

Monetary Policy Report

February 2021



Rectification 10 February 2021

Heading corrected on page 5

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The PDF document has been adapted to increase the accessibility

Monetary Policy Report

The Riksbank's Monetary Policy Report is published five times a year. The report describes the deliberations made by the Riksbank when deciding what is an appropriate monetary policy¹. The report contains a description of the future prospects for inflation and economic activity based on the monetary policy that the Riksbank currently considers to be well-balanced.

The purpose of the Monetary Policy Report is to summarise background material for monetary policy decisions, and to spread knowledge about the Riksbank's assessments. By publishing the reports, the Riksbank aims to make it easier for external parties to follow, understand and assess its monetary policy.

The Riksbank must submit a written report on monetary policy to the Riksdag (Swedish Parliament) Committee on Finance at least twice a year (see Chapter 6, Article 4 of the Sveriges Riksbank Act (1988:1385)). During the spring, a specific report is submitted as a basis for the evaluation of monetary policy. During the autumn, the Monetary Policy Report is submitted as an account of monetary policy.

The Executive Board made a decision on the Monetary Policy Report on 9 February 2021. The report may be downloaded in PDF format from the Riksbank's website www.riksbank.se, where more information about the Riksbank can also be found.

¹ See "Monetary policy in Sweden" on the next page for a description of the monetary policy strategy and what can be regarded as an appropriate monetary policy.

Monetary policy in Sweden

Monetary policy strategy

- According to the Sveriges Riksbank Act, the objective for monetary policy is to maintain price stability. The Riksbank has defined this as a 2 per cent annual increase in the consumer price index with a fixed interest rate (the CPIF).
- At the same time as monetary policy is aimed at attaining the inflation target, it is also to support the objectives of general economic policy for the purpose of attaining sustainable growth and a high level of employment. This is achieved by the Riksbank, in addition to stabilising inflation around the inflation target, endeavouring to stabilise production and employment around paths that are sustainable in the long term. The Riksbank therefore conducts what is generally referred to as flexible inflation targeting. This does not mean that the Riksbank neglects the fact that the inflation target is the overriding objective.
- It takes time before monetary policy has a full impact on inflation and the real economy. Monetary policy is therefore guided by forecasts for economic developments. The Riksbank's publications include an assessment of the future path for the repo rate. This repo rate path is a forecast, not a promise.
- In connection with every monetary policy decision, the Executive Board makes an assessment of the repo rate path needed, and any potential supplementary measures necessary, for monetary policy to be well balanced. It is thus normally a question of finding an appropriate balance between stabilising inflation around the inflation target and stabilising the real economy.
- There is no general answer to the question of how quickly the Riksbank aims to bring the inflation rate back to 2 per cent if it deviates from the target. A rapid return may in some situations have undesirable effects on output and employment, while a slow return may have a negative effect on confidence in the inflation target. The Riksbank's ambition has generally been to adjust monetary policy so that inflation is expected to be fairly close to the target in two years' time.
- To illustrate the fact that inflation will not always be exactly 2 per cent each month, a variation band is used that stretches between 1 and 3 per cent, which captures around three quarters of the historical monthly outcomes of CPIF inflation. The Riksbank always aims for 2 per cent inflation, regardless of whether inflation is initially inside or outside the variation band.
- According to the Sveriges Riksbank Act, the Riksbank's tasks also include promoting a safe and efficient payment system. Risks linked to developments in the financial markets are taken into account in the monetary policy decisions. With regard to preventing an unbalanced development of asset prices and indebtedness, however, well-functioning regulation and effective supervision play a central role. Monetary policy only acts as a complement to these.
- In some situations, as in the financial crisis 2008–2009 and during the coronavirus pandemic, the repo rate and the repo rate path may need to be supplemented with other measures to promote financial stability and ensure that monetary policy is effective.
- The Riksbank endeavours to ensure that its communication is open, factual, comprehensible and up-to-date. This makes it easier for economic agents to make good economic decisions. It also makes it easier to evaluate monetary policy.

Decision-making process

The Executive Board of the Riksbank usually holds five monetary policy meetings per year at which it decides on monetary policy. A Monetary Policy Report is published in connection with these meetings. Approximately two weeks after each monetary policy meeting, the Riksbank publishes minutes from the meeting, in which it is possible to follow the discussion that led to the current decision and to see the arguments put forward by the different Executive Board members.

Presentation of monetary policy decision

The monetary policy decision is presented in a press release at 09.30 on the day following the monetary policy meeting. The press release also states how the individual members voted and provides the main motivation for any reservations entered. A press conference is held on the day following the monetary policy meeting.

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IN BRIEF – Monetary policy February 2021



The **second wave of infection** that started to affect many countries during the autumn led to **tightened restrictions** and a slowdown in the recovery of the global economy. But **vaccinations are now underway in many countries** and, despite continued uncertainty, the conditions for an upturn in demand will be good when the spread of infection and restrictions are reduced. After the slowdown during the winter, the global economy is expected to continue to recover.



Several service industries in Sweden are still under pressure but overall the economy seems to have been more resilient to the second wave of the pandemic than to the first. GDP growth and employment have been higher than expected and **the Swedish economic outlook is brighter** than it was at the monetary policy meeting in November. Developments differ among industries and sectors but total economic activity is expected to approach a more normal situation next year.



As in 2020, **inflation is expected to vary more than usual this year**, due in part to volatile energy prices but also to measurement problems and changed patterns of consumption during the pandemic. In 2022, the upturn in inflation is expected to be more stable, but the extent of the crisis means that **it will take until 2023** before inflation is expected to be **close to the target of 2 per cent** more permanently.



Without the Riksbank's measures, the crisis would have been both deeper and more prolonged. To facilitate the recovery, the Riksbank is continuing to **purchase assets within the envelope** of SEK 700 billion and to **offer liquidity within all the programmes launched in 2020**. The Executive Board has also decided to **hold the repo rate unchanged at zero per cent**. The Riksbank will continue to formulate monetary policy so that there is extensive monetary policy support for as long as necessary in order to support the recovery and inflation.

1 Continued expansionary monetary policy to support the recovery and inflation

The second wave of infection that started to affect many countries during the autumn led to tightened restrictions and a slowdown in the recovery of the global economy. Several service industries in Sweden are still under pressure but overall the economy seems to have been more resilient to the second wave of the pandemic than to the first. Household consumption of services has been held back during the pandemic and saving has increased. At the same time, vaccinations are underway in many parts of the world. Despite continued uncertainty, the conditions for an upturn in demand will be good when the spread of infection and restrictions are reduced. The Swedish economic outlook is brighter than it was at the monetary policy meeting in November. However, the extent of the crisis means that it will take until 2023 before inflation is expected to be close to the target of 2 per cent more permanently.

The various measures implemented by the Riksbank since the outbreak of the crisis have helped to moderate the decline in economic activity and stabilise financial conditions in a time of uncertainty. Without the Riksbank's measures, the crisis would have been both deeper and more prolonged. To facilitate the recovery, the Riksbank is continuing to purchase assets within the envelope of SEK 700 billion and to offer liquidity within all the programmes launched in 2020. The Executive Board has also decided to keep the repo rate at zero per cent. The Riksbank will continue to formulate monetary policy so that there is extensive monetary policy support for as long as necessary in order to support the recovery and inflation.

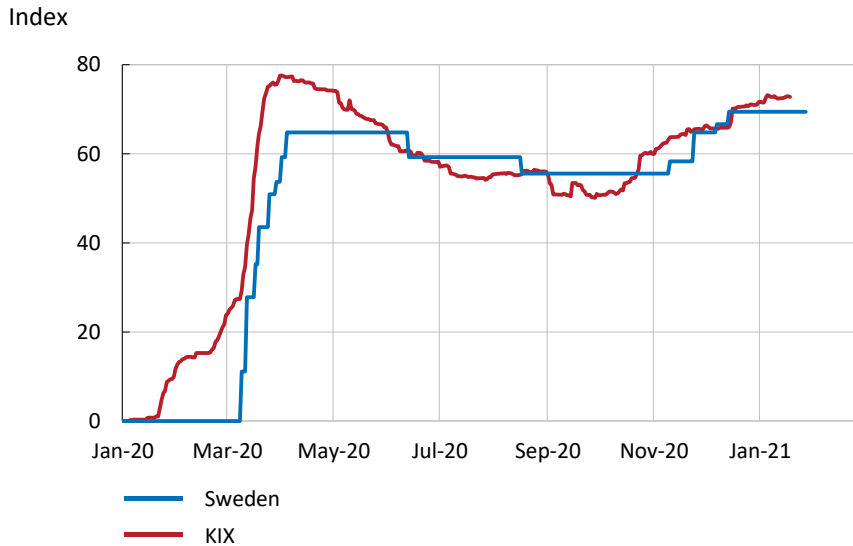
1.1 The pandemic is gradually expected to release its grip on economic developments

After a slowdown during the winter, the recovery in the global economy is continuing

The coronavirus pandemic has dominated economic developments in the world during the past year. During the last few months of 2020, a second wave of infection affected many countries and stricter restrictions were reintroduced (see Figure 1). The economic recovery that started during the summer slowed down, and the euro area in particular suffered a setback when GDP fell again (see Figure 2). The recovery has

also slowed in the United States but confidence among households and companies has been maintained during the second wave, as have retail sales, and the new US Administration has announced further extensive fiscal policy stimuli.

Figure 1. Measures of the degree of government restrictions to reduce the spread of infection

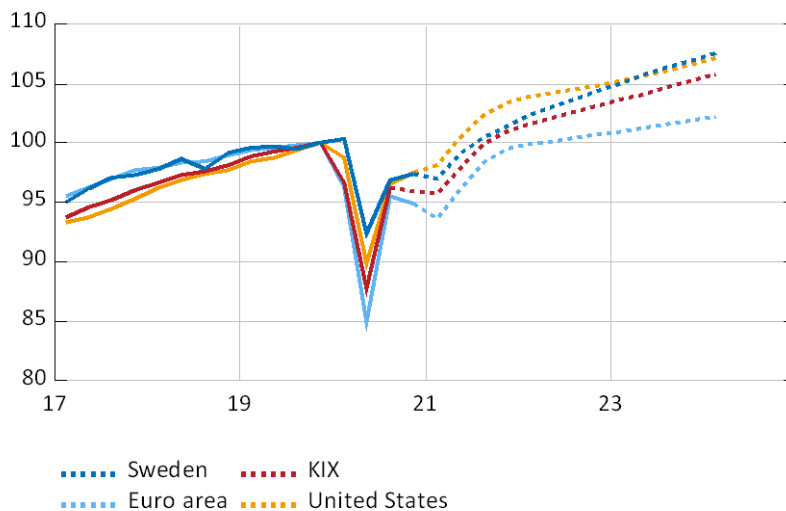


Note. The index measures the extent of restrictions and comprises nine components that describe different types of restrictions, such as school closures and travel bans. For each component there is normally a three-point scale: “no measures”, “recommended measures” and “required measures” The index corresponds to the average of all components. KIX-weighted refers to an aggregate of 32 countries that are important for Sweden’s international trade.

Sources: Oxford COVID-19 Government Response Tracker (OxCGRT) and the Riksbank.

Figure 2. GDP in Sweden and abroad

Index, 2019 Q4 = 100, seasonally-adjusted data



Note. KIX is an aggregate of the countries that are important to Sweden's international trade. Solid line represents outcome, broken line represents the Riksbank's forecast.

Sources: Bureau of Economic Analysis, Eurostat, national sources, Statistics Sweden and the Riksbank.

Vaccinations were started in many countries at the turn of the year. Economic developments in 2021 will be largely determined by how effectively the vaccinations reduce the pandemic, when and how quickly governments lift restrictions, and how households and companies react to this. The Riksbank's forecast assumes that the majority of the adult population in Sweden and among our most important trading partners will be vaccinated during the first half of 2021 and that restrictions can be gradually lifted. Many households are then expected to return to approximately the same living and consumption habits as they had before the outbreak of the pandemic, and service companies that have managed to overcome the crisis are expected to be able to rapidly increase their production. With the support of the extensive economic policy stimuli from governments and central banks, the recovery is expected to pick up.

Swedish economy more resilient to the second wave of the pandemic

The second wave of the pandemic has also been severe in Sweden, fully comparable to developments last spring. However, the economy has not been hit as hard as it was then. One explanation is that the effect on global industrial production is more limited now and global trade has largely recovered to its pre-crisis levels. This is also reflected in the Swedish export sector. At the same time, the difficult situation continues for much of the service sector, where restrictions on socialising and movement are having an adverse effect on segments such as transport, hotels and restaurants, culture and entertainment, tourism and parts of the retail sector.

Extensive economic policy measures have been implemented to enable companies to survive the crisis, but, in order to return to a more normal situation, these sectors are dependent on restrictions being lifted. Although there is uncertainty about how fast vaccinations can be administered around the world, and about how new mutations of the virus affect the development of the pandemic, the fact that vaccinations are underway increases the likelihood of the effects of the pandemic starting to wear off. In its forecasts, the Riksbank assumes that restrictions will be phased out during the first half of the year. Parts of the economy have already recovered much of the fall last spring and it is primarily the low consumption of services that is dampening GDP. Some services have not been accessible at all and this has contributed to a higher-than-normal level of saving among households. This saving and a pent-up need to consume are deemed to create conditions for a rapid upturn in demand in 2021. The division in the economy will remain for longer but aggregate resource utilisation in the economy is expected to normalise next year. GDP will increase by an average of 3.1 per cent a year in 2021–2023.

The Swedish labour market has also been resilient to the second wave of the pandemic. Since the summer, unemployment has fallen back from a high of 9.2 per cent in June to 8.6 per cent in December.² Although labour demand is expected to be restrained in the short term, companies' recruitment plans and newly registered job openings indicate that employment may continue to recover as restrictions are eased

² According to LFS, Statistics Sweden's seasonally adjusted and trend-estimated data.

during 2021. During the second half of the year, the labour market is expected to improve more markedly but not until towards the end of the forecast period is unemployment expected to be back at its pre-crisis levels.

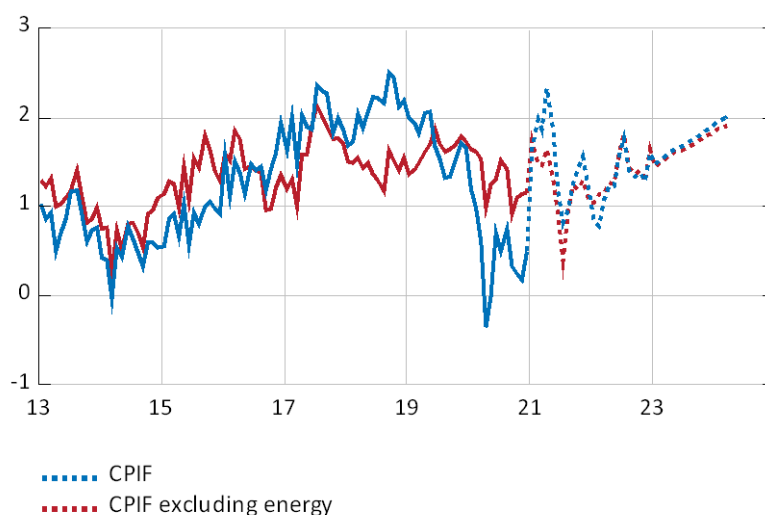
The Riksbank's main scenario assumes that the pandemic will, to some extent, have long-term effects on the economy. But it is difficult to assess what lasting changes in the behaviour of households and companies may be caused by the crisis.³ The sharp downturn in the economy has hit groups with a weaker connection to the labour market particularly hard. For example, a large share of fixed-term employees have lost their jobs. Although resource utilisation will normalise during the forecast period, groups with a low education and short labour market experience still risk having difficulty establishing themselves on the labour market, resulting in long periods of unemployment.

Inflation close to the target towards the end of the forecast period

Inflation has been very volatile in 2020. During much of year, it was between 0 and 1 per cent (see Figure 3). A key explanation for the low inflation was the fall in energy prices, although electricity prices did rise towards the end of the year. In December, CPIF inflation excluding energy was 1.2 per cent and, similar to the median of the Riksbank's measures of underlying inflation, fluctuated between 1 and 1.5 per cent last year. Inflation is also expected to vary more than usual in 2021, due in part to volatile energy prices but also to measurement problems and changed patterns of consumption (see also the article "Changed consumption during the pandemic affects inflation").

Figure 3. CPIF and CPIF excluding energy

Annual percentage change



Sources: Statistics Sweden and the Riksbank.

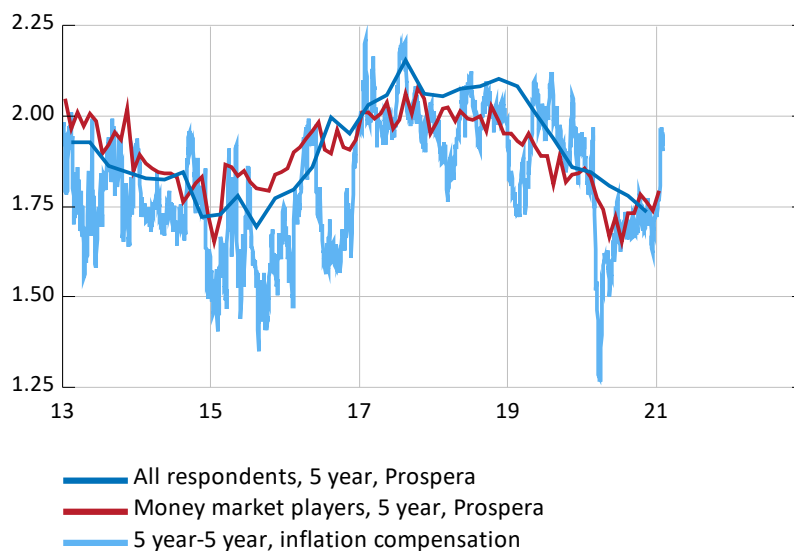
³ See, for instance, the article "The long-term economic effects of the pandemic are uncertain" in Monetary Policy Report, November 2020.

The economic recovery is creating the conditions for an upturn in inflation and means that corporate costs are expected to gradually increase more rapidly in the years ahead. Resource utilisation in the economy will rise from very low levels and normalise during 2022. GDP will also continue to rise at a good pace thereafter, leading to rising inflationary pressures. The krona, which has strengthened during most of 2020, is expected to dampen inflation somewhat, particularly during 2021. In the period ahead, however, the krona is assumed to remain relatively unchanged and no longer affect inflation to such a great extent. As from 2022, the development of inflation is expected to be more stable, increasing steadily so that it is close to the target of 2 per cent towards the end of the forecast period (see Figure 3).

Expectations of inflation in the slightly longer term can be measured in different ways, for example by means of surveys to various economic agents and via the market pricing of various financial contracts. Given the dramatic economic slowdown in 2020, the decline in longer-term inflation expectations, according to both surveys and market pricing, has been small. Expectations measured via market pricing fell in the initial stage of the crisis but recovered the most dramatic fall quite rapidly and in recent months have risen to approximately the same level as before the pandemic. Expectations according to survey measurements have also shown some decline in 2020 but have risen more recently. The overall picture is that long-term inflation expectations are quite close to 2 per cent (see Figure 4).

Figure 4. Long-term inflation expectations

Per cent



Note. Inflation compensation refers to a 5-year period starting in 5 years' time, calculated on the basis of bond yields.

Sources: Kantar Sifo Prospera and the Riksbank.

