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The Executive Board's consultation response to the report "An Evaluation of Swedish Monetary Policy between 1995 and 2005" (2006/07:RFI1) (060-1070-06/07)

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Summary: The Executive Board agrees with most of the recommendations in the report; these are in line with the current developments in monetary policy. The Executive Board does not agree that persistent overshooting or undershooting of the inflation target should be compensated by a subsequent deliberate undershooting or overshooting of the corresponding amount. Nor does it agree that the inflation target should be defined in terms of a price index other than the CPI. This comment concludes with a discussion of monetary policy in recent years.

1 Introduction

The Riksbank has been invited to present its views on the report "An Evaluation of Swedish Monetary Policy between 1995 and 2005" (2006/07 RFR1). The Riksbank is presenting two separate consultation responses, one from the General Council of the Riksbank and one from the Executive Board of the Riksbank. This response concerns the questions that fall within the Executive Board's sphere of activity. The General Council will at the same time issue a consultation response regarding the issues that belong to its sphere of activity.

The Executive Board's comments cover certain introductory general view and comments on the recommendations numbered 1-7 in the final chapter, and also some of the questions raised by the authors of the report in earlier chapters. This response is divided up as follows. Section 2 provides some general views on the evaluation. Sections 3 and 4 provide the Executive Board's stance with regard to the recommendations and suggestions regarding the conduct of monetary policy, and the reasons for this stance. Section 5 contains a discussion of the reasoning in the report on the fact that inflation has been below target in recent years.

2 General views

The evaluators' general assessment is that the Riksbank compares favourably with the best central banks in the world. The evaluators have also found in their analysis that in some areas there is scope for improvement in the Riksbank's



working methods. The evaluation concludes with six recommendations on conducting monetary policy (section 5.1) and three recommendations on governance of monetary policy (section 5.2). In addition to these concluding recommendations, the evaluation contains a number of less radical suggestions.

The Executive Board of the Riksbank is positive to most of the recommendations and suggestions stated. In several cases, steps have already been taken along the route advocated in the report. With regard to some parts of the analysis, the Executive Board's conclusions differ in some aspects from those drawn in the report.

The Executive Board observes that a large part of the report is comprised of a discussion of principle regarding what research has to say about the best method of conducting monetary policy and regarding the general monetary policy regime in Sweden. Only a small part is devoted to the monetary policy decisions made by the Riksbank and the macro economic developments to which they are linked.

The Executive Board notes in this context that the report provides clear support for the principles behind the monetary policy regime. The section that reports the conclusions of economic research as to how monetary policy should best be conducted (Chapter 2) highlights a number of principles as being of central importance. These are currently the guiding principles behind Swedish monetary policy:

- Price stability should be the overall long-term objective for monetary policy
- Monetary policy should have a specific inflation target
- The inflation target should be between 1 and 3 per cent
- The central bank should have the possibility to set the policy rate to attain the price stability target without interference from the government
- Openness and clarity are important
- Greater emphasis should be placed on forecasts for inflation and production than on intermediary targets such as money supply or exchange rate
- Monetary policy should be aimed at stabilising fluctuations in both inflation and production/employment (the inflation-targeting policy should be flexible), but no explicit target should be set for production or employment
- Monetary policy should not be governed by any mechanical rule of action

The main reasoning of the evaluation provides an important contribution, not lease because it is expressed in a clear manner and contains a number of suggestions the Riksbank finds good reason to analyse more closely.



3 The report's recommendations

Recommendation 1: The Riksbank should more clearly explain that flexibility in its inflation targeting regime implies that the conduct of monetary policy should try to reduce both inflation and employment (output) fluctuations.

The Executive Board is positive to this recommendation, but at the same time wishes to underline that significant steps have already been taken in the direction proposed by the evaluators.

The Riksbank's strategy is, and has long been, to conduct a flexible inflation-targeting policy that gives consideration to both inflation and the real economy. This is done by the policy normally aiming to attain the inflation target within two years. Under certain circumstances, consideration to developments in the real economy may justify allowing longer time to attain the target. In the long term, there is no trade-off between inflation on the one side and production and employment on the other. It is in the short-term and medium-term that an inflation-targeting policy can contribute to smoothing cyclical fluctuations in production and employment.

