



Monetary policy minutes

February 2021



Summary

At the Monetary Policy Meeting on 9 February, the Executive Board of the Riksbank decided to hold the repo rate unchanged at zero per cent. To provide support to the recovery and inflation, the Riksbank is also continuing to purchase assets within the envelope of SEK 700 billion and to offer liquidity within all the programmes launched in 2020.

The second wave of infection during the autumn and winter has led to tightened restrictions and a slowdown in the recovery of the global economy. However, the board members noted that the Swedish economy has been more resilient to the second wave of the pandemic than to the first and emphasised the importance of the extensive economic policy support measures implemented during the crisis. Inflation and the real economy have surprised on the upside and the outlook is brighter than it was at the monetary policy meeting in November. It was noted that there has been a welcome upturn in long-term inflation expectations and that it is important for economic agents to have confidence in inflation eventually returning to the target.

The board members pointed out that the pandemic is still making developments uncertain and that the need for expansionary monetary policy and low interest rates will remain for a long time. To support the recovery and help inflation rise towards the target, it is important for monetary policy to be sustained. The members were in agreement on leaving the repo rate unchanged at zero per cent and on the distribution of asset purchases during the second quarter of 2021. It was stressed that the plan is to use the envelope of SEK 700 billion during 2021 and after that to keep the asset holdings more or less unchanged over next year. This is an important signal that the measures will be in place for a long time.

The members emphasised that it is important to have continued preparedness and, in that context, several of them thought that the repo rate could be cut if the need for further monetary policy stimulus were to arise. It was also underlined that a scenario with higher inflation need not be a reason to make monetary policy less expansionary. It was noted that fiscal policy will continue to have an important role to play going forward, not least to support individual sectors or certain groups that are experiencing difficulties in the labour market.



MINUTES OF MONETARY POLICY MEETING Executive Board, No. 1

DATE:

TIME:

9 February 2021 09:00 SVERIGES RIKSBANK SE-103 37 Stockholm (Brunkebergstorg 11)

Tel +46 8 787 00 00 Fax +46 8 21 05 31 registratorn@riksbank.se www.riksbank.se

PRESENT: Stefan Ingves, Chairman, remotely **Cecilia Skingsley** Anna Breman, remotely Martin Flodén, remotely Per Jansson, remotely Henry Ohlsson, remotely Susanne Eberstein, Chairperson, General Council of the Riksbank Michael Lundholm, Deputy Chairperson, General Council of the Riksbank, remotely ---Hans Dellmo, remotely Charlotta Edler, remotely Dag Edvardsson, remotely Heidi Elmér, remotely Mattias Erlandsson, remotely Jesper Hansson Jens Iversen, remotely Henrik Jönsson Peter Kaplan, remotely Henrik Lundvall Ola Melander, remotely Pernilla Meyersson Ann-Leena Mikiver, remotely Marianne Nessén, remotely Jessica Penzo Carl-Fredrik Pettersson (§ 1-3a), remotely Olof Sandstedt, remotely Henrik Siverbo, remotely Åsa Olli Segendorf, remotely Maria Sjödin, remotely

It was noted that Henrik Lundvall and Henrik Siverbo would prepare the draft minutes of the monetary policy meeting.

§3a. Economic developments

Market developments since the last monetary policy meeting

Carl-Fredrik Pettersson from the Markets Department began by presenting the latest developments on financial markets. Since the monetary policy meeting in November, risk appetite has been strong and equity prices have continued to rise. The explanation can be found in hopes of an economic recovery supported by very expansionary fiscal and monetary policy as well as unexpectedly strong interim reports for the fourth quarter. In addition, the risk for a no-deal Brexit has largely been removed from the agenda. At the same time, implied volatility on the US market (VIX) is still relatively high and there is concern that it will remain at high levels as a result of macroeconomic uncertainty.

Yields and spreads on corporate bonds have fallen slightly further abroad since the monetary policy meeting in November. For Swedish yields, the picture is not significantly different to other developed markets. The spreads to government bond yields show that the funding costs of municipalities, companies and mortgage institutions are lower than they were prior to the coronavirus pandemic.

Regarding fiscal policy, there has been considerable focus on the United States and President Biden's proposed stimulatory package which has a good chance of being passed by Congress, where the Democrats now have a slight majority. The stimulatory package is seen as very expansionary, which is reflected in significantly higher long-term yields. Since the monetary policy meeting in November, ten-year US treasury bond yields have risen by around 30 points, while German and Swedish have risen by 15-20 points.

Regarding monetary policy globally, the ECB's decision on a broad palette of measures at its meeting on 10 December is noteworthy. The decision was more or less as market participants expected, but what did surprise them was the intention to spread the increased envelope for asset purchases over a longer period and the announcement that the whole amount will not necessarily be utilised. For its part, the Federal Reserve has been clear that it has no plans to taper off its asset purchases, but despite this, there are still market participants who expect a tapering-off at the end of the year. The Bank of England was clear at its monetary policy meeting at the beginning of February that a negative policy rate was not relevant in its base scenario.

The Swedish krona has hardly changed in KIX terms since the monetary policy meeting in November. The krona strengthened up until the turn of the year, while developments since then have led to a weaker krona. In the longer term, there are still clear expectations that the krona will continue to strengthen against both the euro and the dollar. Finally, the market is not expecting any changes in either the repo rate, the repo-rate path or the envelope for asset purchases at today's meeting. As before, the threshold for a rate cut at a later date is considered to be fairly high. Regarding asset purchases, some expect the Riksbank to clarify its view on reinvestments; whether these are included in the current envelope or not. Pricing is more or less the same as it was at the monetary policy meeting in November, i.e. there is a greater probability of a cut than an increase in the years to come.

The current monetary policy drafting process – new data and forecasts

Olof Sandstedt, Head of the Financial Stability Department, briefly described price developments on the housing market and the situation in the corporate sector and the banking system. Housing prices continue to rise. Between December 2019 and December 2020, prices have increased by 11.5 per cent nationwide. It is primarily prices of detached houses that are rising rapidly, with an increase of 15.5 per cent compared with December 2019, while prices of tenant-owned apartments are increasing at a slower pace.¹

At the end of last year, bankruptcies among Swedish companies increased, but at the beginning of this year, we have seen a reduction compared with the corresponding period in previous years. Extended support measures probably play an important role in making it easier for more companies to survive, but a rise in bankruptcies cannot be ruled out if the crisis becomes more prolonged or if the recovery takes time. Of course, the risks are particularly substantial in those sectors hit hardest by the crisis.

