

## **Irma Rosenberg: Riksbank to introduce own path for the repo rate**

Speech by Ms Irma Rosenberg, Deputy Governor of the Sveriges Riksbank, at Danske Bank, Stockholm, 17 January 2007.

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Thank you for the invitation to come here and speak about monetary policy. The Riksbank is constantly working on improving the bases for monetary policy decisions and its communication. As part of this work, we on the Executive Board of the Riksbank decided yesterday that we will publish our own views on what is a suitable development of the repo rate in connection with the presentation of the inflation forecasts.<sup>1</sup> I intend to devote my speech today to explaining why we have made this decision and also to mention some other changes we are making in connection with this. However, I will not on this occasion discuss the current economic situation.

The Riksbank is considered by many experts to be one of the most transparent central banks in the world.<sup>2</sup> We were amongst the first to introduce a numerical inflation target and to publish our inflation forecasts and the minutes from our monetary policy meetings. This is so that the general public will understand the reasons for our decisions and also to enable our monetary policy to be evaluated. It further enables accountability and gives legitimacy to an independent central bank like the Riksbank.

Now we have decided to publish our own forecast for how we believe the repo rate will develop. We began discussing whether this would be an appropriate direction to take as early as last spring. The Governor of the Riksbank also signalled in several speeches made in spring 2006 that there was reason to look more closely into this possibility. It is my hope that with this change we will become more open and clear in our communication and that it will make it even easier for the general public to understand how we reason when making our monetary policy decisions.

Let me describe the background to the changes we are now making in the monetary policy analysis and our communication.

### **Modern monetary policy is based on openness and clarity**

Monetary policy today is largely concerned with influencing the economy through expectations. There is therefore good reason for the central bank to be clear about how it views future developments in inflation and also the real economy. Modern academic research into monetary policy also indicates that monetary policy functions better the clearer and more open the central bank is with regard to its forecasts and monetary policy considerations.

One question that has been much discussed in recent years both in academic circles and the central banking world is how clear central banks with a price stability target should be with regard to their own view of future developments in the policy rate. This discussion is also connected with which assumption for the policy rate the central bank should use when making forecasts of inflation and the real economy. Three different approaches exist: (i) That the policy rate is assumed to remain unchanged during the forecast period, (ii) that the policy rate is assumed to follow market expectations, or (iii) that the policy rate is assumed to follow a path that the central bank itself considers to reflect a reasonable future development.<sup>3</sup> Regardless of which of these three interest rate assumptions is used to produce the inflation forecast, the monetary policy decisions made by the central banks always refer only to the current level of the policy rate, that is, the level that is to apply until the next decision-making point.<sup>4</sup> However, the monetary policy discussion and communication differ slightly, depending on which interest rate assumption is used.

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<sup>1</sup> See the minutes of the Executive Board meeting on 16 January 2007.

<sup>2</sup> See, for instance, Eijffinger, S. and P., Geerats, (2006), as well as van der Crujssen, C. and M., Demertzis (2005).

<sup>3</sup> See, for instance, Blinder, A., (2006), and Kontulainen, J., D., Mayes and J., Tarkka, (2004).

<sup>4</sup> There are special exceptions to this normal procedure. For example, during the deflation crisis in Japan, the Japanese central bank undertook to maintain its policy rate at a low level during a certain period. For another exception, see the statement in a press release from the Federal Reserve, Board of Governors, 12 August 2003, in connection with fears that inflation would be too low.

The first two approaches mean that a particular path for the development of the policy rate is taken for granted by the central bank when making its inflation forecasts. The latter approach instead means that the central bank makes its own assessment of what might be a reasonable future development in the policy rate at the same time as it makes the inflation forecast.

The assumption of a constant policy rate has been the most common approach, although the trend at present is for the central banks to be clearer as to how they envisage future interest rate developments. Several central banks have changed over to basing their inflation forecasts on market expectations of future developments in the policy rate. When the inflation forecasts are published, there may also be a comment, phrased in general terms, on how the bank views market expectations. So far, only a few central banks have taken the step of publishing their own forecasts for their policy rates.