The Riksbank has earlier noted the need to emphasise and explain this part of the monetary policy strategy. In May 2006 the Riksbank published the document "Monetary Policy in Sweden". This aimed to provide a description of the goal and strategy of the Riksbank's monetary policy. The clarification published in 1999 was also partly motivated by an endeavour to clarify that focussing solely on the inflation target in the short term is undesirable, as it could give rise to substantial fluctuations in the real economy. A large share of the Executive Board members' speeches over the years have also made it clear that the Riksbank does not focus purely on inflation, but also gives consideration to the real economy.

It can be added that one of the advantages of the Riksbank now beginning to publish its own assessment of future interest rates (see recommendation 4 below) is that it puts stronger focus on the flexibility of our monetary policy. The choice of interest rate path then needs to be justified on the basis of its consequences for both inflation and the real economy.

One specific recommendation in the evaluation is that at the beginning of the Riksbank's Inflation Reports it should be made clear that the Riksbank conducts a policy aimed at reducing fluctuations in production and employment as well as inflation. The Riksbank has already begun to follow this recommendation. With effect from the second Inflation Report last year, which was published in June 2006, there was a description of the Riksbank's monetary policy strategy at the start of the report. It was noted that consideration is given to inflation and to developments in the real economy.

Recommendation 2: The Riksbank should clarify that asset prices (housing prices, stock prices and exchange rates) are not independent targets for monetary policy.

The Executive Board is positive to this recommendation, but at the same time wishes to underline that steps have already been taken in the direction proposed by the evaluators.



The Executive Board agrees that monetary policy should not have targets for various asset prices. Monetary policy should be aimed at low inflation and stability in the real economy. This has been emphasised in a number of speeches by Executive Board members during 2006, and also in the document "Monetary Policy in Sweden".

The criticism expressed in the evaluation mainly concerns the Riksbank having been unclear in recent years as to the role played by house price developments for monetary policy. This criticism is partly justified. The fact that the reason for taking house price developments and indebtedness into account in interest rate decisions has essentially been to safeguard low inflation and stable real economic growth could have been expressed more clearly and at an earlier stage. Some of the misunderstandings that arose could probably have thereby been avoided.

However, the criticism in the evaluation concerns not only the fact that the Riksbank should be clearer that developments in house prices do not constitute an independent target for monetary policy; it also appears based in the fact that the evaluators have a slightly different view than the Riksbank of how house prices should affect monetary policy. The evaluators argue that monetary policy should react to a rapid price increase in the housing market only if the central bank's forecasts indicate that this price increase will lead to problems such as overheating and excessively high inflation. If this is not the case, the central bank should wait and see, but be prepared to quickly ease monetary policy if the housing market were to collapse and demand in the economy were to fall drastically.

The Executive Board agrees that there must be a readiness to act quickly in emergencies. But experiences show that low inflation does not exclude a rise in asset prices and indebtedness and that a rapid increase in house prices can entail risks that cannot be easily quantified and captured in conventional forecasts of the economy a couple of years ahead. This applies in particular if the house price increase is linked to a rapid increase in household borrowing, as in Sweden. If prices and the increase in borrowing were to some extent based on unrealistic expectations of how house prices and interest rates will develop in future, there is a risk of a fairly substantial correction in expectations and prices further ahead. The consequences of such a correction could be that the economy developed weakly over a longer period of time, which would also have effects on inflation.

It may therefore be necessary to take these risks into account in monetary policy decisions in a different way than in the normal approach, where the forecasts for inflation and the real economy serve as the foundation. This can be done, for instance, by beginning a phase of interest rate increases slightly earlier than would otherwise have been the case. The purpose of such a policy is to contribute to a smoother adjustment process for house prices and indebtedness and thereby to a more stable development of inflation and the real economy. However, house prices have no independent significance for monetary policy beyond the prospects for these two variables.

The Executive Board also wishes to emphasise that the way the risks related to a rapid increase in indebtedness and rapid rises in house prices and other asset prices should be handled in monetary policy is a problem much debated by both



central banks and academics. As yet, there is no consensus. At the same time, the Executive Board considers that the differences between the Riksbank's views and the evaluators' views should not be exaggerated. The approach the Riksbank has chosen has in practice only meant a fairly marginal change in the timing of our interest rate decisions.

One suggestion in the evaluation that is linked to recommendation 2 is that stress tests, that is, simulations of how the Riksbank should act if house prices or other important asset prices collapse, are the correct response to the concern over recent house price rises (p. 73). The Executive Board agrees that stress tests are a good means of analysing the consequences of shocks to the economy. Stress tests have been included in the Financial Stability Report with effect from the second report last year, which was published in December 2006. The work on developing the stress tests will continue.

