for CPIF inflation in the main scenario is below 2 per cent for most of the forecast period. All in all, this indicates there is no need to tighten monetary policy at present. Ms Ekholm said that this indicated the repo rate should be held at 1.25 per cent, and then gradually raised, but more slowly than forecast in the main scenario. Like Mr Svensson, she preferred a repo-rate path that is at around 3.25 per cent at the end of the forecast period.

As shown in the figures Mr Svensson referred to, such a repo-rate path is linked in the model analyses to a faster increase in resource utilisation and to higher inflation. With regard to inflation, the repo-rate path is linked to a forecast for inflation measured as the CPIF, which is higher than 2 per cent towards the end of the forecast period, which would not appear to be very good target attainment. But, like Mr Svensson, Ms Ekholm is uncertain as to how reasonable these assessments are. Inflationary pressures are affected by resource utilisation and here it is an important factor that the sustainable unemployment rate can be expected to fall during the forecast period. In that case, perhaps inflationary pressures will be lower towards the end of the forecast period than is shown in these simulations.

Ms Ekholm also said that one needs to distinguish between the resource utilisation that affects inflationary pressures – which can vary over time – and the resource utilisation that is sustainable in the long run. It is easiest to consider this in terms of unemployment. The typical pattern following a recession is that the rate of unemployment compatible with a given inflationary pressure will rise initially, and then fall back. This may be, for instance, because a structural transformation initially leads to poorer matching in the labour market, in that those who lose their jobs have different skills than those that are in demand in the sectors growing during the recovery phase. After some time, when the structural transformation is complete, the matching will have returned to the original starting point and some form of equilibrium unemployment will have returned to its original level. We can see that this has been the case in Sweden in earlier recessions by looking at the Beveridge curves shown in Figure A13 of the draft Monetary Policy Report. First the matching will deteriorate and then it will return to a more normal situation.

There are differing opinions as to how the recession that Sweden has just come through has affected the rate of unemployment compatible with unchanged inflationary pressure; whether it has risen a lot or a little. One complicating factor in this recession is that reforms were implemented at the same time, which could be expected to lower what can be considered a sustainable rate of unemployment. This means that the Swedish economy is probably in a situation where the sustainable rate of unemployment is falling – quickly or slowly, it is difficult to say which – at the same time as the recession has put upward pressure on the rate of unemployment compatible with unchanged inflationary pressure. To be able to forecast inflation and interest rates, we must assess how actual resource utilisation relates to the resource utilisation compatible with unchanged inflationary pressure. Ms Ekholm's impression is that this is the starting point for the various gaps presented in the Monetary Policy Report.

But with regard to the Riksbank's ambition to conduct a policy that, without neglecting the inflation target, also supports the objectives of general economic policy to attain sustainable growth and high employment, it is probably more reasonable to use as a starting point what it is possible to attain in the long run. The wording in the draft Monetary Policy Report that an increase in the repo rate is needed to stabilise inflation around 2 per cent and to avoid resource utilisation becoming too high is slightly unclear, in Ms Ekholm's opinion. This is because it is not clear which resource utilisation is referred to. According to Ms Ekholm, most of the measures presented in the report are more concerned with the inflation forecast than with a sustainable level for resource utilisation, and this inflation aspect ought to already be included in the endeavour to set the repo rate to stabilise inflation around 2 per cent. The central issue is now how quickly an expansionary monetary policy can be used to raise resource utilisation without inflation accelerating and overshooting the target. There are reasons to avoid this taking too long, as there may be persistence effects on the labour market that will slow developments down more than necessary if unemployment is too high for too long.

One may then wonder what is an appropriate starting point for measuring sustainable resource utilisation. Mr Svensson recommends unemployment as a measure, but Ms Ekholm said that while it has many advantages, it also has disadvantages. Ultimately, it only captures a certain aspect of the labour market situation. According to the definition in the labour force surveys, a person is unemployed if they have not carried out any work during the measuring week, have not been able to take up a job and showed some form of active job-seeking, including merely studying the situations vacant advertisements. This does not capture any of the exclusion that has been the focus of many of the recent labour market reforms, as it only concerns what defines individuals as being outside of the labour force. Nor does it capture involuntary part-time unemployment, which is relatively common among women, according to surveys. And it does not capture whether those who have work tend to be absent from their work. We could argue that changes in unemployment are still a good measure of the change in the labour market situation if the measurement errors are constant over time. But this is not necessarily the case with regard to reforms affecting the flows into and out of the labour force and the degree of attendance at work.