1.2 Monetary policy needs to be sustained

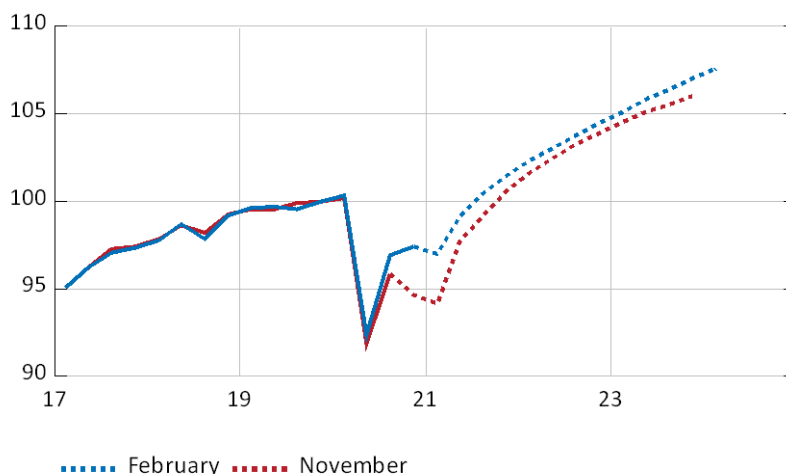
Brighter picture of the recovery

The pandemic has still not released its grip on economic developments, but the recovery is nevertheless starting to pick up. Despite stricter recommendations and rules, outcomes and indicators suggest that, on the whole, the Swedish economy during the second half of the year did not weaken to the extent expected by the Riksbank in November. Movements on financial markets have not been as large as in the spring, interest rates are low and credit supply is good. In light of vaccinations having been initiated and economic developments being stronger than expected, the economic outlook has been revised up somewhat (see Figure 5). Developments on the labour market have also been better than expected at the end of 2020.

Since the Monetary Policy Report in November, CPIF inflation has been higher than expected. It is primarily energy prices that increased faster than expected, but even if they are excluded, inflation has increased slightly more than was assumed in the forecast in November. Similar to the outlook for the real economy, the outlook for inflation in the near term has also been revised up somewhat (see Figure 6). However, major variations in the development of inflation can be expected for some time to come. In the slightly longer term, the forecast is largely unchanged compared with the Monetary Policy Report in November. Towards the end of the forecast period, CPIF inflation is expected to be close to the target of 2 per cent more permanently.

Figure 5. GDP in Sweden

Index, 2019 Q4 = 100, seasonally-adjusted data

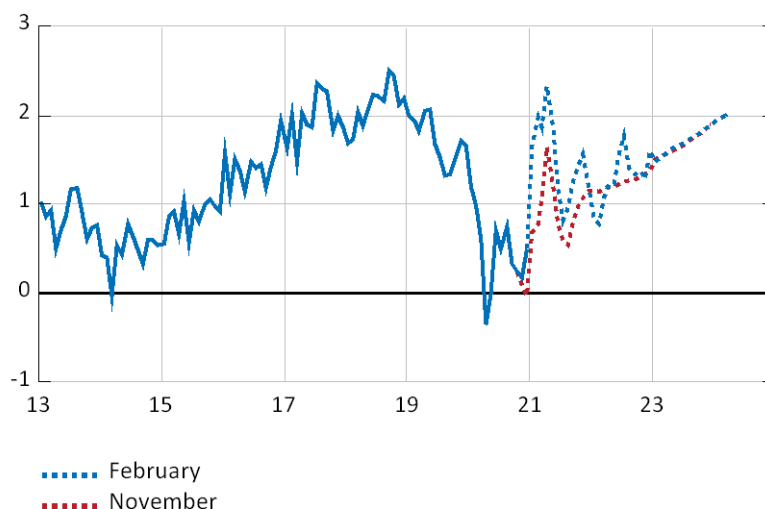


Note. Solid line represents outcome, broken line represents the Riksbank's forecast.

Sources: Statistics Sweden and the Riksbank.

Figure 6. CPIF

Annual percentage change



Note. Solid line represents outcome, broken line represents the Riksbank's forecast.

Sources: Statistics Sweden and the Riksbank.

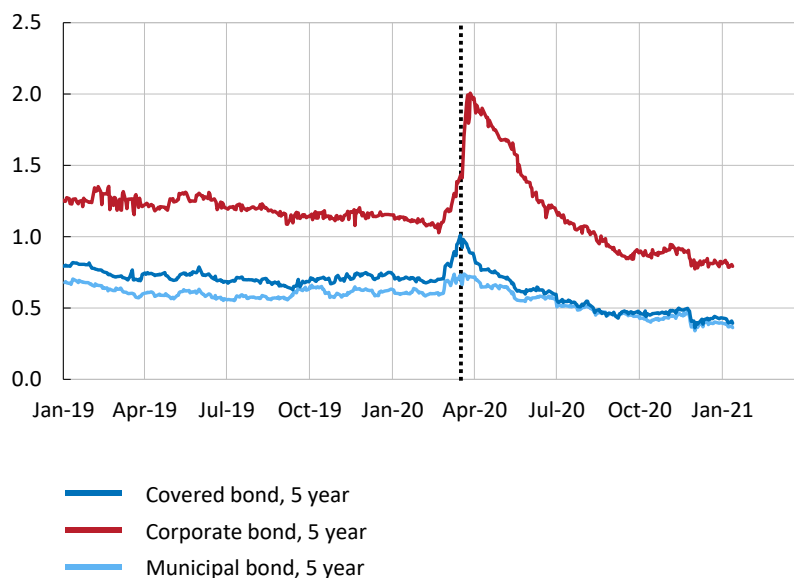
Monetary policy needs to remain very expansionary

The Riksbank has launched a number of programmes aimed at keeping interest rates low and facilitating credit supply. In its funding for lending programme, the Riksbank offers banks the opportunity to borrow up to SEK 500 billion to stimulate their lending to Swedish non-financial corporations. Within the envelope for the asset-purchase programme, the Riksbank will purchase securities for up to SEK 700 billion. The Riksbank also offers loans to banks in weekly extraordinary market operations, has lowered the interest rate in the standing facility, and has lowered the collateral requirements on loans to banks. The measures taken by the Riksbank are summarised in Table 1.

Due in part to these measures, the crisis has not developed into a financial crisis and the conditions for an economic recovery have improved. A general rise in interest rates has been avoided and companies and households have had ample opportunity to borrow money from banks. Without the Riksbank's measures, the crisis would have been both deeper and more prolonged. Bond yields on markets on which the Riksbank is present have fallen back on the whole since the initial acute phase of the crisis, and yield spreads to government bonds are now smaller than they were one year ago (see Figure 7). Companies' costs for wholesale funding are therefore low and credit supply to households and companies in Sweden is considered to be functioning well overall. Both in Sweden and abroad, financial conditions are still expansionary.

Figure 7. Yield spreads between different types of bonds and government bonds

Percentage points



Note. Yields on covered bonds, corporate bonds and government bonds are zero coupon rates calculated using the Nelson-Siegel method. Corporate bonds refer to companies with a high credit rating. Municipal bonds are issued by Kommuninvest i Sverige AB. Broken line marks 16 March 2020, when the Executive Board decided to expand asset purchases to include municipal bonds and covered bonds.

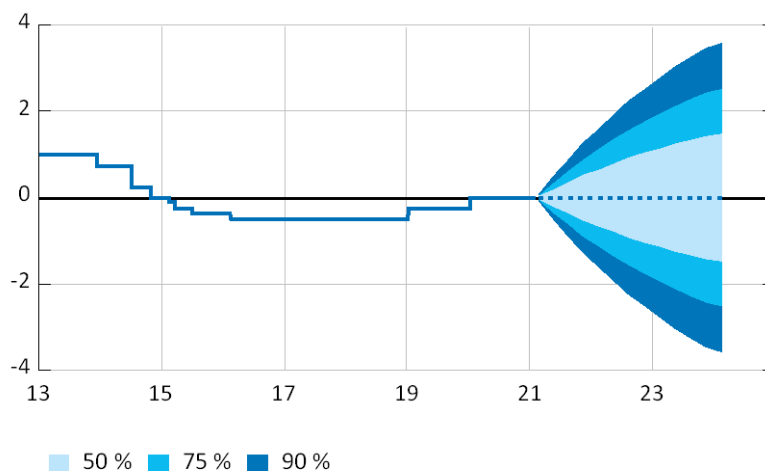
Sources: Bloomberg, Macrobond, Refinitiv and the Riksbank.

It is positive that, after the dramatic fall in GDP last spring, the economic recovery is now expected to proceed slightly more rapidly than in previous assessments. But inflation is still low, and there is still a considerable need for stimulation to enable the economy to continue to recover. The expansionary financial conditions reflect expectations that central banks, governments and other authorities will maintain their support measures for some time to come. Monetary policy needs to ensure that financial conditions are maintained on levels that support the continued recovery in the economy and help inflation rise towards the target.

The Riksbank will therefore continue, as planned, to purchase securities and offer liquidity within all the programmes launched in 2020. The Executive Board has also decided to hold the policy rate at zero per cent. The repo rate is expected to remain at zero per cent for the entire forecast period (see Figure 8).

Figure 8. Repo rate with uncertainty bands

Per cent



Note. The uncertainty bands for the repo rate are based on the Riksbank's historical forecasting errors and the ability of risk-premium adjusted forward rates to forecast the future repo rate for the period 1999 up to the point when the Riksbank started to publish forecasts for the repo rate during 2007. The uncertainty bands do not take into account the fact that there may be a lower bound for the repo rate. Outcomes are daily rates and forecasts refer to quarterly averages.

Source: The Riksbank.

The Riksbank's plan for purchases of securities during the second quarter of 2021

The Riksbank continuously assesses the needs and adapts the purchases made within its asset-purchase programme so that they are distributed as effectively as possible among the various asset types. At the monetary policy meetings, purchase plans are decided upon for a specific period in the future and the Executive Board has now decided on the distribution for the second quarter of 2021. During the quarter, the Riksbank will purchase bonds to an aggregate nominal amount of SEK 90 billion and increase its holdings of treasury bills by SEK 10 billion (see Figure 9).

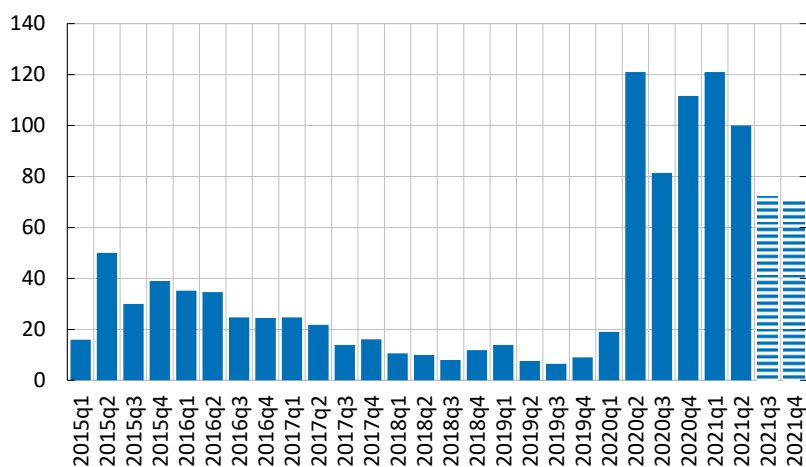
The bond purchases are divided into Swedish nominal and real government bonds and the Swedish state's green bonds to an aggregate nominal amount of SEK 12 billion, bonds issued by Swedish municipalities and regions and by Kommuninvest i Sverige AB to a nominal amount of SEK 15 billion, and covered bonds issued by Swedish institutions to a nominal amount of SEK 60 billion (see Figure 10). The purchases of corporate bonds up to SEK 10 billion until 30 June 2021 will continue in line with the decision made on 30 June 2020. The Riksbank strives for a relatively even distribution among different bonds. As the Riksbank already owns a large share of the outstanding nominal government bonds with maturities of less than 10 years, the purchases of nominal bonds will be at longer maturities.

In addition to bond purchases, the envelope for asset purchases up to SEK 700 billion includes both the Riksbank's purchases of treasury bills and offer to buy commercial

paper. Implementation of the purchase programme thereby takes the short maturities of treasury bills and commercial paper into account. During the second quarter of 2021, the Riksbank will offer to purchase commercial paper up to a possible holding of SEK 32 billion and purchase treasury bills so that the holdings increase by SEK 10 billion and reach SEK 20 billion at the end of the quarter. The Executive Board's current assessment is that the envelope for asset purchases will be fully utilised by the end of 2021. This involves bond purchases of around SEK 70 billion per quarter in the second half of the year (see Figure 9).⁴

Figure 9. The Riksbank's purchase of assets in Swedish kronor

Nominal amounts, SEK billion



Note. The solid bars represent implemented or decided purchases of government bonds, municipal bonds, covered bonds and corporate bonds within the envelope for both the asset-purchase programme initiated in February 2015 and the new asset-purchase programme initiated in March 2020. The purchase amount for 2021 also includes changes in the holdings of treasury bills. Striped bars show a forecast based on the whole envelope of SEK 700 billion being utilised, assuming an even purchasing rate for the rest of 2021.

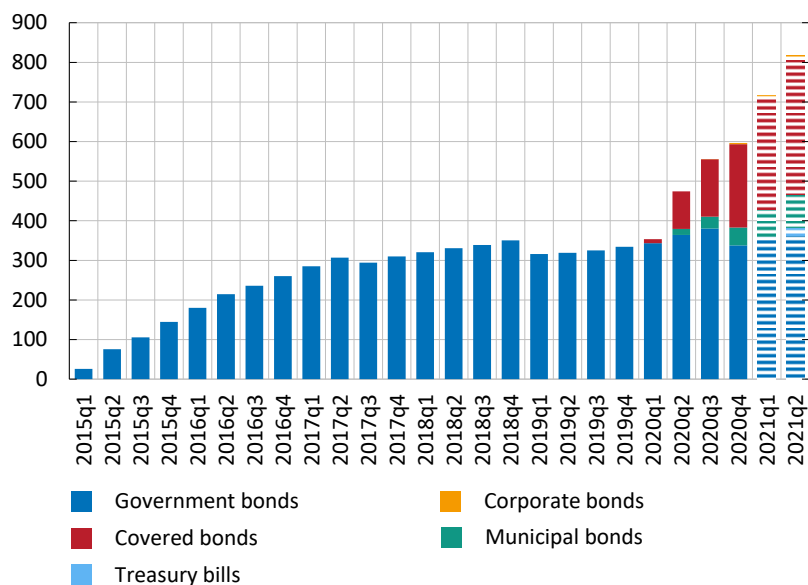
Source: The Riksbank.

The decision regarding purchases for the second quarter means that the Riksbank's total holdings, which also include purchases of government bond before the pandemic, will amount to about SEK 800 billion at the end of the second quarter of 2021 (see Figure 10). If deemed appropriate, the Executive Board can adjust the plan for asset purchases by raising or lowering the purchase amount for a particular type of asset. Which monetary policy measures are taken, and when, is always a trade-off between various advantages and disadvantages. The actions of the Riksbank adhere to a precautionary principle, where it is important not to reduce support measures too early.

⁴ The aim is to maintain holdings of treasury bills at a level of SEK 20 billion after the second quarter, which means that, at maturity, the Riksbank will purchase Swedish treasury bills to compensate for this.

Figure 10. The Riksbank's holdings of assets by asset type

Nominal amounts, SEK billion



Note. Holdings of assets, excluding commercial paper, issued in Swedish kronor. Decided purchases are shown for the first and second quarter of 2021.

Source: The Riksbank.

Holdings of securities maintained at least during 2022

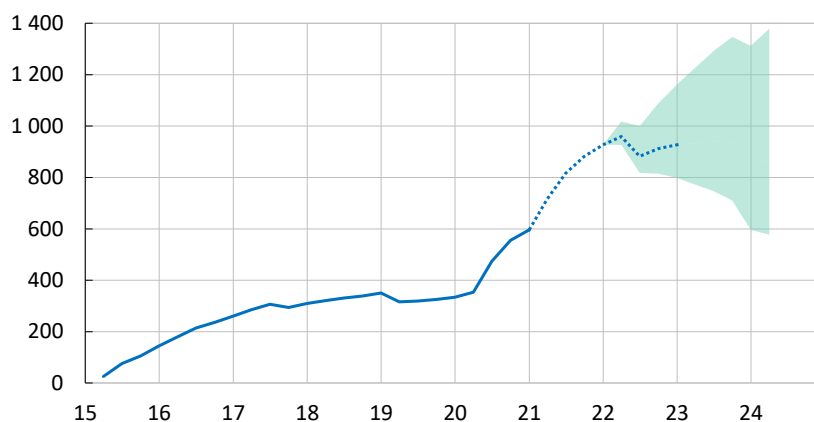
Since 2015, the Riksbank's purchases of nominal and real Swedish government bonds have been an important tool to make monetary policy expansionary. During the corona crisis, the holdings of assets have increased substantially. In addition to government securities, the Riksbank has purchased several other securities in order to keep interest rates down and facilitate credit supply in the economy. The largest purchases have been of covered bonds followed by municipal bonds and corporate debt securities. In the decision from November 2020, purchases of treasury bills were also included in the purchase programme.

At the end of January 2021, the Riksbank's holdings of securities issued in Swedish kronor amounted to around SEK 625 billion (see Figure 11) Securities for SEK 345 billion had then been purchased within the SEK 700 billion envelope launched during the pandemic. The holdings are expected to increase to just over SEK 900 billion at the end of the year.⁵ This also includes the holdings of government bonds built up by the Riksbank in 2015–2017. The Executive Board plans to maintain the size of the holdings at least during 2022 by means of new purchases that compensate for various assets reaching maturity (see also the article "Development of the Riksbank's securities holdings"). The Riksbank will continue to formulate monetary policy so that there is extensive monetary policy assistance for as long as necessary in order to support the recovery and inflation.

⁵ The holdings increase by less than the planned purchase amounts as some bonds mature during the year.

Figure 11. The Riksbank's holdings of assets in Swedish kronor

Nominal amounts, SEK billion



Note. Holdings of assets, excluding commercial paper, issued in Swedish kronor. Broken line shows a forecast for holdings up until the end of 2021 and thereafter a technical projection assuming an even purchase rate that will maintain the holdings at the same level at the end of 2022 as at the end of 2021. The interval's upper limit reflects a development in which the Riksbank's asset purchases continue at more or less the same pace as during 2021. Its lower limit is a projection of holdings assuming that no more asset purchases are made after 2021.

Source: The Riksbank.

Support measures have a more effective impact when policy areas complement each other

The support measures implemented by the Government and the Riksbank to mitigate the crisis and facilitate the recovery complement each other. The Riksbank's measures have contributed to well-functioning credit supply and to low interest rates throughout the economy. Demand in the Swedish economy is also bolstered by fiscal policy, which can provide more accurate support to sectors where the negative effects of the pandemic have been particularly apparent. Since the pandemic broke out, the Riksdag has decided on extensive fiscal policy measures.

Interest rates are now low and public finances are strong. This makes it possible to implement extensive economic policy support over a long time to bring the economy back towards a more normal situation. The Riksbank's forecasts for the economic recovery also presume that there is continued extensive fiscal policy support.

1.3 Uncertainty requires preparedness

New downturn in the economy?

The continued economic recovery is expected to proceed slightly more rapidly in the Riksbank's current assessment compared with the one in November. But although unusually strong outcomes and the ongoing vaccination programmes have reduced the likelihood of further large GDP falls this year and in the coming years, the forecasts are nevertheless uncertain. There is still a risk of setbacks when it comes to the spread of infection and immunity. The logistical challenges posed by the vaccinations

are substantial. And even if the assumption in the main scenario about the development of the pandemic is fulfilled, the recovery may proceed more slowly than expected and the repercussions of the crisis may become more serious.

In a scenario where the need for monetary policy stimuli increases, asset purchases and measures to promote lending in the economy are still important tools. With a policy rate already at zero per cent, the scope for large rate cuts is limited. But it is entirely possible that the repo rate may be cut, particularly if confidence in the inflation target were under threat. Several factors that are currently difficult to assess will determine whether it is appropriate to cut the repo rate to negative levels again. These factors include the development of the exchange rate, how fast the supply side of the economy recovers in relation to the demand side, and how a lower policy rate is assessed to affect interest rates in general and ultimately consumption and investment. In a scenario with new downturns in the economy, fiscal policy at the same time has an important role to play. This applies in particular if economic problems affect one particular sector of society harder than others.

Faster upturn in inflation?

