SPEECH

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Time to scrap the inflation target?*

To avoid keeping you on tenterhooks, I shall begin by answering the question in the title of my speech. No, it is not time to scrap the inflation target, in case any of you thought I wanted to. The question is of course rhetorical. The reason I ask the question is that I think it has been the focal point of the recent debate in Sweden, although it is not usually expressed so directly. Following the financial crisis the foundations of monetary policy certainly have been discussed and questioned around the world. But my feeling is that the debate has been driven further in Sweden than in most other countries.

Monetary policy in Sweden has often attracted interest from other countries. One reason is that we have often been among the first to implement changes in the monetary policy framework and thus become an interesting object of study. As is well-known, Sweden was one of the very first countries to introduce inflation targeting in the early 1990s, and we have in many respects remained at the front edge since then. For instance, the Riksbank is one of few central banks to publish its own forecast for the policy rate and possibly the only central bank where the minutes state which Board member has said what during the monetary policy meetings.[1]

Inflation has been low for longer in Sweden than in many other countries

In recent years, international interest in Sweden as an object of study has been more due to economic developments here, and to the measures the Riksbank has taken, rather than the changes in the monetary policy framework.

Despite the Swedish economy developing relatively well since the global financial crisis 2008-2009 (see Figure 1), inflation began to fall earlier in Sweden than in the rest of the world. This has meant that inflation has undershot the target and been lower than in many other countries for a long time (see Figure 2). This has in turn contributed to the Riksbank considering it necessary to cut its policy rate below zero,

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[1] Another completely fresh example is the Riksbank's thoughts on introducing a digital currency (see Skingsley, 2016).

which only a few other central banks have done so far.[2] The long period of low inflation has also started a debate regarding the grounds for the Riksbank's monetary policy and the inflation target, which as far as I can tell is more intense than in most other countries. In this sense, too, one can therefore in some ways say that we are pioneers.

What I intend to do today is first to say a few words about this debate. Most often, the criticism merely states that the "monetary policy of the Riksbank is wrong". The reasons for this vary: because a negative policy rate is not healthy, because housing prices are rising, because the krona is too weak or because the economy is already developing well. There is usually no detailed reasoning as to what the consequences would be if the policy was shifted in another direction. In particular, what is often missing, but I argue is crucial, is a discussion on why the advantages of the inflation target should no longer apply and what the consequences would be if the Riksbank abandoned it.

After discussing the debate on monetary policy, I intend to conclude by looking ahead and examining the problems and possibilities for monetary policy in the future. Here, I focus in particular on a scenario where monetary policy is not made more expansionary despite a delay in reaching the inflation target.

In Sweden, the policy rate has been negative since February 2015. This has not been an uncontroversial policy. The criticism can be divided into two types. These are often expressed simultaneously and are difficult to distinguish from one another, but I think there is a point in trying to keep the arguments separate. One sort of criticism is that a negative policy rate *in itself* is something unnatural and unhealthy. The other is that a negative policy rate is the wrong policy *in the current economic situation*. Let me discuss these arguments one at a time.

Negative policy rate unnatural and unhealthy in itself?

One can dispute whether a negative policy rate is unnatural and unhealthy, but it is certainly very unusual. This applies not only to policy rates but also to nominal interest rates in general. Prior to 2015 we had never had a negative nominal interest rate in Sweden. On the other hand, negative *real* interest rates, that is, nominal interest rates adjusted for inflation, have occurred now and then. The short-term real interest rate has been more or less constantly negative since 2009. If we look further back in time, negative real interest rates have not been so unusual either (see Figure 3).

Of course one might think it rather unnatural to need to pay to lend money to someone, and to be paid for borrowing. But as it is usually our purchasing power that we are concerned with, it is not really clear, when one thinks about it, why it should be more unnatural to have a negative nominal interest rate than a negative real interest rate. If one lends money, one will in both cases be able to consume less when one regains what one has lent, including interest. In the case of a negative real interest rate, this is because inflation is higher than the interest payment, and one is therefore unable to buy as much for the sum one receives from the borrower. If instead the nominal interest rate is negative, then the negative return is written into

[2] Danmarks Nationalbank, the European Central Bank, the Bank of Japan and the Swiss National Bank also have negative policy rates (a list of central banks' policy rates can be found at centralbanksnews.info). It is worth noting that almost a quarter of global GDP is currently produced in countries where the policy rate is negative.

the contract from the start, so to say, and perhaps this is what many feel goes against normal social and economic conventions. But regarded solely in terms of purchasing power, a negative nominal interest rate is not anything very special, in any case no more special than a negative real interest rate.

General interest rates low but not negative

Moreover, the fact that the repo rate is negative does not mean that general interest rates in Sweden are negative. The repo rate is a very special short-term rate that only the Riksbank's monetary policy counterparties encounter, including the major Swedish banks. When the repo rate is negative, the banks pay interest to the Riksbank, as the banking system as a whole has a liquidity surplus that must be deposited in the Riksbank. The short-term interbank rates, that is interest on loans between the banks, and some government rates have followed the repo rate down below zero. However, the banks have not introduced negative deposit rates for households and most companies. Only a few economic agents, primarily other financial institutions, large companies and some municipalities, have experienced a negative deposit rate, and these can in some cases also borrow at a negative interest rate. Companies have been forced to expend a certain amount of resources on avoiding negative return on their funds, but they appear to have succeeded relatively well in this. Cutting the repo rate below zero has thus in total contributed to pushing down interest rates, but has not meant that interest rates have become negative for the general public.

Good profitability among the banks and few signs of a decline in demand

Another fear has been that negative interest rates reduce the banks' profitability, which could lead to higher lending rates and a lower supply of credit. The reason for this is said to be that the banks' deposit margin, that is, the difference between the interest on deposits and lending, would decline because it is difficult to cut the deposit rate below zero. However, Swedish banks' profitability has been good in recent years, especially in relation to banks in the euro area (see Figure 4). The negative repo rate has contributed to making their extensive market funding less expensive, at the same time as lending volumes have increased. In low interest rate environments there is also a tendency for income from fees and commission to rise, as the demand for the banks' asset management increases as more people want to invest in for example funds. Nor does it appear to have been too difficult or expensive to adapt IT systems to manage negative interest rates. The Riksbank's overall assessment is that the negative interest rates have had little or perhaps even a positive effect on the banks' profitability.[3]

As negative nominal interest rates are a new phenomenon, it is nevertheless natural that they are met with scepticism and give rise to various psychological reactions. One fear along these lines has been that the negative policy rate would be perceived as a crisis signal that would increase uncertainty among economic agents. I believe that reactions of this kind should be taken seriously. That there are such reactions is one reason why I am taking up this question here today. However, there are so far few signs of declining demand resulting from concern among households and companies. On the contrary, domestic demand has been the most important driving force behind

[3] For a more detailed review, see the article "How do low and negative interest rates affect banks' profitability?" in the Monetary Policy Report April 2016. The Riksbank's conclusions in this field are shared by Turk (2016).

the improved economic activity in Sweden. In addition, sentiment in the household and corporate sectors is good, according to various confidence indicators (see Figure 5).

