

SPEECH



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Monetary policy in less favourable times – what are the options?*

To say the past decade has been transformative for monetary policy is scarcely an exaggeration. Many central banks have cut their policy rates to exceptionally low levels and found other ways of conducting monetary policy than adjusting interest rates. In some countries, including Sweden, the policy rate has also passed the zero bound that was considered to be the absolute minimum level not very long ago, and has entered negative territory. Despite this policy, the recovery has on the whole been slow and, above all, inflation has been low for a long time. This has led to the policy rate in many countries remaining at record low levels for several years.

The need to keep policy rates so low is not only due to the financial crisis 2007–2008 and the ensuing euro crisis requiring very expansionary monetary policy. An equally important explanation is that real interest rate levels around the world have trended down for several decades, largely independent of the financial crisis. Real interest rates are currently at record low levels (see Figure 1).

The downturn in the real interest rate is a sign of the global, so-called “neutral”, rate of interest having fallen. The neutral interest rate normally refers to the real rate of interest that has neither an expansionary nor a contractionary effect on the economy.¹ Central banks cannot influence the neutral interest rate but they must consider it when they adjust their policy rates. It is the relationship to the neutral interest rate that determines how expansionary or contractionary a particular monetary policy is. By causing the short-term real interest rate to temporarily deviate from the neutral interest rate, the central bank can affect resource utilisation and inflation via different channels.

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¹ For a more detailed description, see for instance Kaplan (2018).

One important problem with the neutral interest rate currently being so low is that monetary policy has less scope to stimulate the economy when necessary, as it is difficult to cut the policy rate as much as would be required. Moreover, estimates of the neutral interest rate and its driving forces usually indicate that it will remain low for a fairly long time to come.² This raises difficult questions both in the shorter and slightly longer perspective.

In the slightly longer perspective, the question has arisen internationally, mainly in research circles but also to some extent among central banks, whether the current inflation-targeting policy could be reformed or replaced with another monetary policy framework that makes it easier to counteract economic downturns and recessions in the future.³ The aim is to find a framework that reduces the risk of not being able to make monetary policy as expansionary as may sometimes be necessary.

But reforming the monetary policy framework is not something that can or should be done hastily. The experiences of inflation targeting in recent decades are very favourable and it is never a good idea to “throw the baby out with the bath-water”. There is therefore reason to also consider a shorter perspective, where one assumes that the monetary policy framework will not change for some time yet. Within the scope of the current framework, and given the monetary policy situation that arose after the crisis, there is every reason to begin examining what opportunities exist to deal with the next economic downturn – whenever this may occur.

So I intend to talk about these two subjects today – the conditions for dealing with the next economic downturn if we do not reform the monetary policy framework and the possible changes to the framework being discussed internationally and how promising I assess these to be. Let me begin with the first subject.

The conditions for dealing with the next economic downturn

The picture painted by Swedish analysts at present is that a regular economic downturn is not imminent (see Figure 2). But there is nevertheless much that suggest that it is wise to prepare for less favourable times arriving sooner than we expect; the recent somewhat shaky signals regarding economic activity in Europe, the uncertainty regarding the effects of trade conflicts and Brexit, tension in the euro area and the large indebtedness and other imbalances in emerging market economies. But despite these words of warning, the most reasonable starting point is of course that developments in the coming years will be largely as the leading forecasters believe.

² See, for instance, Rachel and Smith (2017).

³ One example from the central bank world is that Wilkins (2018) indicates that this will be an issue the next time the Bank of Canada’s monetary policy framework is evaluated, in 2021.

The repo rate will be somewhat higher

Given this, we can expect the repo rate to have been raised at least somewhat before the less favourable times arrive. Most Swedish forecasters, including the Riksbank, are expecting the repo rate to be 0.5–0.75 per cent at the end of 2020. Until then, almost all analysts believe that growth will slow down, but not to the extent that the Swedish economy will enter a regular economic downturn before 2021. There are of course no guarantees, but this is how things look at the moment. Neither is it possible for anyone to say how soon after 2021 a downturn may occur. It could come soon after, or some years later.⁴

Now 0.5–0.75 per cent is not a particularly high level for the repo rate, if one looks at it from an historical point of view. But on the other hand, history may not be as informative in this case as there has been a downward trend in global real interest rates in recent decades, as I just pointed out. It is therefore difficult to know what is currently a neutral, “normal” level for the repo rate. What one can say with some certainty is that it is much lower than it was 10–15 years ago. But even taking this into account, a repo rate of 0.5–0.75 per cent does not appear particularly high if an economic downturn were to occur in early 2021.

How much is the interest rate usually cut in economic downturns? In Sweden, it is not so easy to have a clear idea of this as we have had a floating exchange rate and an inflation target for just over 25 years, and that is not long enough to have experienced so many economic cycles. It is only when the exchange rate floats that one can use the policy rate to counteract economic downturns – when the exchange rate is fixed the policy rate is in principle locked on defending the chosen exchange rate. A couple of the rate-cutting phases we have had during this period have also been a little unusual. What happened in 1996 in particular, when the repo rate was cut from almost 9 to just over 4 per cent, was largely a question of confidence in the inflation target become established and enabling a substantial cut in the policy rate. The substantial rate cut in connection with the global financial crisis, from 4.75 to 0.25 per cent within the course of a year, was also special, as crises of this kind are fortunately rare (see Figure 3).

In the United States, which has a longer history of a floating exchange rate, it is usually estimated that the policy rate is cut by around 5 percentage points in economic downturns.⁵ It is reasonable to assume that in Sweden, which is a small open economy, a larger share of the adjustment in an economic downturn will come through the exchange rate than is the case in the United States. Let us say, without claiming any scientific exactness, that it would be desirable to cut the repo rate by 2.5–3 percentage points in a normal economic downturn. If the downturn were to occur at the beginning of 2021 and the policy rate were cut

⁴ Rudebusch (2016) shows that the probability of an economic upturn being broken does not now increase in proportion to the time it has lasted. However, this was the case with the economic upturns prior to the Second World War.

⁵ See, for example, Summers (2018).

from 0.75 to –0.5 per cent, the cut would be 1.25 percentage points, that is much less than the estimated 2.5–3 percentage points.⁶

Raising the repo rate to have ammunition ready?

Here I should like to briefly touch on a particular question before I go on. If one is concerned that the repo rate will not be sufficiently high when the next economic downturn comes, can one not just raise it to a suitable level now, as a preventive measure – so that there is ammunition available when needed? This is an argument sometimes put forward in the general debate. But unfortunately there are a number of problems with this argument.