Inflationary pressures are expected to rise gradually in the coming years, when demand strengthens both abroad and in Sweden and corporate costs approach normal levels. The resilience shown by the economy during the second wave of the pandemic emphasises that an even faster increase in aggregate economic activity than in the Riksbank's main scenario is not impossible. In a scenario with a more favourable development for Swedish GDP and labour market, inflation could also rise more quickly during the forecast period (see the article "Alternative scenarios for the economic recovery" in this report). The crisis is likely to have an influence on structural changes, although it is an open question whether these changes will contribute to higher or lower inflation in the longer term. Some circumstances suggest that inflation may go higher, for example if the pandemic leads to reduced trade in goods and services with other countries.⁶ Shocks to production could also lead to a higher rate of price increase, as well as decreased competition due to more bankruptcies in certain sectors.

A scenario where inflation rises more quickly during the forecast period need not be a reason to make monetary policy less expansionary in different ways. An inflation rate that overshoots the target could help to anchor inflation expectations more firmly around 2 per cent, which would be good for price setting and wage formation.

Side-effects of necessary stimulus measures

The measures taken by central banks the world over risk incorporating vulnerabilities into, for example, the financial system. However, these vulnerabilities have been subordinate to the need to counteract the immediate economic consequences of the pandemic and dampen the dramatic falls in GDP and employment in the global economy. The support measures have led to a sharp increase in sovereign and corporate

⁶ For a discussion of these factors, see the article "Inflation outlook during the corona crisis" in the Monetary Policy Report in July 2020.

debt. Weak banks and public finances in, for example, the euro area could deepen and prolong the crisis.

The Riksbank's monetary policy support measures are so far considered to have worked well and had a positive impact on the economy. Stimulating the economy has been necessary but can simultaneously increase the long-term risks. The Riksbank therefore constantly analyses the potential side-effects of monetary policy. Low interest rates can create the incentive for excessive risk-taking, homes and other assets can become overvalued, leading to risks being incorrectly priced and to indebtedness among economic agents increasing in an unsustainable manner. The Riksbank's purchases of government bonds have pushed down interest rates but also led to a large share of the stock not being available for trading on the market.⁷ Vulnerabilities linked to the high indebtedness of Swedish households and the major exposures of banks to property have also increased. Housing prices have risen further during the pandemic as has household indebtedness, making households even more sensitive to both price falls on the housing market and rising interest costs. First and foremost, housing and tax policy measures are required to mitigate the risks associated with household indebtedness.⁸

In connection with the discussion on the side-effects of monetary policy, the effects on income and wealth distribution were also discussed. Expansionary monetary policy has an impact through various channels and contributes to both rising asset prices and higher employment, which have counteracting distributional effects. It is thereby not obvious what the total effect is. Monetary policy is not very well suited to use in redistribution policy and neither is this the Riksbank's task. Fiscal policy has the most effective tools and is also responsible to counteracting undesirable distributional effects.⁹

⁷ In the autumn 2020 Financial Markets Survey, however, the share of respondents saying that the markets are functioning well or very well had risen significantly since the spring.

⁸ For a discussion of the higher risks to financial stability, see the Riksbank's Financial Stability Report 2020:2.

⁹ See the article "Distributional effects of the Riksbank's measures" in Monetary Policy Report, November 2020.

Table 1. The Riksbank's measures during the corona crisis

Measure	Scope (Purchased/utilised so far up to 5 February)	Aim
Funding for lending programme	Up to SEK 500 billion (SEK 164.5 billion)	Support credit supply to non-financial corporations.
Envelope for the Riksbank's asset purchases	Purchase programme lasts until 31 December 2021. Envelope amounts to SEK 700 billion. Purchases 2021 Q2: SEK 90 billion in bonds and SEK 10 billion increased holdings of treasury bills (SEK 345 billion, excluding commercial paper)	Contribute to low interest rates throughout the economy and a smoothly functioning credit supply, and in this way create favourable conditions for the economy to recover and inflation to rise towards the target.
- Purchases of government bonds	Purchases 2021 Q2: SEK 12 billion (SEK 50.7 billion)	
- Purchases of municipal bonds	Purchases 2021 Q2: SEK 15 billion (SEK 49.3 billion)	
- Purchases of covered bonds	Purchases 2021 Q2: SEK 60 billion (SEK 238 billion)	
- Purchases of treasury bills	Purchases up to holdings of SEK 20 billion as of 30 June 2021 (Holdings: SEK 3 billion)	
- Purchases of corporate bonds	Purchases up to SEK 10 billion up to 30 June 2021 (SEK 4.4 billion)	
- Purchases of commercial paper	Purchases up to SEK 32 billion up to 30 June 2021 (Holdings: SEK 0.4 billion)	
Interest rate in standing loan facility cut	Cut from 0.75 to 0.10 percentage points above the repo rate.	Ensures that the overnight rate on the market for Swedish krona is close to the repo rate. Makes it cheap for the banks to get access to overnight loans.
Weekly market operations whereby banks are offered loans against collateral at three and six months maturities at the repo rate.	Unlimited (SEK 28.7 billion)	Strengthen the banks' access to liquidity in Swedish kronor to facilitate their funding and their role as suppliers of credit to Swedish companies.
Eased collateral requirements when borrowing from the Riksbank	—	Reinforce the banks' access to liquidity in Swedish krona.
Loans in US dollars	Up to USD 60 billion (USD 2 billion)	Reinforce access to liquidity in US dollars in the Swedish financial system.

Note. Municipal bonds refers to bonds issued by Swedish municipalities, regions and Kommuninvest i Sverige AB. All of the bases for the decisions on various measures can be found on the Riksbank's website <https://www.riksbank.se/en-gb/press-and-published/updates-on-the-riksbank-and-the-coronavirus-pandemic/the-riksbanks-measures-in-connection-with-the-corona-pandemic/>.

2 Low interest rates and increased risk appetite

Since the spring of 2020, the appetite for holding risky assets on international financial markets has gradually increased. This development has continued despite the tightening of restrictions in many countries after the increase in the spread of infection since the Monetary Policy Report in November. Important reasons are the start of vaccination programmes around the world and central banks continuing to take measures in the form of large-scale asset purchases and extensive lending programmes.

Interest rates in Sweden are low. Risky interest rates with longer maturities are low and the spreads between long and short interest rates are small. Money market rates and some bond rates are on a level with the repo rate or just below. The increased appetite for risky assets has boosted the value of both the Swedish stock market and the Swedish krona since the autumn. Although credit growth to companies has decreased somewhat over the past few months, credit supply to households and companies in Sweden is still considered to be functioning well. Both in Sweden and abroad, financial conditions are still considered expansionary but they are dependent on economic policy support measures being maintained.

2.1 Higher spread of infection but financial markets less volatile than in the spring

The pandemic and its economic consequences continues to affect conditions on financial markets both in Sweden and abroad. Around the turn of the year, the spread of infection increased in many countries and governments have therefore been forced to reintroduce lockdowns. The Swedish Government has also introduced new restrictions, and announced travel bans from a number of countries. However, these setbacks have not had any great impact on the appetite of investors to hold risky assets. Contributory causes are that countries have started their vaccination programmes, that expectations regarding longer-term economic developments are unchanged and that central banks are continuing to conduct expansionary monetary policy in the form of asset purchases and various lending programmes.

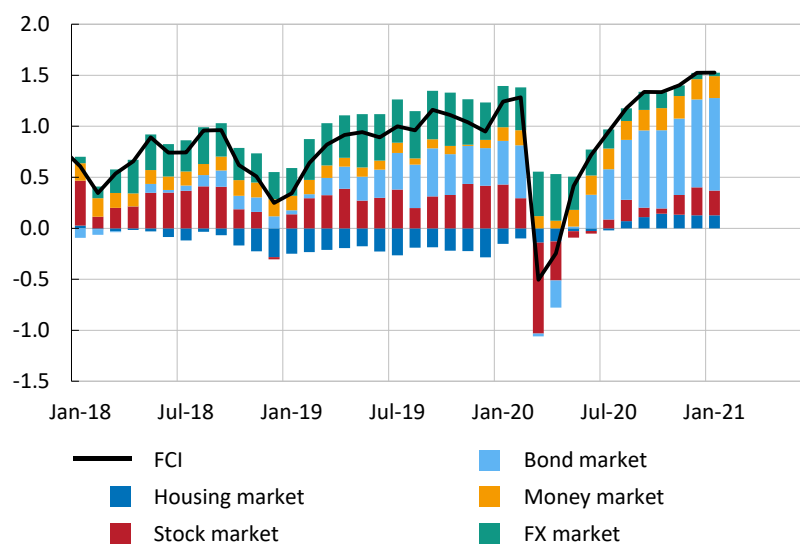
In addition, political uncertainty has decreased since November, not least in the United States, where expectations of more expansionary fiscal policy have also increased after the elections. The uncertainty surrounding the United Kingdom's exit from the European Union also decreased before the turn of the year after a preliminary trade agreement was struck. Negative news has caused limited movements on

financial markets since November. But there is still a risk of further increased spread of infection, delays in vaccination programmes or the premature phase-out of economic policy support measures leading to renewed turmoil on financial markets. As in the spring, such a development would probably lead to rising interest rates and make it more difficult for companies and households to obtain credit. The situation on financial markets is thus very dependent on central banks, governments and other authorities continuing to implement support measures.

In bond markets where the Riksbank makes asset purchases, yields are still very low. Yields on covered bonds and corporate bonds in particular are historically low. Figure 12 shows an index that aims to summarise the situation on many different financial sub-markets in Sweden. It indicates that financial conditions remain expansionary and that it is mainly the low bond rates that are contributing to this. But the equity market, money market and housing market are also contributing. However, as the Swedish krona has appreciated since the autumn, the foreign exchange market is no longer contributing to the expansionary financial conditions.

Figure 12. Index for financial conditions in Sweden

Standard deviations – a higher value indicates more expansionary financial conditions



Source: The Riksbank.

ECB expanding and extending its support measures

The European Central Bank (ECB) adopted additional monetary policy stimulation measures in December by expanding and extending its asset-purchase and lending programmes. Policy rates were left unchanged, which means that the deposit rate remains at –0.5 per cent. The envelope for asset purchases within the special Pandemic Emergency Purchase Programme (PEPP) was expanded by EUR 500 billion to EUR 1,850 billion and the period of net purchases was extended to at least March 2022. In the programme for lending to households and companies via banks (TLTRO-III), the favourable interest terms were extended to June 2022. The amount that banks may borrow within the programme was also raised somewhat. The ECB is also continuing

to ease the collateral requirements that banks must fulfil when they borrow liquidity in the ECB. In the asset purchase programme that was already in place before the pandemic (APP), purchases of assets to a net sum of EUR 20 billion a month are continuing. The ECB announced that it expects these asset purchases to continue for as long as it is necessary to keep monetary policy expansionary and that this programme will not end until just before policy rates are raised. At the monetary policy meeting in January, the ECB reiterated that the envelope for the programme shall be seen as a ceiling.

The US central bank, Federal Reserve, decided to hold the policy rate unchanged within the interval 0 – 0.25 per cent at its monetary policy meeting in December. Its holdings of government securities are increasing by USD 80 billion a month while its holdings of covered bonds and other mortgage-backed securities (MBS) are increasing by USD 40 billion a month. The Federal Reserve emphasised at the meeting that it intends to continue these purchases until the economic situation has improved. In December, the Federal Reserve also offered to extend its agreements with foreign central banks that enable them to provide liquidity support in USD up until the end of the third quarter this year. The application period for participating in the lending facility aimed at supporting credit supply to small and medium-sized companies was also extended in December. However, the Federal Reserve did not extend all the programmes introduced in connection with the pandemic.¹⁰ At the monetary policy meeting in January, no new changes were made to what had been decided at the December meeting.

The expansionary monetary policy conducted by many central banks, in the form of asset purchases and different kinds of lending, has increased their balance sheets as a share of the economy (see Figure 13).

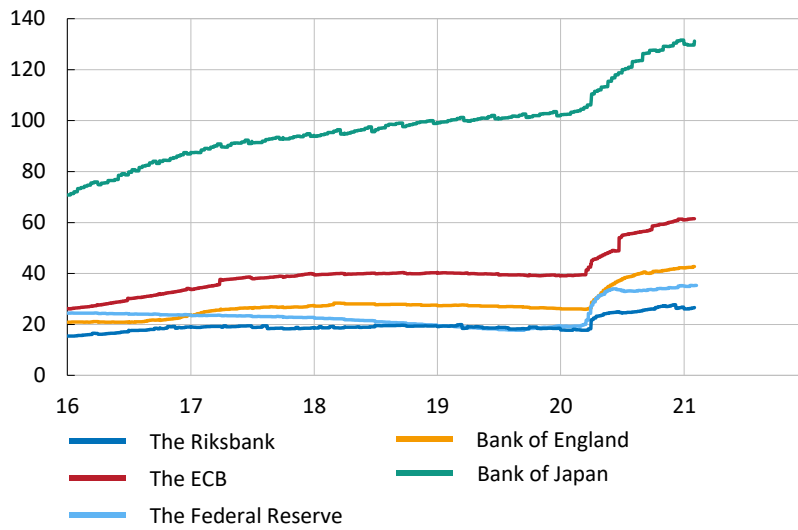
Low interest rates on the Swedish money market

Pricing on financial markets indicates that market participants expect policy rates in the United States, the United Kingdom and Sweden to remain close to zero per cent for a long time to come and that participants expect the ECB to hold the deposit rate unchanged at around –0.5 per cent (see Figure 14).

¹⁰ The Secondary Market Corporate Credit Facility (SMCCP) and the Main Street Lending Programme were closed at the turn of the year.

Figure 13. Central banks' balance sheet totals

Per cent of annual GDP

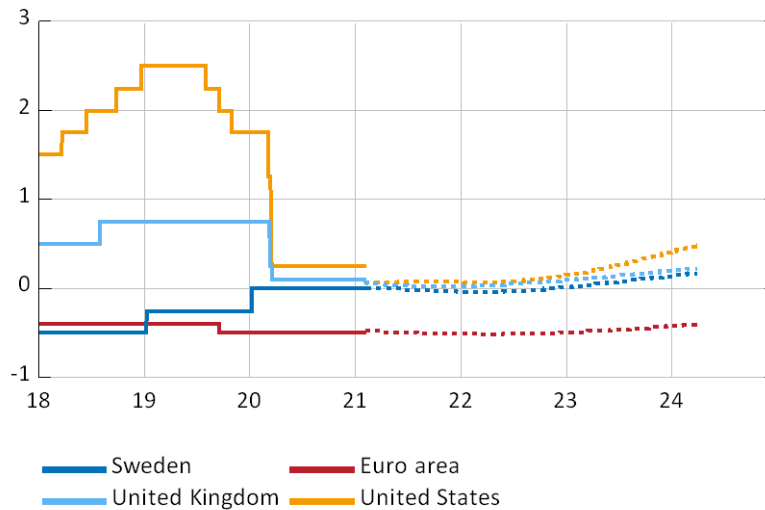


Note. Annual GDP is calculated as a total of the present quarter and the three previous quarters. For observations after 30 September 2020, annual GDP is the total of GDP for the fourth quarter of 2019 up to and including the third quarter of 2020. The series for Bank of England is based on weekly statistics that give an accurate estimate of the bank's fully consolidated balance sheet, which is published with a time-lag of five months.

Sources: Bank of England, Macrobond and the Riksbank.

Figure 14. Policy rates and rate expectations according to forward rates

Per cent



Note. Forward rates describe the expected overnight rate, which does not always correspond to the policy rate. In Sweden the forward rate does correspond to the repo rate. Broken lines are forward rates estimated on 2021-02-05.

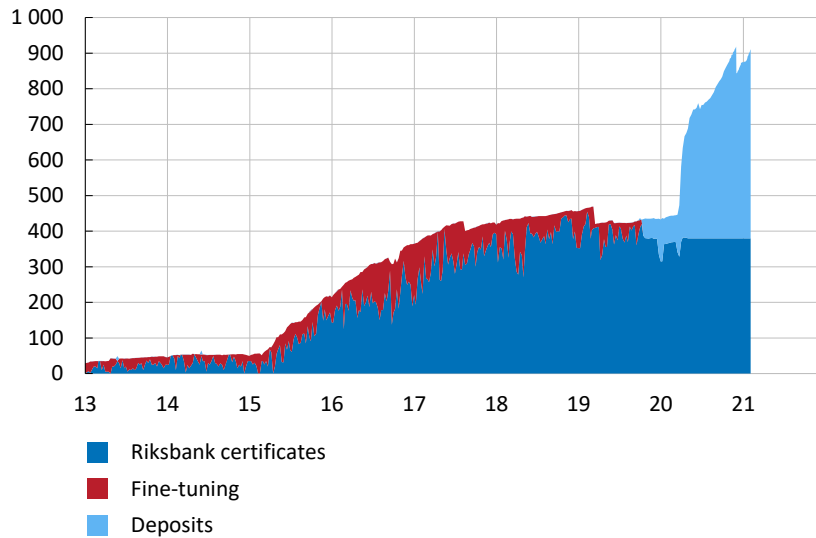
Sources: Macrobond and the Riksbank.

The expectation of a low repo rate level is one of the reasons why yields on Swedish government securities and on the interbank market are so low. Another important reason is the Riksbank's asset purchases. Since 2015, liquidity in the banking system

has grown as a result of the Riksbank's purchases of bonds for monetary policy purposes. Since March 2020, liquidity has increased further as a result of the Riksbank deciding on new asset purchases and lending programmes (see Figure 15).

Figure 15. Liquidity in the banking system, deposits and Riksbank certificates

SEK billion

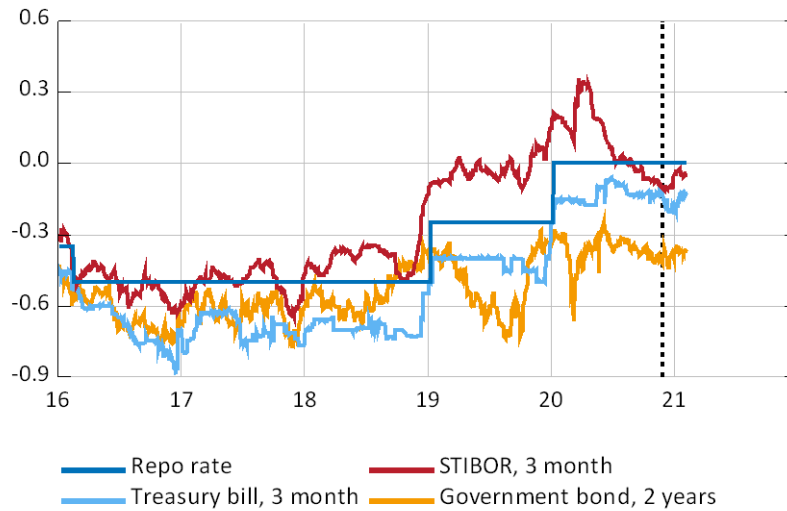


Source: The Riksbank.

The liquidity surplus is an important explanation for why interest rates on the Swedish money market, including the rate for uncollateralised interbank loans, STIBOR, have been so low. Since November, STIBOR has been lower than the Riksbank's repo rate (see Figure 16). Yields on most government securities are also lower than the repo rate. Yields on treasury bills fell after the monetary policy decision in November when the Riksbank included these securities in the asset-purchase programme.

Figure 16. The repo rate and market rates

Per cent



Note. The broken line marks the monetary policy meeting in November.

Sources: Macrobond, Refinitiv and the Riksbank.

Rising long-term interest rates in the United States, rates in Sweden still low

Long government bond yields in the United States have risen clearly since November (see Figure 17). A possible explanation is that the inflation expectations of market participants have increased, partly in light of fiscal policy being expected to be expansionary and the Federal Reserve tolerating a higher rate of inflation in the coming years than it has done in the past.¹¹ As policy rate expectations have been more or less unchanged since November, the increase may also be due to a rise in the so-called term premium. The term premium is the payment that compensates investors for the risks of investing in bonds with long maturities compared with investing in a series of bonds with short maturities. The increase in the term premium can be explained by investors having become less willing to hold safer assets, such as government bonds, and instead turning to riskier assets, such as equities and commercial paper. When the demand for government bonds falls, the compensation for holding them rises.

