Stefan Ingves: The inflation target and monetary policy

Speech by Mr Stefan Ingves, Governor of the Sveriges Riksbank, to the Swedish Economics Association, Stockholm, 4 April 2006.

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Introduction

Discussing monetary policy at the Swedish Economics Association has become something of a tradition. I very much appreciate being invited to initiate this evening's debate and I hope you will find the discussion stimulating.

I would like to take the opportunity to discuss the general foundations for monetary policy. I will mainly focus on how a policy of inflation targeting can and should take into account developments in the real economy.

From time to time it is claimed in the general debate that the Riksbank's inflation target needs to be supplemented by various targets for the real economy, such as capacity utilisation or employment. Those who advocate this appear to argue that our inflation target means that the Riksbank focuses solely on price developments. This was true to some extent when the inflation target was still a fairly new concept. The primary objective of monetary policy was then to establish confidence that inflation would really be kept at a low level.

The fact that there is a discussion of these issues now, may be because we have not always discussed the various considerations we make as directly as we do now. There has been a gradual development in our reasoning on monetary policy. Monetary policy is no exact science and the Riksbank is a learning organisation. Our way of thinking has developed both as we and other central banks have gained greater experience and as further progress is made in economic research. From this perspective it is also reasonable to make a fresh start, so to speak, from time to time and to report in a collected manner on how we Executive Board members reason when formulating monetary policy. I would like to emphasise that this involves describing the principles for how we currently reason. It is not a question of a fundamentally new method of conducting monetary policy.

My main message is:

- The inflation-targeting policy is conducted with consideration to the real economy.
- There has been a gradual development in our reasoning on monetary policy.
- We have abandoned the policy rule that was based on the assumption of a constant repo rate in our forecasts.
- The forecasts of inflation are now based on an assumption that the repo rate will follow market expectations.
- Large fluctuations in asset prices entail risks that we must take into account.

Inflation target and consideration of the real economy

The monetary policy objective laid down by Parliament is to maintain price stability. The Riksbank has chosen to define the target as keeping the annual rate of increase in the consumer price index, CPI, at 2 per cent, but it does not mean that the development of this index is the only factor on which monetary policy is based.

Various measures of underlying inflation are often used to justify the system used. What these measures have in common is that they use the CPI but remove various price components that have historically shown substantial fluctuations. One such measure, UND1X, has been given a particular status. In this measure the effects of changes in indirect taxes and subsidies as well as mortgage interest expenditure have been excluded. In the long term, the difference between the increase in the CPI and the increase in UND1X is slight. However, in the short term, inflation develops slightly more evenly according to UND1X than according to CPI as a whole. The bases for the monetary policy decisions are therefore often easier to explain when the inflation forecasts follow UND1X than when they follow CPI.

The fact that the objective of monetary policy has been given as low, stable inflation is because in the long term, this is the only factor of the economy that monetary policy can influence. Long-term developments in growth and employment are not affected by changes in the interest rate. They are determined by factors such as productivity and the supply of labour and capital, as well as the way the labour market – and the economy as a whole – functions. Monetary policy's most important contribution is to act to ensure that the macroeconomic environment remains as stable and predictable as possible.

At the same time, monetary policy has some effect on short-term fluctuations in production and employment. It is usually considered desirable to have not only stable prices, but also as stable an economy as possible. One important question is therefore how monetary policy can contribute to this.

The preliminary work to the new Sveriges Riksbank Act considered it natural that monetary policy could not be formulated merely in relation to price stability. The working group that produced the new act considered that the Riksbank should, without neglecting the long-term price stability objective, support the economic policy objectives of sustainable growth and high employment. However, the group also saw this as a natural consequence of the Riksbank being a public authority under the Riksdag. It was thus unnecessary to confirm by law any objectives other than price stability. The group also considered that it would be inappropriate to have several statutory objectives, as monetary policy is a blunt instrument and cannot affect, for instance, how growth and employment develop in the long term. In other words, the question has never been whether monetary policy should consider the real economy, but rather how this can best be done without neglecting the price stability objective.