Firstly, the economy will of course be affected by interest rate increases. Growth would slow down and inflation would fall. If one raises the rate quickly and substantially, one might even *cause* the economic downturn one was ultimately aiming to prevent. But even if this was not the case then, secondly, a very probable scenario would be that inflation nevertheless fell substantially, perhaps down to 1 per cent or lower, that is, to the level it was at some years ago. This could in turn mean that the credibility of the inflation target was questioned once again and economic agents would begin to expect that inflation on average would be 1 per cent rather than 2 per cent. The effect would then be in practice the same as if the target had been lowered to 1 per cent. With a lower expected rate of inflation the nominal interest rates in the economy, including the repo rate, will on average be lower. This means that in future economic downturns the distance between the repo rate and the lower bound may be smaller than before.

If the repo rate hits its lower bound earlier, and remains there for longer periods, it will be a less effective tool in counteracting economic downturns. It will be even more difficult than it is now to bring down the real interest rate as low as one might need. The essence of this is that “preventive” increases in the repo rate would ultimately not result in *more* ammunition, but *less*. It is therefore important that increases in the repo rate are not made in such a way that inflation will be tangibly lower and confidence in the inflation target is put at risk.

Cut the repo rate further?

Another possible means of counteracting an economic slowdown is to cut the interest rate more than to the –0.5 per cent level which has so far been the lowest point. It may be possible to go even lower – for instance, the policy rate in Switzerland is at –0.75 per cent. But personally I think the possibilities here are fairly limited.

It may not be so much a question of purely economic aspects, but rather what is feasible according to social conventions and possible to create understanding for. During the period we have had a negative repo rate, individuals have not faced negative interest rates and thus not needed to pay for having money in the bank.

⁶ I assume here that –0.5 per cent, that is, the lowest level to which the Riksbank has ever cut the repo rate, is a lower bound for how much the rate can be cut. This assumption can of course be discussed, and I shall return to this shortly.

But if the repo rate becomes sufficiently negative, this may happen. On a theoretical level, one can argue that the policy would then be more powerful and have a greater effect on the economy – that the so-called monetary policy transmission mechanism would function better. But this also risks leading to various types of problem. As I see it, the biggest problem is not the economic arguments usually raised, such as the general public wanting to empty their bank accounts and hold cash instead. Holding savings in cash is, when it comes down to it, troublesome and costly and given that most people in Sweden are getting used to living without cash it would not be a natural thing to do. The threshold would probably be relatively high here.

The main problem, as I see it, is another one. A couple of years ago I held a speech in which I explained why it is not necessarily more unnatural to have a negative nominal interest rate than a negative real interest rate, that is, the interest rate discounting inflation.⁷ Unlike a negative nominal interest rate, a negative real interest rate has arisen every now and then. The reason why one might think there is not such a big difference is that it is usually our purchasing power that concerns us. If one lends money, one will be able to consume less than before, both in the case of a negative real interest rate and a negative nominal interest rate. In the case of a negative real interest rate, this is because inflation is higher than the interest one receives, and one is therefore unable to buy as much for the sum of money one receives from the borrower. When the nominal interest rate is negative, one can say that the negative return is written into the contract from the start. But seen in terms of purchasing power, a negative nominal interest rate is not very different from a negative real interest rate.

Since I held that speech we have had a negative repo rate for a further two years. My experience is that communication about the negative interest rate has not become easier, which I thought would be the case. Although a negative nominal interest rate is not more unnatural in economic terms than a negative real interest rate, it is evident that the former, unlike the latter, is perceived as going against social and economic conventions. I therefore strongly suspect that it would be difficult to foster understanding for a policy that means that individuals have to “pay to save”. This is perhaps a limitation that one must simply accept. Ultimately, the legitimacy of, and confidence in, an independent institution like the Riksbank is based on the general public understanding the policy conducted, or at least not considering it to be illogical and unjust.

This does not mean that I am saying we should refrain from using the scope that there seems to be for holding the repo rate at a negative level in situations where this is necessary to avoid major costs for the economy. But there are limits as to how far the rate can be cut. And, as I said, my view is that it would be difficult to cut the rate so low that people were forced to pay to have money in the bank.

Do expectations affect the future repo rate?

If one has cut the repo rate as far as one considers possible, one can also try to affect expectations of the *future* repo rate among economic agents in a way that

⁷ Jansson (2016).

stimulates demand. What I have in mind here is a strategy that is usually termed “lower-for-longer” or “makeup strategy” and which has been advocated by the previous chairman of the Federal Reserve (the US central bank) Janet Yellen.⁸

The idea is pretty straightforward. Let us assume that the central bank in a recession has cut its policy rate as far as it considers to be possible. Exactly how low the interest rate can be set is not obvious and the assessments vary from country to country. The Federal Reserve usually regards zero as the lower bound and talks about the “zero lower bound”, while in Sweden and other countries, which have cut their policy rates below zero, we talk about the “effective lower bound”. For the sake of simplicity I will from now on refer to this simply as the “lower bound” for the policy rate.

Let us now assume that the central bank would *actually* have needed to cut the policy rate lower than the lower bound for monetary policy to become sufficiently expansionary. To compensate for not being able to do this, the central bank can instead hold the policy rate at the lower bound for a longer period of time (see Figure 4).⁹ Seen in a slightly longer perspective, for instance a ten-year period, this should give roughly the same average policy rate as if one *had* been able to cut the rate below the lower bound.

If the economic agents are aware that the central bank applies this strategy when the interest rate is at its lower bound, and they regard it as credible, then long interest rates should adapt in roughly the same way as if the lower bound did not comprise any limit.¹⁰ If one uses the reasonable assumption that demand in the economy is not solely dependent on the current level of the policy rate but also depends on interest rates with longer maturities, this should give the central bank the possibility to stimulate the economy even in times when the policy rate is at the lower bound.

One advantage of the makeup strategy is that it can be applied within the framework of the current inflation-targeting policy. However, a condition for it to work is that it is a predictable element of the central bank’s policy. If one wishes to apply such a strategy, it would therefore be a good idea to formalise it in advance by means of a strategy document describing how the central bank will act in a situation where the interest rate is at its lower bound.¹¹ In a moment I will discuss a specific application of the makeup strategy.

Moderately strict Odyssean forward guidance?

When the central bank tries to give economic agents an idea of how the policy rate will develop, this is known as “forward guidance”. In Sweden the Riksbank publishes quantitative forecasts for the repo rate. This is called in academic literature Delphic forward guidance, with reference to the Oracle of Delphi, who was

⁸ Yellen (2018). The expression “lower-for-longer” is usually ascribed to Reifschneider and Williams (2000).

⁹ For more detailed reasoning, see for instance Söderström and Westermarck (2009).

¹⁰ This follows on from the so-called expectations hypothesis, which briefly says that longer interest rates are determined by expectations of the future policy rate.