### **Arguments for and against own forecasts for the repo rate**

There are currently discussions, both in academic research and in central bank circles, as to whether it is appropriate for central banks to publish their own forecasts for the policy rate. In a moment, I shall describe some advantages and disadvantages of such an approach. At the same time, one must remember that there are a number of advantages and disadvantages to all of the approaches I mentioned earlier, and these must be weighed against one another.

When we changed over from keeping the repo rate constant in our forecasting work to basing the forecasts on market expectations, we had made the assessment that the advantages of this system outweighed the disadvantages, compared with using a constant repo rate assumption. The assumption of a constant repo rate worked well in as far as it made communication simple, which I believe was particularly important when establishing the new monetary policy regime and building up credibility for the inflation target. At the same time, it was of course usually an unrealistic assumption that made it difficult for us to make good forecasts. This applied in particular in cases where there were expectations of substantial repo rate adjustments. Normally, changes in the repo rate are required to guide inflation towards the target. If we had kept to this assumption for the interest rate, these difficulties would have been particularly prominent when we changed over to making forecasts in a slightly longer time perspective. Of course, the assumption of a constant repo rate also made it difficult to compare our forecasts with those of other forecasters and to evaluate our monetary policy. But, perhaps even more importantly, it gave no clear guidance as to how we viewed interest rate developments in the long term. The general public's and the markets' expectations of the future interest path are at least as important for the way monetary policy influences the economy as the expectations around the decision on the current interest rate.

We left most of these problems behind us when we began making forecasts based on market expectations, as reflected in the so-called implied forward rates. This was because market expectations in most cases provide a much more realistic forecast for the future development of the repo rate. The changeover from a constant repo rate to the markets' expected interest rate path was also a natural step on the route to publishing our own forecast for the repo rate. We then began talking more systematically about future interest rate developments by commenting on the plausibility of the interest rate path given by market expectations. In my opinion this was when we took the major step towards increased clarity with regard to our view of future interest rate developments.

The method of basing forecasts on market expectations is not without its problems, either. One problem concerns how expectations are measured. Other problems are related to communication regarding the interest rate path. Let me explain what I mean here.

Changes in the policy rate have a direct effect on the shortest interest rates in the economy. Monetary policy can therefore also affect financial market expectations of future short-term interest rates. It is these expectations that the implied forward rates are meant to capture. The implied forward rates can be interpreted as the financial markets' "average" forecast for the future repo rate. If, for instance, the annual interest rate for government bonds is higher for long durations than for short ones, this could be interpreted as the market expecting the repo rate to be raised.

One problem when interpreting implied forward rates in this way is that they do not solely measure expectations of the repo rate. They may also contain premiums that can be regarded as compensation

for differences between securities with regard to duration, credit risk and degree of liquidity. Estimating the size of these premiums can be complicated and can be done in different ways.<sup>5</sup> It is therefore not possible to calculate market expectations of repo rate developments in a clear-cut manner, which may create confusion.

Another problem is that the implied forward rates may vary substantially in the short term. The question is therefore when market expectations should be read.

A further problem that is sometimes highlighted is that there may be a risk of the central bank allowing itself to be steered by financial market agents when inflation forecasts are based on implied forward rates.<sup>6</sup> Personally, I am convinced that this is not normally any great problem. When we have had a different opinion from the market, we have said so. On these occasions we have also influenced market pricing. This was the case, for instance, with the monetary policy decisions we made in December 2005 and June 2006.

Another problem sometimes mentioned is that there may be difficulties in communication in the cases where the central bank has a different view from the market as to what constitutes a reasonable future development for the policy rate.<sup>7</sup> The forecasts for developments in the real economy and inflation that are published will under such circumstances not be the ones that the central bank believes to be the most likely and the value of the published forecast is therefore diminished. This is the same type of problem as with constant repo rate forecasts, although the problem is probably less on average over time.