In practice, monetary policy takes the real economy into account in that we do not aim to bring inflation back on target as quickly as possible in every situation. When there is a deviation from target – which happens most of the time – our ambition is normally to return inflation to target within a time period of two years. One reason why we look ahead in this way is that monetary policy's effects are exerted with a time lag. But the two-year horizon is also motivated by considerations to developments in the real economy. This creates some scope for trade offs in the inflation-targeting policy. Let me explain.

If we were only concerned with inflation, we would always want to bring inflation back on target as quickly as possible. On many occasions it would be possible to attain the target sooner than within two years. But we would then need to change the interest rate in larger stages and more often. This type of policy would risk leading to unwanted fluctuations in the real economy.

This applies in particular to the situations where inflation has deviated from target as a result of supply shocks. These could be, for instance, sudden increases in companies' production costs due to soaring commodity prices and/or energy prices. The result could then be that inflation would rise above the target, while economic activity would be weak. The reverse can also occur - a fall in production costs could lead to inflation being lower than the target, while capacity utilisation was higher than is sustainable in the long term. If monetary policy were to aim at bringing inflation back on target as quickly as possible in these situations, it would further reinforce the fluctuations in the real economy.

When economic developments are instead mainly driven by changes in demand, the conflict between the price stability target and the ambition to subdue fluctuations in the economy is not as clear. If, for instance, demand falls, the result will normally be that inflationary pressures also decline. An expansionary monetary policy can in this situation contribute to stabilising both inflation and activity in the real economy. There may then be justification for aiming to attain the inflation target within a shorter period than two years.

Of course, in practice it is not always easy to distinguish what shocks the economy has suffered and with an active monetary policy there is always a risk to reinforce, rather than subdue, fluctuations in the real economy. The fact that it also takes time before the full effects of monetary policy have become visible and that it is uncertain how much scope there is for monetary policy stimulation also makes it more difficult to implement the policy. One therefore should not expect monetary policy to be able to fine tune economic activity to any great extent.

This description of what monetary policy can and cannot achieve is currently an accepted view that is well documented in the research field of flexible inflation targeting[1]. However, it is not possible to justify theoretically that the central bank should aim to bring inflation on target within a particular set

1 See, for instance, Svensson, Lars E.O. (2003), "Monetary Policy and Real Stabilization", NBER Working Papers 9486, National Bureau of Economic Research.

time period. But then the usual theoretical models for inflation targeting do not take into account the credibility aspects. If the economic agents are very uncertain as to how the central bank intends to manage target deviations, this may in the long run reduce confidence in the inflation target. It is therefore important to also include these aspects in practical considerations. One means of ensuring confidence in the inflation target is for the central bank to specify in advance what length of deviations from target can normally be accepted. This is how the two-year horizon should be regarded; it sets this type of limit and states how much consideration we can normally give to developments in the real economy.

Flexibility in monetary policy should certainly not be allowed to reduce confidence in the inflation target in the long term, and this is why the Riksbank has chosen, in normal circumstances, to bring inflation back on target within a two-year horizon.

At the same time, it is not feasible to set restrictions on monetary policy that will always be one hundred per cent binding, regardless of the economic situation. There may – exceptionally – be situations where the consequences of bringing inflation back on target within two years may lead to unacceptable fluctuations in economic activity. When the Riksbank judges that such a situation has arisen, it should make this quite clear. It should be specified in Inflation Reports and in connection with monetary policy decisions that we expect inflation to deviate from target for a longer period than two years, why this is the case and when we expect the target to be attained.

Increased clarity on the principles guiding monetary policy

These principles as to how monetary policy is formulated are in many ways an accepted reasoning for those who have followed the monetary policy discussion in Sweden and in other countries that apply inflation targeting. However, there have also, as I mentioned earlier, been some changes in recent years that are worth highlighting.

As it is a question of a gradual development of our work, the extent of what can be regarded as new elements depends on how far back one looks. A point of comparison that feels natural is the clarification of the Riksbank's monetary policy strategy published in 1999[2].