Banks' funding costs remain low on the whole. The generally low level of interest rates means that the interest paid by banks on deposits is around zero per cent. The yields on Swedish covered bonds also continue to be very low. This is also true of the interest rates on uncollateralised interbank loans in US dollars, USD LIBOR, and STIBOR, which reflects the interest rates on short-term interbank loans in Sweden. At the same time, the high deposits at banks mean that they have less of a need for market funding.

Mattias Erlandsson, Deputy Head of the Monetary Policy Department, presented economic developments since the monetary policy meeting on 25 November and the monetary policy measures that the Monetary Policy Department judged would gain majority support in the Executive Board at today's meeting. The monetary policy drafting process has included discussions with the Executive Board on the forecasts and the monetary policy assumptions at meetings on 27 and 28 January and on 1 February. The draft Monetary Policy Report was discussed and tabled at a meeting with the Executive Board on 3 February.

¹ This refers to HOX Sweden, which is published by Valueguard.

Erlandsson began by noting that governments and authorities in many European countries tightened their restrictions during the autumn, as a result of the increasing spread of infection, and that several countries are now more or less in total lockdown. Restrictions have also been tightened significantly in Sweden. Unease over new, more infectious strains of the virus has contributed to restrictions so far being maintained despite a slight reduction in infections of late. The forecast in the draft Monetary Policy Report assumes that vaccinations will help to reduce the pandemic and that restrictions will gradually start to be lifted during the second quarter of this year. Uncertainty about the spread of the infection going forward and the extent of restrictions remains high, however.

The repercussions of the pandemic on the global economy have been milder during the autumn and winter than they were last spring. This is particularly true of the manufacturing industry, which has only been affected to a fairly minor extent by the new lockdowns in Europe while it has benefited from strong developments in Asia. On the other hand, household consumption has fallen again and opportunities to travel have once again been restricted. Countries that normally receive many tourists therefore risk being hit harder than countries such as Germany and Sweden, where the manufacturing industry is more important. As from the second quarter of this year, economic activity is expected to rise again and GDP growth abroad is expected to be higher than normal both this year and next year. A key factor regarding the strength of the recovery is expectations of continued expansionary economic policy in the euro area and in the United States. The recently proposed fiscal policy stimulus measures in the United States are worth mentioning in this context.

The current draft Monetary Policy Report presented to the Executive Board contains a somewhat brighter picture of the recovery than in the forecast from November. The economic statistics published since the end of November show that the slowdown in the Swedish economy has been milder than feared. For example, the Swedish manufacturing industry has now fully recuperated the fall in output that occurred last spring. However, household consumption has fallen again and the situation continues to be difficult in several service sectors, for example tourism and travel. The division in the Swedish economy and its effect on the expected recovery has been an important issue in the drafting of today's monetary policy decision.

As from the second quarter this year, households are expected to be gradually able to consume more of the services that they have had to give up during the pandemic. This will spark a comparatively rapid recovery in output. The increased activity in service sectors will also lead to an increase in labour demand and a continued fall in unemployment. The forecast for unemployment has been revised down compared with November but unemployment is nevertheless expected to be significantly higher than prior to the pandemic, both this year and next year.

The expansionary economic policy has significantly mitigated the effects of the crisis on companies and on household income, and it is expected to continue to play a key role going forward. Monetary policy has helped to keep down interest rates on loans to companies and households and maintain good access to credit. Via fiscal policy decisions, support has been directed at companies and employees hit particularly hard by the pandemic. The continued survival of companies in these sectors is an important prerequisite for a relatively rapid recovery, once the spread of infection has decreased.

The outlook for inflation is deemed largely unchanged compared with the forecast from November. In November and December, CPIF inflation remained low, even if prices increased somewhat more rapidly than expected. Higher energy prices have contributed to near-term price growth being revised up in the draft forecast. Measurement problems and changed patterns of consumption due to the pandemic will make CPIF inflation volatile this year, something that is discussed in an article in the draft Monetary Policy Report. As from next year, inflation is projected to rise more steadily, and towards the end of the forecast period, CPIF inflation is expected to be close to 2 per cent. Factors contributing to this assessment are rapidly rising resource utilisation, gradually higher cost pressures and the krona exchange-rate appreciation coming to a halt.

The forecasts are based on the monetary policy that the Monetary Policy Department judges will gain a majority in the Executive Board at today's monetary policy meeting. Asset purchases will continue during the year, the repo rate is held unchanged at zero per cent, and the Riksbank will continue to offer liquidity within all the programmes launched last year. An article in the draft Monetary Policy Report describes the Riksbank's plan for purchases of securities this year and for securities holdings in the longer term.

At today's meeting, it is proposed that the Executive Board take a decision on how the purchases of securities during the second quarter shall be distributed across different asset-types. The details of the proposal are given in Annex B to the minutes and entail the Riksbank purchasing treasury bills to such an extent that the holdings of such bills will increase from SEK 10 billion to SEK 20 billion in the second quarter. The proposal also involves purchases of nominal and real government bonds, including sovereign green bonds, of SEK 12 billion in total. The Riksbank already owns a large share of the outstanding nominal government bonds with maturities of less than 10 years. According to the proposal, the Riksbank will therefore purchase government bonds with longer maturities during the second quarter. Moreover, the proposal means that during the second quarter of this year, the Riksbank will purchase bonds issued by municipalities and regions as well as Kommuninvest i Sverige AB for SEK 15 billion and covered bonds issued by Swedish institutions for SEK 60 billion. In addition, the Riksbank will offer to buy commercial paper issued by Swedish non-financial corporations to such an extent that the Riksbank's total holdings do not exceed SEK 32 billion.

The Risk Division has analysed the proposal for monetary policy measures and assesses that it does not pose any increased risk compared with the monetary policy decision taken in November. The Risk Division therefore refers to its statement in November.

Heidi Elmér, Head of the Markets Department, presented further details contained in Annex B to the minutes.

§3b. The economic situation and monetary policy

First Deputy Governor Cecilia Skingsley:

I support the proposal to hold the repo rate unchanged and the draft for a new Monetary Policy Report, including the proposal for a new repo-rate forecast. I also support the proposal in Annex B to the minutes on the direction for future asset purchases.

In addition, I have a few further comments on today's decision and I intend to begin with a reflection on the interplay between the pandemic and global financial markets.

