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Swedish experiences of monetary policy with an inflation target

First and foremost, thank you for the invitation to come here! The theme of my talk here today has a "practical" leaning. I will talk about the Swedish experiences of conducting an inflation-targeting policy and how our monetary policy strategy has developed along the way. Conducting monetary policy is in many ways a learning process. The Swedish experiences of the past decade or so provide a concrete example of how such a process may look.

The Riksbank is one of the central banks that conduct monetary policy with an explicit inflation target. This is a group that has grown considerably in recent years. The main reason for this is probably that the experiences of this policy have on the whole been very good. In fact, so good that it has become an interesting alternative even for economies that are already functioning well.

However, this was not the case at the beginning of the 1990s, when Sweden changed over from a fixed exchange rate to inflation-targeting and a floating exchange rate. We were then in the middle of a deep economic crisis and a situation where it was necessary to reform the entire stabilization policy framework. Monetary policy based on an inflation target was a relatively new phenomenon at that time. There was also great uncertainty about how this would work in Sweden. For those of us who were around during the crisis years, it is particularly pleasing to see how well the Swedish economy has developed over the past ten years, compared with the previous two decades. Naturally, one cannot ascribe all success to the changeover in stabilization policy – the general economic developments have also been favourable. However, there is no doubt that the new regime with an inflation target for monetary policy has given a steadiness and stability to economic policy that was previously lacking. A stable fiscal policy has also been very important.

A lot has happened to the monetary policy framework since the inflation target was introduced. This includes much of the learning process I mentioned in my introduction. As deputy governor during the years 1994 to 1998, I was involved in setting the course, so to speak, and when the work on building up competence and analysis tools for the bank's main tasks - monetary policy and financial stability - began. Other important tasks included improving communication and increasing transparency, both internally and externally. It was necessary to win confidence in monetary policy as quickly as possible and this required openness and clarity. Since I returned to the Bank at the beginning of last year, I have been able to note that the Riksbank's work procedures have continued to develop and modify. We do not think, act or communicate in the same way today as we did when the inflation targeting regime was new. The driving force behind the changes has come partly from practical experiences, both in Sweden and other countries conducting an inflation-targeting policy. Academic research has also played an important role.

Before I go into greater detail on how the Riksbank's way of conducting monetary policy has developed, I intend to begin by describing the background to the establishment of an inflation target in Sweden.

The background to Sweden introducing an explicit inflation target

Today the Swedish krona has been floating for fourteen years and two months. 19 November 1992 will always have a special significance for the Riksbank. This was the day when we were forced to abandon the fixed exchange rate, under very dramatic circumstances and after a stubborn defence of the Swedish krona. At that time we were in the middle of the most serious economic crisis in Sweden since the 1930s – a tragic end to almost 20 years of stabilization policy problems.

The idea behind the fixed exchange rate policy was to ensure that inflation in Sweden would be in line with that in the countries that were our most important trading partners, and that the fixed exchange rate would function as a nominal anchor. But for various reasons the economic policy conducted in the 1970s and 1980s tended to be too expansionary. Price and wage developments repeatedly came on a collision course with the fixed exchange rate and Sweden suffered cost crises. To rectify the situation, the krona was devalued a total of five times during a period of seven years. But the trend increase in domestic prices and wages continued to rise. The fundamental problem still remained.

The result was modest economic growth, poor productivity growth and more or less stagnant growth in real wages. The performance was markedly weak both compared with earlier periods and in relation to other countries. During the crisis years at the beginning of the 1990s the situation got even worse. Unemployment increased fourfold in the course of a few years and the central government finances deteriorated dramatically. Long-term interest rates rose and the interest rate differential towards, for example, Germany occasionally came to several percentage points.

The fixed exchange rate lost its credibility and finally had to be abandoned, following large currency outflows and extreme interest rate hikes in attempts to defend the krona. The nominal anchor that was to hold down inflation and inflation expectations in the economy had loosened. To secure it again and bring the Swedish economy onto a better track required drastic measures. The solution was what one might call a stabilization policy change of regime. The tasks of both monetary policy and fiscal policy were fundamentally redefined and we were given a clear allocation of roles in economic policy. Fiscal policy had previously often been too expansionary and contributed to high inflation. Now it was subjected to requirements for long-term stability and durability in public finances. With a floating krona the main task of monetary policy was to directly act to ensure that inflation remained at a low and stable rate.