¹¹ Yellen (2018) has proposed, for instance, that this could be done in the United States by means of a revision to the Federal Open Market Committee’s “Statement on Longer Run Goals and Monetary Policy Strategy” or by publishing a separate supplement, “Committee Guidelines for Implementing Policy at the Zero Lower Bound”.

thought to be able to see into the future. How well this strategy will function depends on how successful the central bank is at predicting its future interest-rate policy. If the forecasts for the policy rate are often correct, then it will be common for economic agents to believe in the central bank's forward guidance. But if the forecasts for the policy rate are not so accurate, then the forward guidance will be taken less seriously. And unfortunately it seems to be quite difficult to forecast policy rates. If the economy is hit by shocks, which is often the case, then the forecasts will not be very accurate.

Our experiences in Sweden illustrate this problem clearly. Both the Riksbank and the market have often made substantial overestimates of the repo rate in their forecasts (see Figure 5).¹² Although the market's forecasts were better than the Riksbank's during the period 2011–2013, the pattern is essentially the same – substantial overestimates and inaccurate forecasts.

A brief remark is in order here. Sometimes one gets the impression from the debate that it is only the Riksbank that has produced inaccurate repo rate forecasts, while most analysts, including the market, have been quite successful. Apparently, this is not the case. One may perhaps object that the market may not produce forecasts of its own, but merely assumes that the Riksbank will follow its repo-rate path. But the experiences of the period 2011–2013 indicate that this is not really the case. I think this is a useful picture to bear in mind.

If one wants to implement a makeup strategy in a situation where the repo rate is at the lower bound, it is probably necessary to use a more convincing approach than Delphic forward guidance. The alternative to Delphic forward guidance is called Odyssean forward guidance. This name is also taken from Greek mythology and refers to Odysseus, who had his men tie him to the mast so he would not be tempted by the song of the Sirens and steer his ship towards the cliffs. In terms of monetary policy, this strategy is less dependent on the accuracy of the forecasts; instead it is a case of committing oneself to not deviating from the interest-rate development one has indicated.

But Odyssean forward guidance also has its problems. Binding oneself to a particular monetary policy *no matter what* may on the one hand indicate strong determination and thereby have an effect on expectations. But on the other hand, such a policy may appear obstinate and unrealistic. If events occur that cause the policy to appear as inappropriate or directly harmful, it will be difficult to implement it.¹³ And once one has deviated from a strategy which one has firmly undertaken to follow, one will hardly appear credible when trying to apply it the next time.

When applying a makeup strategy, a less strict Odyssean forward guidance might mean that the central bank – in accordance with predetermined and clarified principles – makes it clear that it will hold the policy rate at the lower bound until inflation, or perhaps some measure of the development of the real economy, has

¹² For more detailed analyses of the Riksbank's experiences of publishing repo-rate forecasts, see Sveriges Riksbank (2017a).

¹³ See, for instance, Bernanke (2003).

attained a particular level. In this case, one does not make an unconditional commitment but makes one's behaviour depend on certain developments.¹⁴

Purchases of financial assets?

One possibility the Riksbank and other central banks have made use of to make their monetary policy more expansionary when the policy rate is at or close to the lower bound is to buy government bonds on the secondary market. This affects market rates and other financial prices through various channels.¹⁵ What one normally talks about are *the signalling channel* – which works through the purchases signalling that monetary policy will be expansionary and the repo rate will remain at the lower bound a long time, *the portfolio balance channel* – which means that the purchases will have contagion effects on prices of other assets and the *premium channel* – that works through purchases reducing the supply of bonds, which pushes up bond prices so that interest rates fall.

As this is a new monetary policy tool, it has given rise to extensive academic research that attempts to estimate its effects. The most common conclusion is that the policy has functioned more or less as expected and complemented the policy rate cuts in a useful way.¹⁶

One problem for Sweden is that it will become more difficult to use government bond purchases as a tool in the next economic downturn as the Riksbank already owns a large share of the outstanding stock of government bonds, just over 40 per cent. These are not then available for trading on the market, which contributes to making the market less liquid and means it takes longer to make transactions. The problems have been manageable so far, but the larger share the Riksbank owns, the greater the problems are likely to be. It may also be the case that the expansionary effect of each further purchase gradually declines.

Of course, the Riksbank will eventually taper its holdings, but probably at a slow pace.¹⁷ The Riksbank will therefore most probably have a substantial holding of government bonds for a long time to come. All in all, this means that there are limits with regard to the opportunities to use purchases of government bonds as a monetary policy tool going forward. My assessment is that it will probably be possible to increase the purchases a little further but, as I said, there is a limit.

Buying government securities is not a completely unnatural step for a central bank that normally tries to affect the economy by adjusting a short-term risk-free interest rate, the monetary policy rate. Buying government bonds means that one

¹⁴ The Federal Reserve and the Bank of England have on different occasions used conditional forward guidance. I myself applied this strategy a few years ago when I emphasised in the monetary policy discussion that I did not intend to vote in favour of raising the repo rate as long as CPIF inflation did not accelerate and exceed 1.5 per cent (see, for instance, Sveriges Riksbank, 2014). As is well known, this did not happen for some time. The fact that monetary policy decisions are often taken by a committee is a complicating circumstance in this context.

¹⁵ See for instance Alsterlind et al. (2015) for a more detailed description.

¹⁶ See, for instance, Weale and Wiedalek (2016) and De Rezende (2017).

¹⁷ See the article "The Riksbank's strategy for a gradual normalisation of monetary policy" in Sveriges Riksbank (2017b).

also tries to affect credit risk-free interest rates, via the premium channel, although these are interest rates with both short and long maturities.¹⁸ Despite the measure being termed “unconventional”, one can say that this type of monetary policy intervention followed a standard way of thinking in that one limits oneself to trying to have an effect on risk-free interest rates, the “ground plate” for interest rate setting in the economy. The idea is, as when adjusting the repo rate, that the effects will spread to other, higher risk interest rates.

However, it is of course also possible, although the Riksbank has not yet done so, to buy other financial assets than government bonds. The Federal Reserve, the European Central Bank, the Bank of England and the Bank of Japan, for instance, have also purchased different types of commercial securities, including mortgage bonds and corporate bonds. Unlike purchases of government securities, this often entails a direct intervention in higher-risk assets. The market where the intervention takes place will then experience a “positive funding effect”, both because the interest rates on the market concerned become lower in relation to other commercial markets and because the issuers on the market in question have found a “safe” lender. This type of measure therefore requires a more detailed consideration and moreover knowledge of how different commercial markets function and are interlinked with other parts of the economy.

Therefore, it is not so surprising that purchases of commercial securities have often been used just when there are serious problems on a particular market and when there is a risk that these problems will have negative effects on the economy as a whole. For example, the Federal Reserve purchased large amounts of mortgage bonds when this market threatened to cease functioning, which could have had serious consequences for credit supply to the household sector.