At the time of this meeting, it is 11 months since the World Health Organization established that COVID-19 was a pandemic. During the growing spread of infection and increasing restrictions imposed in the majority of countries, the turbulence on financial markets increased. The major uncertainty over how the economy would develop going forward caused prices of risky assets to fall and made the funding of loans to companies and households more expensive. Many central banks, including the Riksbank, therefore quickly implemented extensive measures to stabilise the financial conditions so the shock to the macro economy would not be exacerbated by credit restrictions or more expensive loans. Such a development could have led to a more fundamental financial crisis. During the months that followed, however, interest rates fell and prices of risky assets recovered.

After a few months of more positive developments, the pandemic worsened again in the autumn and restrictions were tightened once again in many countries, including Sweden.

But unlike developments during the spring, the financial markets were instead much calmer. The worsening of the pandemic did not have the same negative financial effects as during the spring.

The different response was probably due to several positive announcements about vaccines published during that period. In all likelihood, however, the knowledge that overall economic policy remains very supportive to the macro economy also made a contribution. The fact that the Riksbank is maintaining its current monetary policy is contributing to keeping interest rates down and to continued expansionary lending.

Monetary policy thus contributed to economic developments in Sweden during the fourth quarter not being as weak as the Riksbank forecast in November, despite the worsening of the pandemic. It would appear that Swedish society has become better at maintaining economic activity despite restrictions that must be regarded as at least as strict as those in place last spring.

Incoming data has thus surprised on the upside compared with the assessment in November and this justifies some upward revisions to the forecast. One positive factor is that inflation expectations have not continued falling, but instead risen somewhat, according to some indicators. Stable inflation expectations are as we know central for an inflation target to be able to function as an anchor for price-setting and wage-formation and it is particularly valuable in times like these, when economic developments are particularly difficult to assess.

Although prospects are somewhat brighter, the revised forecast is not enough to change the plan for monetary policy in the present situation. Even if the medicine continues to work, that is, credit flows at low interest rates, the economic prospects remain uncertain and inflation is projected to remain below the target for the coming three years. There are thus reasons to persevere with the expansionary monetary policy, as the pandemic could surprise us again. It is therefore wise that the Executive Board forecasts keeping the portfolio at roughly the same level as it will reach at the end of 2021 for the entire course of 2022.

So much for the policy conducted so far. I would like to finish with a few words about my preferences if the main scenario in the report is not realised.

In a scenario where the need for monetary policy support increases further, I consider it fully possible to cut the repo rate. It is difficult to express in advance the exact circumstances that would justify a repo rate cut, but a clear fall in inflation expectations - for instance, driven by a rapid and substantial appreciation of the krona exchange rate - would be a convincing factor for me to support a decision to cut the repo rate below zero again.

A scenario where the recovery instead moves more quickly, with the result that inflation attains the inflation target more rapidly, would not need to be a reason to make monetary policy less expansionary in various ways than the plan the Executive Board currently has. An inflation rate that overshoots the target could instead help to anchor inflation expectations more firmly around 2 per cent, which would be good for price-setting and wage formation.

Deputy Governor Per Jansson:

I support the economic assessments and the monetary policy assumptions in the draft Monetary Policy Report. As usual, I will begin by commenting on the current inflation picture and inflation outlook. I will then move on to my view of the monetary policy situation.

Since our last monetary policy meeting, we have had two new inflation outcomes, for November and December. The outcome for CPIF inflation in December was 0.5 per cent. Excluding energy prices, inflation continues to be higher, 1.2 per cent. Both including and excluding energy prices, inflation was underestimated in December, by 0.5 and 0.2 percentage points respectively. It can thus be noted that energy prices are an important explanation for the unexpectedly rapid price increases, but that there are also other prices that are currently causing inflation to rise slightly more than expected.

This conclusion is underlined by developments in the Riksbank's various measures of underlying inflation. Although the Riksbank does not make forecasts of these measures of inflation, the fact that almost all of them have increased since the monetary policy meeting in November nevertheless gives an indication that inflationary pressures more generally are now surprising a little on the upside. With the new outcomes, the median of the measures amounts to 1.2 per cent, compared to 1.1 per cent when calculated in connection with the November report. The two measures that have been shown in an empirical evaluation to be best at predicting future CPIF inflation, UND24 and CPIFPC, both amounted to 1.6 per cent in December.² Although the inflation target is formulated in terms of the entire CPIF, I continue to attach some extra importance to CPIF inflation excluding energy prices, and other measures of the more underlying rate of inflation, just as I have done earlier during the pandemic.

In addition to measures of the trend in inflation, it is currently particularly important to follow developments in the inflation expectations of various agents. That inflation is currently below target does not actually matter so much, as long as it rises going forward and economic agents also expect it to do so. As it will take a few years before the economy has recovered after the pandemic, it is above all a case of checking that longer-term inflation expectations do not deviate too much from the target.

Since our last meeting, Prospera has published two new measurements of inflation expectations, the monthly survey for January, which only covers money market participants, and the larger

² See the article "Why measures of core inflation?" in the Monetary Policy Report, October 2018.

quarterly survey for December, which also measures the expectations of the labour market organisations, among others. According to the survey in January, the longer-term five-year inflation expectations of money market participants, after a slight decline in December, are back at approximately the same level as at our November meeting, 1.8 per cent.³ Compared with last spring, a clear upturn in expectations five-years ahead among money market participants can be noted. This is naturally a welcome development.

The results of the larger quarterly survey for December are also mainly positive. Although the five-year expectations of purchasing managers are somewhat lower than previously, it is important to note here that the last survey was conducted during a period when there was still hope of avoiding a second wave of infections.⁴ In addition, longer-term inflation expectations among labour market organisations are slightly higher than in the previous survey. The increase is admittedly not particularly large – just over half a tenth of a percentage point – but it does break the downward trend in expectations since the outbreak of the pandemic. This is of course good news, not least as the increase in infections towards the end of last year could have led to a continuation in the negative trend in inflation expectations among the labour market organisations. With the exception of purchasing managers in the manufacturing sector, all outcomes exceed 1.7 per cent in the latest quarterly survey. And for these purchasing managers, the outcome is only just over three hundredths of a percentage point below 1.7 per cent.