Recommendation 3: Persistent undershooting of the inflation target suggests that monetary policy should lean towards more expansionary policy (while persistent overshooting should bias monetary policy to be relatively more contractionary).

The Executive Board does not agree with this recommendation, if it is to be interpreted to mean that persistent overshooting or undershooting of the inflation target should be compensated by a subsequent deliberate undershooting or overshooting of the corresponding amount.

The evaluation gives two arguments as to why such compensatory policy is desirable. The first is based on the assumption that deviations from target may be a sign that the analysis and forecasting models used by the Riksbank tend to systematically over-estimate inflation. The Executive Board does not consider this to be an argument for changing the target, but for further development of the analysis. Trying to improve the assessments and to learn from the forecasting errors that have been made is a natural part of the monetary policy work.

The Riksbank's view, which appears to be shared by the evaluators, is that there have been reasonable explanations as to why inflation has periodically been below the target. The most recent episode was mainly due to the fact that productivity growth has been surprisingly high. As was also observed in the evaluation, this was something that most forecasters had missed and the errors in the inflation forecasts were thus difficult to avoid. (A more detailed discussion of the undershooting of the inflation target and the evaluation's analysis of this is given in section 5 below.)

The second argument is based on the idea that it would be beneficial to express the price stability target in terms of a path for the price level instead of in the form of a target for the inflation rate. With a target path for the price level, a deviation below the target path must be counteracted by higher inflation during a period of time to enable a return to the path the price level was following before the deviation. With an inflation target it is not necessary to counterbalance undershooting the target with a later overshooting of the target. The evaluation does not advocate a regular price level target, but a form of hybrid solution that would mean the Riksbank kept its inflation target but nevertheless compensated to some extent for the deviations that had arisen.



There is currently a discussion in academic circles and among central banks on the advantages and disadvantages of a price level or hybrid target. The Riksbank is following this discussion with great interest and observes that there is no consensus of opinion as to whether a price level target or an inflation target is preferable.

Furthermore, the Executive Board observes that the current system with an inflation target has worked well on the whole. Inflation has been low and relatively stable and the fluctuations in the real economy appear if anything to have been smaller than during earlier periods. Inflation expectations have also long been anchored around the inflation target.

The Executive Board does not share the evaluators' view that a changeover to a hybrid target would involve only a minor change in the current monetary policy strategy. The Board's assessment is that it would involve a much more significant change than those already made, for example, abandoning the assumption of an unchanged repo rate and the earlier simple policy rule. The fact that the Riksbank, which is also noted in the evaluation, has had some difficulties in explaining to the general public what these limited changes in the monetary policy regime have meant, indicates that a changeover to a hybrid target would risk giving rise to pedagogical problems.

Recommendation 4: The Riksbank should provide more information on the future path of policy rates that are used in producing its forecasts of inflation and the economy, but should make clear the uncertainty surrounding such a path.

The recommendation specifically says that the Riksbank should base its forecasts on its own assessment of the future repo rate path instead of on market expectations, as before. It is also suggested in the evaluation (p. 35) that when the Riksbank publishes its own interest rate assumption, it should publish only an interval for the future path (a fan chart) rather than a specific interest rate path that the Bank considers most probable.

The Executive Board is positive to this recommendation to provide more information on the repo rate path the Bank considers to be the most probable. With effect from the first monetary policy report of this year, which was published in February 2007, the Bank also reports its own repo rate path. However, the Riksbank has chosen not to adopt the suggestion of publishing only an interval for the future repo rate path; it publishes both the interest rate path and also uncertainty bands around this path.

One advantage of publishing the Riksbank's own assessments of the development of the repo rate is that it will be clear to the economic agents which monetary policy the Riksbank considers to be reasonable in the future. Another advantage is that the forecasts for inflation and the real economy presented in the monetary policy reports will thus always be based on the interest rate development the Riksbank considers to be the most likely. This is not necessarily the case if the forecasts are instead based on the assumption that the repo rate will develop in line with market expectations, as the Riksbank's view and the market's view of what constitutes a reasonable development may sometimes differ.



The evaluators' primary reason for recommending that only an interval for the future interest rate path should be published appears to be that it would be clearer to the general public that the Riksbank had not committed itself to following any specific interest rate path. If this is not made clear, the general public could perceive it as a failure if the Riksbank were to deviate from the published path at a later stage. This could in turn result in a decline in confidence in monetary policy.