Purchases of commercial paper are thus in principle a different type of measure than purchases of government paper. But they definitely comprise a possible tool to be used if the need arises, even for the Riksbank.

Natural for fiscal policy to play a larger role

All in all, the Riksbank will thus not be without means to counteract the next economic downturn. But it is hardly possible to claim that the opportunities are as good as they were, say, 15-20 years ago, when the neutral interest rate was still relatively high and there was plenty of scope to cut the repo rate. Depending on when the next downturn occurs and how deep it is, there is thus a risk that monetary policy will not suffice when it comes to counteracting it.

As I see it, this has implications for how to look upon the division of roles in stabilisation policy. There has long been a tendency, both in Sweden and abroad, to claim almost by default, that when you have a floating exchange rate it is the job of monetary policy and not fiscal policy to stabilise economic activity. Perhaps it is

¹⁸ For economies with sustainable public finances, government bonds are credit-risk free. The interest rate on long maturity government bonds reflects the path of expected short-rates and compensation for other risks related to the horizon of the investment and the liquidity of the bond market.

time, in the light of our experiences following the crisis, to qualify this picture somewhat.

In a way, of course, fiscal policy always contributes to stabilising economic activity. For instance, systems for taxes and expenditure are often designed so that they automatically adapt to economic developments. Examples are progressive income taxes and unemployment benefits.

On the other hand, there has long been scepticism against using so-called discretionary fiscal policy – direct decisions on adjusting taxes and public expenditure – with the aim of stabilising economic activity. One problem is that discretionary fiscal policy measures are often implemented or have an effect too late because of various delays, and they therefore aggravate economic fluctuations rather than stabilise them. Another and perhaps even greater problem is that this type of fiscal policy has historically tended to be used too generously and has therefore caused problems with the sustainability of public finances.¹⁹

But there may be reasons to consider that the conditions today are somewhat different than they were a couple of decades ago. As I pointed out, one new circumstance is that central banks now have greater difficulty counteracting economic downturns by cutting the policy rate, because of the lower bound. Another change, especially in Sweden, is that public finances are now in much better condition than they were before. The fiscal policy regulations introduced after the crisis at the beginning of the 1990s have contributed, together with good growth, to the Swedish gross public debt declining from between 70 and 80 per cent of GDP in the mid-1990s to around 40 per cent today. Thus, the prospects for using fiscal policy to counteract an economic downturn are much better nowadays.

However, it is not obvious what forms this would take. In the United Kingdom, it has been proposed that the Bank of England's monetary policy committee should indicate when it is prevented by the lower bound from stimulating the economy as much as it considers appropriate.²⁰ It is proposed that in these situations the committee should state how much it would have wanted to cut the policy rate. The United Kingdom's Treasury are then invited to implement a fiscal policy measure of its choice as a replacement for the rate cut. The Treasury can take note of this proposal, but can also ignore it, publishing a response. If the Treasury takes the advice, then the Office for Budget Responsibility (equivalent to the Swedish Fiscal Policy Council) will assess whether the measure is compatible with a sustainable fiscal policy.

The idea is thus that discretionary fiscal policy measures shall replace the monetary policy stimulation that is not brought about because of the lower bound. Some argue that this would be a more effective and economically more reliable

¹⁹ Soon after the turn of the millennium, a committee investigated how stabilisation policy should be conducted in the event of Sweden introducing the euro (Swedish Government Official Reports, 2002). The committee considered that under normal economic fluctuations it would be enough to allow the automatic stabilisers to work and that discretionary fiscal policy would only be used in the case of unusually large disruptions. The reason the committee reached this conclusion was because of this type of problem.

²⁰ See Yates (2017).

mechanism than trying to achieve the same effect through, for instance, the purchase of financial assets.²¹

It is an open question whether a similar solution might function in Sweden. One condition that one should bear in mind, as the British proposal emphasises, is that the use of discretionary fiscal policy always entails a balancing act. Sweden's currently strong public finances provide protection against shocks. For some time now we are no longer affected by financial premiums that resulted from credibility problems in economic policy. This can be seen, for instance, in the fact that the difference in ten-year government bond yields between Sweden and Germany is much less than before (see Figure 6).

The fact that interest rates and exchange rates vary relatively little despite the difficulties in forming a new government can also be regarded as an indication that the Swedish economy enjoys a high level of confidence. The fiscal policy framework introduced after the crisis in the 1990s is central to this stability and it is important to safeguard it. Creating confidence takes a long time, but it can be lost very quickly. Having said this, it does of course feel reassuring to have fiscal policy room for manoeuvre, even if one would prefer not to use it.

The role that fiscal policy should play is therefore not an uncomplicated question. But I think that it is nevertheless important that the question of how to stabilise economic activity when the Riksbank's possibilities are not unlimited is brought up on the economic policy agenda.²²

Before I go on, it may be worth emphasising that yet another alternative for stimulating the economy that is sometimes mentioned – what is known as “helicopter money” – also requires interaction by monetary policy and financial stability. In brief, helicopter money involves the government increasing public expenditure or cutting taxes and this being funded by a permanent increase in the money stock.²³ However, I have chosen to ignore this alternative as it involves considerable legal complications.

International debate on changes to the monetary policy framework

As I mentioned at the start, there are discussions in research circles and among central banks about whether the current inflation-targeting policy should be reformed, or replaced with some other monetary policy framework, so that the conditions for counteracting economic downturns and recessions will be better in the future.

This is a rather interesting discussion, not least because people who are prominent in the ideological debate on monetary policy or have been influential policy-makers have somewhat varying views on which solution is most appropriate. I

²¹ See, for instance, Stirling (2018). As an aside here, it is worth mentioning that there are also some macroprudential policy tools that could in principle be used for stabilisation purposed. However, this is not the main task of macroprudential policy and the significance of such measures should not be exaggerated.

²² See also the Fiscal Policy Council (2018).

²³ See, for instance, Bernanke (2016).

have already mentioned that Janet Yellen argues that one might perhaps not need to make that many changes to the current framework and that it might suffice with a makeup strategy, where the central bank follows a formalised plan that means that the interest rate is held at the lower bound for a long time.

Temporary price level target

Yellen's predecessor as chairman of the Federal Reserve, Ben Bernanke, has proposed a solution that can be regarded as a special application of a makeup strategy.²⁴ This is based on the central bank under certain circumstances not having a target for inflation, but instead for the *development of the price level*. The difference may appear subtle, as inflation is the change in the price level, but it is potentially quite important.