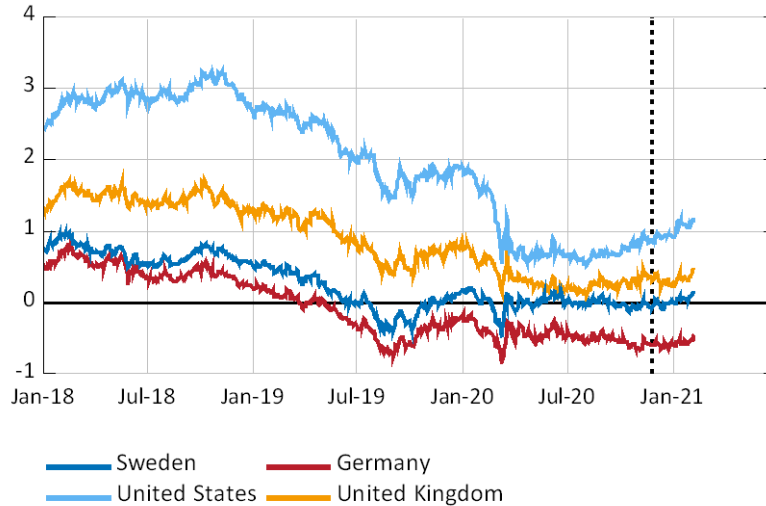
In Europe, there has been a certain rise in government bond yields since November. This applies to yields in both Germany and other countries (see Figure 17). A contributory cause of these yields still being so low is the support measures from the ECB. However, government bond yields in some countries, such as Italy, Portugal and Spain, are higher than corresponding yields in Germany. The spreads between these yields and German yields partly reflect the public debt levels in the respective countries, but are also held down by support measures from the ECB and EU. These yield

¹¹ For more details see the box “The Federal Reserve’s new monetary policy framework”, in *Monetary Policy Report*, September 2020, Sveriges Riksbank.

spreads have been relatively stable since the turn of the year and the government crisis that arose in Italy at the beginning of the year has so far had relatively little effect on the Italian state’s borrowing costs.

Figure 17. Government bond yields with 10 years to maturity

Per cent



Note. Implied zero-coupon yields from government bonds for Sweden, Germany and United Kingdom. 10-year benchmark bonds for the United States. The broken line indicates the Monetary Policy meeting in September.

Sources: The national central banks, US Treasury and the Riksbank.

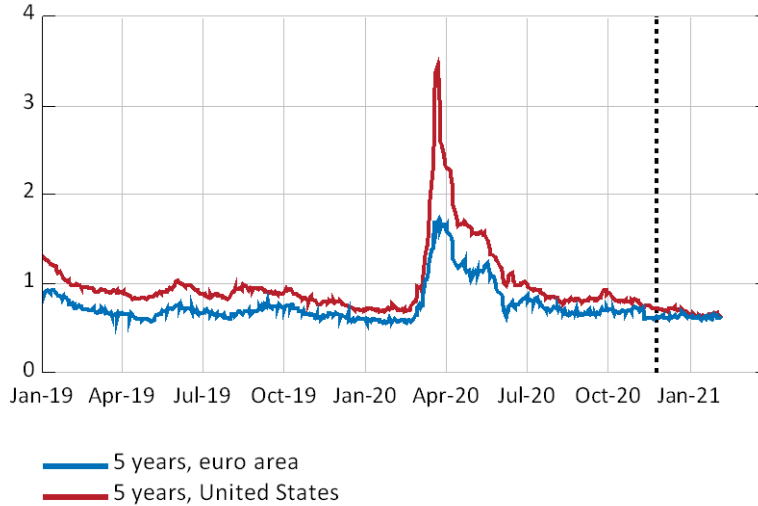
Swedish government bond yields also remain low, even though they have risen since the monetary policy meeting in November (see Figure 17). Expectations of low policy rates and central bank asset-purchase programmes are important reasons for the low government bond yields around the world. Yields on Swedish covered bonds have also remained very low since the monetary policy meeting in November. For example, the yield on a two-year covered bond is slightly lower than the repo rate.

Cheap for companies to obtain funding on the market

Yield spreads between corporate bonds and government bonds in the United States and the euro area are still very small and have fallen slightly further since the turn of the year (see Figure 18). Yields on corporate bonds with good credit ratings have also fallen in Sweden and the yield spreads to government bonds are now less than they were a year ago (see Figure 19).

Figure 18. Difference between yields on corporate bonds and government bonds in the euro area and United States

Percentage points



Note. Yield differentials refer to 5-year benchmark bonds issued by companies with good credit ratings and benchmark sovereign bonds respectively. The broken line indicates the Monetary Policy meeting in November.

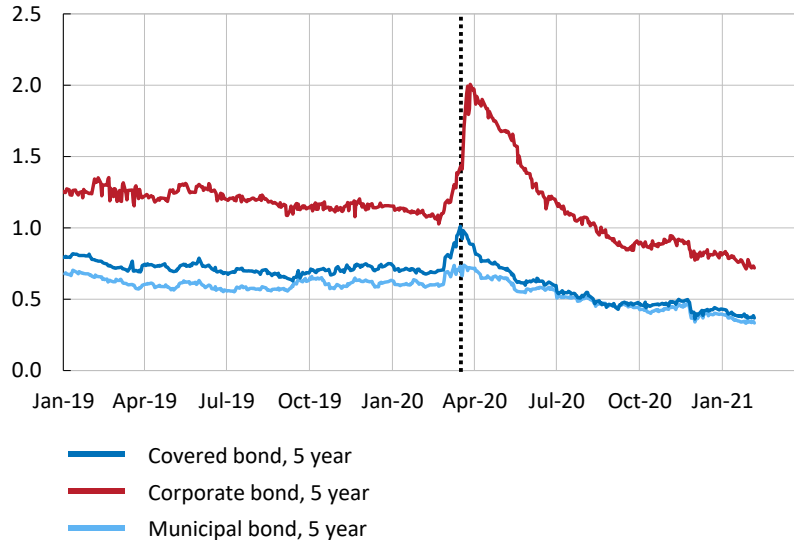
Source: Macrobond.

In March last year, many investors wanted to sell corporate bonds and few wanted to buy. The imbalance on the market was so obvious that trading in several corporate bond funds was temporarily suspended for withdrawals as it became difficult to value holdings at accurate prices. The difference between buy and sell yields, the so-called bid-ask spread, increased as a result. This is often used as a measure of liquidity in a market. After the summer, these spreads on the corporate bond market decreased, which indicates an improvement in market liquidity. Setbacks in the form of news that the spread of infection has increased again have not affected market liquidity and average borrowing costs have continued to fall.

Yields and liquidity in other bond markets where the Riksbank is present, such as the market for municipal bonds and covered bonds, have had a similar development. During the autumn, the yield spread between these bonds and equivalent government bonds has been at lower levels than before the pandemic (see Figure 19). The Riksbank's presence on these markets is one of several explanations why Swedish bond markets have shown resilience in the face of an increase in the spread of infection. The Riksbank's support measures have helped to maintain market liquidity and kept down the risk premia that could otherwise have caused rates to increase.

Figure 19. Yield spread between different types of bond and government bonds in Sweden

Percentage points



Note. Yields on covered bonds, corporate bonds and government bonds are zero coupon rates calculated using the Nelson-Siegel method. Corporate bonds refer to companies with a high credit rating. Municipal bonds are issued by Kommuninvest i Sverige AB. The broken line marks 16 March 2020, when the Executive Board decided to expand asset purchases to include municipal bonds and covered bonds.

Sources: Bloomberg, Macrobond, Refinitiv and the Riksbank.

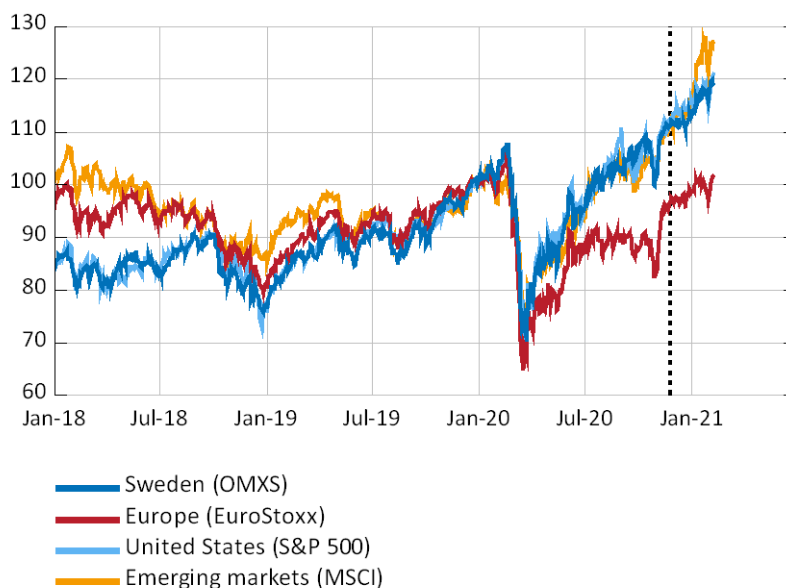
Price increases in equity markets

Prices in equity markets have continued to rise since November and several stock market indices, especially in the United States and in Sweden, have reached new record levels (see Figure 20). Equity markets were somewhat more sensitive than bond markets to news on the spread of infection and new restrictions during last autumn. But after several countries have started their vaccination programmes, there have been no major price falls on equity markets, although prices have varied somewhat. The market also expects these fluctuations to be greater in the period ahead than they were before. The financial contracts that are traded on the market and reflect expected variations in stock market value rose in late January and are higher than they were a number of years ago. This indicates that the cost of insuring against price movements in equity markets is higher than before the pandemic.

However, the recovery of equity markets has occurred without corporate profit levels increasing to the same extent and this raises the issue of whether equity valuations are sustainable in the long term, something that has been discussed in various international forums. It is important in this context to emphasise that the upturn in equity markets must not be seen as decoupled from developments in bond markets, where the low interest rates mean that bond prices are very high in a historical perspective.

Figure 20. Stock market movements in domestic currency

Index, 31 December 2019 = 100



Note. The broken line indicates the Monetary Policy meeting in November.

Source: Macrobond.

Swedish krona stronger since the autumn

During turbulent periods when market participants prefer safer assets, the krona exchange rate usually weakens against currencies that investors regard as safer, such as the US dollar. Falling interest rates on risky bonds and rising equity prices indicate a high risk appetite in financial markets, especially in view of the economic situation. This high risk appetite is one of the explanations for why the krona has strengthened against most other currencies in recent months. Since the monetary policy meeting in November, the krona, according to the krona index, KIX, has appreciated somewhat more (see Figure 21). This is in line with developments in other financial markets with low interest rates and high equity prices. Since the turn of the year, however, the krona has weakened somewhat while equity price fluctuations have increased.

Figure 21. Nominal exchange rate, KIX

Index, 18 November 1992 = 100



Note. The KIX (krona index) is a weighted average of the currencies in 32 countries that are important for Sweden's international trade. A higher value indicates a weaker exchange rate. The broken line indicates the Monetary Policy meeting in November.

Sources: National sources and the Riksbank.

Swedish banks have low funding costs

Swedish banks obtain short-term funding not just in kronor in the Swedish money market but also by borrowing in other currencies such as the US dollar and the euro. They can then convert dollars and euro into Swedish kronor via various financial contracts. Their costs measured in Swedish kronor for obtaining funding in foreign currency can be illustrated by so-called implied SEK interest rates.

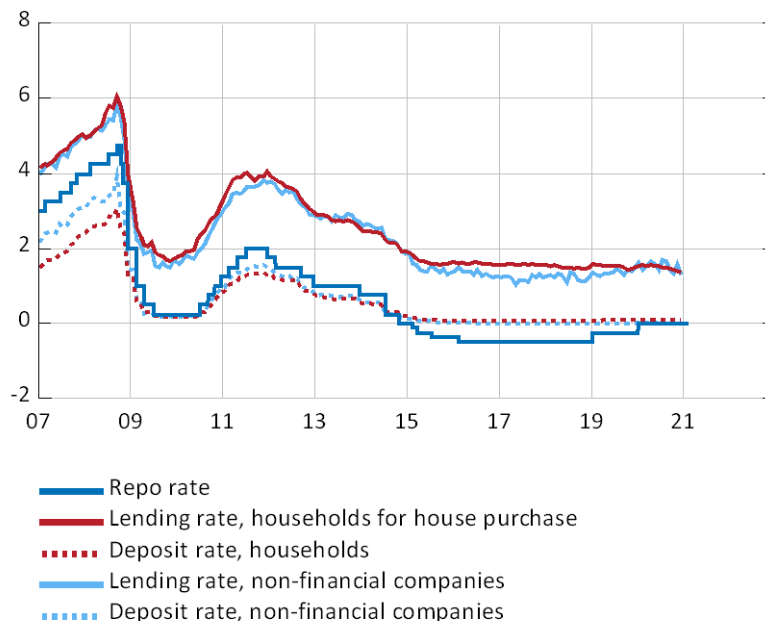
Figure 22 shows that the implied SEK rates are still lower than the repo rate, although they have risen somewhat since November. This means that the cost of obtaining funding via the dollar- and euro market is low. The currency swaps agreed between the Federal Reserve and a number of central banks around the world have enabled central banks to offer liquidity in dollars and, as a part of this arrangement, the Riksbank is offering dollars to Swedish counterparties at least until September 2021. The knowledge that central banks have this option has improved liquidity in global financial markets and has helped keep banks' funding costs low.

Figure 22 also shows that the yield on a two-year covered bond is below the repo rate. Yields on covered bonds with slightly longer maturities are also historically low. Covered bonds issued in Swedish kronor make up an important part of Swedish banks' long-term funding. The low costs for banks to obtain their own funding, both short- and long-term, are helping to keep lending rates to households and companies low.

the same time as trading in the commercial paper market more or less stopped for a few weeks in March.

Figure 23. Repo rate together with the average deposit and lending rate to households and companies, new and renegotiated loans

Per cent



Note. Monetary financial institutes' average deposit and lending rates are a weighted average of all interest rates for different maturities.

Sources: Statistics Sweden and the Riksbank.

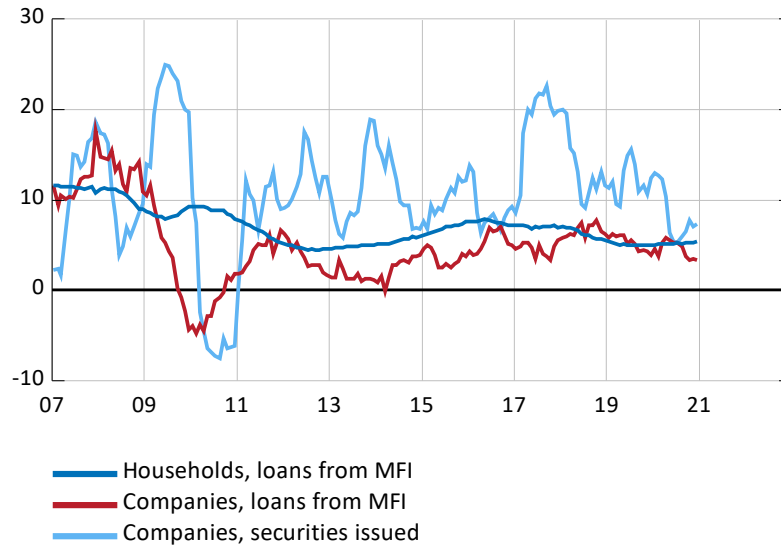
During the autumn, bank lending to large companies has declined somewhat while issue volumes in the commercial paper market have increased and are now back to their pre-pandemic levels. However, bank lending in kronor to small and medium-sized companies has remained unchanged during the autumn as has lending to housing cooperatives.¹³

Taken as a whole, credit supply seems to be relatively stable for companies of all sizes and in all sectors. On the aggregate level, corporate market funding has increased somewhat faster during the autumn while lending to households continues to grow at the same pace as at the beginning of last year (see Figure 24).

¹³ A company is defined as medium-sized in the statistics if it has a turnover of less than SEK 500 million or has assets worth less than SEK 430 million, and has fewer than 250 employees. A company is defined as small if its turnover is less than SEK 100 million or has assets worth less than SEK 100 million, and has fewer than 50 employees. A company is defined as very small (micro) if it has a turnover of less than SEK 20 million or has assets worth less than SEK 2 million, and has fewer than 10 employees.

Figure 24. Lending to households and companies

Annual percentage change



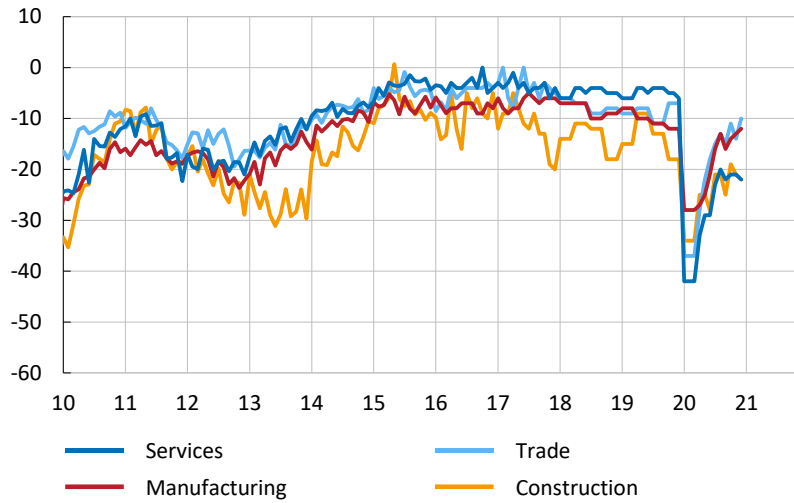
Note. Lending by monetary financial institutions to households and non-financial corporations adjusted for reclassifications and bought and sold loans. Securities issued by non-financial corporations have been adjusted for currency impact.

Source: Statistics Sweden.

According to National Institute of Economic Research surveys, however, companies themselves still perceive their funding situation to be worse than prior to the pandemic, despite a clear improvement since last spring (see Figure 25). It is primarily companies in the construction- and service sectors that consider their funding terms to be worse than before. This is due not to their perception that the costs for bank loans or for market funding have risen but that their ability to obtain bank loans has deteriorated somewhat during the autumn.

Figure 25. Credit and funding terms in different sectors

Net figures, per cent



Note. Net figures are the difference between easier/much easier funding and more difficult/much more difficult funding.

Source: National Institute of Economic Research.

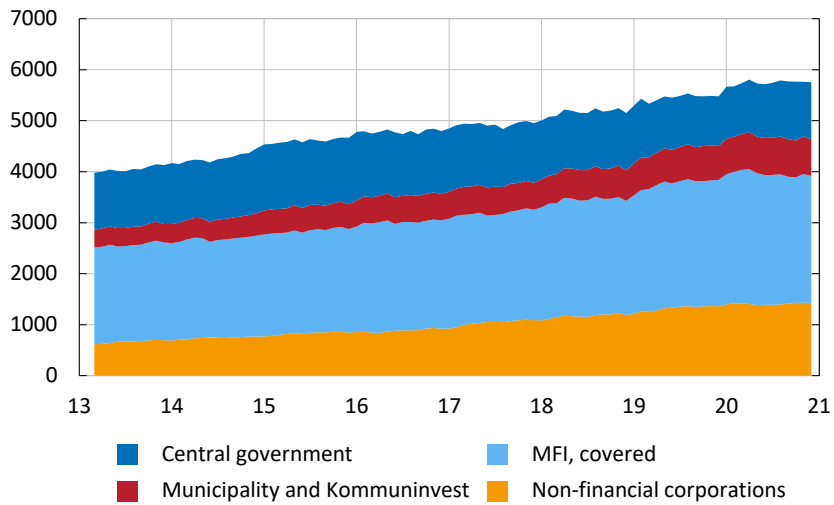
Despite low interest rates and companies being able to obtain funding via banks and via the market, the risk of substantial solvency problems remains. The most vulnerable companies in the pandemic, such as smaller companies or those in the hotel and restaurant sector, are probably borrowing money to a greater extent to resolve their acute liquidity problems. This means that the companies’ balance sheets are weakening and the risk of bankruptcy later on is increasing. This may be a substantial and growing risk for many companies, both in Sweden and abroad. Bankruptcies among Swedish companies have so far been relatively few but they have increased somewhat during the autumn. It is therefore important to continue to follow this development going forward.