It is also worth noting in this context that there is a fairly intensive international discussion on whether negative policy rates should be included in the central banks' normal arsenal going forward, as a weapon that could be used if special needs arise. One advocate of this is Ben Bernanke, former chairman of the Federal Reserve.[4] He argues that negative policy rates have many advantages in relation to raising the inflation target, which is also discussed as a means of creating greater room for manoeuvre in future recessions. It is worth noting that this international discussion exists, as a contrast to the picture often painted in the Swedish debate – that negative policy rates are an isolated and strange invention of the Riksbank and a few other central banks.

Negative policy rate wrong policy in current economic situation?

The second form of criticism, as I mentioned earlier, is that a negative interest rate is the wrong policy *in the current economic situation*. One reflection one can make here is that the criticism really concerns the repo rate being too *low*, not specifically that it is negative.

Low global interest rates are not due to monetary policy

There are reasons to begin reflecting on why interest rates are so low. One important observation is that there has been a downward trend in real interest rates around the world for a couple of decades now (see Figure 6). It is not entirely clear why this has happened and why global real interest rates are currently so low, but in general terms it is due to the willingness to save long being greater than the willingness to invest. Another significant factor is that trend growth has deteriorated in many countries following the financial crisis. It is important to realise that global interest rates today are low because of factors that are unrelated to monetary policy. And global real interest rates are an important determinant for long-term real interest rates in individual countries. Monetary policy has to continuously relate to this long-term real interest rate. To put it simply, if monetary policy gives rise to interest rates below the long-term real interest rate, then the policy is expansionary. Correspondingly, monetary policy is tight if interest rates exceed the long-term real interest rate. However, monetary policy can neither influence nor deviate in the long run from the long-term real interest rate.[5]

These aspects are important, for instance with regard to the discussions about various possible negative side-effects of the very expansionary monetary policy. One argument is that the low interest rate constitutes a danger to pensions as the return on pension savings becomes so low. But with regard to pensions, it is the long-term return that is important. This means it is the long-term real interest rate that is the most relevant variable. The solution to the problem is thus not that central banks should raise their policy rates, much less that the Riksbank should do so single-handedly. To make interest rates persistently higher, one needs to implement

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[4] Bernanke (2016). Rogoff (2016) reasons similarly.

[5] See, for instance, Rachel and Smith (2015) for a more detailed discussion and quantitative estimates of the global real equilibrium rate.

structural measures that push up the long-term real interest rate. This is unfortunately not so easy to do.

With reasonable estimates of the long-term real interest rate, the Riksbank's monetary policy has in recent years been clearly expansionary. The reasons why the Riksbank has conducted this policy are that inflation has undershot the target for a long time and that long-term inflation expectations have fallen to worryingly low levels. Around the turn of the year 2014-15 the situation was particularly serious. Expectations of inflation five years ahead had fallen some way below the target and there was a tendency towards acceleration in the decline (see Figure 7). The Riksbank therefore assessed it was necessary to conduct a very expansionary policy to safeguard confidence in the inflation target.

Good reasons to preserve confidence in the inflation target

There are good reasons for safeguarding this confidence. When economic agents have a collective picture of how prices will develop in the future, it becomes easier to plan for the long term. The inflation target contributes to coordinating expectations in the economy and thereby lays the foundations for smoothly-functioning price-setting and wage formation. As I see it, the good wage formation system that we have today is perhaps the greatest achievement of inflation targeting. During the 1970s and 1980s, wage formation was a constant source of disruption in the Swedish economy. It caused considerable uncertainty for many companies. One was forced to manage the cost problem and poorer competitiveness through recurring devaluations of the krona. The situation was generally untenable and eventually led to an extensive economic crisis at the beginning of the 1990s.

An important insight here is that a credible inflation target can give rise to a beneficial self-reinforcing cycle. If expectations are in line with the inflation target, and if price-setting and wage formation adapt to these expectations, actual price developments will then also become consistent with the inflation target. On the other hand, if expectations were to become stuck at a level that is too low, one instead has a *negative* self-reinforcing effect, which means that the central bank has to struggle much harder to attain the inflation target. This underlines the significance of taking resolute action particularly when more long-term inflation expectations begin to deviate fairly substantially from the target level.

There are also good reasons why the target is 2 per cent and not lower. Perhaps the most important is that there should be sufficient scope to cut the policy rate in the future if inflation becomes low or economic activity wanes. A lower inflation target would mean reaching the policy rate's lower bound more often and for longer. This is why there is currently an international discussion on whether the central banks' inflation targets should be raised.[6] A somewhat paradoxical observation here is that many of those in the Swedish debate who are critical of negative policy rates are also critical of higher inflation targets, and often even advocate *lower* inflation targets. But with an unchanged or lower inflation target, it becomes even *more* important that the policy rate can be cut below zero.

A further reason that I believe should not be underestimated is that wage formation can deteriorate when average inflation is too low. The reason is that in practice it has proved difficult to lower nominal wages. If inflation is low and nominal wages cannot

[6] See, for example, Blanchard et al. (2010), Ball (2014) and Rosengren (2015).

be lowered, it becomes difficult to adjust real wages between individuals at a company and between different sectors. This can ultimately bring about both higher unemployment and poorer productivity growth in the economy. These problems can be mitigated if there is a certain underlying inflation rate in the economy.

Underestimating the significance of monetary policy and exchange rate developments

One problem when criticizing monetary policy with reference to the current economic situation is that one does not take into account the fact that the current strong Swedish economy is of course to a large degree due to the monetary policy that has been conducted. It is a little like taking medicine in connection with an illness and when cured drawing the conclusion that it was unnecessary to take the medicine.

