SPEECH

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The inflation target and the CPI

Allow me to begin by thanking you for the invitation to attend this anniversary seminar. I have previously been a member of the CPI committee so I have some insight into the issues with which the committee has contended down through the years. As you know I have a different role today and it is in this capacity, as a monetary policymaker, that I today intend to provide some reflections on the CPI's role as a target variable for monetary policy.

In January 1993, a few months after the Riksbank had been forced to abandon its defence of the fixed exchange rate, a monetary policy strategy was introduced that was pretty much untried, not only in Sweden but also internationally: Monetary policy was to be aimed at achieving a quantified target for inflation. The rate of price increases was to be stabilised at 2 per cent a year with a tolerance range of ± 1 percentage point.

Right from the beginning the target was defined in terms of the rate of increase in the CPI, even though other measures also featured in the discussion. There were several reasons for choosing the CPI as the target variable. Perhaps the most important of these was that the CPI, with its long history, is the best known measure of price developments in Sweden. This was judged to be especially important at a time when we wanted to quickly generate public confidence in the new monetary policy regime. It was also considered reasonable to attempt to stabilise the value of money in terms of a basket of goods that had great significance for the average person. Additional advantages that are usually put forward are that the CPI is published regularly and comparatively often, and that CPI inflation is normally not revised.

Looking back on the ten years or so that have passed since the introduction of inflation targeting, we can conclude that the CPI has worked relatively well as a target variable. When the target was adopted it was probably considered by many to be unrealistic. But during these years inflation has averaged close to 2 per cent. The credibility of the target is also high today, judging by the inflation expectations of households and other economic agents. I don't think it's an exaggeration to say that we, through the new policy with a target for the rate of increase in the CPI as an anchor, coupled with a successful consolidation of the government finances, have essentially succeeded in achieving what we had hoped for. Sweden has gone from being a high-inflation economy, characterised by recurring cost crises and unstable economic developments, to being an economy with low, relatively stable rises in prices and wages, where the risk of periods of overheating and subsequent recessions has been reduced considerably.

The journey has not been entirely problem-free, and the experiences we have gained on the way have prompted us to make some changes to practical aspects of policy, or perhaps rather as regards how policy is communicated to the public. We have also had to change and improve our analysis of inflation in different respects. I intend today to touch upon the problems we have encountered on our journey and how we have tried to deal with them.

Important to have explicit communication

So what difficulties have we encountered as regards defining the inflation target in terms of the change in the CPI? To illustrate this I need first to say a few words about the principles that underlie the Riksbank's interest rate decisions. Like other central banks that have adopted inflation targeting, the Riksbank has worked from the premise that monetary policy affects inflation with a certain lag; it is generally assumed that it takes one to two years before a rate adjustment achieves its full impact on inflation. Against this background, and as a step towards clarifying how we try to attain our target, we have formulated a simple rule for monetary policy: if the forecast of inflation one to two years ahead exceeds 2 per cent the repo rate should normally be raised, and if the forecast is below 2 per cent the repo rate should normally be lowered. To put it somewhat differently, but with the essence more or less the same, the rule means that monetary policy should normally be aimed at meeting the inflation target of 2 per cent CPI inflation one to two years ahead.

The fact that we use primarily the inflation forecast one to two years ahead as a kind of intermediate goal for the real target of 2 per cent actual inflation means that temporary shocks that only have an impact on inflation in the coming year do not generally affect our rate setting. It is conceivable that drastic changes in interest rates could bring inflation back to the target faster than over one to two years. But such a policy would probably result in sharp, undesired fluctuations in both the real and financial economy. Against this backdrop it could be said that we normally deliberately tolerate the target deviations that result from temporary shocks to inflation and that arise and diminish over the next year.

However, sometimes temporary effects on inflation arise that do not subside during the subsequent year. These effects then show up in the inflation forecast, measured in terms of the CPI, one to two years ahead. But if the effects are expected to disappear quite soon afterwards, there may be cause not to counter them through repo rate adjustments. In other words there may be reason in certain situations to depart from the rule that the repo rate should be changed if

- the forecast of CPI inflation differs from the 2 per cent target one to two years ahead.