Let us assume that both the inflation target and the target increase for the price level is 2 per cent. If, in an inflation-targeting regime, one has an inflation rate that undershoots the 2 per cent target for a period of time, it is the central bank's task to bring it back on target. The fact that inflation has deviated from the target before is not important – “bygones are bygones”. But if it is instead the development of the price level that is the target and inflation deviates from 2 per cent, then this must be “made up for”. The principle is thus the same as Yellen's makeup strategy, but here one has clarified in advance that the target refers to the price level rather than inflation.

The differences between a price level target and an inflation target is illustrated in Figure 7.²⁵ If something unexpected occurs in an inflation-targeting regime that causes inflation to be lower than the target, it is enough to bring inflation back to 2 per cent again (the bottom right figure). Expressed in terms of a path for the price level, it is thus sufficient if it has the same slope as before (upper right figure). It does not matter that the new path is below the original one. But if one instead has a price level target, one must return to the earlier path (upper left figure). This means that inflation must be above 2 per cent for a period of time to compensate for the earlier period when it was below that (lower left figure).

One advantage with a price level target may thus be that economic agents will adjust their expectations in such a way that they anticipate that a low inflation rate today will be compensated by more expansionary policy, faster growth and higher inflation in the future. The downward pressure on real interest rates caused by this alleviates the original downturn in production and inflation and speeds up the future recovery. This may of course be particularly beneficial during the periods when the lower bound sets a restraint.

One disadvantage of a price level target is that the central bank cannot disregard, or “see through”, supply shocks that temporarily push up inflation. As one needs to return to the same path for the price level, a period of unusually high inflation – regardless of the cause – must be followed by a contractionary policy that holds back price developments and contributes a period of unusually low inflation. The

²⁴ See Bernanke (2017a).

²⁵ The figure is taken from Andersson and Claussen (2017), who review different alternatives to inflation targeting.

negative supply shock may already have affected production and employment negatively and as monetary policy must also be tightened, the effect can be noticeable. This can make it difficult for the central bank to credibly commit itself to such a strategy.

However, in the variation proposed by Bernanke, the central bank would not *always* have a price level target, but only when the interest rate has been cut so low that the lower bound is binding – it will thus be a temporary price level target.²⁶ In normal cases the central bank will have an ordinary inflation target of 2 per cent, just like today. The central bank's communication can in this way continue to focus on the inflation target. At the lower bound the temporary transition to a price level target can be explained and communicated in terms of keeping the policy rate at the lower bound until the *average* inflation since the date at which the policy rate first hit zero be at least 2 percent.²⁷ One advantage with a price level target that is only applied at the lower bound is that one avoids the problem of needing to compensate for supply shocks that temporarily push up inflation, which one would need to do if the price level target always applied.

Bernanke's proposal of a temporary price level target can therefore be regarded as a special application of Yellen's "makeup strategy", where one aims to make the "makeup" mechanism specific and potentially more credible by formalising it in terms of a temporary new target definition for the central bank.

Higher inflation target

A proposal for which Olivier Blanchard, former chief economist at the International Monetary Fund (IMF), is one of the strongest advocates is to raise the central banks' inflation targets.²⁸

The idea is straightforward. With a higher inflation target, say 3 per cent, the nominal policy rate would be on average 1 percentage point higher compared to when the inflation target is 2 per cent, assuming that the new target is credible. There would therefore be a further 1 percentage point to reduce the rate before it reaches its lower bound. An increase in the inflation target to 4 per cent would increase the scope for reducing the policy rate by another percentage point, and so on.

However, some argue that raising the target is not a good idea. One fear is that higher inflation would mean that inflation would also vary more, which indeed ap-

²⁶ See also, for instance, Evans (2012).

²⁷ One might also therefore call this approach a temporary target for average inflation. A target for average inflation is a strategy reminiscent of a price level target, but nevertheless different in certain aspects, see Nessén and Vestin (2005) or Andersson and Claussen (2017).

²⁸ See, for instance, Blanchard, Dell'Ariccia, and Mauro (2013). Examples of others who have advocated this are Ball (2014), Krugman (2014) and Rosengren (2015). Even Janet Yellen said during her time as chairman of the Federal Reserve that the question of whether the inflation target should be raised was "one of the most important questions facing monetary policy around the world in the future" (Federal Open Market Committee, 2017, p. 14).

pears to be the case when looking at historical data. This could lead to greater uncertainty, which makes it more difficult for households and companies to make economic decisions.²⁹

Surely, at a sufficiently high level of inflation it will be difficult to claim that inflation is still low and stable. But if there is confidence in a target of 3 or 4 per cent in the same way as for a target of 2 per cent, there is no obvious reason why inflation should vary more. The historically negative covariation between the level and stability of inflation most likely reflects the fact that periods of high inflation have also been periods in which there has been no clear anchor for inflation in the form of an inflation target.

Whether an inflation rate of 3 or 4 per cent can still be regarded as low is a question of judgement. Personally, I think one can say it is. I will return to the proposal to raise the inflation target shortly.

Target for nominal GDP growth

A further proposal is that the central bank should have a target for growth in nominal GDP. Larry Summers, former United States Secretary of the Treasury and an active debater on many economic policy issues, is one of those who have advocated this.³⁰

Nominal GDP is a measure that reflects both price and volume. Growth in nominal GDP is in principle the same as the sum of the change in prices, in other words inflation, and the growth in output volume, that is, real GDP growth.³¹

One advantage sometimes highlighted is that a nominal growth target “automatically” takes into account the real economy as monetary policy in this case puts as much emphasis on growth in the real economy as on inflation. When real GDP growth is low, the central bank conducts an expansionary policy to maintain the nominal growth target – and vice versa when growth is high. As I see it, however, this is not a decisive difference in relation to flexible inflation targeting, which normally takes into account the real economy in a way that stabilises economic activity.

In a more long-term perspective, one can view a nominal growth target as meaning that the central bank has an implicit target for inflation, given the growth potential of the economy. For instance, a target for nominal GDP growth of 5 per cent and a growth potential of 3 per cent will implicitly entail an inflation target of 2 per cent. One advantage put forward on the basis of this is that a nominal growth target can provide a desirable adjustment even to more long-term

²⁹ See Cecchetti and Schoenholtz (2017). For a more detailed review of different types of criticism, see Yellen (2015) (footnote 14) and Bernanke (2017b).

³⁰ Summers (2018). However, it is interesting to note that one of Summers’ arguments in favour of a target for nominal GDP growth (of 5–6 per cent) is that it: “would attenuate the issues around explicitly announcing a higher inflation target, which I think are a little problematic on political economy grounds”. Examples of other advocates are Scott Sumner and Jeffrey Frankel (see, for instance, Sumner, 2011 and Frankel, 2012). Another variation on this is that the target should instead concern the *level* of nominal GDP. For a discussion of this and other target definitions that I do not take up here, see Andersson and Claussen (2017).