On this point I feel that the events of spring 2015 are a good illustration. The ECB had announced in January that it intended to buy securities over slightly more than a year to come for the equivalent of SEK 10,000 billion (around 2.5 times the size of Swedish GDP). This is indeed a very substantial monetary policy intervention. Within the course of just a few weeks the krona exchange rate appreciated significantly against the euro, from almost 9.65 krona per euro to just over 9.10. This was in itself a large appreciation of almost 6 per cent, but the real danger lay in the fact that it could have been much worse. During 2014 and up to spring 2015 the US dollar and the British pound sterling had appreciated by between 15 and 25 per cent against the euro. There was agreement on the market that differences in monetary policy were decisive for the different development paths of these currencies and the Swedish krona against the euro. If the Swedish krona had in this situation so to speak appreciated level with the dollar and sterling, the total appreciation would have been around 30 per cent. This would have meant a very serious deterioration in the competitiveness of the Swedish export industry and would have entirely changed the playing field for the Swedish economy (see Figure 8). Under such circumstances there would certainly not have been any growth in the vicinity of 4 per cent in 2015.

My own impression is that the risk the Swedish economy was exposed to at this stage is severely underestimated by many commentators. They appear to assume that the strong performance in 2015 would have happened more or less regardless of monetary policy and the krona exchange rate. The fact that the Riksbank in February reacted by introducing a negative repo rate and beginning to buy government bonds is not considered to have played any major role. Although it is possible that the outcome would not have been quite as bad as I have outlined above, I think that it is extremely misguided to assume that monetary policy was more or less insignificant.

There is also good reason for a reminder of a circumstance that tends to be forgotten. The current debate sometimes gives the impression that the Swedish economy has for some time been in a situation of almost overheating. But the fact is that we fairly recently, according to most empirical estimates, once again attained a level of resource utilisation that can be described as normal. Thus, although such estimates are uncertain, the Swedish economy appears to have been producing below, rather than above, its long-term capacity for several years following the financial crisis.

Confidence in the inflation target unimportant or possible to maintain with a different policy?

One thing that is rarely done, but I think is of utmost importance, is to spell out the practical consequences of this criticism. It is of course easy to agree that if the Riksbank had *not* needed to defend confidence in the inflation target, then monetary policy would not have needed to be so expansionary and the repo rate would perhaps not have needed to be negative. One may therefore draw the conclusion that those who say that monetary policy is wrong are arguing one of the following: Either that confidence in the inflation target is not so important, or at least less important than other things, or that the Riksbank should have been able to conduct a less expansionary policy while still being able to safeguard confidence in the inflation target.

The criticism is rarely clear with regard to which of the statements it is based on, but my interpretation is that most of it is based on the first claim – that it is not so important to maintain confidence in the inflation target. Unfortunately, this rarely develops into any more detailed reasoning. Typically, the criticism tends to stop at monetary policy having been inappropriate, while reflections on the merits of a credible inflation target – and in particular on why the advantages of the current target should no longer apply – are almost always lacking.

Essentially the criticism concerns whether or not to have an inflation target

When thinking about it, this criticism is in fact quite remarkable. What it actually says is that even if confidence in the inflation target is beginning to fail quite clearly, the Riksbank should *not* do what it can to maintain it. In this sense, one can argue that the discussion is essentially about whether or not to have an inflation target, and perhaps even about whether or not to pursue an inflation-targeting policy at all, although it is rarely expressed in this way.

I can only think of one earlier parallel. It was as long ago as the second half of 1994, after the Riksbank had decided to introduce an inflation target, but before it came into force in 1995. The reason for the delay between the decision in January 1993 and the target coming into force was to give the inflationary impulse that arose when the krona was allowed to float in November 1992 time to wane.

During summer 1994, inflation and inflation expectations began to rise.[7] Most analysts' forecasts pointed to inflation overshooting the target by a broad margin, and various indicators showed that the long-term expected inflation rate, which had never been close to 2 per cent, was now above 4 per cent. The inflation-targeting policy was thus faced with its first real challenge and the Riksbank began to raise the repo rate. Despite this being an entirely logical measure in the prevailing situation, it was met with strong criticism from some parts of society. A number of members of the largely politically-appointed General Council of the Riksbank, which was then the body that made the monetary policy decisions, entered reservations against the decision. Some even considered that this interest-rate and monetary policy was leading Sweden into "economic suicide".[8] The most important measure, they said, should be to achieve a

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[7] See Bäckström (2003) for a description of the situation at that time.

[8] See LO (1994). It should be added that LO fairly soon afterwards came out in support of the inflation target and has supported it ever since.

lower real interest rate. The criticism lived on for quite a long time, but it was probably quite essential to demonstrate at that time that the inflation target was taken seriously.

This was until now the only time I can remember that the Riksbank was urged not to do its best to maintain confidence in the inflation target. The criticism then was largely due to the inflation-targeting policy being so new – as I said, the inflation target had not yet even come into force. It is less easy today, after twenty years of positive economic developments, in which the inflation target has been a cornerstone, to see why the Riksbank is being urged to lower its ambitions. Perhaps it is because developments have been so positive for so long that one feels the existence of a credible nominal anchor is no longer as important. If so, I am convinced that this is a mistake.

Difficult to see reasonable alternatives to the policy conducted

But what about developments in household debt and housing prices? Don't they give a reason for changing monetary policy? The Riksbank has previously used the repo rate to try to subdue the upturn in debt and housing prices. But this was on a fairly modest scale and – above all – during a period when confidence in the inflation target appeared firmly rooted.[9] In recent years, on the other hand, there have been signs that this confidence has begun to be undermined, which has changed conditions rather drastically. It has no longer been possible to do both; the Riksbank has been forced to choose.

I think it has been an absolute necessity in this case to prioritise confidence in the inflation target. It is not just because this is the Riksbank's main task. In my opinion, it is rather obvious that the problems on the housing market are deeper than the currently low interest rate. Housing prices and household debt have risen in parallel and almost constantly for twenty years, and during this time the interest rate has been both relatively high and very low (see Figure 9). Another observation that underlines the claim that the interest rate does not play the leading role is that developments in housing prices in Germany have been quite different from those in Sweden, despite a rather similar monetary policy (see Figure 10).

As I see it, it is not reasonable given this to advocate that the Riksbank shall sacrifice its main task – to maintain confidence in the inflation target – to *perhaps* attain some easing with regard to housing prices and debt, which would in any case only be temporary unless other measures were taken. If we are to attain a long-term sustainable development in the Swedish economy there is no way around managing the risks in the housing and credit markets with targeted measures in housing policy, taxation policy and macroprudential policy. Anything else would be a very strange and ultimately untenable allocation of roles in economic policy.

[9] See, for example, Jansson (2014).