Via its asset-purchase programme, the Riksbank is present on a number of important securities markets in Sweden. Total issuance of securities has declined during the autumn and, in December Swedish securities debt decreased compared with November.¹⁴ Some of this may be due to seasonal variations but may also be because the securities borrowing taking place in foreign currency declines in value when the Swedish krona appreciates. Another important reason is that banks’ borrowing in covered bonds in Swedish krona has gradually decreased since last spring (see Figure 26). The reduction can reflect the perception among banks that they no longer have the same funding requirements as before the pandemic. Another reason may be that the need for obtaining funding via covered bonds is less if banks can obtain it via bank deposits instead. Companies bank deposits in particular increased last year, which explains the high growth in money supply that occurred in 2020 (see Figure 27).

¹⁴Swedish securities debt data is based on the Swedish Securities Database (SVDB) developed by the Riksbank and Statistics Sweden. These figures will include all issues of securities carried out by the public and private sectors in Sweden and abroad.

Figure 26. Securities debt for different sectors

Market value, SEK billion

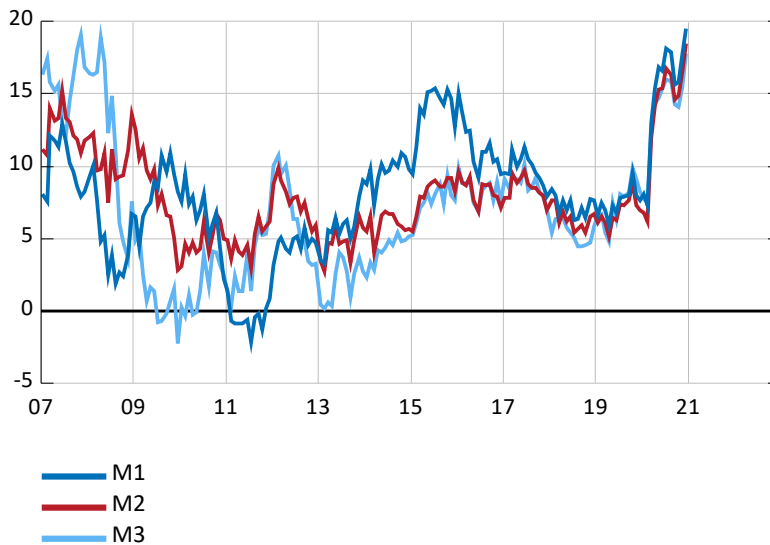


Note. The series for municipal securities debt refers to the borrowing of individual municipalities and the borrowing that occurs via Kommuninvest. The statistics refer to securities debt in both SEK and foreign currency.

Sources: Statistics Sweden and the Riksbank.

Figure 27. Measure of the money supply

Annual percentage change



Note. The M1 measure includes banknotes, coins and spot deposits. M2 includes M1 plus deposits with certain conditions. M3 includes shares in money market funds and interest-bearing securities with a maturity of up to 2 years.

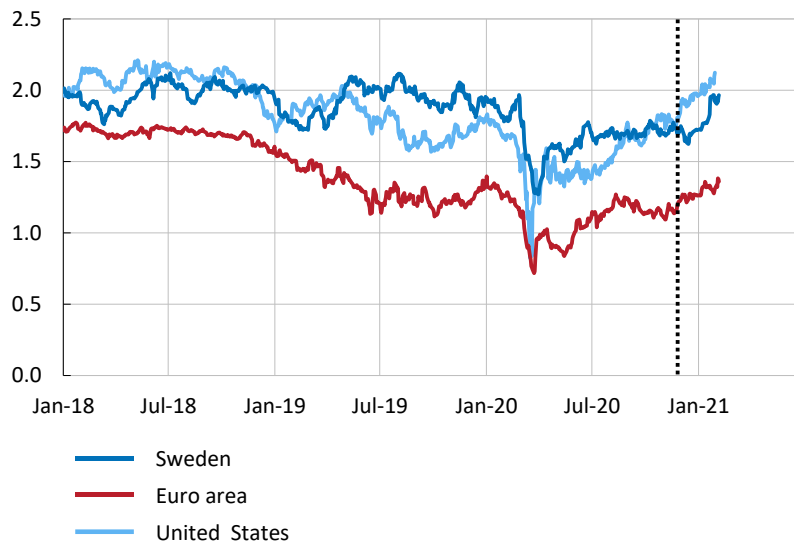
Sources: Statistics Sweden and the Riksbank.

Inflation expectations on the rise

Market-based measures of long-term inflation expectations in the United States have continued to rise during the autumn (see Figure 28). Important causes of this may be expectations of more expansionary fiscal policy and the Federal Reserve’s new strategy for achieving the inflation target.¹⁵ Market-based measures in both the euro area and Sweden have also risen since November. They have risen especially in Sweden more recently and are now close to 2 per cent. However, inflation expectations in Swedish surveys have not increased in the same way. The expectations of money market participants five years ahead, according to Kantar Sifo Prospera's survey, are now about 1.8 per cent according to the CPI but are close to the levels shown by the surveys prior to the pandemic.

Figure 28. Market measure of long-term inflation expectations

Per cent



Note. Inflation expectations refer to a 5-year period starting in 5 years’ time. For the United States and Sweden, these are calculated on the basis of bond yields and refer to the CPI. For the euro area, they are calculated on the basis of inflation swaps and refer to the HICP. The broken line marks the date of the monetary policy meeting in November.

Sources: Bloomberg, Macrobond and the Riksbank.

¹⁵ For more details see the box “The Federal Reserve’s new monetary policy framework”, in *Monetary Policy Report*, September 2020, Sveriges Riksbank.

3 Weak start to the year before the recovery continues

The spread of the coronavirus accelerated again in the autumn and winter, and several countries, not least in Europe, have tightened their restrictions to slow down the spread of infection. The pandemic is thus expected to continue burdening the global economy at the beginning of the year. At the same time, vaccination against COVID-19 has begun, which contributes to greater optimism regarding the recovery in the world economy. With effect from the second quarter of 2021, GDP is expected to once again begin rising again as vaccinations and reduced spread of infection allow for restrictions to be eased. Inflation will rise in the period ahead when resource utilisation increases in the global economy.

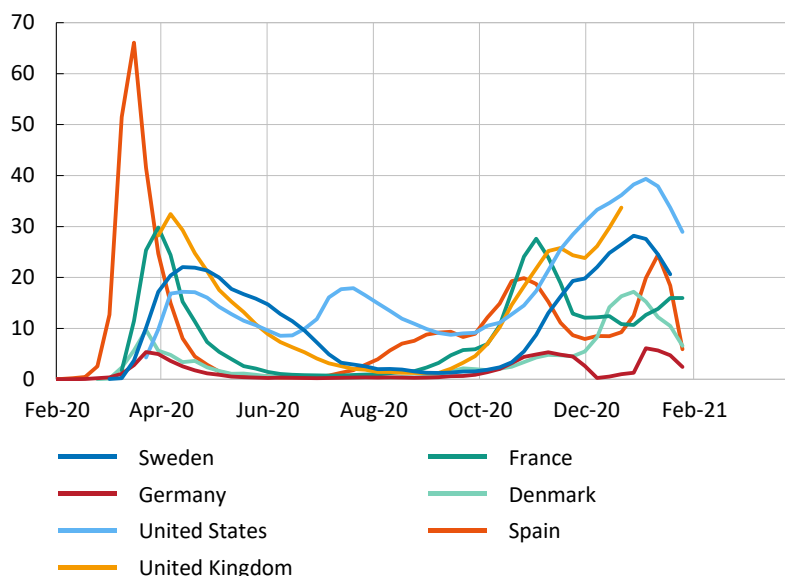
Economic activity in Sweden has also been slowed down by the second wave of the pandemic, but the effects on the economy are so far less than they were last spring. GDP growth is expected to be negative in the first quarter of this year, followed by a clear recovery when the spread of infection declines and the restrictions are eased. The situation on the labour market is still worrying, although unemployment has fallen in recent months. Resource utilisation in the economy is now expected to be more normal in historical terms in 2022. During 2021, inflation is expected to vary more than usual. After that, it will become more stable and gradually approach the target of 2 per cent in 2022 and 2023.

3.1 Rapid spread of infection has led to extended restrictions

In several European countries, the spread of infection picked up speed again in the autumn and during the winter the number of new infections and the percentage of those tested who are infected have been at high levels. The spread of infection varies between countries and regions, but it has declined somewhat in most countries during the beginning of the year. New figures on the number of people infected in China show an increase in January, but are at a low level in relation to Europe and the United States. In general, the situation is strained, and in several countries, such as the United States, the United Kingdom and Denmark, the number of people admitted to hospital exceeds the levels last spring, although recently it has fallen somewhat (see Figure 29).

Figure 29. Number of patients in hospital with COVID-19

Number of patients per 100,000 inhabitants



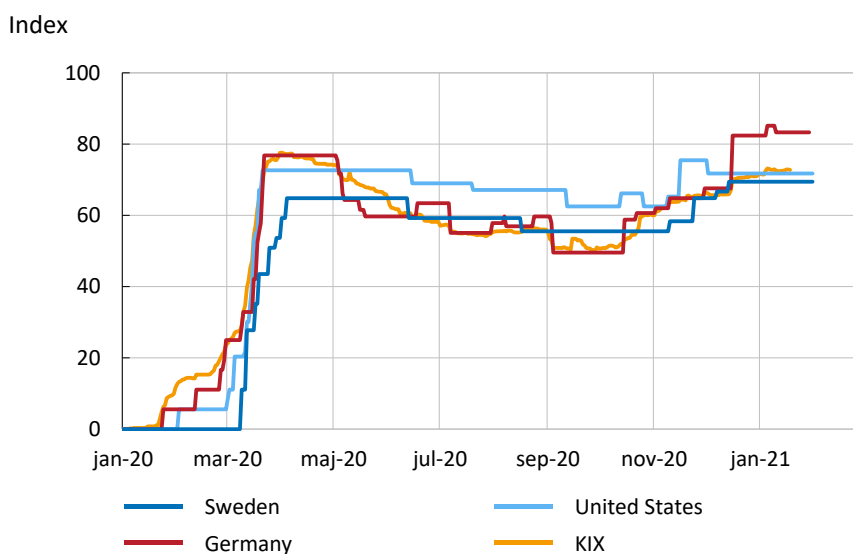
Note. The series show the number of patients in hospital with COVID-19 up until week 4 2021. The outcomes in recent weeks are uncertain due to a time-lag in reporting.

Sources: The European Centre for Disease Prevention and Control (ECDC), national sources and The COVID Tracking Project.

The increased spread of infection at the end of last year has caused most countries to introduce tighter restrictions. In Germany, a national lockdown was announced in the middle of December, and it has now been extended to the middle of February. In the United Kingdom, too, a national lockdown has been introduced, the third in a row, and China has closed down parts of Beijing. Most states in the United States have re-introduced restrictions, but there are large differences between them. In Sweden, the Riksdag (the Swedish parliament) adopted a temporary pandemic act that gives the Government greater powers to implement measures to strengthen protection against the spread of infection, such as the opportunity to close down businesses.¹⁶ All in all, the restrictions among Sweden's most important trading partners are - according to the Oxford Government Response Tracker (OxCGRT) - at similar levels to those measured last spring (see Figure 30).

The restrictions introduced during the autumn and winter differ somewhat from those introduced last spring. During the spring, schools, workplaces, local transport and even international borders were closed. The main difference in the design of the restrictions during the autumn has been that schools and workplaces have been held open in most countries. This has probably meant that economies have not suffered effects as negative as last spring.

¹⁶ A ban gives a higher index figure in OxCGRT than a recommendation and this may explain why the restrictions in Sweden look to be at higher levels in January. This act came into force on 10 January, and it is proposed that it will apply until the end of September 2021 (see the note in Figure 30).

Figure 30. Measures of the extent of government restrictions to reduce the spread of infection

Note. The index measures the extent of measures to combat the spread of COVID-19. The index consists of nine components that describe different types of restrictions, such as closing of schools and travel bans. Each component usually has a three-point scale corresponding to “no measures”, “some kind of instruction” and “a ban”. The index corresponds to the average of all components. KIX-weighted refers to an aggregate of 32 countries that are important for Sweden’s international trade.

Sources: Oxford COVID-19 Government Response Tracker (OxCGRT) and the Riksbank.

Economic developments in 2021 will to a large degree be determined by how households and companies react to the vaccinations and when governments are willing to ease the restrictions. The Riksbank’s forecast assumes that the majority of the adult population in Sweden and among our most important trading partners will be vaccinated during the first half of 2021 and that restrictions can be gradually lifted. However, there is still considerable uncertainty over the course of the pandemic, and its economic consequences.

Upturn in world trade and manufacturing industry

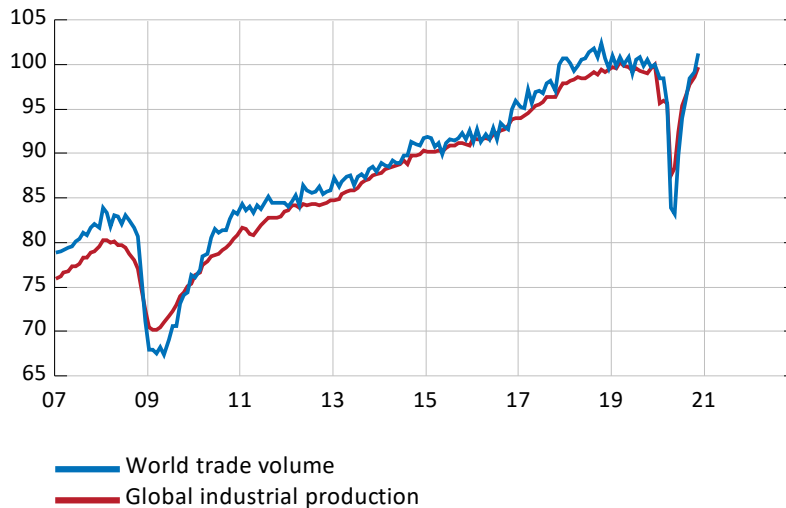
Economic developments over the past year have to a large extent been affected by the different phases of the pandemic and the restrictions introduced to prevent the spread of infection. The extensive lockdowns in, for instance, the Chinese economy, which is an important part of the global value chains, had negative effects on production in many countries during the spring. However, the restrictions imposed during the autumn do not appear to have affected the global value chains and industrial production to the same extent. The restrictions have instead mainly had a negative effect on consumption and production in certain tourism-related service sectors.

World trade in goods has continued to recover after the severe decline last spring, and in November it was at largely the same levels as prior to the pandemic (see Figure 31). Strong demand for covid-related products, such as face masks, medical equipment and home electronics has contributed to the strong development in world trade. Another contributory factor is that consumption in, for instance, the United

States has shifted somewhat away from domestic services to consumption of goods such as household products and leisure articles. Moreover, the strong, economic recovery in China has meant that demand for commodities has recovered substantially.

Figure 31. World trade volume and global industrial production

Index, December 2019 = 100



Note. World trade refers to trade in goods.

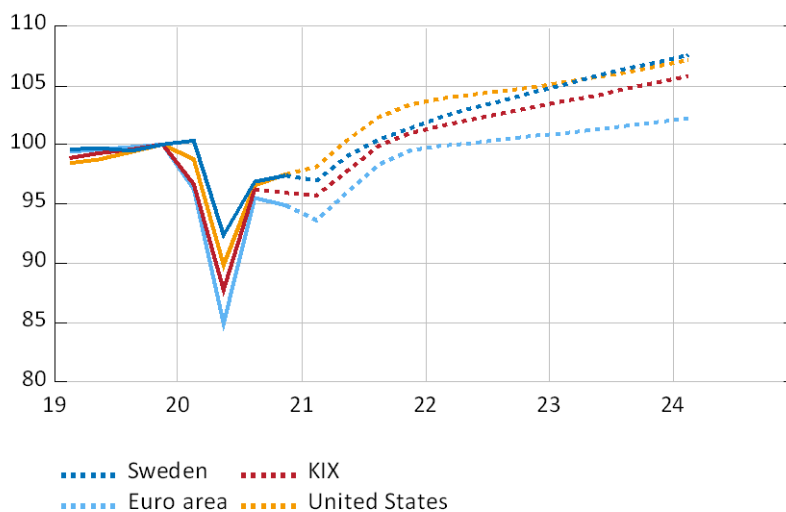
Source: CPB Netherlands Bureau for Economic Policy Analysis.

The world market price of oil (Brent) has risen from 44 dollars/barrel in November to around 55 dollars/barrel in January. The upturn at the end of last year was partly due to positive information about access to vaccines, strong demand in China and also reductions in production from OPEC and Russia. Saudi Arabia's announcement that it would cut production further during the first quarter of this year also contributed to a rise in the oil price. The recent weakening of the dollar has also supported the upturn in the oil price. According to market pricing, the oil price is expected to be close to 50 dollars in the coming years.

All in all, KIX-weighted GDP is expected to have fallen during the fourth quarter of last year and the first quarter of this year (see Figure 32). After the first quarter, when a larger number of people have been vaccinated and the restrictions have begun to be eased, GDP is expected to rise again.

Figure 32. GDP in Sweden and abroad

Index, 2019 Q4 = 100, seasonally-adjusted data



Note. KIX is an aggregate of the countries that are important to Sweden's international trade. Solid line refers to outcome, broken line represents the Riksbank's forecast.

Sources: Bureau of Economic Analysis, Eurostat, national sources, Statistics Sweden and the Riksbank.

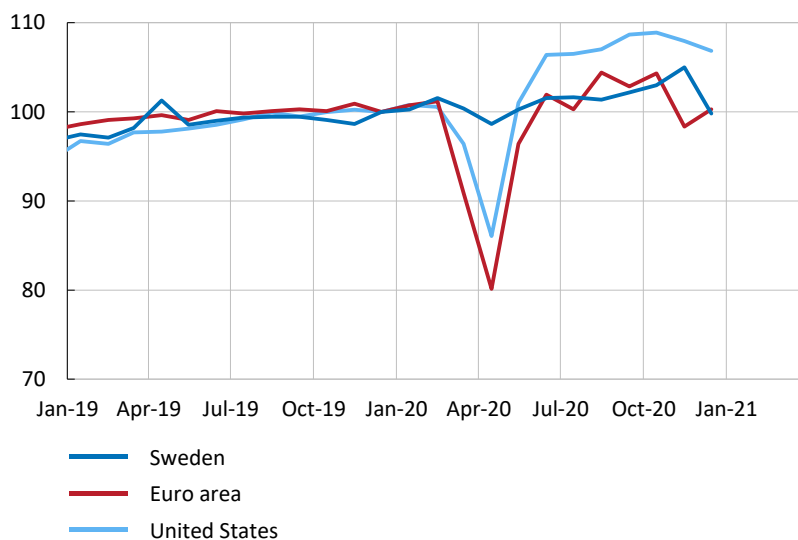
China growing during the pandemic

After a heavy fall in GDP during the first quarter of last year, China has had positive GDP growth. A strong end to last year meant that GDP grew by on average 2 per cent in 2020. The Riksbank assesses that the Chinese economy will grow by 9.5 per cent in 2021. China's strong recovery has primarily been driven by major government investment in the construction and industrial sectors, but recently the service sector has also contributed to an increasing extent.