Long-term inflation expectations can also be calculated from pricing on various financial markets. I have previously pointed out that it may be difficult to interpret market-based measures of expected inflation in a situation with extensive central-bank interventions and major uncertainty. But the trends in these markets are now clear in several countries, and highlight the emergence of a fairly widespread opinion that inflationary pressures are set to rise going forward. So far, developments are not at all dramatic and, if anything, are probably seen as something positive in the countries concerned. However, were the trends of rising inflation expectations and falling real interest rates to continue, and maybe even to strengthen, the trade-offs in monetary policy could eventually become difficult. The situation might become particularly problematic if developments in the real economy were at the same time weak.

The fairly stable and overall somewhat brighter inflation picture, in combination with energy prices that are rising more rapidly than expected and some technical adjustments linked to the weights in the CPI⁵, mean that relatively significant upward revisions in the forecast for short-

³ I am focusing as usual on the expectations for CPI inflation rather than for CPIF inflation, as the response rate for CPIF inflation is often lower.

⁴ Data in the previous quarterly survey for September was collected during the period 24 August – 8 September.

⁵ See the article "Changed consumption during the pandemic affects inflation" in the draft Monetary Policy Report.

term CPIF inflation are being proposed in the draft Monetary Policy Report. During the first half of the year, CPIF inflation can thus end up quite close to the inflation target and may even temporarily overshoot it. Excluding energy prices, inflation is also projected to be higher but here, the upward revision is smaller and more temporary. As from 2022, most of the forecast adjustments are minor. During the second half of the year, inflation is expected to gradually decrease, partly as a result of effects from the earlier appreciation of the Swedish krona. During 2022 and for the rest of the forecast period, inflation will gradually rise again, against the background of stronger demand, faster wage growth and higher inflation abroad. As in the November forecast, CPIF inflation is in line with the inflation target towards the end of the forecast period.

With that, I would like to round off my contribution with a few comments on monetary policy. The inflation picture and inflation outlook, which I have just described, are such that I currently consider it appropriate not to make any changes in the formulation of monetary policy, in line with the assumptions in the draft Monetary Policy Report. The details of the plan for asset purchases in the second quarter are specified but this is happening within the envelope of SEK 700 billion decided earlier. The purchase amount during the quarter will amount to SEK 100 billion, which is somewhat less than during the first quarter, when securities for SEK 120 billion are to be acquired. While a somewhat more expansionary monetary policy would increase confidence in us actually managing to bring up inflation in the way intended, the inflation picture and inflation outlook have improved somewhat since our last monetary policy meeting and there are no signs of confidence in the inflation target starting to wane. In this situation, I nevertheless think it is best to leave policy unchanged so as not to waste the remaining ammunition unnecessarily. The scope we now have to make monetary policy more expansionary – regardless of whether this entails cutting the repo rate or undertaking other measures – is not unlimited after all.

Some take the view that it is now time to start making monetary policy less expansionary, as developments on various financial markets have improved significantly since the spring and are currently stable. The Riksbank's interventions are now unnecessary and are more of a hindrance than a help, they say. But I think this conclusion is rather dangerous when the developments we are currently seeing on various markets are largely contingent on the intention of central banks to continue to provide their support for some time to come. Central banks have been very clear on this in their communication. In this context, it is also significant that inflation is still far below target and that the inflation outlook is still shrouded in considerable uncertainty, partly in the light of the risk of a third wave of infections. I therefore share the view in the draft Monetary

Policy Report that monetary policy should be characterised by a precautionary principle, where it is important for support measures not to be reduced too early.

The key issue in monetary policy for me right now is not considering when support measures are to be withdrawn but rather what can be done if a situation arose where it became necessary to add further stimulus. My primary concern here is that more serious confidence problems regarding the inflation target may start to arise. And in this context I would like to repeat what I said at our monetary policy meeting in November: If a need to make monetary policy significantly more expansionary were to arise, then I do not think it will be sufficient just to implement asset purchases, but the repo rate will also have to be cut. However, I am not prepared to experiment with a so-called deeply negative repo rate, that is, cutting the rate to several per cent below zero.⁶ The latitude I envisage we have is close to the -0.5 per cent we have had before, possibly slightly lower, perhaps -0.75 or -1 per cent. For such negative rate levels, all our previously conducted analyses, which basically say that the various negative side-effects can be expected to be relatively minor, should apply.

Deputy Governor Henry Ohlsson:

I would like to begin by saying that I support the proposal to hold the repo rate unchanged at zero, and to hold the repo-rate path horizontal during the forecast period. In addition, I support the proposals regarding asset purchases during the second quarter of 2021.

During 2020, a total of 98,000 people in Sweden died. Around 9,800, or 10 per cent, of these died as a result of COVID-19. Nine out of ten died of other causes. The annual average for the number of deaths during the years 2015-2019 was just over 91,000 people. Compared with this, the number of fatalities in 2020 was 7,000 higher. During 2018, many died as a large number of people contracted influenza. Comparing the number of fatalities in 2020 with the number in 2018, it is apparent that 6,000 more people died last year.

In terms of the number of fatalities, the first wave of the pandemic culminated in Sweden at the beginning of May 2020, when an average of almost 90 people died of COVID-19 every day.⁷ The corresponding figure from the end of August to the start of October was 2 fatalities per day, on average. After that came the second wave of the pandemic. The second wave culminated in mid-

⁶ Kenneth Rogoff exemplifies "deeply negative interest rates" with a rate level of minus 3 per cent or lower (<u>https://think.ing.com/opinions/the-case-for-deeply-negative-interest-rates/</u>).

⁷ I have calculated the average number of fatalities from COVID-19 over the past 30 days for each day based on data from the Public Health Agency of Sweden.

January 2021, when the number of fatalities from COVID-19 per day amounted to just over 90 people. Since then the trend in the number of fatalities has been declining.

The number of people in intensive care due to COVID-19 during the first wave peaked in the first part of May 2020, amounting to just over 500 people. ⁸ The number fell towards the end of September 2020, and reached about 16 people in intensive care at its lowest point. The number of people in intensive care then began to increase during the second wave. It culminated in around 350 in intensive care as a result of COVID-19 per day in mid-January 2021. The peak in the second wave was thus much lower than that in the first wave.

Vaccination against COVID-19 has now begun and more people have become immune from having had the disease. These are two factors that indicate the spread of infection may decline. But regardless of this, I believe the most interesting thing from an economic point of view is that the correlation between the scope of the pandemic and economic activity is clearly not stable. Although the second wave has led to a decline in economic activity, this has not been of the same magnitude as during the first wave.