In January 1993 the Riksbank specified this task as ensuring that inflation remained at two per cent a year. The target would formally apply with effect from 1995. This created a new norm for monetary policy and Sweden then became one of the first countries in the world to conduct monetary policy with a floating exchange rate and an explicit inflation target.

It may be worth mentioning that the Riksbank's tasks are also stipulated by law. The objective of maintaining price stability and the task of promoting a safe and efficient payment system were introduced into the Sveriges Riksbank Act in 1999. In connection with this the Riksbank was given greater independence. Monetary policy is now formally the Riksbank's task and the six members of the Executive Board are expressly forbidden to seek or receive instructions when carrying out monetary policy tasks. This is the same model as applied within the ESCB.

The period with an inflation target

How have the past ten years or so of inflation targeting functioned? Looking back, it is difficult to come to any other conclusion than that the new stabilisation policy regime has lived up to expectations. The high-inflation economy with recurring cost crises and high interest rates is a thing of the past. Inflation has instead been low and stable. GDP growth has on average been higher and also more stable than in the 1970s and 1980s. Real wage growth has also been considerably more favourable. Productivity growth has been surprisingly strong – stronger than in almost all of the other EU countries. Most people seem to be in agreement now that the potential growth in the economy has been increased. Employment has not developed as well, but the situation today is much better than it was in the mid-1990s.

It is also interesting to study inflation expectations. Although inflation has on average remained fairly close to 2 per cent, there have been both shorter and longer periods when inflation has deviated significantly from the target. The past few years are such an example. Inflation has been below target, which is largely due to productivity having developed much more strongly than we had expected. How has confidence in monetary policy been affected by the deviations we have experienced? Even though inflation expectations can be measured in different ways, I think that the overall picture is clear. From around 1996-97 expectations have been in line with the target a couple of years ahead. This is of course pleasing, and a much better development than many people expected when the new monetary policy regime was introduced in the early 1990s.

However, the stabilization policy change in regime was not only about monetary policy. Compared with other countries that have implemented similar reforms, it is perhaps primarily the changes in fiscal policy that distinguish Sweden. During the mid-1990s a radical consolidation program was implemented, with broad parliamentary support, and a framework with an expenditure ceiling and target balance was introduced. The relatively good central government finances over the past ten years have undoubtedly been a source of strength for the Swedish economy.

The Riksbank's monetary policy framework and strategy

Let me now, with this as background, move on to describe our monetary policy strategy in slightly more detail.[1]

The inflation target

The Riksbank has chosen to specify an explicit target for inflation. The target is for the annual rate of change in the consumer price index, CPI, to be 2 per cent, with a tolerance for deviations of ± 1 percentage point. The decision to define the target for monetary policy clearly in terms of a specific figure was of course partly due to the desire to create a nominal anchor that everyone could recognise and base their expectations on. However, another important reason was that it would facilitate assessments of the Riksbank's activities and make the Bank more easily accountable. This is particularly important now that the Bank is so independent.

Inflation can be measured in many different ways. The Riksbank chose the CPI as target variable partly because it is a broad price index that represents typical purchases made by consumers, and the index is familiar to the general public. However, the development of the CPI cannot always indicate what monetary policy is needed at a particular time – no single inflation measure can do this. The Riksbank therefore uses different measures of underlying inflation to describe the trend rate of inflation and to justify the monetary policy decisions. Our most commonly used measure, with the rather difficult to pronounce name of UND1X, consists of the CPI adjusted for certain items that are affected by fiscal policy and monetary policy in a direct way.

There are educational gains with using measures of underlying inflation. However, it can also create uncertainty as to how the inflation target is defined, even if we try to be clear about why a particular measure has been highlighted at a particular time. Such experiences have given us reason to think about how the need for various adjusted inflation measures can be reduced. One possibility could be to make forecasts covering longer periods. For the Riksbank the need to emphasise alternative measures of inflation growth has declined in that we have for some time now published forecasts of developments three years ahead instead of two years ahead. With a longer forecast horizon it is possible to illustrate more clearly when various shocks have effects that are temporary and how they dissipate over time without having any lasting impact on inflation. This makes it easier to explain whether or not the interest rate needs to be changed.[2]