The difference between then and now is that the Riksbank can now go a little further with regard to how we communicate the consideration that monetary policy gives to the real economy. I do not consider it particularly strange that there have been changes on this point. The possibility to formulate monetary policy based not only on inflation prospects but also on how production and employment will develop has come about because the inflation target is today firmly anchored in the economy. This confidence is still – looking back in a long-term historical perspective – a relatively new element of the Swedish economy.

The fact that shocks have been so common in the supply side of the economy in recent years has also made it more important to clarify our view of how monetary policy should deal with the trade offs that then arise. Events have included price effects from mad cows and shocks on energy markets as well as unexpected shifts in productivity. I do not wish to comment on whether supply shocks have in general been more frequent in recent years, but developments have nevertheless made it clear that changes in inflation that are not primarily due to traditional cyclical fluctuations are something that monetary policy has to face regularly, not merely in exceptional cases.

The clarification from 1999 can be regarded as one step on the path towards more nuanced inflation targeting. At that time there was a fairly indirect discussion of the need to consider real economic developments. The argument was that monetary policy did not need to try to parry temporary price shocks. The fact that the Riksbank worked with a two-year perspective was then justified by the fact that monetary policy's impact comes after a time lag.

In the description of our method of working I have just given, I emphasised that monetary policy in the short run often concerns trade offs between stabilising inflation and the real economy. As I have already noted, the fact that the Riksbank should take into consideration how economic activity develops receives support in the preliminary work to the new Sveriges Riksbank Act.

2 See the memorandum "The Riksbank's inflation target – clarification and evaluation", 4 February 1999, registration number 1999-00351 DIR, or Heikensten, L. (1999), "The Riksbank's inflation target – clarification and evaluation", Sveriges Riksbank Quarterly Review, 1999:1.

Communication regarding monetary policy

As monetary policy is to a large degree concerned with making decisions under uncertainty, it is important that we are always as open and clear as possible regarding the basis for interest rate decisions. The intentions behind monetary policy must be understood and accepted in order to preserve the legitimacy of our activities and our actions. A well-balanced application of the inflation-targeting policy makes it particularly important to clearly explain the motives behind monetary policy decisions. There should be no grounds for suspicion that the considerations taken are used in an arbitrary manner.

The Riksbank communicates its monetary policy in a number of different ways, including press releases and minutes of monetary policy meetings, press conferences and not least our Inflation Reports. The Inflation Reports contain our analyses of the deviations from the inflation target that have occurred, and forecasts for when inflation is expected to be back on target, given a particular monetary policy stance. This may sound obvious, but let us play with the idea that we didn't publish our forecasts, as not all central banks do so. Then it would not have been possible to evaluate and discuss our forecasts or the basis for our decisions. In other words, openness is a necessary condition for a worthwhile debate on monetary policy.

Until fairly recently, the Riksbank's inflation forecasts were based on an assumption that the repo rate would remain constant throughout the forecast period. The inflation forecasts are now instead based on an assumption that the repo rate will develop in line with expectations in the financial markets[3]. The interest rate assumptions on which the forecasts are based thus become more realistic. It has also made it easier for us to relate to the entire interest rate path when communicating monetary policy rather than keeping to the most recent decision. This is a step towards greater openness. It is important that the Riksbank should say how inflation should be brought back to the target. In the debate on monetary policy it is good to have greater focus on interest rate policy in the slightly longer term rather than on the current interest rate decision. This leads to a better discussion of the considerations with which monetary policy is normally faced.

The assumption that the repo rate will develop in line with expectations in the financial markets should not be interpreted as a stance with regard to which interest rate path the Riksbank considers to be most desirable, just as the assumption of a constant repo rate was no reflection of this. If the forecasts of inflation two years ahead are on target, it means that the interest rate path expected by the market could be a desirable path for the repo rate. However, we must also evaluate the course for inflation and the real economy that the interest rate path is expected to entail. The monetary policy decisions and how we regard market expectations are based on a total assessment of these courses of events. Personally, I think the time is right to go one step further and publish our own interest rate path. My experiences of increased transparency have been only positive.