³¹ Inflation is in this case measured according to the so-called GDP deflator.

changes in the economy. If, for example, the growth potential declines, it is probable that the neutral real interest rate will fall. But the lower growth potential means that with a nominal growth target one also has a higher implicit inflation target, which in turn should make it easier to attain a negative real interest rate and an expansionary monetary policy in situations when this is needed. The effect would thus be similar to the increase in the inflation target I talked about earlier.³²

A number of disadvantages of having a nominal growth target have also been put forward. One fairly major problem is that nominal GDP is published with a long time lag and revised substantially and often. The fact that the data revisions are substantial is illustrated in Figure 2, where you can see that outcome adjustments on a quarterly basis can often be around 1 percentage point and in some cases a lot more than this. In the US data the revisions appear to be somewhat smaller, but even here it is a question of substantial differences between preliminary and adjusted figures. This naturally creates major difficulties for a monetary policy that has a target expressed in this way.

Another problem is that inflation expectations risk being poorly anchored with a nominal growth target. Inflation will probably vary quite substantially and there is no explicit quantified level of inflation that helps to anchor expectations. There is ultimately a risk that this will prompt a deterioration in the conditions for price-setting and wage formation. This is an important argument, especially in a country like Sweden, where instability in wage formation was previously a major problem.

Finally, some argue that it would be much more difficult to communicate what a target for nominal GDP growth actually entails than it is to communicate a target for inflation.

My reflections on amendments to the framework

The fact that the different proposals for amendments in the monetary policy framework all have their advocates among well-reputed economists shows that there are advantages and disadvantages with all of them and that none is clearly better than the others.

Personally, I believe, as I said at the beginning, that one needs to think very carefully before changing the current framework at all. One must be very certain that one has come to the end of the road, and we probably aren't there yet, as I see it. For instance, many of the problems I have taken up will be resolved, or at least alleviated, if the global neutral interest rate rises. Although most people believe that it will be low for a long time to come, there are also those who believe an upturn is not that far away.³³

³² Disregarding this long-term argument it is not obvious how a target for nominal GDP growth will contribute to resolving, or even alleviating, the problem of the interest rate's lower bound.

³³ For example, Goodhart and Pradhan (2017) say that global demographic trends in the coming decade will turn around the downward trend in the global neutral interest rate.

Higher inflation target a natural further development

But if I were nevertheless forced to take a stand, I would say that I lean towards raising the inflation target as the most natural means of further developing the monetary policy framework. When it comes down to it, the inflation-targeting policy has functioned well for a long time, and problems only arose when there was difficulty making policy sufficiently expansionary, as a result of the lower bound, after the financial crisis. Raising the target would solve, or at least reduce, this problem. It would also only affect one parameter of the framework and would not entail any extensive revision of it. This means it would not be necessary to try to convince and explain the merits of a new system and deal with potential adjustment costs and teething problems. It is not always an advantage to hold on to as much of an old system as possible, but in this case I think it would be a good idea.

Would the economic agents accept an inflation rate of 3-4 per cent? I think they would, especially as it would entail less of a negative interest rate in the future – something we now know from experience is perceived as unnatural and problematic in several ways. It could also reasonably mean that it would be less probable that one needs to employ purchases of various financial assets as a complement to policy rate cuts. Although the criticism of this part of the policy may not have been as sharp as the criticism of the negative interest rate, it has still arisen. As I said before, it has been claimed that the Riksbank is creating liquidity problems for participants in the government securities market, and also that we are overstepping the mark and beginning to conduct fiscal policy. If new asset purchases were to concern assets other than government bonds, which is a possibility as the Riksbank's holdings of government bonds will be substantial for a foreseeable future, the criticism would probably intensify. Making monetary policy interventions aimed at various risky market rates is as I said a completely different matter than limiting oneself to interventions in government bond yields, which like normal repo-rate policy concern risk-free interest.

But is it realistic to assume that an inflation target of 3-4 per cent is at all possible? When it comes down to it, central banks have had difficulty in attaining their current targets of around 2 per cent. My view here is that there are no obvious limits when it comes to the choice of level of the inflation target, in any case not regarding the percentages we are talking about. Inflation is determined in the long run by the monetary policy that is conducted on average and the effects of this policy on inflation expectations. Established “truths” of this kind are certainly reconsidered and revised now and then, but only after being refuted by extensive and comprehensive theoretical and empirical evidence. There is no such evidence available at present. In addition, inflationary pressures have recently begun to rise at last in several countries and we now appear to be entering a situation similar to what was normal prior to the financial crisis.³⁴

³⁴ Jansson (2017) contains a more detailed discussion of the possibilities for monetary policy to continue attaining the inflation target.

Temporary price level target – tempting but probably too complex

One practical complication with raising the inflation target is that it would be difficult for an individual country to move on its own away *from* the prevailing norm of 2 per cent.³⁵ One problem, not least from the point of view of communication, is if other countries did not follow our example we would have a higher target than the world around us and this would mean, all else being equal, that the exchange rate constantly weakened.

From this perspective, it would perhaps be easier for an individual country to begin to apply the temporary price level target that Bernanke advocated. This means that inflation targeting is conducted as usual in normal times and the target definition is modified only when the lower bound is reached.

For economists, the proposal of a temporary price level target is probably tempting in many ways, but the question is whether it would function in practice. I am rather doubtful. The purpose of the proposal is to get inflation expectations to rise “automatically” when the policy rate reaches the lower bound. This would push down real interest rates and thereby increase the probability of the lower bound not creating too many problems. But for this to work requires a lot from the communication of the central bank as well as from economic agents’ ability to take in and comprehend the temporary change in the formulation of the target. Such a change could even be counterproductive in that it would become more difficult rather than easier to understand what monetary policy involves.

Raising the inflation target would of course also entail problems. However, my assessment is that it is easier to affect inflation expectations by stating a clear figure to aim at. There are a number of earlier examples that this has been possible in practice. Admittedly, this has usually concerned bringing down inflation expectations, but that is no simple task either. Not least in the case of Sweden, there were strong headwinds and considerable doubts that we would succeed.

My most important message

Let me conclude by briefly summarising my most important messages. In the short term, within the current framework, the Riksbank has a number of tools to counteract the next economic downturn. But the low neutral interest rate, combined with need to conduct a very expansionary policy in recent years, may create certain problems, depending on how soon the downturn comes and how deep it is. In a situation where the Riksbank's monetary policy scope is not unlimited, it is important that the question of how an economic downturn shall be counteracted is on the economic policy agenda. There are currently large reserves in fiscal policy, but using them is not unproblematic.