According to the draft Monetary Policy Report, Swedish GDP is expected to decline by 2.8 per cent in 2020 compared with 2019. This is a significant upward revision in relation to the November Monetary Policy Report, when the fall in GDP for 2020 was forecast at 4.0 per cent. For the current year, the forecast in the draft Monetary Policy Report is an increase of 3.0 per cent. This is an upward revision in relation to the previous Monetary Policy Report, when the forecast was an increase in GDP in 2021 of 2.6 per cent.

It is, of course, good in a short-term perspective that the economic recovery is so strong. At the same time, it is worrying in the longer term with the draconian lockdown measures that evidently have strongly negative effects on, for example, the quality of the educational system at all levels.

The CPIF has been the target variable for monetary policy since 2017. The most recent inflation measurement in December showed an annual rate of increase in the CPIF of 0.5 per cent. The moving average over twelve months for CPIF inflation was also 0.5 per cent. We are some way from the target of 2 per cent.

At the same time, inflation statistics are difficult to interpret during the current economic crisis.⁹ For some groups of services, there are, quite simply, no prices. Instead, the missing prices need to be estimated. Furthermore, household consumption patterns have changed considerably. This means that today's actual consumption pattern deviates heavily from the consumption pattern

⁸ I have calculated the average number of people in intensive care as a result of COVID-19 over the past 30 days for each day based on data from the Swedish Intensive Care Registry.

⁹ I discuss this in greater detail in my speech "Monetary policy during the economic crisis", which was held in June 2020.

assumed via the weights used when the consumer price index is calculated. Research also shows that imputations and changes in consumption patterns tend to cause inflation statistics to underestimate the actual development of the cost of living. This is described in more detail in an article in the draft Monetary Policy Report.

According to the most recent monthly statistics from the Swedish Public Employment Service, the average number of persons registered as unemployed in relation to the register-based labour force was 8.8 per cent in December 2020. This was a substantial increase of 1.4 percentage points compared with the same month one year earlier, when the corresponding figure was 7.4 per cent. Unemployment insurance fund members can be considered to have a relatively strong position on the labour market. In December 2020, the percentage of openly unemployed members of unemployment insurance funds was 4.0 per cent. The same month one year earlier, the share was 3.3 per cent. The increase over the past year has been a good 0.7 percentage points.

The upturn in unemployment was broad, especially during the first part of 2020. All groups are affected, strong as well as weak. Now there are clear signs that staff with permanent employment have managed the crisis better than other groups. This is shown in the draft Monetary Policy Report. One reason for this is that those with permanent employment have been able to benefit from measures such as short-time work schemes.

The increased unemployment caused by the economic crisis is of course undesirable. Many of the unemployed are well equipped and will have good opportunities to obtain work when economic activity increases again. Others will need labour market policy measures to reinforce their human capital so they can find work.

Sweden is a small, open economy. We are dependent on economic activity and politics abroad. During spring 2020, draconian measures were taken around the world, measures that strongly reduced economic activity. During summer 2020, we saw signs of a recovery in many parts of the world, but the lockdown measures returned later in autumn 2020. I also note that lockdown policies have led to demonstrations and social unrest in a number of places.

The world trade in goods decreased by up to just over 15 per cent at an annual rate in some months of spring 2020. Pleasingly, the most recent available monthly measurement for November 2020 shows an increase of 1.5 per cent at an annual rate. This is of course very positive for a country dependent on foreign trade like Sweden.

I will now move on to my monetary policy considerations. Inflation expectations are an important element in judging the credibility of monetary policy when it comes to attaining the inflation

target. It is an important observation that inflation expectations five years ahead among money market participants have remained at around 1.7 per cent despite the ongoing economic crisis.

The Riksbank decided on a number of monetary policy measures in 2020. When financial markets do not function as normal, credit supply in the economy is threatened. The measures have two effects. Credit supply has been facilitated as the Riksbank has injected more money into the financial system in this way. When the money supply has increased, market rates have been kept low. In other words, the result is both secure credit supply and expansionary monetary policy.

Economic activity has declined, both in Sweden and abroad, during the winter. Inflation in Sweden is now well below target. My assessment is therefore that the Riksbank should continue to conduct an expansionary monetary policy.

To summarise, I support the proposal to leave the repo rate unchanged at zero, and to hold the repo-rate path horizontal during the forecast period. In addition, I support the proposals regarding asset purchases during the second quarter of 2021. Additionally, I support the economic picture and the forecasts in the draft Monetary Policy Report.

Dixi!

Deputy Governor Martin Flodén:

I support the forecasts and analyses presented in the draft Monetary Policy Report. I also support the proposal to leave the repo rate and the repo-rate path unchanged, and the proposal regarding the distribution of the asset purchases during the second quarter.

At our monetary policy meeting in November, we noted that the pandemic had accelerated again, both in Sweden and in important countries abroad. The spread of infection had increased and new restrictions began to be introduced. As a consequence, we revised down the forecasts for both the real economy and inflation. Despite the spread of infection then increasing faster than we had foreseen, the aggregate economic consequences have so far been relatively limited, and less than in our forecast.

A fairly substantial change since the previous meeting is that inflation expectations have risen. This can to some extent be explained by energy prices having risen and inflation outcomes being surprisingly high both in Sweden and abroad. But there is now also more talk of higher inflation in the longer term, and in particular long-term market-priced inflation expectations have risen significantly.

After many years of too low inflation, the rising inflation expectations we have seen so far are largely welcome. Expectations are now in line with inflation targets and will make it easier for monetary policy to bring inflation back towards the target.

After the financial crisis, the European sovereign debt crisis and now the coronavirus crisis, fiscal and monetary policy stimulus has been extensive. It is not possible to dismiss a scenario where a rapid build-up of debt, combined with remaining deep structural problems and weak growth potential, primarily in other countries than Sweden, mean that inflation expectations rise and leave monetary policy facing difficult choices. So far, however, I think the risk of this kind of scenario is fairly small, particularly in Sweden.

Although economic problems will not be as serious if inflation instead remains slightly below the target, the risk that such a scenario is realised is greater. This is partly because inflationary pressures are still weak. I therefore welcome the rising inflation expectations we have now seen and I see no reason for monetary policy to react to them. As before, I therefore assess that there will be a need for expansionary monetary policy and low interest rates for a long time to come.

The real economy has thus surprised on the upside, at the same time as the spread of infection has been more extensive than we envisaged in November. This reinforces the picture of the coronavirus crisis as a very special economic crisis. The direct effects of the pandemic on the economy are extensive. Some sectors have been hit very hard and households have chosen or been forced to reduce their consumption.