The Executive Board's assessment is that these fears are exaggerated. There is currently a broad understanding of the uncertainty inherent in the assessments and of the fact that new information may be received that significantly changes the conditions for monetary policy. Furthermore, no serious credibility problems of the type feared by the evaluators appear to have arisen in New Zealand or Norway, where the central banks already publish their own interest rate paths.

Recommendation 5: The inflation target should be defined in terms of a price index that is not directly affected by the costs of housing.

In connection with this recommendation the evaluators propose that it would be best if Statistics Sweden were to change the definition of the consumer price index (CPI) in the way that has been done in other countries, such as the euro area, or if the Riksbank were to clarify that the inflation target is defined in the form of a measure that does not include interest rates and house prices (such as UND1X).

The Executive Board does not see any strong reasons to define the inflation target in terms of a price index other than the CPI. However, the Riksbank will consider giving the UND1X inflation measure a better and internationally more practicable name.

Inflation can be measured in many different ways. The main reason for choosing CPI as the target variable for monetary policy was that it is the broadest measure of consumer price developments and the one best recognised by the general public. It is published quickly, is not revised and in relation to other price indices it maintains a high quality.

CPI is affected to some extent by the Riksbank's own interest rate adjustments. This is an important reason why the policy has largely been guided by the UND1X inflation measure. It is above all the interest rate component in housing costs that affects CPI, while the impact of changes in house prices is relatively limited in Sweden.

The evaluators nevertheless consider that as the target is expressed in terms of CPI and CPI is discussed to a relatively large extent in the inflation reports, there is a risk of suspicions that monetary policy places too much emphasis on developments in CPI. The Executive Board does not share these concerns, as there is currently an understanding and acceptance that monetary policy has in practice been guided by UND1X, which does not contain the direct effect of the Riksbank's interest rate changes.

The choice of price index for stating the inflation target is a complicated issue, which is the subject of lively international debate. Different countries have chosen



different solutions, although most countries define their inflation target in terms of CPI or a modified version of CPI. The question of how housing costs should be dealt with when calculating CPI has also long been debated internationally. In this case, too, the solutions vary from country to country and there is as yet no general consensus as to which solution is best. Given this, the Executive Board does not wish to rule out the possibility that there may be reasons to define the inflation target in terms of an index other than CPI in the future.

Recommendation 6: There is no compelling reason to change the level of the inflation target from the 2% number. But further study of the appropriate level of the inflation target could be beneficial if it is conducted by technical experts.

The Executive Board agrees that there are no convincing reasons to change the level of the inflation target.

The decision in January 1993 to introduce an inflation target was made by the Riksbank, as was the decision to set the level at 2 per cent. The Government gradually came to support the inflation target. The evaluators consider that it would have been desirable for the Government to play a more active role at the time the target was set, but note at the same time that the Government currently takes sufficient ownership of the inflation-targeting regime.

The Riksbank has long worked to establish inflation expectations around the 2 per cent target and this has functioned well. The target level is also in line with what most other inflation targeting countries have chosen. It could be very costly to change a well-established inflation target that has been proved to work well, particularly in terms of increased uncertainty during a transition period and this should not be undertaken without very good reasons.

Recommendation 7: The dialogue between the Riksdag (the Swedish Parliament) and the Riksbank needs to be enhanced by separating the release of the Inflation Report from its discussion in the Finance Committee.

The Riksdag Committee on Finance has decided to change its routines in line with the recommendation in the evaluation. The hearing of the Riksbank Governor in connection with the first monetary policy report in 2007 therefore took place a week after the report was published. The Executive Board welcomes this new system.

4 Other questions

The evaluation also contains a number of other suggestions, in addition to the concluding recommendations. These suggestions are often closely related to one of the recommendations. Most of them have therefore already been discussed above. This section takes up a further question.

The evaluators write that the Riksbank should perhaps consider devoting more resources to the analysis of developments in the real economy, particularly in the area of productivity growth and the labour market (pp. 54-55).

The reason for this suggestion is the forecasting errors made by the Riksbank with regard to inflation in recent years. The evaluators' conclusion is that these



forecasting errors would probably have been difficult to avoid, but they nevertheless consider that a greater investment in the analysis of the real economy may be justified. They also consider that this conclusion is supported by the fact that only 15 per cent of the reports in the Riksbank's Working Paper Series have dealt with the real economy and the labour market.

The Executive Board agrees that the analysis of the real economy is of central importance to monetary policy. The Riksbank has also increased its investments in the analysis of the real economy, not least due to the forecasting errors made earlier. This work has been reported, among other things, in articles in the Riksbank's journal and reports.