Could confidence in the inflation target have been maintained with a less expansionary policy?

As I noted, some analysts would probably argue that it is important to defend the inflation target, but that this could have been done with a less expansionary policy, where the repo rate would not have needed to be cut below zero.

This is a view that I have greater understanding for. However, there are many arguments against it. The expansionary policy conducted by the Riksbank has indeed led to inflation turning upwards and to long-term inflation expectations being once again at or very close to 2 per cent (see Figure 11). But the upturn in inflation has been bumpy and fragile and there are some signs that it has slowed down in recent months. Moreover, the upturn has to a fairly large degree been based on the krona being relatively weak and its sustainability rests on the assumption that the krona will not appreciate too rapidly going forward. It is very probable that developments would have looked quite different with a higher repo rate. And in this context the significance of a repo rate that is only half a percentage point higher should not be underestimated. It is not particularly difficult to imagine a scenario where the krona in such a case would have strengthened, possibly quite significantly, economic activity would have slowed down and inflation and inflation expectations would have turned downwards.

This relates to a different type of criticism that argues that the negative interest rate has not had any effect or even been counter-productive. The grounds for this criticism appear to be that inflation has not attained the target despite the repo rate being negative. This is of course true, but the question one should ask is how things would have looked if the Riksbank had *not* cut the rate as much as it did. Of course we can never know for certain, but it is difficult to see any convincing reasons why inflation would have been the same as it is now, or even higher, if the repo rate had stayed at zero. And in this context the risks of a very strong krona appreciation that needed to be dealt with during the spring of 2015 should be recalled.

Unclear arguments regarding exchange rate and welfare

Before I continue, I would like to say something about one type of criticism that has been common recently. It appears to be based on the idea that the exchange rate can be regarded as a measure of welfare and argues that “Swedes have become poorer” when the krona is weak, and vice versa. As the Riksbank's expansionary monetary policy is assumed to be an important explanation for the weak krona, the Riksbank is thus considered to contribute to this increased poverty. This is then taken as justification for saying that monetary policy is wrong.

I have some difficulty in understanding this linking of the exchange rate to welfare. A weak krona does tend to increase the prices of goods we import. But imported goods are included in the representative consumption basket that inflation is measured by. And the problem today is not that inflation is high, rather the reverse. It is thus not the case that the weak krona significantly erodes our daily consumption.

For the man on the street a weak krona is most noticeable because it becomes more expensive to travel abroad. This is of course unfortunate, but it nevertheless seems fairly far-fetched to compare this with reduced welfare or increased poverty. The other side of the coin is of course that Swedish companies find it easier to export and are able to increase their employment. A more established measure of welfare is GDP or GDP per capita, or consumption or consumption per capita.

Negative policy rates no panacea

Before I go on, let me note in conclusion that the negative repo rate has on the whole had the expected effects. It has most probably contributed to inflation being higher than it would have been otherwise and the fears of what might happen when the repo rate passed the zero mark have so far not been realised.

Having said this, I would like to point out that I do not see negative policy rates as a panacea for the problems monetary policy has faced in recent years, in an environment where the global real interest rate is very low. There is an international discussion, mostly on an academic level, about monetary policy becoming more effective if the central banks' policy rates were to be made *very* negative – that is, if the lower bound could in principle be eliminated entirely.[10] But personally I do not regard this as a practically implementable solution. Negative policy rates are already regarded with scepticism and it is easy to imagine how opinion would be if they were cut so far that the general public's deposit rates also passed beyond the zero mark – or, even worse, if one with various electronic money solutions were to force people to "pay to save".[11]

I definitely believe that there is scope to cut the repo rate somewhat further if necessary. But one cannot ignore the fact that this scope is limited. It is of course also possible to make further purchases of securities, but even there it is reasonable to assume that the positive effects will wane sooner or later and the complications will gradually increase.

I would like to emphasise, to avoid any misunderstanding, that I still count on inflation developing in line with the Riksbank's forecast and attaining 2 per cent safely within the current forecast period. But it is nevertheless important and necessary to seriously consider and evaluate alternative scenarios.

It may take longer to attain the target...

The idea behind the recent policy has been to avoid the exchange rate appreciating too rapidly and in this way to hold inflation up until economic activity takes over as the driving force. Thus, the plan has not been to try to permanently battle against fundamentals.[12] This has so far worked relatively well, but we are now beginning to approach the critical stage where economic activity is supposed to take over the baton. One cannot escape the fact that inflation outcomes have been somewhat worrying recently. It is now mostly the CPI that is showing a clear upturn. The more underlying rate of inflation measured by the CPIF excluding energy prices has over the year developed more or less sideways, or even shown a tendency to decline slightly. The inflation outcomes in coming months will be very important.

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[10] See, for example, Goodfriend (2016).
[11] For a more detailed discussion of the problem of very negative policy rates, see Alsterlind et al (2015) and Nessén (2016).
[12] However, for my own part I am not convinced that fundamentals currently need to lead to a significant krona appreciation in real terms, see the minutes of the Riksbank's monetary policy meetings in September and October.

The conditions for economic activity to soon take over as the main driving force behind inflation nevertheless look good, given the positive development we are seeing in the real economy. But there are also reasons to consider the possibility that the baton changeover might not go as smoothly as we hope and believe. One reason for this could be that economic activity in Sweden as such does not continue developing as favourably as we are presently assuming it will. Another reason could be that the forces currently holding back inflation in Sweden and other countries are stronger and more persistent than expected – that the inflation propensity has fallen, at least temporarily.

The first step will then probably be to make monetary policy more expansionary. But as I noted, the room for manoeuvre is becoming more limited. It is not possible to quantify exactly when it has been exhausted, but somewhere there is a limit. We cannot rule out the possibility that we will sooner or later reach a situation where we assess that it is no longer possible or desirable to make policy even more expansionary. If we were to find ourselves in such a situation – and I emphasise *if* – then the consequence could be that we will have to accept that it will take longer than desirable to attain the inflation target.

I would like to emphasise that in such a hypothetical case it would not be a question of "giving up the inflation target". The advantages of an inflation target of 2 per cent that I have just described would of course still apply and we would continue to do our best to attain it. The difference would be that we open up for the possibility that it could take longer than we previously assumed, without making monetary policy more expansionary.