If low real interest rates persist, it may in the longer run become necessary to modify the monetary policy framework with the 2 per cent inflation target that

³⁵ It is fairly common, especially among emerging market economies, to lower the inflation target as confidence in the inflation-targeting regime increases. However, there are few examples of countries that have *raised* their inflation target (see, for instance, Apel, Armelius and Claussen, 2017).

most central banks currently apply. Of the various proposals circulating in international debate, I am currently leaning towards a raised inflation target being the best option. At the same time as this would alleviate the problem that the repo rate cannot always be cut as much as needed, it is also relatively undramatic and straightforward. But this does not mean that it is something I feel we should do soon. A fairly major problem is that it is difficult to make this kind of change independently of other countries. But it is always good to be well-prepared in advance and it is therefore worth starting to think about possible modifications already today.

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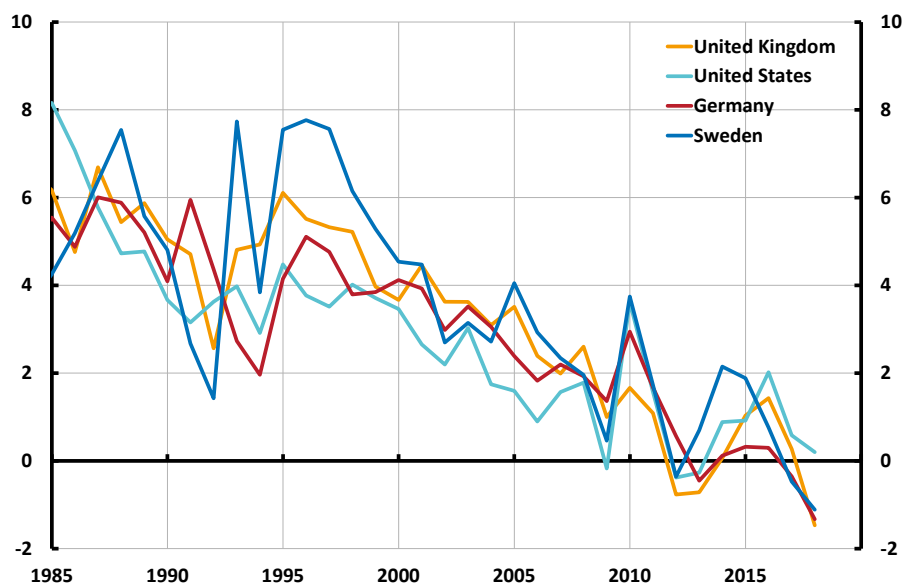
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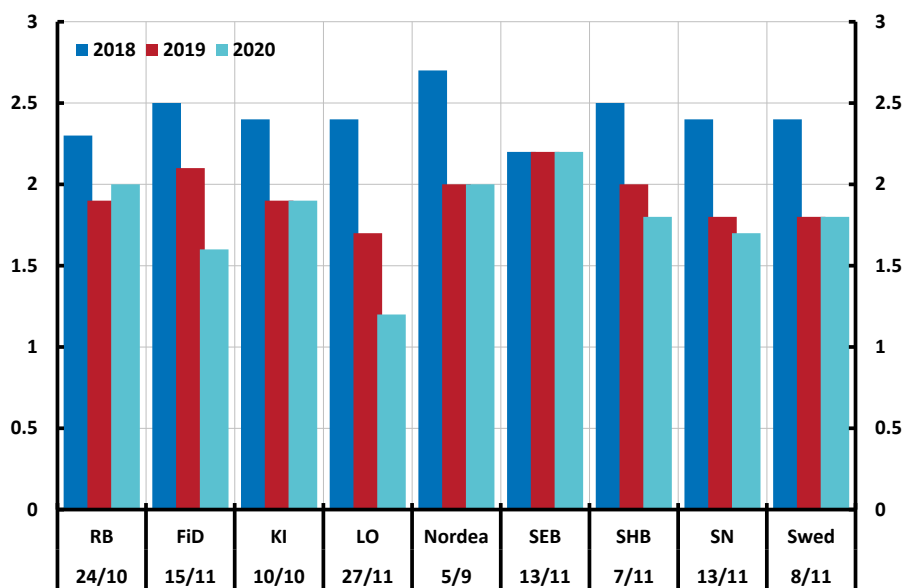
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Figure 1. Downward trend in global interest rates



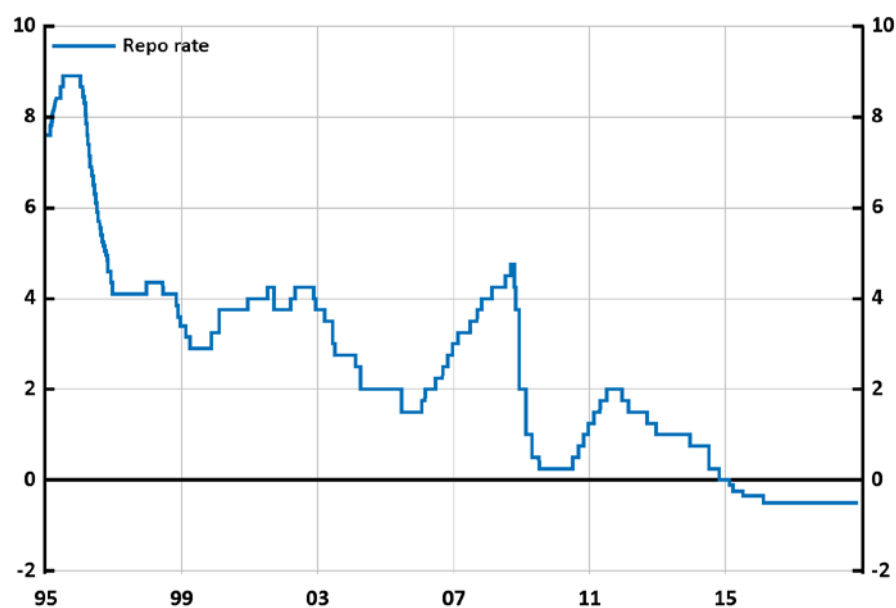
Note. Per cent, annual data. Government bond yields with 10 year maturity, deflated by CPI.
Sources: Macrobond, OECD, Statistics Sweden and the Riksbank

Figure 2. GDP forecasts by different analysts



Note. Annual percentage change, annual data. RB refers to the Riksbank, MF to the Ministry of Finance, NIER to the National Institute of Economic Research, LO to the Swedish trade union confederation SHB to Handelsbanken, CSE to the Confederation of Swedish enterprise and Swed to Swedbank. The date refers to the day the forecast was published.
Sources: Respective analysts