Most of these problems can be avoided if the central bank instead bases its inflation forecasts on its own forecast for the development of the policy rate.<sup>8</sup> However, the primary reason for publishing one's own interest rate forecast is that it makes it easier for the central bank to steer expectations. With this assumption for the interest rate, the central bank can explain more clearly to the general public and the financial markets how it envisages future interest rate developments and how it reasons when making monetary policy decisions. The interest rate development that follows on from market expectations does not always give a good picture of all of the considerations a central bank must make when discussing what provides a reasonable development in interest rates.<sup>9</sup> At the same time, it may be worth pointing out that our forecasts for the repo rate will not normally deviate very much from market expectations.

This is essentially the background to why we are now choosing to go over to using our own interest rate forecast when forecasting inflation and other macro variables. Although I am convinced that this means increased openness and clarity in monetary policy, it has not been an entirely self-evident step to take. This is because we have been forced to manage a number of practical problems. These are primarily related to the fact that we are six persons on the Executive Board who together must agree on what could be considered to be a reasonable repo rate development in the future, while safeguarding our responsibility as individuals for how we vote.<sup>10</sup>

To make a forecast for the development in the repo rate, we Executive Board members must together make an assessment of what would be a desirable path for the repo rate during the forecast period, even though our interest rate decision only refers to the level of the repo rate applying until the next monetary policy meeting. The different members of the Executive Board may have differing opinions on, for instance, the current situation in the economy and at what pace inflation should be brought back on target, giving consideration to the real economy and various risks. It goes without saying that

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<sup>5</sup> See, for instance, Alsterlind, J. and H. Dillén, (2005).

<sup>6</sup> See, for instance, Giavazzi, F. and F.S. Mishkin (2006).

<sup>7</sup> See, for instance, Giavazzi, F. and F.S. Mishkin (2006).

<sup>8</sup> However, it is not possible to entirely rule out similar problems sometimes arising even when the central bank publishes its own forecast for the policy rate. If new information is received in connection with making a decision on the interest rate and this information changes the conditions for decision-making, the decision may be different from what might have been expected on the basis of the inflation forecasts (which have to be completed before the interest rate decision is made).

<sup>9</sup> The advantages of the central banks publishing their own interest rate forecasts are discussed in more detail in, for instance, a number of essays presented at a conference organised by the Riksbank in June 2005. See in particular Archer, D. (2005), Faust, J. and E., Leeper (2005), Svensson, L.E.O., (2005) and Woodford, M., (2005).

<sup>10</sup> See Goodhart, C., (2001) and Mishkin, F. S., (2004) for a detailed argument against central banks publishing their own interest rate forecasts.

this is not a simple matter. However, we Executive Board members have made the assessment that these problems are not in practice so great as to prevent us from agreeing on a path that a majority of the Executive Board members can support. We have previously managed to agree on interest rate messages with information on our future intentions when we have commented on the plausibility of the interest rate path given by market expectations.

There are also some other problems that have been put forward as arguments against central banks publishing their own interest rate forecasts. One such argument is that it makes communication with the general public more difficult. If the central bank first announces a particular interest rate path and then new information is received, which leads to a policy rate decision that differs from the path published earlier, this could be perceived as a failure on the part of the central bank and it could damage the bank's credibility.<sup>11</sup>

Personally, I do not believe that this will be a major problem. On the contrary, one of the main points of publishing one's own interest rate path is that it should improve communication with the general public. We have always carefully emphasised that there is considerable uncertainty in the assessments and explained that new information may come in later which could radically change the conditions for our monetary policy assessments.<sup>12</sup> To emphasise this even more strongly, it is important to illustrate the uncertainty in different ways, for instance by calculating the uncertainty interval around the interest rate path. This we intend to do.<sup>13</sup> Just as when we based our forecasts on market expectations, publishing our own interest rate forecast does not involve any commitment from the Riksbank that the repo rate will then actually follow this path. It is important to bear this in mind.

A further argument that has been put forward against publishing a forecast for the development of the repo rate is that the financial markets, if given access to the central bank's views on the interest rate level in the slightly longer term, would stop trying to find other information that is significant for long-term interest rates. The central bank would then lose an important source of information, namely how market prices reflect the markets' views on economic prospects in the longer term.