The remarkable thing is that the contagion effects have been small. Although household saving has increased, and total households consumption has fallen fairly significantly, there are many indications that this is primarily due to a lack of consumption in the areas directly affected by restrictions and more people working from home. I see no signs of increased precautionary saving in the data. Increased precautionary saving would mean that households wanted to consume less in all areas of expenditure, which would aggravate the economic downturn. Instead, many consumption items are developing relatively strongly. This picture is reinforced by housing prices rising rapidly despite the pandemic. Corporate investment is also compatible with this picture. The downturn in investment is modest in relation to the scope of the crisis.

All of this indicates that there are expectations of a healthy economic development once the pandemic is over, but it also indicates that the stabilisation policy has been successful. Stabilisation policy cannot prevent that restrictions lead to a decline in activity in some sectors.

But it can alleviate the economic consequences for the households and companies affected by the restrictions. It can also ensure that financial markets continue to function, and that a financial crisis thus does not lead to a deeper economic crisis. And stabilisation policy can more generally help to maintain optimism and thus the propensity to consume and invest.

My view is therefore that stabilisation policy both in Sweden and abroad has so far been remarkably successful in managing the consequences of the pandemic. However, in many parts of the world, this is of necessity at the cost of sweeping structural problems under the carpet. This applies, for instance, in countries that already before the pandemic had weak public finances and unprofitable banking systems with a high share of non-performing loans. These problems will need to be dealt with in the future. And the more one keeps postponing them, the worse they get. However, it is hardly appropriate to try to deal with these problems in the middle of a pandemic.

Let me now move on to my considerations regarding today's monetary policy decision. I entered a reservation against the decision in November to expand the envelope for the asset purchases by SEK 200 billion and extend the programme until the end of this year. I nevertheless support today's decision. To change the decision taken recently would only cause confusion and uncertainty.

Annex B to the minutes states that within the envelope for the asset purchase programme of SEK 700 billion, we intend to count the holdings instead of the total purchases of treasury bills. In practice, this means that the envelope will be somewhat larger than what followed on from the decision in November. As I entered a reservation against the large increase of the envelope in November, perhaps I should also enter a reservation against the envelope now being made even larger. But I consider this change to be primarily a technical adjustment that means the programme for purchasing treasury bills becomes clearer when delegated to the Markets Department, and also easier to communicate externally. I therefore think it is good that we are changing the decision in this way. Regarding commercial paper and treasury bills, we are thus taking decisions on how our holdings are to develop. With regard to bonds, we are instead deciding on the size of our purchases.

The decision today also means that we are buying nominal government bonds with longer maturity than before. The Riksbank's earlier purchases have been distributed fairly evenly over the outstanding stock, with the exception of the bonds with the longest maturities being underweighted during the first years of the purchase programme. Over time, this strategy means that we are holding a larger share of the bonds that have been on the market the longest time, which is usually the bonds with the shortest remaining maturity. To ensure that the Riksbank's ownership in individual bond issues does not become too large, our purchases will now be aimed at maturities of 10 years and upwards.

Given that we want to purchase a certain amount of government bonds, this is a reasonable direction to take. But my assessment is that the monetary policy effect of buying bonds with long maturities is small. This is partly because it is very rare in Sweden that households or companies take loans or issue bonds with an interest rate fixed at longer durations than five years.

That the purchases of government securities are now being aimed at treasury bills and bonds with long maturities reflects that our asset purchase programme is already extensive. As at the meeting in November, my opinion is that we could probably have attained an equally expansionary monetary policy with a smaller purchase programme. A smaller programme would have meant smaller volumes of government securities to purchase.

The draft Monetary Policy Report states that we plan to hold the asset portfolio more or less unchanged through next year. I consider this to be a reasonable plan to now start from. In line with my reservation against the decision in November, I see no reason to continue expanding our holdings in the future. At the same time, it would be strange if we continued to expand the portfolio up to the end of the year and then directly left the market and allowed the portfolio to decline in size.

Compared with the meeting in November, I am now less concerned that economic conditions might deteriorate rapidly in the near term. But we nevertheless need to remain prepared to react to developments that would otherwise jeopardise the expansionary impact from monetary policy. Cutting the repo rate may then be appropriate.

Despite the concerns I have expressed, I support the proposal for today's decision as presented in the draft Monetary Policy Report and in Annex B to the minutes. Given the decision taken in November, I see this as the right decision. I also support the analyses and forecasts presented in the draft Report.

Governor Stefan Ingves:

I support the draft Monetary Policy Report, the forecasts described in the draft, and the proposal to leave the repo rate unchanged. I also support the proposal for a decision in Annex B to the minutes, which describes our asset purchases during the second quarter. This means the Riksbank will retain the level of expansionary monetary policy aimed at supporting credit supply and the recovery, and ensuring that inflation in the longer term is in line with our target of 2 per cent.

Compared with the previous monetary policy meeting at the end of November last year, the situation now looks somewhat more stable. Then, the second wave of infection had led to tighter restrictions and the recovery in the world economy slowed down. The pandemic will probably continue to burden global economic growth this year, but will now be counteracted by the start of vaccinations against COVID-19. And the spread of infection among advanced economies may possibly decline as the northern hemisphere heads towards summer. All in all, there is now increased optimism about a recovery in the world economy. The KIX-weighted GDP level is certainly expected to fall slightly during the first quarter of the year, but after this the recovery is expected to pick up again.

The situation looks brighter for the Swedish economy compared with our assessment in November. The economic recovery slowed down then as a result of the second wave of infection, but the fall in economic activity was smaller than during the first wave almost one year ago. The fact that Sweden, in terms of its economy, proved to be more resilient to the second wave is probably due to a number of factors. One factor is that Swedish exports have benefited from global industrial production not being affected in the same way as last spring, and that world trade in goods has largely returned to its pre-crisis levels. The fall in GDP during 2020 is now expected to be smaller compared with our previous assessment, a fall of just under 3 per cent. And as the spread of infection slows down and the international recovery picks up, average growth in Swedish GDP in 2021-2023 is expected to be just over 3 per cent. But the recovery looks to be divided. For instance, the service sector is affected more by the restrictions and the recovery there may take time if the changes in behaviour, with regard to travel, for instance, become more permanent.