… but the aim of the policy would not change

If we were to find ourselves in such a situation it would not mean that we were suddenly to start conducting a completely different policy and begin raising the repo rate, for instance. There would still be reasons to conduct a policy that is as expansionary as possible, to avoid taking longer than necessary to attain the target. However, one consequence would be that the Riksbank's communication became very important. The damage in a situation where monetary policy can no longer be made more expansionary, despite inflation being expected to undershoot the target for quite a long time, will be much less if the general public can be convinced that the target has not been abandoned, that it is merely a question of taking longer than normal to attain it. Clarifying this would be a difficult but hopefully not impossible task.

Here it is important to realise that inflation *can* be controlled by the central bank in the long run. Inflation is ultimately, as is often put, a monetary phenomenon and determined by how expansionary monetary policy is on average (see Figure 12). Digitalisation, globalisation and other structural changes can push down inflation during certain periods of time, and these periods can very well be quite long. However, the effects of structural changes on inflation do not last for ever. In the long run, it is monetary policy that determine the rate of inflation in the economy and "rational" long-term inflation expectations should therefore still be in line with the central bank's target for price stability. If the public makes this presumption, the negative consequences of taking longer to attain the inflation target will be much less serious.

Concluding comments

Let me round off. My purpose here has been to do two things. Firstly, I have tried to put the recent debate on monetary policy into perspective. I have discussed the criticism raised against our policy in general and against the negative repo rate in particular. As I hope I have made clear, there are some gaps in the criticism.

I noted earlier that the main argument is often merely that monetary policy for various reasons is wrong. What I feel is often missing is a discussion of why the advantages of the inflation target should no longer apply and what the consequences would be if the Riksbank abandoned it.

It is no new phenomenon that the debate fails to answer important questions. In the mid-1990s, when the inflation-targeting regime was relatively new, Lars E.O. Svensson, who was then scientific adviser to the Riksbank and later a member of the Executive Board, argued that the debate often lacked structure. At the Swedish Economics Associations' proceedings in February 1996 he called for each debater to answer the following questions explicitly or implicitly:

(i) Do you apply the same inflation target as the Riksbank, or another inflation target, or any other target?

(ii) Do you make the same forecast as the Riksbank or do you make a different assessment?

(iii) Do you know of a better way of attaining the target?[13]

These questions appear as relevant today as they were twenty years ago.

Secondly, I have discussed how one should view a situation where it takes longer for inflation to attain the target, despite the Riksbank doing everything it can to avoid this happening. This is not a situation we expect to find ourselves in, but there is nevertheless reason to seriously consider and examine it. If such a situation were to arise, it would very important to clearly communicate that the inflation target has not been abandoned, to prevent long-term inflation expectations from falling excessively. As the central bank determines inflation in the long run – inflation is a monetary phenomenon – there are also good reasons for expectations of long-term inflation to remain in line with the target. This is important to maintain a smoothly-functioning price-setting and wage formation, but also for monetary policy to be able to counteract future economic downturns. Communicating this is a difficult but hopefully not impossible task.

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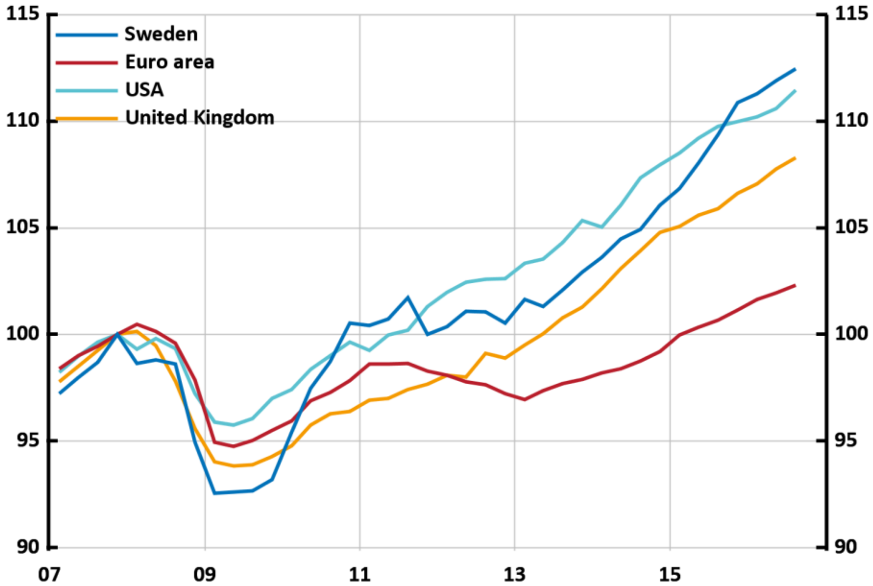
Figure 1. Good GDP development in Sweden after financial crisis

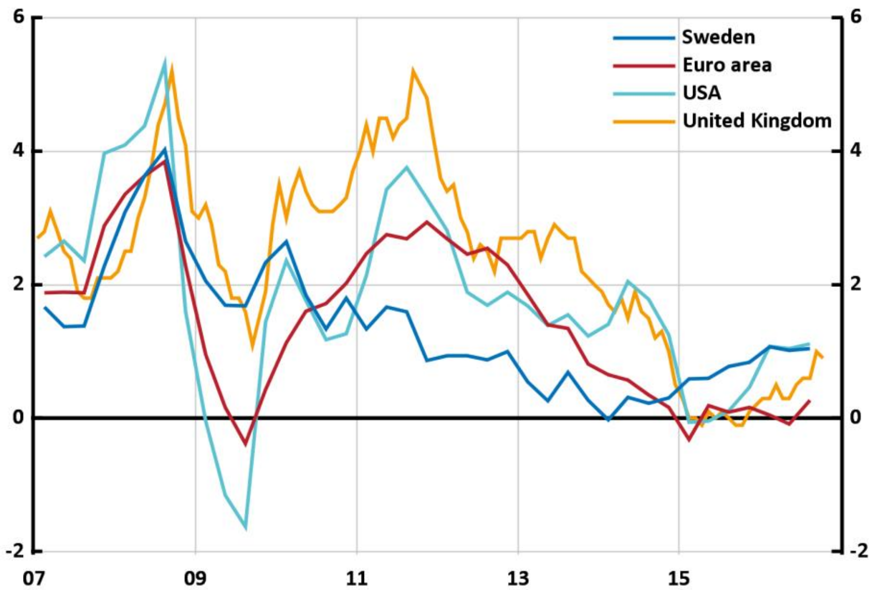
Index, 2007 Q4=100



Sources: Bureau of Economic Analysis, Eurostat, Office for National Statistics and Statistics Sweden