Neither do I find this argument particularly convincing. The financial market agents know that we live in an uncertain world and will continue to look for other sources of information on long-term developments via other channels than the central bank and make independent assessments.

### **What defines a good interest rate path?**

When we make our forecasts of the repo rate, we must of course consider what would be a well-balanced monetary policy given the developments we foresee. What is meant by a well-balanced monetary policy? Let me answer this by briefly summarising how we describe our monetary policy strategy in the special document on monetary policy published in May 2006.<sup>14</sup> Our new assumption for the interest rate does not change the way we conduct monetary policy.

"A desirable monetary policy is characterised by inflation under normal circumstances being close to the inflation target in a two-year time perspective while at the same time the paths for inflation and the real economy do not exhibit excessively large fluctuations." Given this reasoning, I think it is possible to identify some important characteristics of a good interest rate path.

Firstly, the interest rate should be set so that inflation remains close to the 2 per cent target. If inflation were to deviate from target from the start, we should normally choose a path for the repo rate that brings inflation back on target within two years. Moreover, this path should be chosen so that inflation is close to target even beyond the two-year horizon. This way of conducting monetary policy helps reduce uncertainty and anchor inflation expectations around the target.

The interest rate should also be set to achieve as far as possible a stable, sustainable development in the real economy, as long as this is compatible with the price stability target. Let us say that the

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<sup>11</sup> See, for instance, Giavazzi, F., and F. S. Mishkin (2006).

<sup>12</sup> See also Rudebusch, G.D. and J.C. Williams (2006).

<sup>13</sup> See the box "Uncertainty regarding future interest rate movements" in Inflation Report 2006:1 for some examples of how to produce such uncertainty intervals.

<sup>14</sup> See the memorandum "Monetary policy in Sweden" which can be downloaded from the Riksbank's website, [www.riksbank.se](http://www.riksbank.se) or ordered as a printed document.

economy was in a situation where inflation deviated from target. This would mean that when we conduct our monetary policy we must assess how quickly it is appropriate to bring inflation back to 2 per cent. Several factors need to be taken into account; the reasons for the deviation from target, the size of the deviation and how we expect real economy factors such as growth and employment to develop. The two-year horizon should be regarded as a restriction as to how much consideration can normally be given to real economic developments. Situations may arise where the deviations are substantial and it is reasonable to allow longer than two years for inflation to return to target. In this way we can avoid excessive fluctuations in real economic activity. However, I would like to emphasise that this kind of strategy only comes into question when it will not jeopardise the credibility of monetary policy.

A desirable monetary policy should also be predictable in order to make it easier for households and companies to adapt to new economic conditions. Changes in the repo rate should therefore normally be made gradually and not in large steps, as I see it. Of course, there may be other reasons to avoid large changes in interest rates. Changing the interest rate gradually gives, for instance, some scope to give consideration to the real economy, while enabling us to wait for and analyse new economic information. The fact that no central bank knows exactly how the economy functions and the effects of monetary policy also means that one normally proceeds cautiously in changing interest rates.

Finally, a desirable interest rate path should also be determined with consideration to an assessment of different types of risks and the consequences for inflation and the real economy if they are realised. Some risks may be difficult to quantify and capture in our normal forecasts. In my opinion, they should nevertheless be included in the balance when shaping monetary policy. One recent example is the risks linked to a rapid increase in property prices and household indebtedness as a result of a longer period of expansionary monetary policy; a problem many central banks around the world have faced.

Let me also, for the sake of clarity, point out that when we publish our own forecast for the repo rate it will indicate a smoother development in the repo rate than the policy that will be conducted. This is because interest rate decisions must in practice be taken in stages and at particular points in time. It is difficult to build this into the forecasting work.