As we have gone over to the new interest rate assumption, it has been a natural progression to abandon the simple policy rule that was previously used to explain monetary policy and relied on forecasts based on a constant repo rate. One purpose of the rule was that it would be simple to understand. However, it often did not provide a sufficiently good description of the monetary policy considerations. For instance, the policy rule did not give any guidance as to how the Riksbank views future interest rate developments. The gradual shift in the policy towards – within the framework of the price stability objective – also taking into account fluctuations in economic activity meant that this focus on inflation at a particular point in time could be overinterpreted. It is the entire path for inflation and the real economy that is actually important in the monetary policy decisions, not merely the levels at the two-year horizon. Nor is it possible to ignore what happens beyond this horizon. The world will not come to an end in two years' time.

Interest rate and inflation forecasts can be interpreted in the same way as before to the extent that if the forecast for inflation two years ahead is above the target, it will normally mean that the repo rate will need to be adjusted at a faster rate than market expectations assume. The reverse applies, of

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[3] More exactly, it is assumed that the repo rate will follow implied forward rates, which can be gathered from the yield curve for debt securities with different durations. Implied forward rates do not exactly reflect market expectations of future repo rates as a result of the existence of term premiums and other forms of risk adjustment, but they provide a good approximation. For a more detailed description, see the box "Longer-term forecasts under the assumption that the repo rate evolves in line with implied forward rates" in Inflation Report 2005:2 and Alsterlind, J. & Dillén, H., "Monetary policy expectations and forward premia", Sveriges Riksbank Economic Review, 2005:2.

course, if the forecast indicates that inflation is below target. However, the exact rate at which the interest rate should be adjusted will be affected by the entire inflation path and by developments in the real economy.

Let me tie in this reasoning to the situation at our most recent monetary policy meeting. The fact that inflation was low and was expected to remain low over a fairly long period of time could have indicated slightly more expansionary monetary policy than the market was expecting, even though inflation was expected to be close to target two years ahead. However, at the same time we needed to consider that growth in the economy was expected to be robust and that a continued expansionary monetary policy risked leading to overheating in the economy. The overall assessment was that the best alternative was to raise the interest rate.

Some current monetary policy issues

I now intend to take up a couple of current issues that have recently arisen in the debate on monetary policy. The purpose of this is to discuss how they can be regarded in the light of the general reasoning on monetary policy that I have just explained.

Problems in determining the level of capacity utilisation

The first issue concerns how monetary policy’s endeavour to contribute to stable real economic growth can be explained in more concrete terms. Some advocate that the Riksbank should be clearer than it is now with regard to what is considered a desirable path for the real economy over the coming years.

I wish to point out here that the discussion on real economy considerations taken in monetary policy does not mean that we should supplement our price stability target with a growth target. This may be a semantic issue for some people; what is the difference between consideration and a target. To speak in general terms of a target for the real economy would send the wrong signals. The Riksbank has a statutory objective for monetary policy and that is to maintain price stability. In addition, we attempt to set the interest rate in such a way that monetary policy – given the price stability target – contributes to subduing short-term fluctuations in the real economy. There is no reason to change this.

It is a precarious task to try to quantify what level can be considered normal for capacity utilisation. Estimates of the output gap - that is, the difference between actual output and equilibrium output – can vary considerably depending on what method is used. This means, for instance, that attempts to estimate the amount of spare resources on the basis of an analysis of the labour market can provide an entirely different picture than when only GDP data are used to calculate the output gap. Developments in recent years, with strong production growth and falling or only slightly rising employment are examples of how contradictory the signals can be.

One weakness in this context is that production data is revised regularly. This makes it particularly difficult to estimate the amount of spare capacity there is in the economy at present. The picture of how high capacity utilisation was at a particular point in time can look different when new data are received and earlier outcomes are revised. One example worth mentioning is that the first data regarding GDP growth in Sweden during the first quarter of 2005 was 1.4 per cent, while the most recent calculations indicate that the figure was actually 2.1 per cent.