The target horizon and real stability considerations

When the inflation target was announced in January 1993, the Riksbank also formulated a tolerated deviation interval of ± 1 percentage point. One purpose of this was to illustrate that it is not suitable or even possible for monetary policy to maintain inflation at exactly two per cent all of the time. Changes in the policy rate, known as the repo rate in the Riksbank's case, are a blunt instrument with regard to steering inflation in the short term. It takes time before interest rate changes have an effect and monetary policy must therefore be based on forecasts of the inflation rate a couple of years ahead. In addition, there is uncertainty over how the economy functions. It is therefore impossible to parry all shocks that affect the economy and so, temporary deviations from target will arise.

The tolerance interval also provides scope for temporary deviations from target that may be justified with reference to the stability of production and employment. Let us say that a shock occurs, which makes inflation deviate from target. By not aiming to restore inflation to target as quickly as possible, scope is created to dampen fluctuations in, for instance, growth and employment. However, for the inflation target to retain its credibility, the deviations cannot be permitted to become too large or to last for exceedingly long periods. To create greater clarity, monetary policy is guided by a principle that the Riksbank's ambition is normally to bring inflation back on target within two years. One might say that this two-year horizon is a restriction that the Riksbank has placed upon itself to maintain confidence in the inflation target.

We have chosen a two-year horizon for monetary policy because this is considered to give sufficient scope in most cases to ensure acceptable developments in the real economy. However, the exact pace at which inflation should be brought back on target within this horizon will of course depend on what kind of shocks have affected the economy.[3] Sometimes the deviations from target can be so large that there is reason to allow inflation to return to target beyond the normal two-year horizon. In these cases, we shall explain this clearly in connection with our decisions.

These thoughts on how to take into account developments in the real economy are not, of course, unique to the Riksbank. Although the formal guidelines may vary slightly from country to country, I believe it is correct to say that all central banks with an inflation target conduct flexible inflation targeting, that is, they give some consideration to real economic activity. In other words, we are not "inflation nutters" to borrow Mervyn King's famous expression. Our aim is not in all situations to bring inflation back on target as quickly as possible and at any cost.

At the same time, the flexibility is part of our means of conducting monetary policy, which has gradually changed during the period with an inflation target. It is also natural as this type of flexible application of monetary policy assumes that there is considerable confidence in the inflation target – confidence that must first be won. Immediately after the introduction of the inflation target in 1993, there was little confidence in either monetary policy or fiscal policy. Because of this, there was limited scope for giving consideration to the real economy. The Riksbank's rhetoric and probably also the actual policy were mainly focused on developments in inflation. The underlying factor behind this was probably concern over credibility problems. However, from the mid-1990s the stability of the real economy has gained ground, and the Riksbank has in various ways tried to make clear that we give consideration to developments in production and employment.

Let me also say something in this context about risks. More specifically, risks linked to rising asset prices and credit expansion. This is a question that has been much discussed in recent years, both between central banks and within the academic world, as house prices have risen rapidly in many countries, including Sweden. This debate could in itself be a subject for a speech, so let me just briefly mention that the Riksbank's view is that we do not consider it reasonable to completely ignore these risks, although it is not possible to give consideration to the risks in any simple manner in the normal forecasting process. We have therefore acted to reduce these risks to some extent and to contribute to a smoother adjustment in indebtedness and house prices. The approach we have chosen has in practice only meant a fairly marginal change in the timing of our interest rate decisions. Neither household indebtedness, house prices, nor other asset prices have any significance for monetary policy in themselves, apart from their effects on inflation and the prospects for the macro economy.

The inflation forecast and future interest rate developments

As I mentioned earlier, our work procedures have changed and developed over time. This is natural. We have had new experiences and been given new conditions along the way. As recently as three days ago, we members of the Executive Board of the Riksbank decided to change the assumption for the policy rate on which we base our forecasts – this is a step in our work on improving the bases for our monetary policy decisions and our communication.[4] This change means that with effect from February this year we will publish our own views of what would be a suitable development in the repo rate in connection with the presentation of our inflation forecasts. Let me give you some brief background information before I go into this in more detail.