Ms Ekholm's impression was that some form of measure of the hours gap would actually be a better starting point. But it is perhaps more difficult to estimate long-term potential hours worked than long-term equilibrium unemployment, which Ms Ekholm said she found difficult to assess. In any case, she considers this to be something that requires more detailed analysis in the coming period. The closer we come to normal resource utilisation, the more important it will be to have an idea of how quickly it can be raised without inflation accelerating, and then we must also have some idea of how the sustainable level will develop. This could be a case of rather complex dynamics and Ms Ekholm believed it was in line with what Ms Wickman-Parak and Mr Nyberg called for with regard to a more disaggregated analysis of developments in the labour market.

To summarise, Ms Ekholm considered that an unchanged policy rate of 1.25 per cent and a repo-rate path where the repo rate gradually rises to around 3.25 per cent entails a better-balanced monetary policy than the repo-rate path in the main scenario of the Report. She also said that it is important to make in-depth analyses of what resource utilisation should apply as the starting point for the Riksbank's goal of supporting general economic policy in attaining sustainable growth and high employment, and how this relates to the level compatible with unchanged inflationary pressure.

Governor **Stefan Ingves** said that he largely agrees with the assessment of the Swedish economy in the draft Monetary Policy Report and he supported the proposal to raise the repo rate by 0.25 percentage points and to adjust the repo-rate path upwards somewhat. One consequence of this is an increased probability that the repo rate will be raised at all of the monetary policy meetings held this year.

International developments benefit Sweden, as Mr Ingves pointed out earlier. Demand is expected to be good during the forecast period, while the rate of inflation will increase. An appreciating krona will to some extent counteract the inflation effect. It is possible that there would have been a need to raise the repo rate more if the krona had not already appreciated.

The picture of economic activity now appearing is similar to the two periods of very good growth earlier during the 2000s. Although the situation is not exactly the same, a number of indicators (business tendency surveys, purchasing managers' index, export orders and household confidence indicators), as well as shortages and redundancy notices are reminiscent of earlier periods that have led to full resource utilisation. The Riksbank's own RU indicator is also pointing in the same direction, and inflation expectations are increasing. The difference between now and then is that the turnaround in unemployment is starting from a higher level, and that interest rates are lower.

Given the way demand in the economy now appears to be going, it is clear that the Riksbank will be in a rate-increasing phase for the foreseeable future, as inflationary pressure would otherwise rise too much. The forecast in the draft Monetary Policy Report is based on moderate wage increases and a limited rise in unit labour costs. If wage increases turn out to be higher than forecast, for instance as a result of an increased wage drift, there is also a risk that inflation will accelerate. If this happens, Mr Ingves explained that he would not be unsympathetic to raising the repo rate by more than 0.25 percentage points at one meeting.

Mr Ingves also said that it may be worth noting at the same time that mortgage rates have risen more than the repo rate. The increased difference between mortgage rates and the repo rate entails some further tightening. If household borrowing is persistently at a high level, this will lead to risks increasing and there is a possibility that this interest rate difference will increase further. Mr Ingves noted that there may be reason to expect the repo rate and mortgage rates to follow one another less closely in the future. However, the way the credit market looks at present, he does not see any need for monetary policy to compensate for this.

The monetary policy now proposed will mean that interest rates in Sweden are higher than those in the euro area and the United States, but much lower than in many rapidly-growing countries. This is a reasonable positioning, given both international developments and the domestic demand situation. It is safer to raise the repo rate now than to wait for the exchange rate to strengthen. If the exchange rate persistently rises more than expected, it will be possible to deal with this situation further ahead.

Deputy Governor **Lars E.O. Svensson** referred to what Ms Wickman-Parak and Mr Nyberg said about the labour market and labour shortages in certain sectors. As Mr Svensson sees it, such circumstances are important with regard to assessing the effects on wage bargaining and inflationary pressures, and to forecasting wages and inflation. But, like Ms Ekholm, he wished to emphasise that it is important to distinguish between the role of resource utilisation as a target variable and its role as an indicator of inflationary pressure. With regard to its role as target variable, it is the sustainable rate of unemployment that is relevant. But with regard to its role as an indicator of inflationary pressures and as a basis for forecasts for wages and inflation, various short-term situations, shortages and bottlenecks may be significant, but will not normally affect the sustainable unemployment rate. One way of expressing this is to say that unemployment in relation to the long-term unemployment rate is a target variable, but that the gap in relation to short-term equilibrium unemployment may be an indicator of inflationary pressures that is important in forecasting the inflation gap, the other target variable.