The fact that there is considerable uncertainty regarding such a central variable as capacity utilisation is, of course, a problem. Everything would be much simpler if it were possible to quantify capacity utilisation in the same way as inflation can be measured. However, as it is not possible, I believe it is wise not to pretend to have this knowledge. For similar reasons, precise money supply measures have also been abandoned.

Our forecasts of growth and inflation must nevertheless essentially be based on a view of the position of the economy with regard to a situation with normal capacity utilisation. In practice, a large amount of information from different sources must be weighed together to make an overall assessment. We can then use our forecasts and what we believe we know of monetary policy's effects in the short term and in the slightly longer term and then mark out the approximate path.

Connections to the credit expansion and house prices

Much of what I have described so far is largely an accepted view of how monetary policy with an inflation target should be conducted, although there may of course be differing opinions as to how the policy should be formulated in more detail. I intend to conclude by touching on a slightly more controversial subject; namely the interaction between asset prices and a stable real economy with low inflation.

Credit volumes and asset prices are studied in the regular monetary policy analysis, as they affect, and are affected by, fluctuations in inflation and economic activity. Higher asset prices lead, for instance, to positive wealth effects, which in turn affect households' choice between consumption and saving, and thereby total demand in the economy and inflation.

On top of this, it is complicated to capture the risks in the usual forecast work as a result of large fluctuations in asset prices. For instance, it is difficult to quantify the risks linked to an unusually rapid increase in house prices and indebtedness over a long period of time. These risks may actually be beyond the normal forecast horizon, but nevertheless be so serious, if they were realised, that there is justification for taking them into account in some way.

In recent years, house prices and household borrowing have increased rapidly, partly as a result of low interest rates. We have stated that we feel some concern that this development may go too far, with a risk of severe adjustments in the future. One risk is that a sharp brake in house prices could lead to households perceiving their debt burden to be too high, and that they would therefore quickly increase their saving. This could lead to a severe decline in demand in the economy and in inflation. In the considerations behind our decision on the interest rate at the beginning of the year, we considered these risks to be one reason for not postponing an increase by a few months - which I otherwise believe would have been fully possible given the forecasts we otherwise make and the precision of these forecasts.

I would not like to claim that this is necessarily always the optimum means of managing this type of risk in monetary policy considerations. The relationship between credit volume and asset prices on the one hand and monetary policy and the real economy on the other hand has not yet been sufficiently mapped to be able to draw any clear policy conclusions. In addition, our experience of deregulated financial markets is still limited to a small number of economic cycles. At the same time, we cannot ignore the risks to future inflation and economic activity with which we believe that developments in the housing market are connected. As I said, the world will not come to an end in two years' time. The fact that we do not have any definite answers regarding the effects of a rapid credit boom in my opinion should not prevent us from acting in a manner that will at least not aggravate the risks.

Summary

Let me conclude by summarising my main message here this evening.

- There has been a gradual development in our reasoning on monetary policy. Compared with the clarification on the Riksbank's monetary policy strategy published in 1999, we can now go slightly further with regard to how we communicate the considerations of the real economy taken when conducting monetary policy.
- When we make decisions on the repo rate we also try – given our overall objective to maintain price stability – to subdue fluctuations in the real economy.
- This is done by not aiming to bring inflation back on target as quickly as possible in every single situation. When there is a deviation from target, our ambition is normally to return inflation to target within a time period of two years.
- We no longer apply the simple policy rule that relied on forecasts based on a constant repo rate. This rule, among other things, contributed to excessive focus on the two-year horizon in relation to the development of inflation over time.
- The forecasts of inflation are now based on an assumption that the repo rate will develop in line with market expectations. This new assumption makes it easier for us to refer to the entire interest rate path in our communication of monetary policy.
- Large fluctuations in asset prices entail risks that we must take into account, even if the theoretical analysis of the significance of the asset prices has not yet been fully developed.