Like most central banks with an inflation target, up until October 2005 the Riksbank made forecasts under the assumption that the policy rate would not change during the forecast period. The advantage of this method was that it illustrated in a simple manner when there was reason to change the policy rate. If the forecasts showed that inflation two years ahead would be lower than two per cent, this was a signal that the interest rate needed to be cut. If inflation would be higher, the interest rate needed to be raised. Of course, this rule could not capture all of the aspects of the monetary policy considerations, but it provided a rough explanation of the monetary policy decisions.

This rule was easy to understand and in that respect it was a good educational tool. However, there were also disadvantages. In normal cases it is not, for instance, particularly realistic that the policy rate would remain unchanged a couple of years ahead. The assumption made it difficult to assess our forecasts and to compare them with those of other forecasters. The latter usually base their assessments on the policy rate being changed. It was also difficult to apply the assumption in a consistent manner in the forecasting process. These problems would have become worse when we extended our forecast horizon.

Moreover, it gradually became clear that this rule could sometimes be an obstacle in our communication. It created an exaggerated focus on the current interest rate decision and on the inflation forecast exactly two years ahead. The gradual shift towards more flexible monetary policy led to a greater need to illustrate the fact that it is the entire expected sequence of events for inflation and the real economy a few years ahead that is important in monetary policy decisions, and not only the levels we foresee two years ahead. And the focus should not only be on current interest rates, but also on expectations of future interest rate changes.[5]

We left most of these problems behind us when we changed over in October 2005 to making forecasts based on market expectations of the future development of the policy rate. Compared with the assumption of an unchanged repo rate, market expectations normally provide a much more realistic forecast.

But the assumption that the policy rate will develop in accordance with market expectations also entails some difficulties. Examples of problems include how one should measure market expectations and the communication of the interest rate path. It feels natural to move on from this now and go on to publish our own view of what would be a reasonable development for the repo rate. Basing the forecasts on the policy rate development expected according to the pricing in the financial markets was a major step towards greater openness and clarity. Now we are taking a further, but slightly smaller, step.

There are several good reasons why we are now choosing to publish our own forecast for the development of the repo rate. The main one may be that we will have an even better tool for anchoring expectations. It will be easier to explain to the general public and the financial markets how we reason when making monetary policy decisions and how we see future interest rate developments. We will also avoid the communication problems that may arise if the central bank's and the financial markets' expectations of interest rate developments differ.

But of course there are also potential problems. The forecast for the policy rate that we will present in connection with the inflation forecasts, is one we Executive Board members will make an assessment of together. Although we only formally make a decision on the level of the repo rate that will apply until the next monetary policy meeting, we must make an assessment of what would be a desirable level for the repo rate throughout the entire forecast period. Situations may, of course, arise where the Executive Board members have different opinions regarding, for instance, the current economic situation or how quickly inflation should be returned to target after a shock. This type of situation may be complicated. But in practice we nevertheless believe that we will be able to manage such situations, and to agree on an interest rate path that a majority of us support. We have previously managed to agree on an interest rate message that contained information on our future intentions when commenting on market expectations.

Now that we are producing a forecast for the repo rate, it is important to point out that new information may be received that significantly changes our view of future interest rate developments. The publication of our own interest rate forecast does not involve any commitment from the Riksbank that the repo rate will actually follow this path. We must also, as before, make it clear that the assessments are uncertain. One way of doing this is to calculate uncertainty intervals around the interest rate path. This we intend to do.

Openness, clarity and communication

This brings me on to the final point that I intend to take up today: openness and communication. Openness and clarity are important when justifying our monetary policy decisions so that confidence in price stability can in the long term be combined with flexible inflation targeting. They are also a condition for retaining the legitimacy of our activities and independence.[6] Moreover, it contributes to greater efficiency and quality in our internal analyses. Openness was therefore given high priority right from the start when the new monetary policy framework was introduced, and it is no coincidence that the Riksbank is usually ranked high in international comparisons of monetary policy transparency in central banks.[7]

Let me mention some concrete measures we have taken to increase openness. Three times a year the Riksbank publishes Inflation Reports which include the analytical base for the interest rate decision made.[8] After each monetary policy meeting a press release is published, containing the reasons for the decision made. A press conference is also organised. We have recently decided to make some changes to the Inflation Report. For one thing, it will change its name to "Monetary Policy Report" with effect from the report published in February, and it will now contain a clear link between the forecasts and the monetary policy decision. The discussion at the monetary policy meetings will be reported around two weeks later in the separate minutes of the meeting. The minutes contain the arguments put forward and show whether any reservations were made against the interest rate decision. In my opinion, we could even go one step further in this field and name the members in the minutes, not merely any reservations against the interest rate decision they might have made. But this is a question that we Executive Board members would have to decide together.