Governor **Stefan Ingves** said that the discussion on resource utilisation is an expression of the situation in the Swedish economy. As the Riksbank conducts an inflation-targeting policy where resource utilisation plays a central role both in itself and through its influence on inflation, it may be said to have eternal topicality. But as the Swedish economy now approaches full resource utilisation, it becomes more common for different measures to give different responses to the question of whether resource utilisation is below or above the normal level. If economic activity develops as expected, the discussion will become more intensive in the future, and this is an important discussion to conduct.

Deputy Governor **Lars Nyberg** referred to Mr Ingves' remark that the mortgage rate paid by households have risen more than the repo rate. The Riksbank wishes to avoid raising the repo rate too quickly, as it is important to stimulate business sector investment. At the same time, there is concern that households' burden of debt is increasing too quickly. From this point of view, it is positive that mortgages have risen slightly more quickly than the repo rate. However, this need not mean that the banks are earning more money on the mortgages, which is sometimes taken for granted. The banks' funding costs have also risen more quickly than the repo rate, partly as a result of the new regulations (Basel III) requiring them to borrow at longer maturities than before.

However, Mr Nyberg wanted to point out that in his view, the current repo-rate decision is necessary because of the rapid growth in the Swedish economy, and the endeavour to attain the inflation target at the same time as resource utilisation and employment develop as well as possible. The increase in the repo rate and the repo-rate path would also be justified even if the mortgage market was better balanced. However, if the increase helps to slow down growth in household borrowing, this is positive. It reduces the risks of an excessive burden of debt reinforcing a coming economic downturn and thereby becoming a problem for monetary policy.

Deputy Governor **Barbro Wickman-Parak** pointed out that it is possible that the long-term or sustainable unemployment rate, to use Mr Svensson's terminology, is around 5 or

5.5 per cent. But as Mr Svensson says, we should distinguish between what can be achieved in the short term and what can be achieved in the long run. Mr Wickman-Parak clarified that it was more the short-term perspective that she highlighted in her contribution to the debate. The way the labour market functions in this perspective and the risks this entails for inflationary pressures are relevant to monetary policy.

Ms Wickman-Parak also said that she believes that there will be reason to use many different measures of resource utilisation in the foreseeable future. This is a wise approach, given the uncertainty connected to the measures. Nor is the measure of unemployment simple – it may be possible to have a reasonable perception of long-term unemployment, but it is not possible to be certain of how soon this can be attained. If we are to gain an idea of this, it is not enough to merely analyse large aggregates.

To sum up, the Chairman, Governor **Stefan Ingves,** said that unemployment was now expected to be slightly lower than was forecast at the previous monetary policy meeting in December. At the same time, rising commodity prices are leading to higher inflation in Sweden and abroad. Given this, it is the opinion of the majority that the repo rate should be raised today and that the repo-rate path should be raised somewhat. A minority advocates holding the repo rate unchanged and a slightly lower repo-rate path.

§ 4. Monetary policy decision

The Executive Board decided after voting

- to adopt the Monetary Policy Report according to the proposal, Annex A to the minutes,
- to publish the Monetary Policy Report on 15 February 2011 at 9.30 a.m.,
- to raise the repo rate by 0.25 percentage points to 1.5 per cent and that this decision would apply from Wednesday, 16 February 2011,
- to publish the decision above at 9.30 a.m. on 15 February 2011 with the motivation and wording contained in a press release, and
- to publish the minutes of today's meeting on Monday, 28 February 2011, at 9.30 a.m.

Deputy Governor Karolina Ekholm and Deputy Governor Lars E.O. Svensson entered a reservation against the decision to raise the repo rate by 0.25 percentage points to 1.5 per cent and against the repo-rate path of the main scenario in the Monetary Policy Report. They advocated a repo rate equal to 1.25 per cent and a repo-rate path that then gradually rises to 3.25 per cent by the end of the forecast period. Such a repo-rate path implies a rate of CPIF inflation closer to 2 per cent and a faster reduction of unemployment towards a sustainable level.

This paragraph was verified immediately.

Minutes by

Ann-Christine Högberg

Verified by:

Karolina Ekholm	Stefan Ingves	Lars Nyberg
Lars E.O. Svensson	Barbro Wickman-Parak	Svante Öberg