Figure 2. Inflation fell early in Sweden

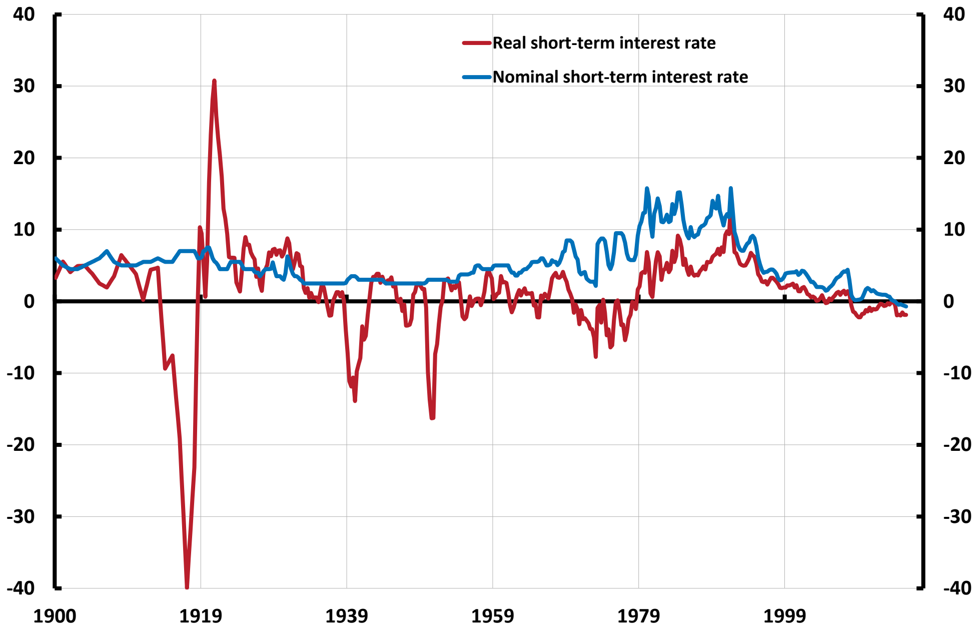
Annual percentage change



Note. The CPI for the US and the HICP for others.
Sources: The Bureau of Labor Statistics, Eurostat and Statistics Sweden.

Figure 3. Negative real interest rate not unusual

Per cent

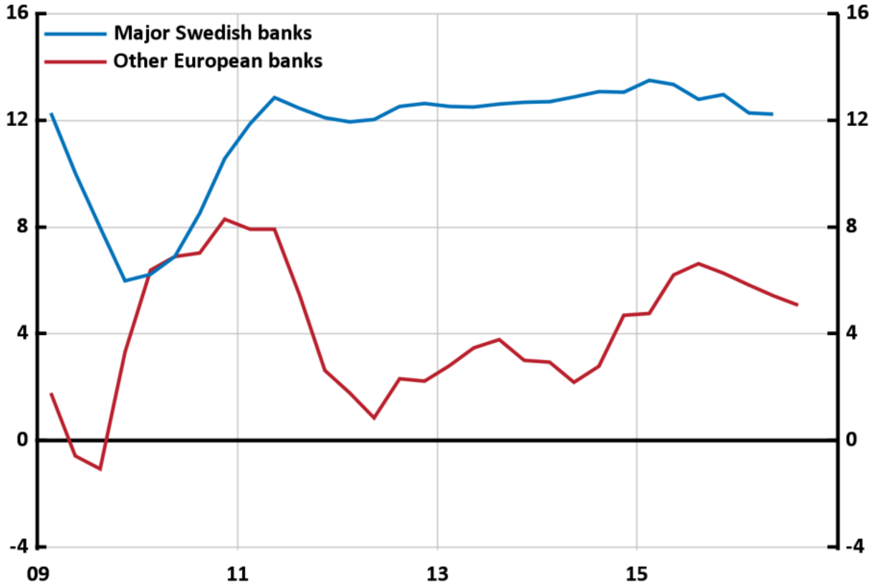


Note. The real interest rate is calculated using series for the nominal interest rate and inflation/inflation expectations. For the nominal interest rates, annual data from historical monetary statistics is used for the period 1900-1918, while the Riksbank's discount rate is used for the period 1919-1983 and after that the rate on a three-month treasury bill is used. For inflation/inflation expectations, annual data from historical monetary statistics is used for the period 1900-1918, the cost-of-living index/CPI from Statistics Sweden is used for 1919-1979 and after that inflation expectations in the household sector for one year ahead, as calculated by the National Institute of Economic Research.

Sources: National Institute of Economic Research, Statistics Sweden and the Riksbank

Figure 4. Good profitability in Swedish banks

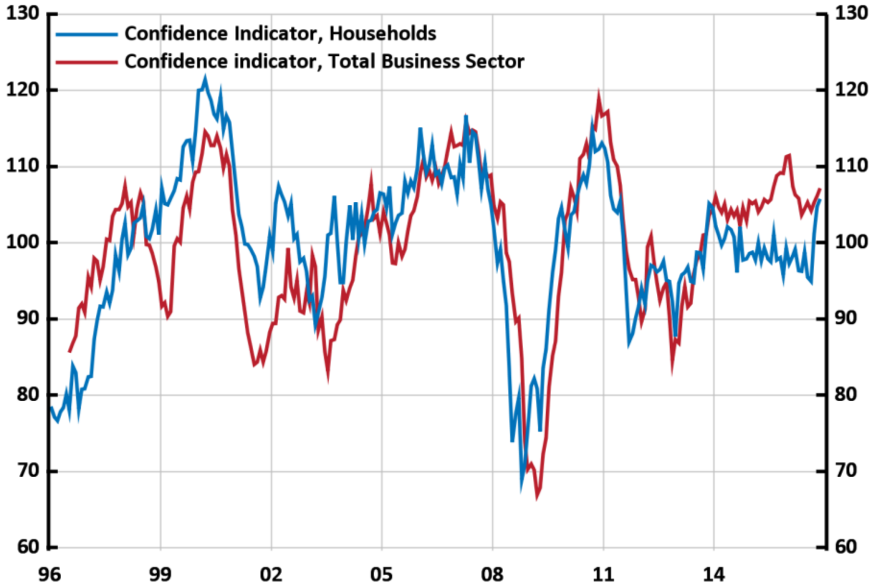
Return on equity, rolling four quarters, per cent



Note. Unweighted mean value. The red line refers to a selection of major European banks.
Sources: The banks' interim reports and SNL Financial