In such situations it is very important that we communicate our intention to deviate from the established policy rule and that we explain clearly the underlying reasons. One way in which the Riksbank has decided to deal with the issue is to highlight at various times "adjusted" measures of inflation, as indicators of the longer-term inflationary trend. I shall now illustrate this with a few examples.

The first example is from the period during the second half of the 1990s when monetary policy was eased and there was a steep decline in the general level of interest rates. Between autumn 1995 and spring 1999 the repo rate was cut from just under 9 per cent to less than 3 per cent. This was accompanied by a sharp decline in long-term interest rates. The aim of the repo rate cuts was to stimulate the economy via the traditional demand channels so as to contribute to a rise in CPI inflation, but these effects came first after a certain lag. The immediate effects on the CPI of the rate cuts and the fall in the general level of interest rates were the opposite, through declining mortgage interest costs. This meant that CPI inflation initially dropped very sharply. Due to the fact that the change in the general interest rate situation was both large and protracted, the CPI was affected for an appreciably longer time than one to two years. As the low CPI inflation was largely a result of the Riksbank's rate cuts and therefore was judged to be transitory, the Bank did not see reason to counter it through a further easing of monetary policy. During this period, however, the Riksbank was often asked why the repo rate was not lowered in spite of below-target inflation, which indicated the need for a more explicit explanation of policy. To this end we highlighted a new index as an important inflation measure, namely UND1X, which, among other things, excludes mortgage interest costs. The June Inflation Report in 1999, for instance, illustrates how UND1X was used to clarify the formulation of monetary policy. When the repo rate was left unchanged on this occasion UND1X inflation was forecast to be close to 2 per cent towards the end of the forecast period while CPI inflation was expected to be considerably below target.

The problems we encountered in communicating monetary policy, which arose in conjunction with the substantial rate cuts during the second half of the 1990s, were also a significant reason for the Riksbank's decision in 1999 to publish a clarification of the formulation of policy and the application of the inflation target.[1] Among other things the clarification specified the situations in which there may be reason to deviate from the simple rule of aiming policy at meeting the target of 2 per cent CPI inflation one to two years ahead. My discussion today is based on exactly the same line of reasoning as in that clarification.

The second example is taken from spring 2001. Higher food and energy prices due to foot and mouth disease and mad cow disease, as well as supply shocks in energy production, caused a sharp rise in CPI inflation. The price increases were

[1] See Heikensten, L., "The Riksbank's inflation target – clarifications and evaluation", *Sveriges Riksbank Quarterly Review* 1, 1999.

judged to be temporary, and the Riksbank decided therefore not to raise the repo rate. As the prices rises were estimated to disappear from CPI inflation relatively quickly, there was no need in this case to depart from the Bank's simple rule of monetary policy. However there was a need in our external communication to illustrate clearly the assessment that it was mainly transitory price increases that had caused CPI inflation to be so high above target. Consequently, to this end, the June Inflation Report in 2001 presented an inflation measure that was adjusted to exclude temporary rises in prices. On that occasion there was no forecast for this adjusted measure.

The third and most recent example is when the Riksbank decided last year to highlight UND1X excluding energy as an especially important index for assessing longer-lasting inflationary pressures. Energy prices had risen steeply around the turn of the year 2002/2003. We judged this rise to be temporary and expected energy prices to fall back again. This meant that the inflation rate would come to be affected for a reasonably long period by these temporary fluctuations in energy prices. At the monetary policy meeting in April 2003 the Riksbank judged that inflation towards the end of the forecast period would be somewhat below target if the repo rate were left unchanged. A strict application of our simple rule would have resulted in a repo rate cut, but since temporary fluctuations in energy prices were the chief reason for the inflation forecast being below 2 per cent, the Riksbank decided to leave the repo rate unchanged. In order to clarify that the Riksbank did not wish to bring inflation back to the target over the normal two-year horizon, the Riksbank decided on this occasion to place particular emphasis on an inflation measure that was not as strongly affected by the fluctuations in energy prices.