The Riksbank is constantly striving to improve its forecasts. One step in this work is to analyse what has gone wrong in the earlier assessments and to try to correct any deficiencies. The under-estimation of inflation over the past three years has led to an increase in the resources for analysing the real economy. For instance, the Bank has initiated a project aimed at improving understanding of the strong productivity growth in Sweden in recent years. In addition, Statistics Sweden has been asked to hasten the planned improvements in economic statistics to improve the statistical base for productivity calculations, among other things.

5 Undershooting the inflation target

The evaluators observe in the concluding Chapter 5 that inflation has "persistently undershot the Riksbank's target; this has been associated with a loss in output and higher unemployment" (p. 77).

The Executive Board agrees that, with hindsight, it would have been possible to cut the repo rate earlier and at a faster pace in the beginning of the 2000s, but also considers that this would probably have had relatively minor effects on production and unemployment. The Executive Board also notes that the evaluators' conclusion is not based on an in-depth analysis of the correlation between monetary policy and the real economy during the period in question.

With effect from 1995, when the inflation target began to apply, and up to 2005 the rate of increase in the consumer price index (CPI) was on average 1.3 per cent a year (1.1 per cent according to the new calculation method introduced by Statistics Sweden in 2005). If one adjusts for the direct effects of changes in mortgage interest rates, taxes and subsidies, inflation (measured as UND1X) was on average 1.8 per cent a year. The deviations from the inflation target of 2 per cent have not been so large that confidence in the target has been lost. Inflation expectations have long been close to 2 per cent.

These figures can be set in relation to the fact that during the twenty years prior to the introduction of the inflation-targeting policy, inflation (measured in terms of CPI) amounted on average to 8.5 per cent a year. In this type of longer-term perspective it becomes clear that the purpose of the inflation targeting regime and the changes in the legislation – a low and stable inflation – have been achieved.



Over the past three years inflation has been significantly below the target. During the two years included in the evaluation, 2004 and 2005, CPI inflation was 0.5 per cent on average, while the corresponding figure for UND1X was 0.8 per cent.

At the beginning of 2002 it was not considered likely that inflation would be low in 2004, but in autumn 2002 the forecasts were changed and the interest rate was cut in November 2002. The first Inflation Report of 2003 contained a forecast for low inflation in 2004. This was mainly because the earlier rapid upturn in energy prices was expected to rebound. Inflation turned out even lower than expected and remained low in 2005.

One important reason for the low inflation rate is that productivity has risen rapidly, much quicker than the Riksbank and other forecasters had expected. This has meant that companies have been able to increase their production without raising prices or employing more labour at the same rate as they have done previously when growth has been rapid. The upswing in employment has therefore come at a later stage than normal in this most recent economic upturn. At the same time, import prices have long developed more weakly than expected.

The favourable supply conditions and the low inflation rate have made it possible for the Riksbank to cut the repo rate to an historically low level. In November 2002 the Bank began to cut the repo rate and up to June 2005 it was cut by 2.75 percentage points, down to 1.5 per cent. Monetary policy has accordingly been very expansionary in recent years.

With hindsight, it can be noted, which we have done in the Riksbank's own assessments, that the interest rate could have been cut more quickly. The Riksbank's calculations indicate that, for instance, that an interest rate half a percentage point lower during one year would have led to slightly higher inflation and slightly lower employment; in both cases corresponding to a couple of tenths of a percentage point. The uncertainty in this type of calculation is substantial and it should be noted that in relation to the total number of unemployed the effects of a more expansionary monetary policy would have been fairly small.

The small effects on unemployment of more expansionary monetary policy should not be interpreted to mean that monetary policy's ability to influence inflation is very limited in the longer term. When structural changes in the economy lead to inflation being far from the target level, as has been the case during the past three years, it is reasonable to assume that a return to target will take time. The Riksbank normally acts with caution and makes interest rate adjustments gradually to avoid severe fluctuations in the economy. It is essential in these situations that inflation expectations a couple of years ahead are close to 2 per cent, which has indeed been the case. The inflation target can then fulfil its important function as nominal anchor when prices and wages are set and investment decisions are made.

On behalf of the Executive Board:



Stefan Ingves

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Taking part in the decision: Stefan Ingves (Chairman), Lars Nyberg, Kristina Persson, Irma Rosenberg, Eva Srejber, and Svante Öberg

Svante Öberg submitted the draft consultation response.