### **Changes to the Inflation Report**

Let me mention another new item, before I round off. Our inflation report will involve a change of name, to "Monetary Policy Report". One reason for the name change and the most important change is that the reports will from now on contain not merely inflation forecasts, but also a monetary policy message. There will be a clear link between the forecasts and the monetary policy considerations made directly in the report in that the forecasts are based on an interest rate path chosen by the Executive Board. A more detailed account of the discussion held in connection with the decision on the level of the interest rate that will apply until the next monetary policy meeting will be included in the minutes of the meeting, which will be published as usual around two weeks after the meeting.

In addition, the arrangement of the report will be altered with the aim of becoming even clearer and more efficient in our communication. The purpose is to make it easier for external parties to follow, understand and assess our monetary policy. The report will also have a new, and hopefully more readable, layout.

The routines for publishing the report will also be changed slightly. The report will be published, as usual, on the Riksbank's website the day following the monetary policy meeting, at 9.30 a.m. However, the printed version will be published slightly later, as the report will now contain information on the monetary policy decision and must therefore go to print after the Executive Board meeting.

### **Concluding remarks**

As I mentioned at the beginning, we at the Riksbank are constantly working on improving our communication and the bases for making our monetary policy decisions. The fact that we are now going to publish our own forecast for the repo rate is an important step in this process. I would like to emphasise once again that this is a question of a forecast for the future development of the repo rate. Forecasts are, as we know, always uncertain and new information and changed circumstances can lead to assessments changing. The new interest rate assumption does not entail any commitment on the part of the Riksbank that the repo rate will actually follow a particular path. Nor does this involve a new way of conducting monetary policy.

When we chose to replace the assumption of a constant repo rate with an assumption based on market expectations, we took a large step towards increased openness and clarity. Now we are taking a further step in the same direction. I hope that this will enable us to become even better at explaining to the general public how we reason when making our monetary policy decisions.

Thank you!

### List of references

Alsterlind, J. and Dillén, H., "Monetary policy expectations and forward premia", Sveriges Riksbank Economic Review 2, 2005.

Archer, D. (2005), "Central-bank communication and the publication of interest rate projections", article presented at the Riksbank's conference "Inflation targeting: implementation, communication and effectiveness", June 2005.

Blinder, A., (2006), "Monetary Policy Today: Sixteen Questions and about Twelve Answers", paper presented at the Banco de España Conference on "Central Banks in the 21st Century, Madrid, June 8-9, 2006.

van der Cruysen, C. and M., Demertzis (2005). "The impact of central bank transparency on inflation expectations", Working Paper no. 031/2005, De Nederlandsche Bank, 2005.

Eijffinger, S. and P. Geerats, (2006), "How transparent are central banks?" European Journal of Political Economy, vol. 22.

Faust, J. and E. Leeper (2005), "Forecasts and inflation reports: An evaluation", article presented at the Riksbank's conference "Inflation targeting: implementation, communication and effectiveness", June 2005.

Goodhart, C. (2001) "Monetary Transmission Lags and the Formulation of the Policy Decision on Interest Rates", Federal Reserve Bank of St. Louis Review, July/August 2001.

Giavazzi, F. and F.S. Mishkin (2006), "An evaluation of Swedish monetary policy 1995-2005", Reports from the Riksdag 2006/07:RFR 1, Committee on Finance.

Kontulainen, J., D. Mayes and J. Tarkka, (2004), "Monetary Policy Assumptions in Central Bank Forecasts", Bank of Finland Bulletin 4, 2004.

Mishkin, F. S. (2004) "Can Central Bank Transparency Go Too Far?" NBER working paper no. 10829.

Rudebusch, G.D. and J.C. Williams (2006), "Revealing the Secrets of the Temple: The Value of Publishing Central Bank Interest Rate Projections", NBER Working Paper, 12638.

Svensson, L.E.O. (2005), "Further Developments of Inflation Targeting", article presented at the Riksbank's conference "Inflation targeting: implementation, communication and effectiveness", June 2005.

Woodford, M. (2005), "Central-Bank Communication and Policy Effectiveness", article presented at the Riksbank's conference "Inflation targeting: implementation, communication and effectiveness", June 2005.