Divided economy in the euro area

GDP in the euro area fell during the fourth quarter by 0.7 per cent, compared with the third quarter, according to preliminary statistics. The extended restrictions during the autumn and winter have only affected production in the manufacturing industry to a limited extent, and in November it rose by 2.5 per cent compared with the previous month. Developments in the German manufacturing industry were strong, as it benefits from its close links to the Asian economies and especially China. In the euro area as whole, it was primarily the production of capital goods and intermediate goods that increased, while energy production and the production of consumer goods declined. At the same time, the retail trade and services sector have shown weaker development. Turnover in the retail trade fell by almost 6 per cent in November, with a particularly heavy fall in France, resulting from the national lockdown. In December, however, retail trade sales increased by almost 2 per cent (see Figure 33).

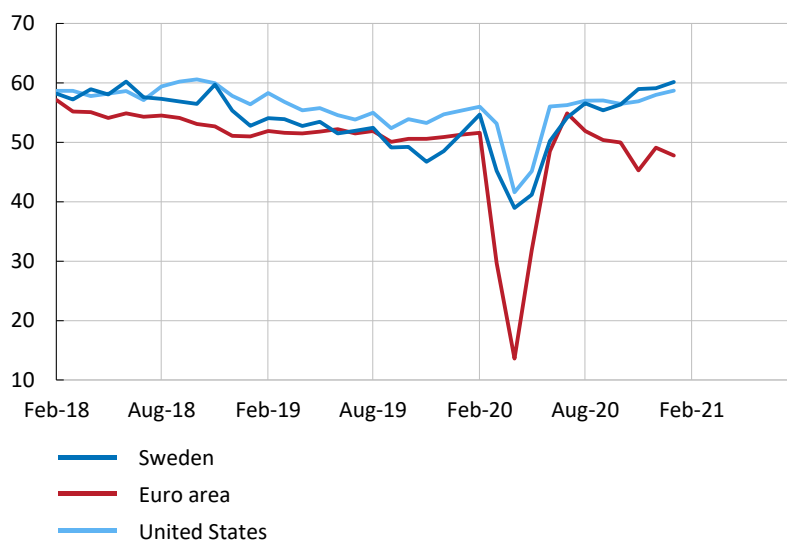
Figure 33. Retail trade sales in Sweden, the euro area and the United States
Index, December 2019 = 100, seasonally-adjusted data



Note. Refers to fixed prices.

Sources: Eurostat, Statistics Sweden and the US Bureau of Economic Analysis.

Figure 34. Purchasing Managers' Index in Sweden and abroad
Index



Note. The Purchasing Managers' Index for the United States refers to the Riksbank's weighting together the manufacturing and service sectors. The Purchasing Managers' Index for the euro area was published on 3 February 2021.

Sources: Silf/Swedbank, IHS Markit, ISM and the Riksbank.

High-frequency data and the most recent surveys indicate that economic activity was weak in January.¹⁷ The purchasing managers index recovered in December, when some countries eased their restrictions, but fell back again somewhat in January (see Figure 34). It is clear that the manufacturing industry has continued to develop strongly, while the services sector is weighed down by the restrictions. Consumer confidence recovered somewhat in December, when positive news about vaccination probably contributed to increased optimism, but it then declined in January. Unemployment has fallen somewhat during the winter, which can be partly due to more employees being put on short-term work schemes, and in December unemployment was 8.3 per cent. (see Figure 36). In the forecast, unemployment is expected to once again rise some way into next year before it falls more lastingly

The Riksbank assesses that tighter restrictions will lead to GDP in the euro area falling further during the first quarter of this year. With effect from the second quarter of 2021, GDP is expected to once again begin rising when vaccinations and reduced spread of infection make it possible to ease the restrictions. The fact that the economy recovered quickly during the third quarter of last year, after the restrictions were eased, gives reason for optimism when the restrictions are eased again. Households' saving ratio has risen substantially during the pandemic, and means that there are good conditions for an upturn in household consumption when their optimism and possibility to consume improve. Higher demand will in turn lead to an improvement in the labour market.

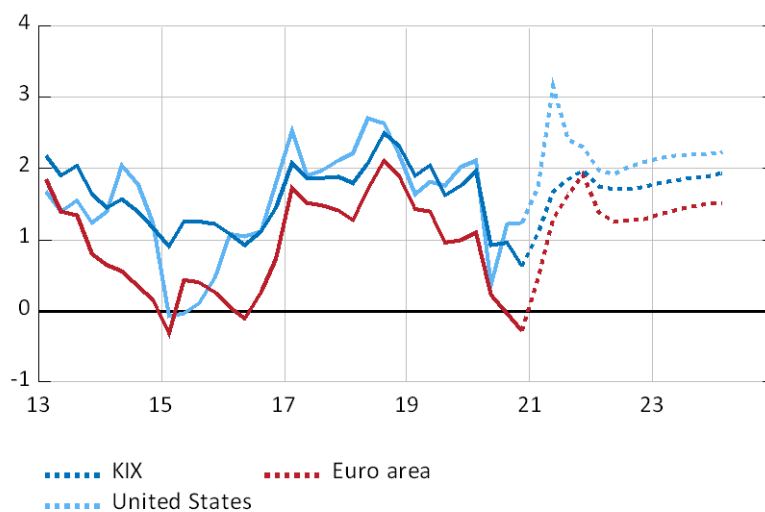
Monetary policy is expected to remain very expansionary. In addition, fiscal policy measures under the framework of Next Generation EU (NGEU) are expected to start to stimulate the economy as of 2021, with positive effects in the coming years, primarily for investment. Substantial fiscal policy stimulation in the United States also contributes to higher growth in the euro area, as a result of increased export demand. All in all, GDP is expected to rise by a good 4 per cent in 2021, after a fall of around 7 per cent last year. For 2022 and 2023, GDP growth is expected to decrease gradually and to average around 2 per cent (see Figure 32).

Inflation is still low, because of weak demand, low wage increases and a strengthening of the euro since the start of the pandemic. Falling prices on air travel, hotel stays and package holidays have held back inflation in last year. Measured in terms of the harmonised index of consumer prices (HICP), inflation was -0.3 per cent in December, but rose to 0.9 per cent in January. Core inflation, which excludes energy and food, alcohol and tobacco, amounted to 1.4 per cent in January. The rise in inflation in January was largely driven by temporary factors. In addition to rising energy prices, higher VAT in Germany and the annual update of the weights in the consumer price index contributed to the upturn. The forecast expects core inflation to rise from 0.9 per cent on average in 2020 to slightly below 1.3 per cent on average in 2023. HICP inflation is expected to rise from an average of 1.3 per cent this year to around 1.4 per cent in 2023 (see Figure 35).

¹⁷ High-frequency data has its limitations as the indicators are not seasonally-adjusted. Thus, the reduction in mobility in connection with the Christmas and New Year holidays should be interpreted with caution.

Figure 35. Consumer prices in various countries and regions

Annual percentage change



Note. KIX is an aggregate of the countries that are important to Sweden's international trade. Solid line represents outcome, broken line represents the Riksbank's forecast.

Sources: Eurostat, national sources, U.S. Bureau of Labor Statistics and the Riksbank.

In December, the United Kingdom and the EU reached an agreement on future trade. The agreement includes no customs duties being introduced in trade in goods, although the agreement does not include trade in services. Trade between the United Kingdom and the EU is not expected to be as frictionless as before. A number of different trade barriers, such as changes in regulations, customs inspections, logistics costs and disruptions in global value chains will hamper trade compared to how it was before. The agreement applies from the start of this year, although the European Parliament still has to vote in February as to whether or not it will be approved.

Extended fiscal policy stimulation in USA

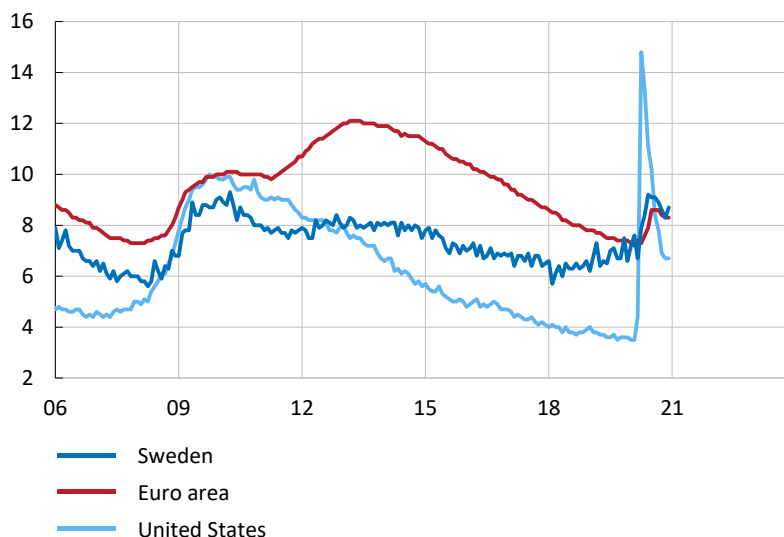
The US economy has proved capable of withstanding the negative effects of a faster spread of infection somewhat better than expected, and all in all, GDP rose by 1 per cent during the fourth quarter, according to preliminary statistics (see Figure 32). Retail trade sales were weak in October and November, but nevertheless at a much higher level in November than that noted prior to the outbreak of the pandemic (see Figure 33). Industrial production, on the other hand, has continued to grow, although it is not at the pre-crisis levels. Household confidence is at relatively normal levels after the fall from high levels last spring. Corporate sector confidence is strong (see Figure 34), and rose further in January in the services industry. However, the Riksbank assesses that the uncertainty connected to increased spread of infection, social distancing and new restrictions in some states will contribute to economic activity being somewhat lower at the beginning of 2021 than during the fourth quarter of 2020.

Unemployment in the United States increased substantially during spring 2020, but then fell heavily during the summer (see Figure 36). In recent months, the decline has continued, but at a slower pace, and in December unemployment amounted to 6.7 per cent. The downturn in unemployment is due to improved economic activity,

which has led to more people being employed, at the same time as labour force participation among both women and men is still at lower levels that prior to the pandemic.

Figure 36. Unemployment in Sweden, the euro area and the United States

Percentage of the labour force, seasonally adjusted data



Sources: The Bureau of Labor Statistics, Eurostat and Statistics Sweden.

Economic policy in the United States is very expansionary. The Federal Reserve is holding its policy rate close to zero and making extensive asset purchases. After a couple of uncertain months, the conditions for US fiscal policy have also become clearer. In January, the Democrats won both seats to the Senate in the extra election held in Georgia. This means that their chances of being able to implement their policies have increased, compared to the assumption last autumn. The Riksbank's forecast contains an assumption of fiscal policy stimulation that includes the USD 900 billion approved by Congress in December and around half of the support package of USD 1,900 billion presented by President Biden in January. These fiscal policy measures, together with an expansionary monetary policy, will clearly support the recovery in the US economy. Resource utilisation is expected to be roughly normal towards the end of the year. If fiscal policy were to become even more expansionary going forward - combined with the restrictions being eased - then resource utilisation may be higher than normal. All in all, GDP in the United States is expected to have fallen by 3.5 per cent in 2020, but to increase by 5.6 per cent this year. After this, growth will gradually slow down to around 1.5 per cent in 2023.

Following the substantial decline last spring, inflation has risen and amounted to 1.4 per cent in December, measured as the CPI. Energy prices have risen during the second half of 2020, and demand has increased with regard to the product groups negatively affected last spring. This is pushing up inflation, despite services prices developing more weakly. Core inflation, which is to say the CPI adjusted for food and energy, has also increased since last spring and was 1.6 per cent in December. Last year, inflation was low, but inflationary pressures will increase as the US economy recovers and

resource utilisation normalises. Long-term inflation expectations indicate increased inflationary pressures going forward, too. The Riksbank expects inflation to be just over 2 per cent at the end of the forecast period (see Figure 35).

3.2 Recovery in the Swedish economy accelerating again

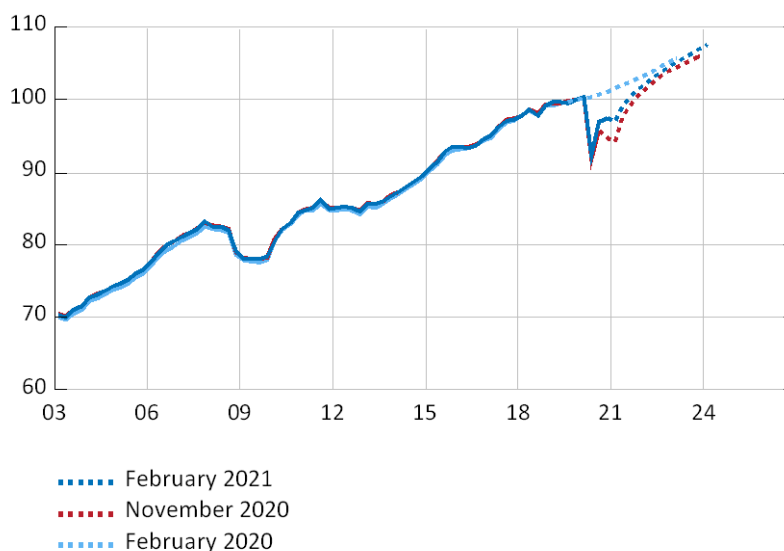
Recovery slowed down at end of 2020

The spread of infection gained new speed during the later part of the autumn, in what has been called the second wave, and further measures have been taken to try to limit contagion. The rapid recovery that began during the third quarter thus came to a halt and GDP increased by 0.5 per cent in the fourth quarter, compared with the third quarter.

A continued slow development during the start of this year means that GDP is expected to decline by 0.4 per cent in the first quarter, compared with the fourth quarter (see Figure 37). Vaccination of risk groups is under way and the assumption is that most adults will be vaccinated during the first half of this year. Partly as a result of this, the spread of infection is expected to be dampened and the restrictions will gradually begin to be lifted. As the spread of infection slows down, growth is expected to become positive again. However, growth rates will become gradually slower as resource utilisation approaches normal levels. On average, GDP is expected to increase by a good 3 per cent per year 2021–2023. Although the recovery is expected to be faster than was previously assessed, GDP will not reach its pre-crisis level until the autumn (see Figure 37).

Figure 37. GDP in Sweden

Index, 2019 q4 = 100, seasonally-adjusted data



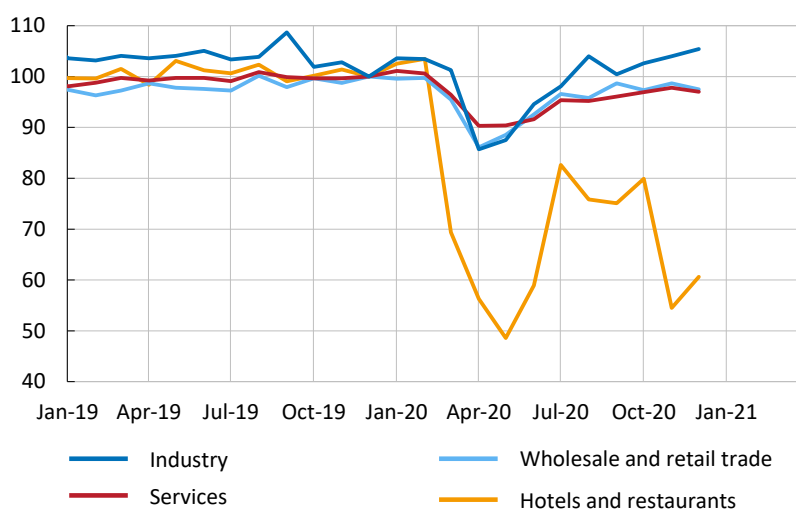
Sources: Statistics Sweden and the Riksbank.

Second wave putting pressure on services sector

Unlike the first wave, which led to a broad downturn in Swedish production, the downturn during the second wave has so far been concentrated to a smaller number of service sectors. Industrial production and also the retail trade as a whole have stood up well, compared to last spring. On the other hand, sales in the industries that were hit hard earlier, such as hotels and restaurants, have declined substantially as further restrictions were applied to these businesses (see Figure 38). Shops selling clothing and shoes have seen a decline in sales again as people have been encouraged to stay home.

Figure 38. Production in selected industries

Index, December 2019 = 100, seasonally-adjusted data



Source: Statistics Sweden.

Subdued consumption and higher saving

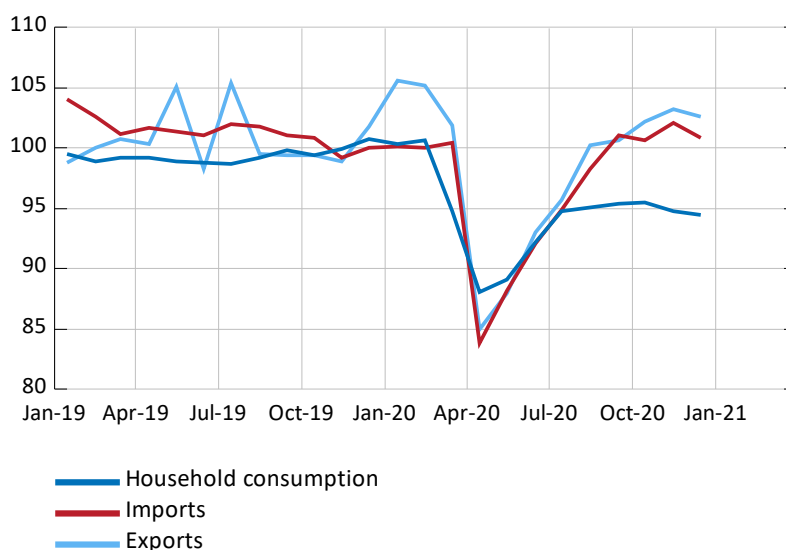
Turnover in the retail trade fell by almost 5 per cent in December, compared with November, which was a historically large fall and stronger than was noted last spring. To some extent, the decline can be explained by higher sales in November before the restrictions were tightened and in connection with the sales around “Black Friday”. But even if November and December are weighed together, the end of the fourth quarter was weak. Household consumption fell at the end of last year according to Statistics Sweden’s monthly indicator (see Figure 39).

However, developments in the fourth quarter do not appear to have been quite as negative as feared in the November forecast. There are part of the retail trade that have fallen to roughly the same levels as when the crisis was at its worst, such as clothing and shoes, but this is balanced by consumption in other goods and services having increased. Households appear to have listened to the recommendation to refrain from visiting shops in person and have instead bought more goods online.

Restaurant visits have declined substantially, at the same time as sales of food and alcohol in shops have increased. Households’ card transactions in January were around

10 per cent lower than in the corresponding month in 2020, and this indicates that consumption was slightly lower than in December. The continued rapid spread of infection indicates that consumption will remain slow during the first months of the year. However, as an increasing number of people are vaccinated and less activities are limited by restrictions and recommendations, consumption is expected to regain ground and increase. The deep downturn nevertheless means that consumption will not be back at the pre-crisis levels until at the end of the year.

Figure 39. Indicators for household consumption, exports and imports
Index, December 2019 = 100, seasonally-adjusted data



Note. Imports and exports refer to imports and exports of goods.

Source: Statistics Sweden and the Riksbank.

Households' disposable incomes, like GDP, have been unusually volatile in 2020, despite wage incomes remaining more or less unchanged, partly due to extensive support measures, at the same time as the transfers to households increased. During the second quarter, disposable income fell almost as much as GDP when share dividends were cancelled and capital income fell. However, the fall in consumption was somewhat larger, which means that households' total savings increased. The upturn in the savings ratio was much less than in many other countries, however. Following a weak development during 2020, households' nominal disposable incomes are expected to increase by a good 4 per cent on average in 2021–2023 when employment increases and share dividends are reinstated. As households return to consuming more of the goods and services they have abstained from during the crisis, they are also expected to save less.

Household indebtedness continues to increase as a result of the strong housing market. Debts as a share of households' disposable incomes, what is known as the debt-to-income ratio, was almost 200 per cent in the third quarter of 2020. In the coming years, the debt-to-income ratio is expected to rise somewhat further.