How has the strategy worked?

So how has this strategy worked, i.e. highlighting on different occasions other indices than the CPI as a way of illustrating that there sometimes may be reason to depart from the rule that CPI inflation should be 2 per cent one to two years ahead? With hindsight we can conclude that despite out attempts to be explicit in our communication, it appears that we haven't got our message across in all respects. The strategy does indeed seem to have been successful insofar as we have seldom been asked, especially in the last few years, why the repo rate has not been changed in spite of an inflation forecast that is above or below target. Sometimes, however, and particularly during a couple of months in autumn 2003, the interpretation has been that the Riksbank has "changed target variable". But this has not actually been the case; the inflation target is and has always been defined in terms of the rate of increase in the CPI, even if we've often made it clear that policy in the time horizon in question has been based on a different index, mainly UND1X.

Permit me to return to last year's discussion about energy prices in order to illustrate what I believe could be one of the problems. As I mentioned, the repo rate was not lowered in April 2003 despite the fact that our forecasts pointed to below-target CPI inflation two years ahead. The reason was that the forecast of

- CPI inflation was depressed by energy price effects that were judged to be transitory and that were expected to subside just beyond the forecast horizon. However, the measure that was considered a better reflection of longer-term cyclical inflation, UND1X excluding energy, was forecast to be in line with the inflation target at the end of the forecast period. One perhaps likely interpretation, and an interpretation that was obviously common, was that the Riksbank had not departed from its policy rule of adjusting the repo rate when inflation deviates from the target, but that the target variable itself had been changed. And since the new supposed target variable was in line with the inflation target there was no reason to change the repo rate. Our intention, however, was rather the reverse, i.e. to highlight UND1X excluding energy to point out that fluctuations in CPI inflation were driven to a great extent by temporary variations in energy prices, also somewhat beyond the normal two-year horizon, and that this was an occasion on which there was reason to depart from the rule.

It could possibly be helpful in such situations to also show expected CPI inflation in a time perspective that is long enough to allow all temporary effects to have dissipated fully. It would then be clearer that the analysis of inflationary developments in terms of different adjusted measures was being done for instructive reasons. In that way it should be possible to avoid the risk of interpretations that we had "changed target variable". Such an approach would also be consistent with the clarification from 1999, which says that the Riksbank should explain in advance how large a deviation from the inflation target defined in terms of the CPI that can be justified one to two years ahead. It would be possible to illustrate clearly both the size of the target deviation during the normal forecast horizon and the fact that inflation was expected to be back on target in the not too distant future.

Allow me to elucidate my train of thought with an example. Suppose that as a result of some shock the inflation rate after 1.5 years is forecast to rise from 2 to 3 per cent. The shock is assumed to be such that it, after its occurrence, affects inflation for only one year. One example of a shock with such a time profile is an expected rise in VAT, which raises the price level permanently but only affects the 12-month change in the CPI one year ahead. Another example is an increase in an excise duty, for example tobacco tax.

With a forecast that only spans the first two years, it would not be clear that inflation would gradually be in line with the target again. Were the forecast horizon instead to be extended somewhat, in a way that shows the rise and fall in inflation, it would be clearer that the Riksbank did not judge the shock to have a lasting effect on inflation.

So against this background there could be reason when appropriate to present forecasts also in a slightly longer perspective so as to illustrate our assessment of these temporary effects. One advantage of this approach would be that it would enable the monetary policy discussion to focus more clearly on the target variable CPI.

■ To sum up, I think we can conclude that the CPI has worked well in the new role that it was given some ten years ago – as a target variable for monetary policy. To the extent that problems have arisen, it has been a question of relatively limited pedagogical complications in the situations when the Riksbank has judged it appropriate to depart from the simple policy rule for how the repo rate is usually set. In my opinion these problems are not so serious that they cannot be dealt with by the Riksbank adhering to its ambition of striving to make monetary policy as transparent as possible.

Thank you.