Figure 5. Positive sentiment in household and corporate sectors

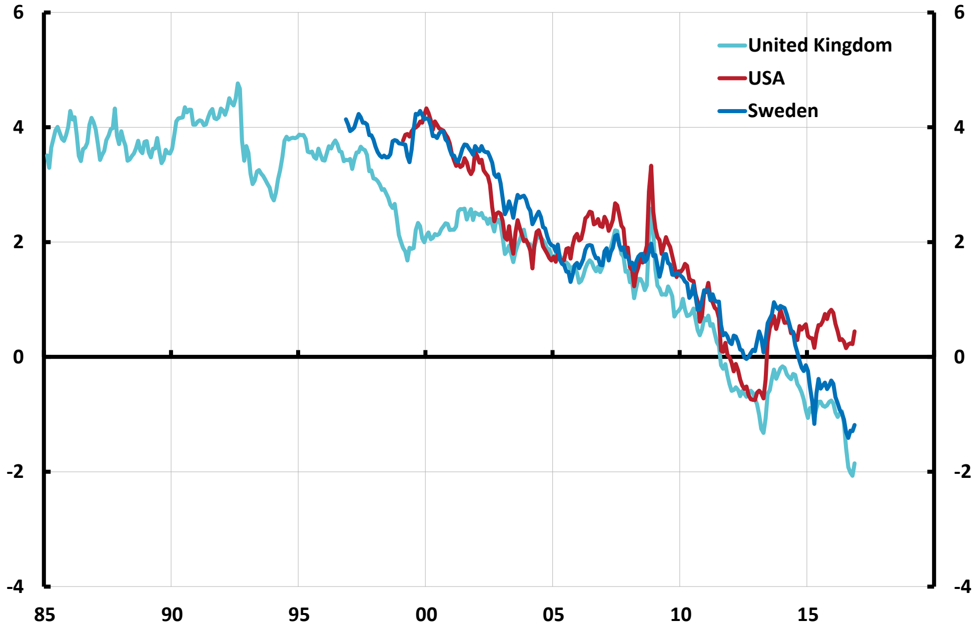
Index, mean = 100, standard deviation = 10



Source: National Institute of Economic Research

Figure 6. Downward trend in global real interest rates

Per cent

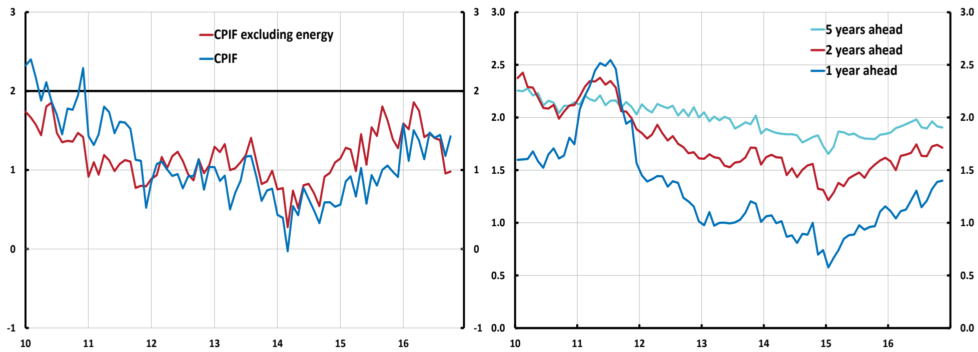


Note. 10-year yield on real government bonds in Sweden, the United Kingdom and the United States. Swedish real interest rates are zero coupon yields interpolated from bond prices using the Nelson-Siegel method.
Sources: The Bank of England, the Federal Reserve, Thomson Reuters and the Riksbank

Figure 7. Problematic inflation conditions, especially 2014-2015

Annual percentage change

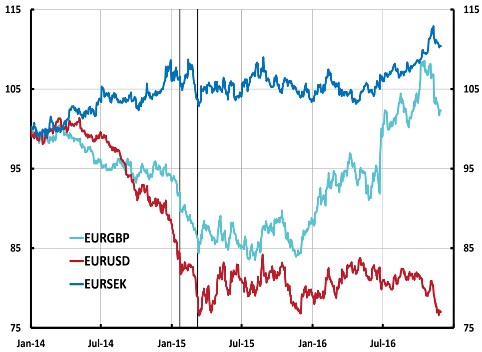
Inflation **Inflation expectations**



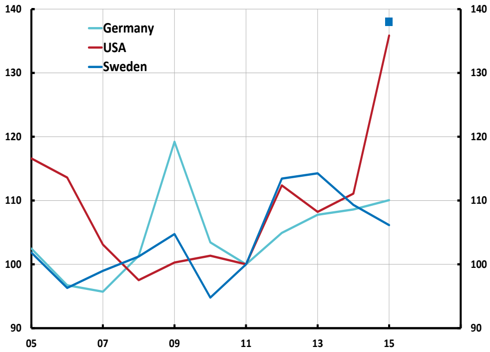
Note. Inflation expectations refer to mean value for money market participants.
Sources: Statistics Sweden and TNS Sifo Prospera

Figure 8. Serious situation in spring 2015

Exchange rates



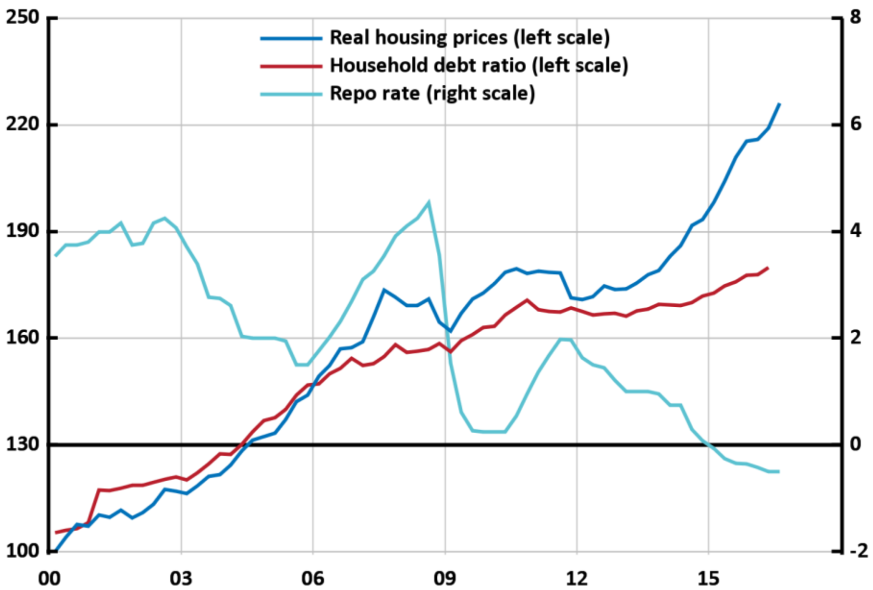
Unit labour costs



Note. The ECB communicated its decision to purchase securities on 22 January 2015 and initiated purchases on 9 March 2015. Exchange rates, index, 1 January 2014 = 100. Unit labour costs in manufacturing industry, euro, index, 2011 = 100. The blue square indicates the effect of the krona appreciating by 30 per cent against the euro.
Sources: The ECB, Macrobond and Conference Board