Strong demand for Swedish exports

The prospects for Swedish exports in the coming years are also relatively good. A global recovery and increased investment activity abroad are expected to lead to exports increasing at a good pace in the coming years. This picture is supported by foreign trade having been relatively unaffected by the second wave, and trade in goods continued to increase during the fourth quarter (see Figure 39). One important reason for this is probably that the new restrictions in Sweden and abroad have not led to any major disruptions to production and that the global value chains have been kept intact. Swedish exports also benefit from the fact that they mainly consist of intermediate and investment goods that are in demand when global industrial production is strong. The fact that demand for Swedish export goods is high is also reflected in the positive sentiment measured in various questionnaires.

Short-term decline in investment

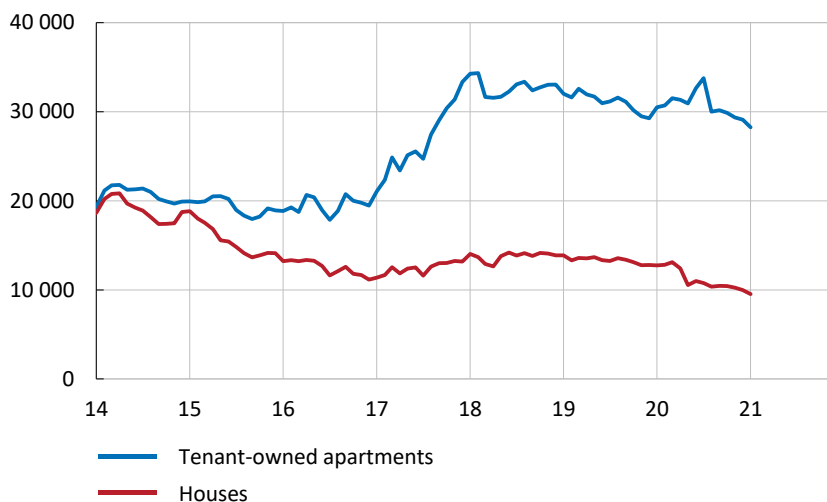
Investments tend to fall more than GDP in economic downturns. However, this has not been the case this time. One factor that has maintained the level of investment is housing investment, but business sector investment excluding housing has so far withstood the economic downturn better than usual. One reason could be that access to credit has been good, partly thanks to the Riksbank's measures. It is also possible that companies have regarded the downturn as something relatively transient and not allowed investment decisions to be governed by the initially steep fall in production. The fact that vaccination has now begun provides further reason for optimism. This indicates that companies not active in the sectors that were hardest hit will increase their investments when economic activity strengthens.

The strong housing market is reflected in both increased housing investment and rising house prices. In December, housing prices were just over 11 per cent higher than one year ago, according to the HOX price index. Prices of single-family dwellings have risen more than those for apartments, and were just over 15 per cent higher in December. Both higher demand and a smaller supply are currently supporting prices of single-family dwellings. In general, the demand for larger homes has increased during the pandemic. For examples, prices of larger apartments have risen more than prices for smaller ones. At the same time, new production of single-family dwellings has been at a low level for many years, and there are fewer for sale than normal (see Figure 40).

Housing prices look set to increase rapidly for some time to come, but in the slightly longer run they are expected to increase more in line with households' disposable incomes. The strong development in housing prices is expected to stimulate investment in new housing in the coming years. At the same time, the number of new builds commenced, in the form of multi-family dwellings, is already historically high.

Figure 40. Advertised apartments and houses

Number of active advertisements during the month on Hemnet, seasonally adjusted data



Note. The supply includes all objects that have been active at some point during the month, including new production.

Sources: Hemnet, Mäklarstatistik and the Riksbank.

Large fiscal policy investments alleviate downturn

To mitigate the economic consequences of the pandemic, the Government adopted extensive fiscal policy measures in 2020. The Riksbank estimates that the support measures implemented in 2020 amount to around SEK 185 billion.¹⁸ Although the measures are substantial, both in terms of SEK billion and as a percentage of GDP, they are not exceptional compared with those in other countries.¹⁹ The measures Sweden has implemented are of roughly the same magnitude as those in Finland and Norway, but much less than those in, for example, Germany, the United Kingdom and the United States.

There are also substantial investments in the budget bill for this year. As the spread of infection has increased, the Government has moreover notified in several amendments to the budget for 2021 that several crisis measures will be extended, and has also earmarked further resources for increased testing, infection tracking and vaccination. All in all, the Government assesses that the fiscal policy measures announced so far amount to around SEK 170 billion this year.

During 2020, general government net lending is expected to have fallen to –3.3 per cent of GDP. Despite the Government carrying out major investments this year, too, the deficit will decline to –2.6 per cent of GDP as the economy grows. In the coming years, general government net lending will improve when the fiscal policy measures are reduced and the economy recovers. The public sector's consolidated gross debt, also known as the Maastricht debt, is expected to have risen from 35 to almost 40 per

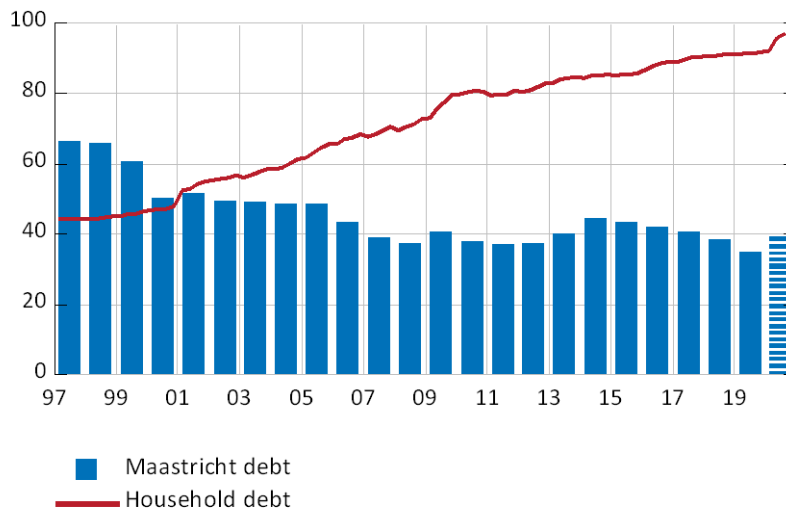
¹⁸ The measures include increased resources to health and medical care, care of the elderly, state subsidies to municipalities and crisis support to alleviate the economic consequences for companies and individuals.

¹⁹ See, for instance, the IMF's list of measures taken up to 31 December 2020 <https://www.imf.org/en/Topics/imf-and-covid19/Fiscal-Policies-Database-in-Response-to-COVID-19>.

cent of GDP during 2020, but is assessed to gradually decline in the coming years. Unlike household indebtedness, the Maastricht debt has shown a declining trend over the past 20 years (see Figure 41).

Figure 41. Maastricht debt and household debt

Per cent of GDP



Note. Maastricht debt is the official measure of the public sector's consolidated gross debt. The measure includes the debt of the state, the municipalities, the regions and the pension system. Total household debt is calculated as a share of GDP summed over the past four quarters. Solid bar represents outcome, broken bar represents the Riksbank's forecast.

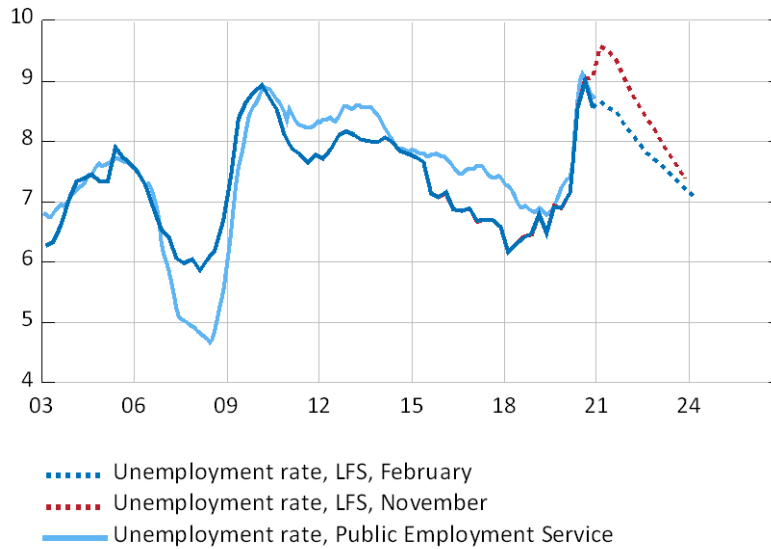
Sources: Statistics Sweden and the Riksbank.

Labour market has stabilised

During the fourth quarter, the labour market was surprisingly strong and unemployment fell somewhat, to 8.6 per cent (see Figure 42). Despite developments being better than expected, unemployment is still high. In the services sector, and in particular tourism, the situation is strained as a result of the restrictions, while the manufacturing industry appears to have recovered relatively well.

The first to be made redundant in a crisis are usually those with less secure employment. Fixed-term employment is more common among employees in the tourism industry and these industries employ many young people and people born abroad. The crisis has therefore affected these groups particularly hard, in terms of rising unemployment. In total, just over 60,000 fewer people were in fixed-term employment in 2020 than in 2019 after many had been made redundant in the first half of 2020. At the same time, the possibility for short-term work schemes meant that many with permanent employment could retain their jobs, and towards the end of 2020 the number of permanently employed was back at the same level as in 2019 (see Figure 43).

Figure 42. Unemployment according to the LFS and Public Employment Service
Per cent of the labour force, aged 15–74 and 16–64, respectively, seasonally-adjusted data

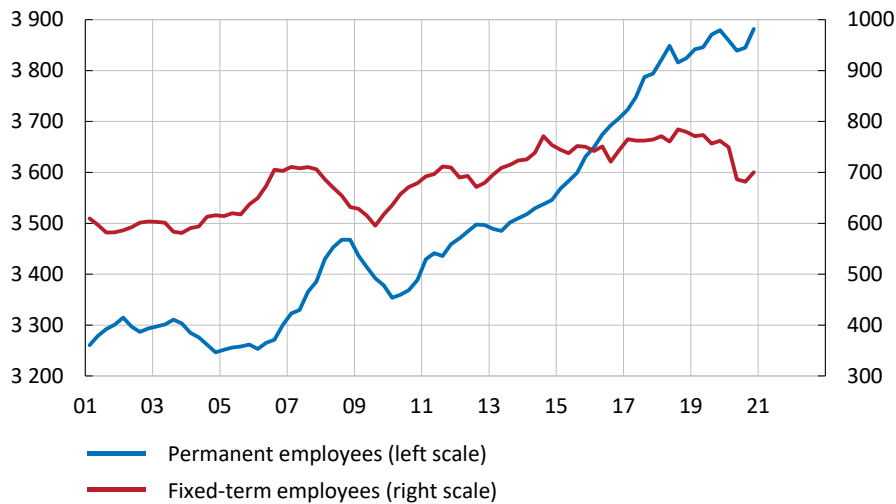


Note. Unemployed persons according to the PES include openly unemployed and participants in labour market programmes. Solid line represents outcome, broken line represents the Riksbank's forecast.

Sources: the Swedish Public Employment Service, Statistics Sweden and the Riksbank.

Figure 43. Permanent and fixed-term employees

Thousands, seasonally adjusted



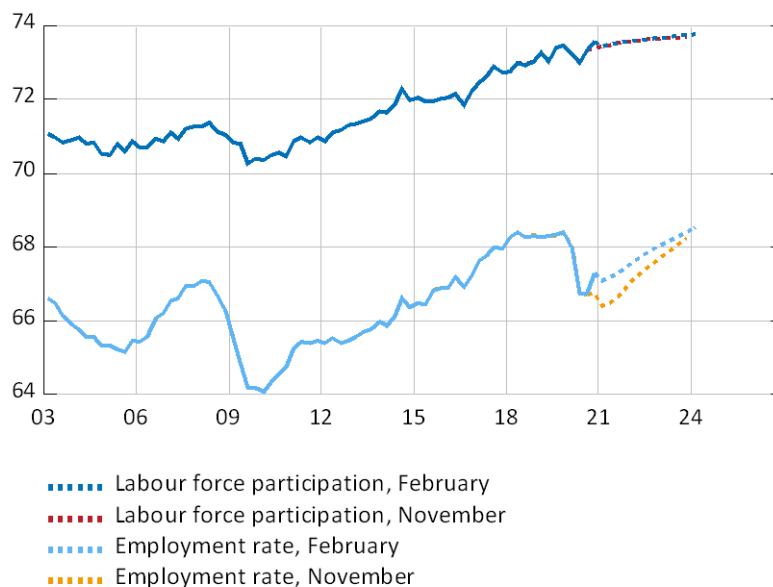
Source: Statistics Sweden.

The labour market improved during the autumn, but the restrictions introduced at the end of 2020 and beginning of 2021 are expected to lead to more restrained demand for labour during the first quarter. Unemployment will therefore rise somewhat during the start of the year as companies delay new recruitment (see Figure 42). However, the downturn in employment will be slowed down by companies being able to furlough staff up to June 2021 and during the first quarter the terms are also more

generous. Employment is therefore assessed to only decline slightly during the first quarter (see Figure 44).

Figure 44. Employment rate and labour force participation

Percentage of the population, aged 15–74, seasonally-adjusted data



Note. Solid line represents outcome, broken line represents the Riksbank's forecast.

Sources: Statistics Sweden and the Riksbank.

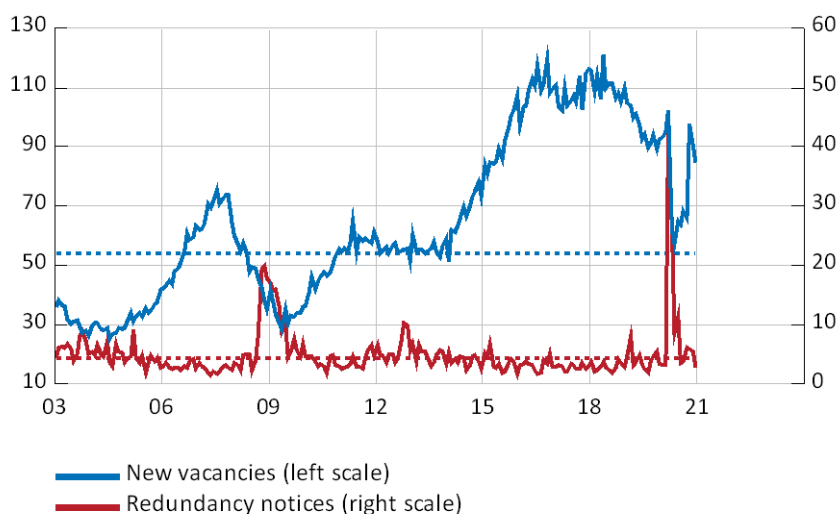
This year there will be a reorganisation of the Labour Force Surveys, which means that it will be difficult to interpret the LFS statistics during 2021 (see the article “Changes in the LFS and the Riksbank’s analysis of the labour market”). The labour market forecasts in this report do not try to capture the level shift in the statistics that will probably take place as a result of the reorganisation of LFS, as it is difficult at present to know exactly how the reorganisation will affect the statistics.

Demand for labour rises and labour market recovers

Towards the spring, the restrictions are expected to be gradually eased and the recovery can pick up speed again. Forward-looking indicators imply that demand for labour will rise. According to the Economic Tendency Survey, recruitment plans have risen and are now in line with the historical average, indicating that employment will remain unchanged over the coming three months. The number of newly-registered vacancies at Arbetsförmedlingen has also increased and is close to the pre-crisis levels, at the same time as the number of redundancies has fallen to more normal levels (see Figure 45). Employment will therefore rise with effect from the second quarter. Unemployment is expected to rise to 8.7 per cent during the first quarter, and then gradually begin to fall. At the end of the forecast period, the employment rate and labour force participation are expected to be back at their pre-crisis levels (see Figure 44). This means that at the end of 2023, unemployment will be largely at the same level as prior to the crisis (see Figure 42).

Figure 45. New vacancies and redundancy notices

Thousands



Note. Seasonally-adjusted data for new vacancies. Broken lines represent mean values since January 1995.

Source: the Swedish Public Employment Service.

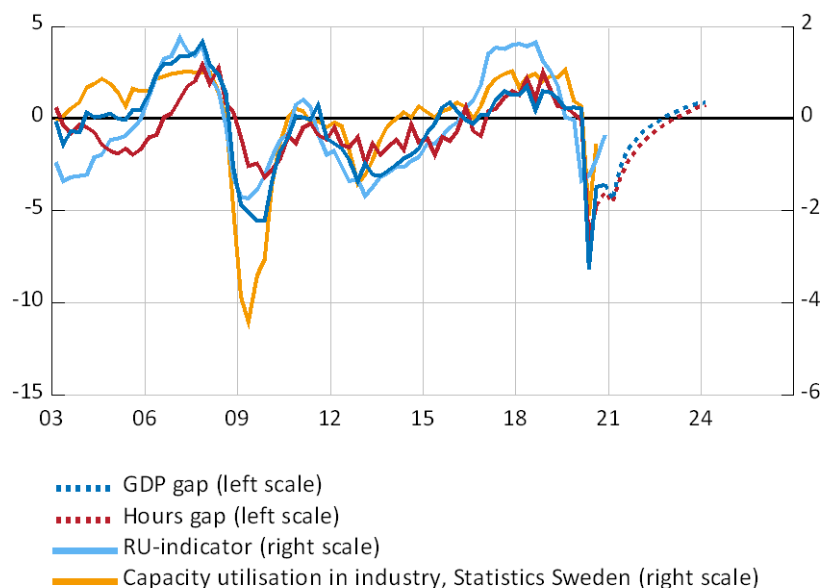
Resource utilisation will normalise during the forecast period

The amount of spare capacity in the economy affects the development of wages and prices although this occurs with quite a considerable time-lag. However, resource utilisation cannot be measured exactly and the Riksbank therefore makes an assessment based on a number of different indicators.

Resource utilisation increased slightly during the third quarter after falling substantially in the previous quarter. However, different indicators give different views of the level of resource utilisation. The Riksbank's resource utilisation indicator fell markedly during the first quarter, but has since risen and was slightly below normal in the fourth quarter (see Figure 46). Two other measures of resource utilisation are the GDP and hours worked gaps. These indicate that resource utilisation will be very low during the coming period, and then rise gradually. Resource utilisation is expected to be normal around the latter part of 2022 (see Figure 46). However, the crisis will leave scars, even if resource utilisation normalises. Many of those who have lost their jobs are young and born abroad, with weaker links to the labour market, and they risk finding it difficult to return to employment and the labour market in the coming years.

Figure 46. Measure of capacity utilization

Per cent and standard deviations, respectively



Note. The gaps refer to the deviation of GDP, the number of employed and number of hours worked from the Riksbank's assessed trends. The RU-indicator is a statistical measure of resource utilisation. The RU-indicator and the capacity utilisation in industry are normalised so that the mean value is 0 and the standard deviation is 1. Solid line represents outcome, broken line represents the Riksbank's forecast.

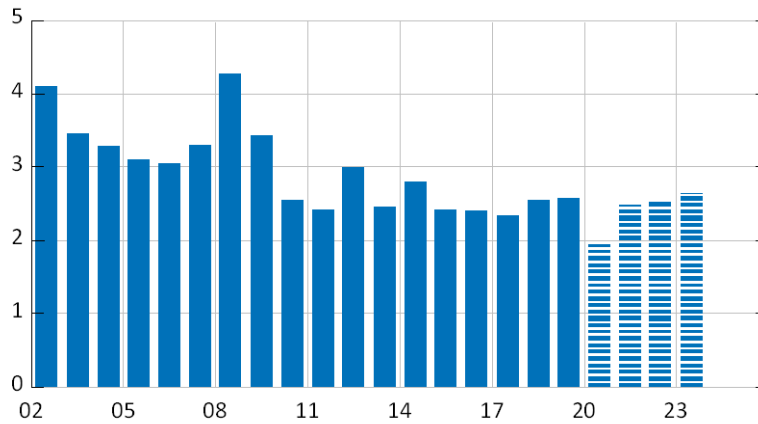
Sources: Statistics Sweden and the Riksbank.