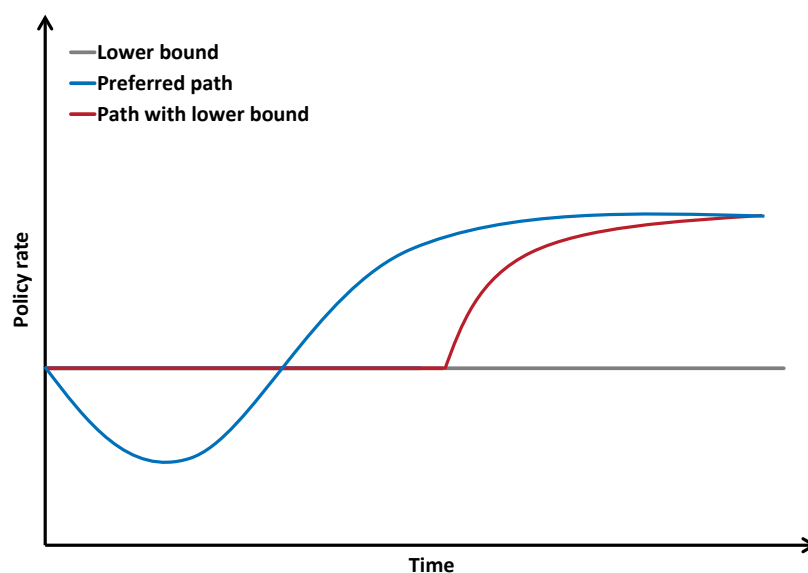
Figure 3. Development of the repo rate during inflation-targeting regime



Note. Per cent.

Source: The Riksbank

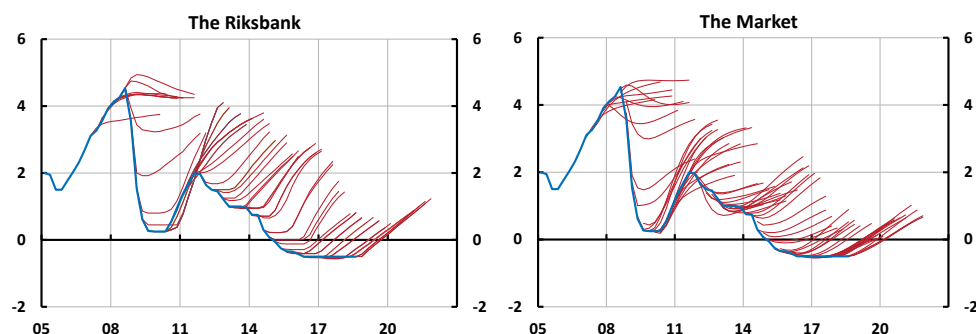
Figure 4. Desired policy rate path and path with lower bound



Note. Constructed example.

Source: The Riksbank

Figure 5. Difficult to forecast the policy rate



Note. Per cent. The Riksbank's forecasts for the repo rate and market forward rates. Forward rates are a measure of the market agents' expected repo rate according to different derivative contracts. They are estimated around the same time as the repo rate forecasts.

Sources: Thomson Reuters and the Riksbank.

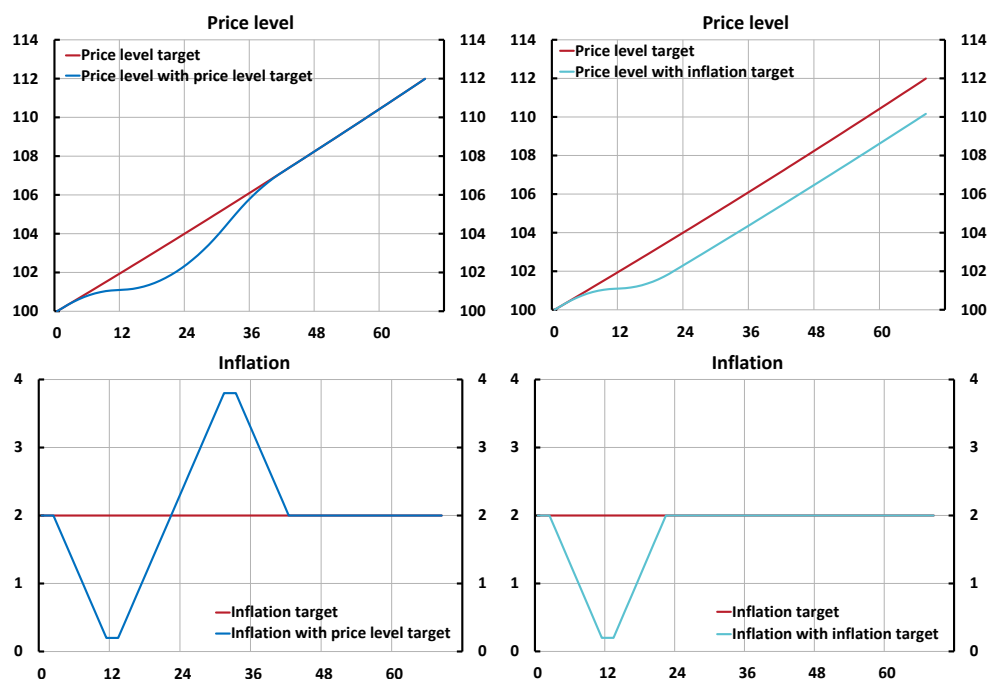
Figure 6. Yield differential in relation to Germany



Note. Percentage points. Yield differentials refer to 10-year benchmark bonds.

Source: Macrobond

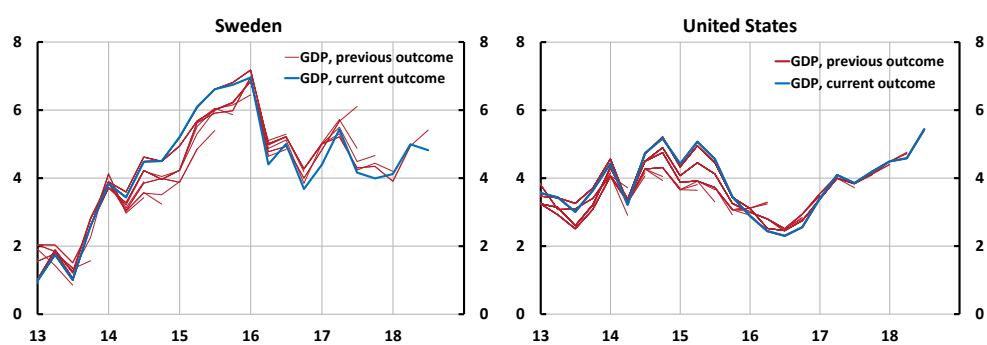
Figure 7. Developments in price level and inflation with a price level target and inflation target



Note. Constructed example. Vertical axis measures index value (price level) and per cent (inflation). Horizontal axis measures number of months.

Source: Andersson, B. and C. A. Claussen (2017), "Alternatives to inflation targeting", Sveriges Riksbank Economic Review, 2017:1

Figure 8. Revisions to nominal GDP growth



Note. Annual percentage change.

Sources: Bureau of Economic Analysis and Statistics Sweden