On the Swedish labour market, too, developments during the second wave of the pandemic have been better than during the first. In the spring, unemployment rose by around 1.5 percentage points to a peak of 9.2 per cent in June. Despite the second wave of infection during the autumn, unemployment has fallen, to 8.7 per cent in December. Going forward, as economic growth continues in Sweden, the labour market is expected to improve gradually, although unemployment is not expected to return to its pre-crisis levels until the end of the forecast period.

The CPIF inflation rate was low in 2020, partly as a result of falling energy prices. At the beginning of 2021, we expect to see a higher rate of inflation, partly due to energy prices having stopped falling and even rising recently, and partly due to technical adjustments in the calculation of the CPI. Our assessment is that inflation in Sweden will rise as demand strengthens, wages increase slightly faster and inflation abroad rises. At the end of the forecast period, CPIF inflation is expected to be close to 2 per cent.

18 [25]

The draft Monetary Policy Report describes an economic recovery that picks up again as the spread of infection declines and vaccination programmes are rolled out. At present, this is our best forecast. However, this global pandemic is a unique event for which we have no prior experience, and there is still considerable uncertainty over both the actual spread of infection and the more long-term effects on the behaviour of households and companies. There are both upside and downside risks, and examples of these are described in an article in the draft Monetary Policy Report. Another type of risk concerns the longevity of the economic-policy measures implemented to alleviate the economic consequences of the pandemic. As I see it, the risks are asymmetrical. That is, the risks of phasing out the measures too early. With regard to monetary policy, I see large downside risks in phasing out the monetary policy support too quickly. It is important for the economic recovery and for our target attainment with regard to inflation that the monetary policy measures remain in place for a companies.

Almost one year has now passed since the coronavirus began to spread in earnest in different regions, which then led to extensive restrictions and a sharp slowdown in economic activity in the world economy. When the economic effects began to be clear in Sweden, the Riksbank took a number of different measures aimed at first stabilising financial markets during the initial, volatile phase of the crisis, and then at securing the supply of credit and keeping interest rates charged to companies and households low, and always with the focus on the inflation target. It has been a menu of measures, from liquidity support to different types of asset purchases. All of this has entailed changes in the Riksbank's balance sheet, and the balance sheet total has increased, from around SEK 900 billion a year ago to over SEK 1,300 billion at the end of January 2021. The Riksbank's measures are similar to those taken by many other central banks, and many other central banks have seen their balance sheets grow during the pandemic.

I consider that the Riksbank's monetary policy has been successful. The measures we have taken have been decisive in counteracting the major turbulence that threatened to develop into a new financial crisis last spring. Monetary policy has helped to maintain credit supply and in this way supported the recovery in the economy. And inflation has been surprisingly stable, bearing in mind the rapid slowdown in the economy.

In this context, I would like to briefly comment on the Riksbank Committee's proposal for a new Sveriges Riksbank Act. It is worrying, to say the least, that some of the measures the Riksbank took in 2020 would have been impossible to implement within a reasonable space of time if the Committee's proposal had been law. In addition, the Committee advocates an order of priority among the monetary policy tools, which risks leading to a Riksbank without tools and is also out of sync with the times, as it is not in line with today's financial markets. In brief, the Riksbank Committee has put forward a strange proposal that would make the Riksbank very different from other central banks. This entails not only limits to the Riksbank's capacity to carry out its tasks, but also makes it more difficult for the Riksbank to act within the EU and globally.

I have asked myself the question of what problem the Committee has tried to solve. To my way of thinking, the Committee's proposal does not entail any improvement on the current legislation, but instead creates new problems.

Allow me to conclude by saying a few words about the policy mix in Sweden. Both fiscal and monetary policy have had to contribute extensive measures to manage the substantial economic shock caused by the pandemic. We are now seeing the outline of a recovery, but it will be unevenly distributed over the different sectors of the economy and over different groups in the labour market. If measures are needed to support individual sectors or specific groups of unemployed, then targeted measures are required and here fiscal policy is a better alternative to monetary policy easing, which often has a broader impact.

Deputy Governor Anna Breman:

Since the crisis began, the Riksbank has taken extensive measures to create the conditions for a recovery in the Swedish economy and to safeguard the inflation target. The pandemic is not over and its consequences are still weighing heavily on the Swedish economy. It is important not to withdraw the Riksbank's measures too early. I therefore support the proposal for the size and distribution of asset purchases during the second quarter, to hold the repo rate unchanged, as well as the proposed repo-rate path and the forecast and alternative scenarios in the draft Monetary Policy Report.

Let me begin by commenting on economic developments before moving on to the monetary policy considerations.

Since the last monetary policy meeting in November, vaccination programmes have begun and the Swedish economy has performed somewhat better than expected. However, it is important not to pre-empt the economic recovery for several reasons. Let me mention three of them.

First, only a few specific sectors have surprised on the upside. The slightly higher-than-expected Swedish GDP is largely down to goods exports and investment. At the same time, many service sectors are still severely affected by restrictions and the justified concern among households about the spread of infection. As expected, household consumption has been weak, contributing to modest growth in imports. Strong exports but weak imports gave a large net export contribution in 2020, with a subsequent positive effect on GDP growth. It is excellent that Swedish industry is competitive and showing strength. But for the Riksbank's task of maintaining price stability, developments in domestic service industries and household consumption are key.

Second, Swedish recovery will, as always, be dependent on developments abroad. The euro area is particularly important. During the pandemic, the number of insolvencies has decreased in the euro area as an effect of moratoriums and support measures, while lending to companies has increased sharply. Unfortunately, companies that managed to survive the first wave may have difficulty surviving a second and third wave, although it will take time before more insolvencies are visible in the official statistics. Non-performing loans may create problems in countries with weak banking systems. This risks hampering the recovery in the euro area, which could then spill over to Sweden.

Third, the pandemic has so far been more prolonged and lasted longer than many people had expected. Employment-intensive service sectors have been hit the hardest. The longer the crisis continues, the greater the risk of persistence effects on the labour market. We can already see that long-term unemployment has risen in Sweden and many other countries, which may also slow down the recovery.

Overall, I am cautiously optimistic that a recovery can happen rapidly, once vaccinations have been widely distributed in society. But it is important to be prepared for setbacks. This also means that the cost of withdrawing monetary policy support too soon is high. This leads me in to the monetary policy considerations at today's meeting.