We Executive Board members hold around thirty speeches every year, where we can describe our views of economic developments. The Governor of the Riksbank appears before the Riksdag (Swedish parliament) Committee on Finance twice a year for a discussion of the monetary policy conducted.

The Riksbank has also been evaluated by external assessors, who were commissioned by the Committee on Finance. As recently as December last year an evaluation of Swedish monetary policy during the period 1995-2005 was published. The evaluation was made by professors Francesco Giavazzi and Frederic Mishkin.[9]

Finally, our decision to publish our own forecast for the repo rate is of course a further step towards greater openness, clarity and more efficient communication.

This all means that there are good opportunities for the general public to find out how monetary policy decisions are made. This openness from the Riksbank makes it possible for all those who are interested to follow our policy and see whether we live up to our principles. I am convinced that transparency has been a central issue in gradually building up confidence in the Riksbank and the inflation target.

Conclusion

In conclusion, let me note that it is difficult to say anything else than that the changeover in economic policy in Sweden at the beginning of the 1990s has on the whole been successful. The inflation target for monetary policy has contributed to providing a stability in economic policy that was lacking in the Swedish economy during the 1970s and 1980s. The consolidated public finances are another very important factor.

I hope that I have been able to give you an insight into how our monetary policy strategy has developed and how it looks today. At the beginning of my talk, I said that the development of monetary policy was a learning process. In my opinion, it has to be so. We are working in a world that is constantly changing and always making new demands of us. It is only natural that we must always work on refining and improving our strategy and framework. Openness, clarity and efficient communication are important guiding principles in this process.

It is also a strength to be able to learn from others' experiences in the monetary policy field. Gatherings like this are excellent opportunities to do just that. Perhaps the Swedish experiences of monetary policy with an inflation target may in some way be useful to other countries planning to introduce an explicit inflation target? I hope so!

Thank you!

Footnotes:

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[1] A description of the Riksbank's objective and strategy for monetary policy can be found in the document "Monetary policy in Sweden", which can be downloaded from the Riksbank's website, www.riksbank.se, or ordered in printed form.

[2] See Lars Heikensten's speech at the Swedish Economics Association on 22 February 2005, "Thoughts on how to develop the Riksbank's monetary policy work".

[3] See, for instance, Apel, M. et al (1999), "Different ways of conducting inflation targeting – theory and practice", Sveriges Riksbank Economic Review, 1999:4, 13-42, Svensson, L. (1997), "Inflation forecast targeting: Implementing and monitoring inflation targets", European Economic Review, 41, 1111-1146 and Batini, N., and E. Nelson, (2001), "Optimal horizons for inflation targeting", Journal of Economic Dynamics & Control, 25, 891-910.

[4] See the minutes of the Executive Board meeting on 16 January 2007.

[5] See Jansson, P., and A. Vredin, (2004), "Preparing the Monetary Policy Decision in an Inflation Targeting Central Bank: The Case of Sveriges Riksbank", in the conference volume Practical Experiences With Inflation Targeting, Czech National Bank, Woodford, M. (2005), "Central-Bank Communication and Policy Effectiveness", essay presented at a symposium organised by FRB Kansas City 'The Greenspan Era: Lessons for the Future', Jackson Hole, Wyoming, 25-27 August and Faust, J., and D. W. Henderson, (2004), "Is Inflation Targeting Best-Practice Monetary Policy?", Federal Reserve Bank of St Louis Review, 86(4), 117-143.

[6] Chapter 1 of Blinder, A. S. (2004), The Quiet Revolution – Central Banking Goes Modern, Yale University Press, contains a discussion of political and economic arguments in favour of transparency in central banks.

[7] See, for instance, Eijffinger, S. and P. Geerats, (2006), "How transparent are central banks?" European Journal of Political Economy, vol. 22, 1-21.

[8] See Leeper, E. (2003), "An Inflation Reports Report", Sveriges Riksbank Economic Review, 2003:3, 18-42, for an evaluation of the Riksbank's Inflation Reports.

[9] 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.