Figure 9. Rising trend in housing prices and debts for 20 years despite varying repo rate

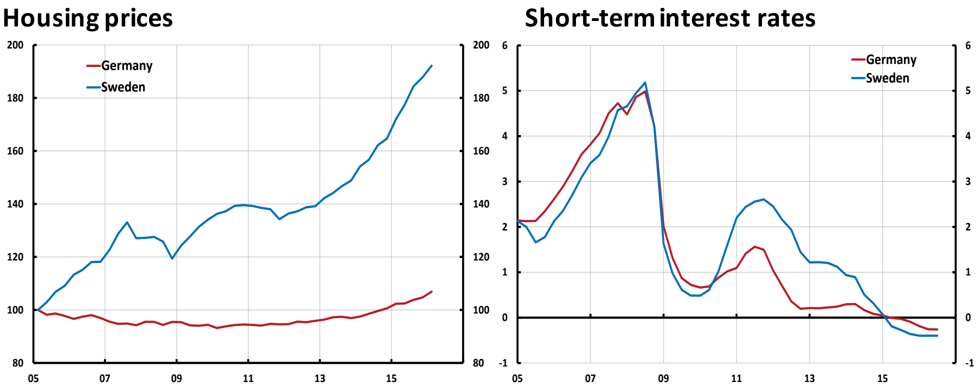
Index 2000 Q1 = 100



Note. Housing prices have been converted from nominal to real terms by using the CPIF.
Sources: Statistics Sweden and the Riksbank

Figure 10. Much slower increase in housing prices in Germany despite roughly the same development in policy rates

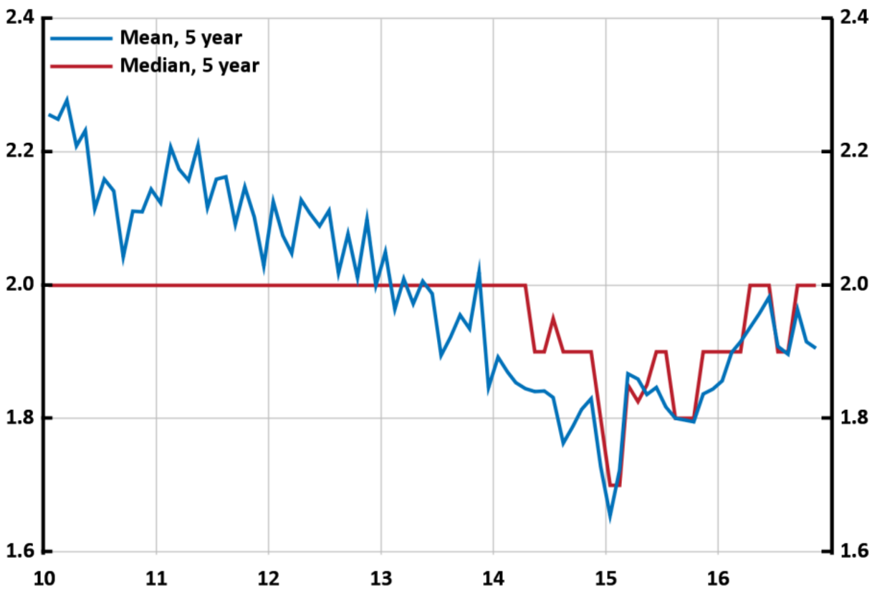
Index, 2005 Q1 = 100 and per cent respectively



Sources: The BIS and the OECD

Figure 11. Long-term inflation expectations close to target once again

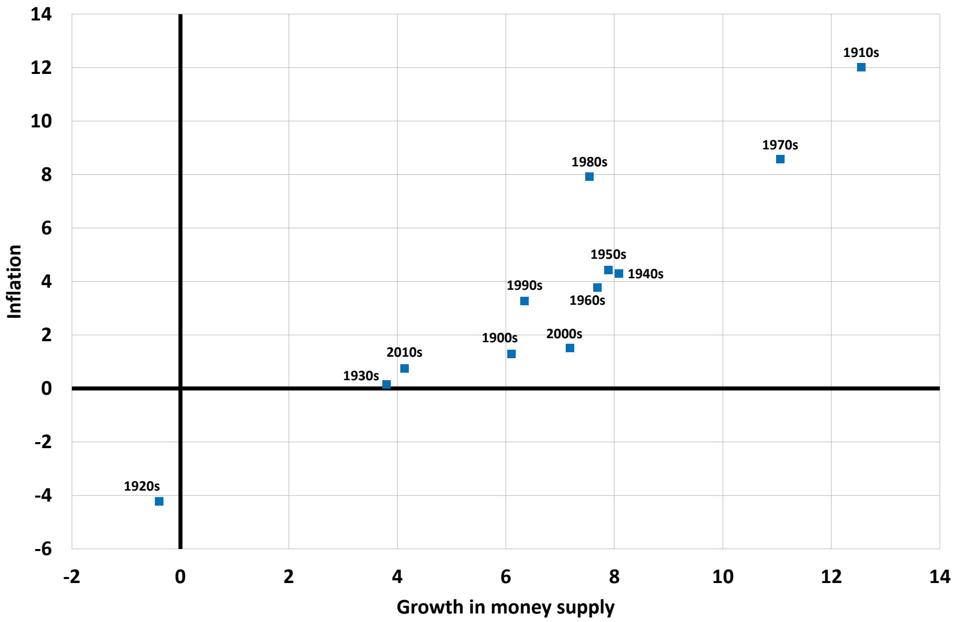
Per cent



Note. Inflation expectations according to money market participants.
Source: TNS Sifo Prospera

Figure 12. Monetary policy determines long-term inflation – inflation is a "monetary phenomenon"

Annual percentage change



Note. Money supply refers to M3 and inflation refers to CPI. The squares show averages for different decades.
Sources: Statistics Sweden and the Riksbank