Monetary policy should be guided by the objective of maintaining price stability and attaining the inflation target in the medium term. I think it is useful to highlight three aspects of this in the current situation: First, forecasting the recovery and inflation based on historical patterns can be misleading. During the financial crisis, household consumption remained relatively stable, while exports and investment fell sharply. During the pandemic, it is household consumption and parts of the domestic service sector that are weighing heavily, while exports and investment have recovered rapidly. As I have already mentioned, these growth factors may impact inflation in the years to come.

Second, pandemic-related problems are still affecting the measurement of inflation, an issue described to good effect in an article in the draft Monetary Policy Report. In the most recent outcomes, inflation has been somewhat higher than expected, and inflation expectations have risen slightly. Inflation is likely to rise further in the near term, as a result of high energy prices and measurement problems. In the same way as low energy prices and imputations contributed to lower inflation in 2020, it is important to look beyond these short-term fluctuations in the years ahead. The somewhat higher-than-expected inflation in the near term is therefore not an

argument for beginning to tighten monetary policy any time soon. Nor does monetary policy need to be made less expansionary in a scenario where inflation rises faster than forecast, as an inflation rate above the target can help to stabilise long-term inflation expectations.

Third, current interest rate levels reflect expectations that the Riksbank's measures will be maintained. Tapering off these measures risks leading to rising interest expenses for households and companies and causing a tightening of financial conditions. Withdrawing expansionary monetary policy too quickly would jeopardise the economic recovery and allow lasting negative effects of the crisis to take hold.

I therefore support the general direction of monetary policy. However, it is still my assessment that it would have been sufficient to have a smaller envelope for the second half of 2021 and that it was not necessary to include treasury bills. In this context, however, it is worth noting that, according to the preliminary plan for the second half of 2021, principal payments due in the autumn of 2021 will not be fully reinvested. It is important that this is not seen as a tapering-off but is taking place for technical reasons so as not to create large fluctuations in the purchasing rate between different quarters. Furthermore, scope is reserved for the purchase of commercial paper, which, considering current developments, will probably not be utilised. This means in practice that expected purchases of securities during the second half of 2021 are fairly close to my preferred size. Subsequently maintaining holdings during 2022 is a good plan. More details on this can be found in the article in the draft Monetary Policy Report.

The last aspect of monetary policy I would like to comment on is the possibility of a repo rate cut. If vaccinations get underway for broad groups in society, and we see a reduction in the infection rate and fewer restrictions, a rate cut may be an effective tool to contribute to a broad-based demand stimulus and help inflation rise towards the target. However, the appropriateness of a rate cut will depend on the situation and, as always, benefits must be weighed against possible drawbacks.

As I have in previous meetings, I would like to emphasise that fiscal policy has an important role to play in this crisis. Fiscal policy can provide targeted measures to the households and companies hardest-hit by the crisis. Structural reforms would also be welcome, for example to deal with the problems on the Swedish housing market. As long as the demand for housing is higher than the supply, prices and indebtedness are likely to continue to rise. This leads to the need for tightened macroprudential policy measures that risk making it more difficult for many households to move to jobs and new homes. To mitigate the risks of a poorly functioning housing market, broad reforms in housing and tax policy are required.¹⁰

To conclude, I wish to stress that I see a need for expansionary monetary policy for some time to come. Withdrawing the Riksbank's current measures too early risks hampering the recovery that is now underway. In addition, it is still important to have a high level of preparedness to use all our tools if developments were to be worse than expected.

§3c. Discussion

Deputy Governor Martin Flodén:

I have a comment with regard to what Henry Ohlsson said about the measurement problems in the CPIF. As Henry said, it is well known that there are considerable measurement and methodology problems when measuring inflation. Some of the problems may cause the CPIF measure to systematically underestimate or overestimate the "true" inflation rate, if there is such a thing. But the important thing is not that the true inflation rate should be around two per cent on average. The important thing is that the inflation target provides a clear nominal anchor as a basis for price-setting and wage formation in the economy. In Sweden, we have expressed the inflation target in terms of CPIF inflation. It is thus CPIF inflation as it is measured that should be two per cent on average.

To be able to formulate monetary policy in the right way, it is important that we understand whether the CPIF measure is affected by temporary factors, such as rapid changes in consumption patterns during the pandemic. It is also important for us to understand whether there are structural changes over time that affect how the CPIF measure relates to underlying inflationary pressures.

If we judge that the CPIF measure is systematically underestimating the true inflation rate, on the other hand, I do not see this as a reason to be satisfied with CPIF inflation that is on average lower than the two per cent target.

Deputy Governor Henry Ohlsson:

The fundamental purpose when measuring changes in consumer prices is to find out how the cost of living has developed for an average Swedish household. We take the change in the CPIF as

¹⁰ For a discussion of the elevated risks to financial stability, see the Riksbank's Financial Stability Report 2020:2.

a measurement of what has happened to the cost of living. But it is important to see that the CPIF is one way of measuring what we basically want to find out.

We know that during 2020 the calculations of the consumer price index did not really correspond to the actual development of the cost of living. This is not intended as criticism of those who make these calculations, it is difficult to calculate when the consumption pattern changes so radically during an economic crisis. But at the same time, we know that it is very likely that the consumer price index measurements in 2020 probably underestimate the actual increases in the cost of living. This is partly because the actual consumption pattern in 2020 has deviated from the pattern assumed when calculating the consumer price index. There is no reason to call into question the calculation of the CPIF, although there is every reason to regard these calculations with greater caution than normal.

§4. Monetary policy decision

The Executive Board decided

- to hold the repo rate unchanged at zero per cent and that this decision shall apply with effect from Wednesday 17 February 2021,
- to adopt the Monetary Policy Report according to the proposal, <u>Annex A to the</u> <u>minutes</u>,
- on monetary policy measures and that these measures be applied in accordance with what is stated in <u>Annex B to the minutes</u>,
- to publish the monetary policy decision and the Monetary Policy Report with the motivation and wording contained in a press release at 09.30 on Wednesday 10 February 2021, and
- to publish the minutes from today's meeting at 09.30 on Friday 19 February 2021.

This paragraph was verified immediately.

Minutes taken by

Henrik Lundvall

Henrik Siverbo

Verified:

Stefan Ingves

Cecilia Skingsley

Anna Breman

Martin Flodén

Per Jansson

Henry Ohlsson



SVERIGES RIKSBANK SE-103 37 Stockholm (Brunkebergstorg 11)

Tel +46 8 - 787 00 00 Fax +46 8 - 21 05 31 registratorn@riksbank.se www.riksbank.se