Rising wage growth

Most of the wage bargaining rounds are complete and the social partners have signed agreements that entail the centrally-agreed wages increasing by on average around 2 per cent annually up to the end of the first quarter of 2023. In addition, the agreements have resulted in allocations to pensions corresponding to an increase in labour costs of a further couple of tenths of a percentage point.

Wage growth is not just determined by centrally-agreed wages but also by local pay reviews. The size of these is affected by the demand situation on the labour market. Economic activity is expected to strengthen over the next few years and wage growth over and above agreements is not expected to deviate tangibly from that in recent years. Wage growth for the economy as a whole is therefore expected to be modest during the forecast period. After having amounted to around 2 per cent in 2020, it is expected to amount to around 2.5 per cent in the coming years, according to the National Mediation Office's short-term wage statistics (see Figure 47).

Figure 47. Wages according to short-term wage statistics in the economy as a whole
Annual percentage change



Note. Solid bar represents outcome, broken bar represents the Riksbank's forecast.

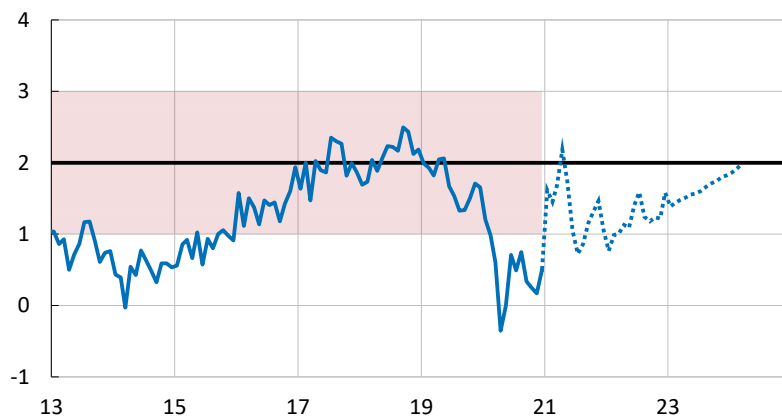
Sources: Swedish National Mediation Office and the Riksbank.

Clearly higher inflation at the beginning of 2021

Inflation was between 0 and 1 per cent for most of 2020 (see Figure 48). In December, CPIF inflation was 0.5 per cent, while CPIF inflation excluding energy was 1.2 per cent. Falling energy prices dampened inflation last year, but this year they are instead expected to make a clearly positive contribution to CPIF inflation. Both electricity prices and fuel prices have risen in recent months, which means that energy prices are expected to contribute to pushing up the rate of inflation, particularly in the first half of 2021. This contribution will then be gradually phased out during the second half of 2021.

Figure 48. CPIF and variation band

Annual percentage change



Note. The pink area shows the Riksbank's variation band and covers about three-quarters of the outcomes since January 1995. The variation band is a means of showing whether the deviation from the inflation target is unusually large. Unbroken line refers to outcomes, broken line to the Riksbank's forecast.

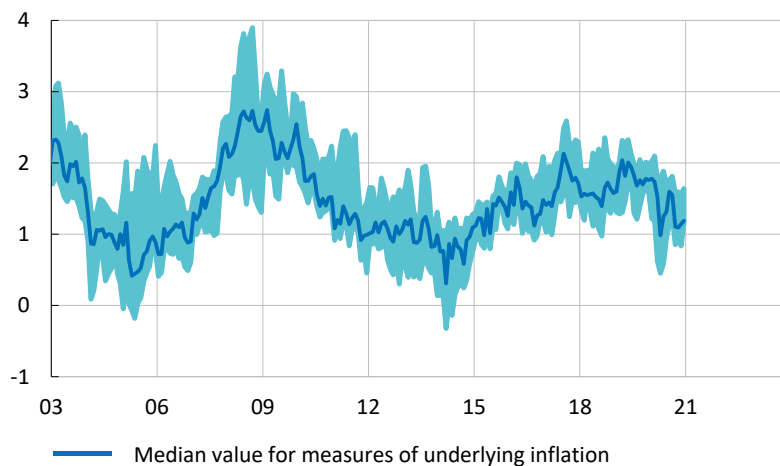
Sources: Statistics Sweden and the Riksbank.

This trend with higher inflation in the near term is also visible in the outcomes since the November forecast. In November and December CPIF inflation was higher than forecast in the most recent Monetary Policy Report. It was primarily energy prices that increased faster than expected, but services prices have also increased slightly more than was assumed in the November forecast. Above all, the price of foreign travel did not fall as much as expected, but major measurement problems remain here.

The rate of inflation is often affected by temporary price movements that have less significance for the development of inflation in the longer term. Like other central banks, the Riksbank therefore calculates and publishes various different measures of underlying or core inflation. These measures, which exclude or reduce the significance of prices that have previously varied substantially, indicate that more persistent inflation fell somewhat in 2020 (see Figure 49). The median of the measures was 1.2 per cent in December. The measures CPIFPC and UND24, which, according to a previous evaluation, seemed to reflect underlying inflationary pressures particularly well, have been slightly higher, on average, than other measures over the last year. Both amounted to 1.6 per cent in December.

Figure 49. Different measures of underlying inflation

Annual percentage change



Note. The field shows the highest and lowest outcome among 7 different measures of underlying inflation: CPIF excluding energy, UND24, Trim85, CPIF excluding energy and perishables, persistence-weighted inflation (CPIFPV), factors from principal component analysis (CPIFPC) and weighted mean inflation (Trim1).

Sources: Statistics Sweden and the Riksbank.

Statistics Sweden will, as usual, update the CPI weights in their calculation system prior to publication of the CPI for January 2021. To take into account the change in consumption during the pandemic, the weights will be based on how consumption was allocated in 2020 instead of in 2019, which is the normal method used (see the article “Changed consumption during the pandemic affects inflation”).²⁰ The major

²⁰ See also J. Johansson, M. Löf and O. Tysklind “Changed consumption during the pandemic affects inflation”, Economic Commentaries, No. 14, 2020, Sveriges Riksbank.

change in consumption patterns during the pandemic is expected to affect the sequence over the year and contribute to a higher rate of price increase being measured especially during the first half of the year (see Figure 48).

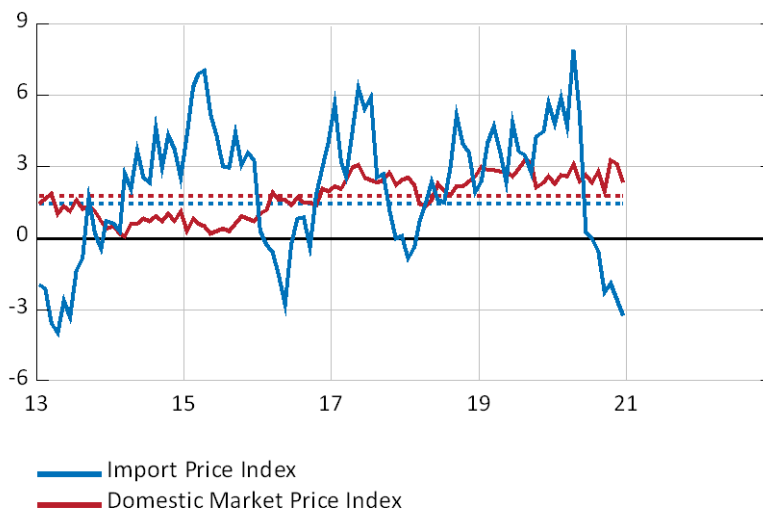
Other factors will also contribute to inflation rising at the beginning of the year. The unusually large negative effect of the adjustment to the weights in 2020 will fall out of the twelve-month figures in January 2021, at the same time as the effect of the adjustment this year is expected to be less negative than usual.

The model forecasts are stable for the coming months

The rate of increase in most prices of industrial goods in the producer channel, and import prices in particular, fell clearly in 2020. Prices in the producer channel for consumer goods produced and sold in Sweden are still increasing faster than normal, however (see Figure 50).²¹

Figure 50. Producer prices for consumer goods

Annual percentage change



Note. The import price index measures how much Swedish importers pay for their goods at the border. Domestic market prices measure how much Swedish producers are paid when sales take place in Sweden. Broken lines represent the averages since 2000.

Source: Statistics Sweden.

The business sector’s price plans have risen according to the Economic Tendency Survey, but are still slightly lower than normal. The price plans among companies in the retail trade fell from relatively high levels in 2018 and 2019, but then rose and are now close to a historical average. The costs for ship freights have shown a tangible increase recently. It is the disruptions to global trade during the pandemic that have

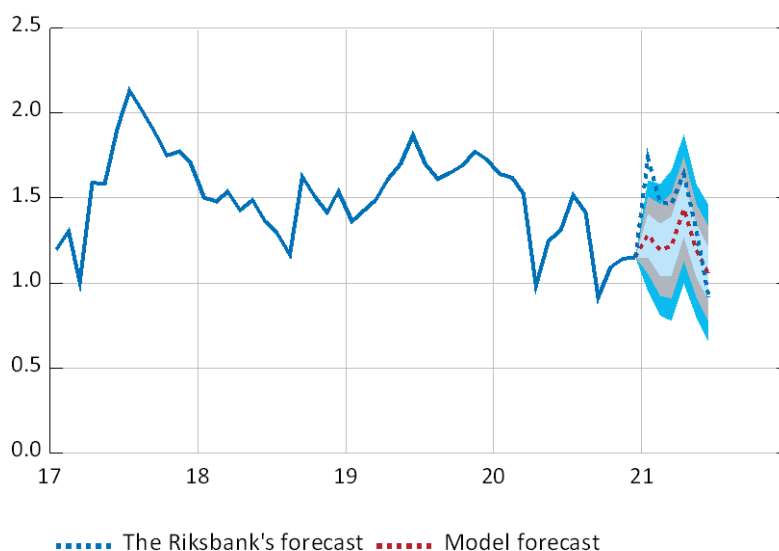
²¹ Prices in the producer channel are measured at an earlier stage of the refining chain than the consumer channel and show what Swedish producers are paid when selling in Sweden. The CPI differs in several ways from prices of consumption goods in the producer channel. The CPI also includes services prices and indirect taxes and subsidies. Moreover, the weights in the CPI are based on household consumption and not on production.

created a deficit in freight capacity. If this development continues, and freight costs remain high, consumer prices may also be affected.

The Riksbank’s model forecast, which summarises information from a large number of indicators, such as price plans, producer prices and exchange rates, usually provides relatively good guidance on the short-term development of inflation. The model forecast points to CPIF inflation excluding energy being relatively stable in the coming months (see Figure 51). However, as the model forecast is based on historical correlations, and changes in the consumption basket occur slowly, it is not at present able to fully capture many of the factors mentioned above. This explains why the Riksbank’s forecast for the coming months now deviates more than usual from the model forecast.

Figure 51. CPIF excluding energy, model forecast with uncertainty bands

Annual percentage change



Note. The uncertainty bands 50, 75 and 90 per cent are based on the models' historical forecast errors. New seasonal patterns and new measurement methods probably results in a larger uncertainty for 2021 than what the model's uncertainty bands indicate. Solid line represents outcome, broken line represents the Riksbank's forecast.

Sources: Statistics Sweden and the Riksbank.

Inflation will begin to rise gradually from 2022

Inflation is expected to be lower again during the second half of 2021, as a result of the changes in weights, and then to rise gradually (see Figure 48). Resource utilisation in the economy is increasing and is assumed to be close to normal at the end of 2022, which supports the upturn in inflation. The krona strengthened during most of 2020, which is expected to dampen inflation in 2021. In the period ahead, however, the krona is expected to remain relatively unchanged and no longer to affect inflation to such a great extent. Companies' costs are also expected to increase slowly over the coming years and then to approach a more normal rate of increase in 2023.

The Riksbank's overall assessment is that inflation in Sweden will rise as demand strengthens, wages increase faster and inflation abroad rises. Compared with the forecast in the November Monetary Policy Report, the forecast for CPIF inflation remains largely unchanged in the slightly longer term (see Figure 6).

ARTICLE - Development of the Riksbank's securities holdings

To facilitate the economic recovery from the corona crisis, and thus help inflation to rise towards the target of 2 per cent, the Riksbank has taken extensive support measures. Since the spring of 2020, the Executive Board has taken a number of decisions on the purchase of interest-bearing securities in Swedish kronor, leading to a sharp increase in the Riksbank's holdings of securities. These holdings are expected to continue to increase until the end of 2021, at which point they will amount to just over SEK 900 billion in total. The current assessment is that this level will then be maintained for a time by means of purchases that compensate for principal payments. However, the principal payments are very unevenly distributed over time while it is at the same time desirable to maintain a reasonably even purchase rate. This will lead to some variations in the Riksbank's securities holdings even during periods when the aim is to keep them unchanged.

Substantial and broad asset purchases for low interest rates and ample credit supply

Since 2015, the Riksbank has purchased interest-bearing securities as a complement to a low repo rate to keep monetary policy expansionary and help inflation rise towards the target of 2 per cent. Prior to 2020, the Riksbank only purchased government bonds, but to ensure low lending rates to companies and households and well-functioning credit supply during the pandemic, asset purchases have been expanded to include covered bonds, municipal bonds, treasury bills and corporate debt securities. This article describes what the Riksbank's purchases and holdings of securities can be expected to look like in the future.

The Riksbank's asset purchases can affect the interest rates paid by companies and households through several channels, as well as their capacity to borrow.²² The more of a bond the Riksbank owns, the less there is available for other participants who want to have it. This pushes up the price (and thereby lowers the yield) of the bond in question. Other bonds may then at the same time become more sought-after and

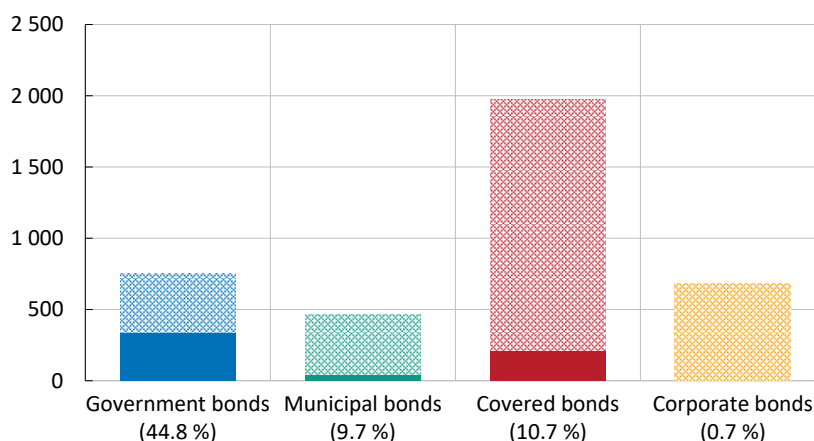
²² See the article "How the Riksbank's measures have worked during the corona crisis" in Monetary Policy Report, September 2020. See also J. Alsterlind, H. Erikson, M. Sandström and D. Vestin, "How can government bond purchases make monetary policy more expansive?" Economic Commentaries No. 12, 2015 for a review of channels through which asset purchases affect market rates. For details of how asset purchases might affect credit supply and interest rates via increased liquidity in the banking system, see also J.H.E. Christensen and S. Krogstrup, "Transmission of Quantitative Easing: The Role of Central Bank Reserves", *The Economic Journal* 129 (617), pp. 249–272, 2019 and B. S. Bernanke and V. R. Reinhart, "Conducting Monetary Policy at Very Low Short-Term Interest Rates", *American Economic Review* 94 (2), pp. 85-90, 2004.

fetch higher prices (and thereby lower yields). Larger securities holdings also mean banks have more liquid funds (as the Riksbank pays with new central bank money) which may increase their interest in lending money. In all, therefore, the Riksbank's holdings of securities are important for both the level of interest rates and credit supply. For less liquid assets, the ongoing purchases may also help to increase liquidity, which is also reflected in lower interest rates. By announcing its intention to purchase in advance, the Riksbank can also create confidence among those who may need to sell assets that it will be possible to do so, which reduces turmoil on stressed markets and ultimately makes it easier to issue new securities. In other words, the size of both the holdings and current purchases can have a bearing on interest rates and credit supply.

The Riksbank's securities holdings have increased rapidly

The Riksbank's measures to mitigate the economic repercussions of the coronavirus pandemic in 2020 led to an increase in the Riksbank's securities holdings in Swedish krona from just over SEK 300 billion to almost SEK 600 billion.²³ At the end of 2020, the Riksbank's holdings constituted a large share of the outstanding government bonds and smaller shares of other bond types, see Figure 52.

Figure 52. The Riksbank's bond holdings in relation to outstanding stock
Nominal amounts, SEK billion, as of 31 December 2020



Note. The solid part of each bar denotes the Riksbank's holdings and the shaded part denotes the remaining outstanding stock. Percentages in brackets show the Riksbank's share of total outstanding stock.

Sources: Swedish National Debt Office, Statistics Sweden and the Riksbank.

²³ In this article, as in most of the Riksbank's communication on purchases and holdings of securities, the nominal amount of assets is given. A bond's nominal value is the amount paid out when the bond matures. In addition, predetermined interest payments, or coupons, are normally made to the bond holder. The bond's market value is determined by what market participants are prepared to pay to gain access to the forthcoming payments of coupons and nominal amounts. The market value differs from the nominal amount in that remaining coupon payments carry an interest rate that deviates from the current market rate. As market rates vary from day to day, the bond's market value also varies and often it is therefore more practical to express bond holdings in terms of nominal amounts.

In 2021, a further increase in holdings of just over SEK 300 billion is expected, so that they amount to just over SEK 900 billion at the end of the year. The current assessment is that holdings will thereafter be maintained at the same level for at least another year.

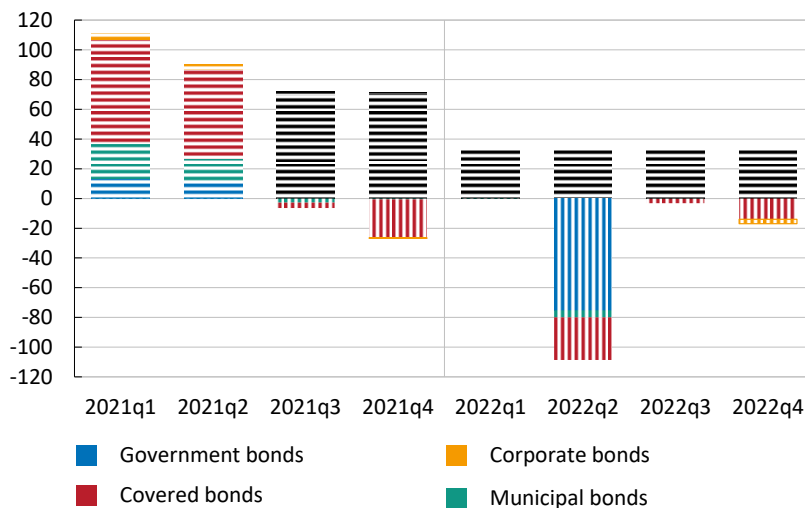
Unevenly distributed principal payments but an even purchasing rate

However, the Riksbank's securities holdings will not be maintained entirely constant as this would require too uneven a purchasing rate. The reason is that the bonds in the Riksbank's portfolio mature according to an uneven pattern, see the negative bars in Figure 53. This applies in particular to government bonds. Adjusting purchasing times and amounts entirely to principal payments would lead to the Riksbank switching between being completely inactive on the market in some periods to making very large purchases in other periods. This could result in the purchases affecting prices and liquidity in an undesirable way.

So instead, the Riksbank aims to distribute its purchases fairly evenly over the quarters. The positive bars in Figure 53 show the size of purchases on the assumption that they are distributed completely evenly among the quarters in 2022 and compensate exactly for principal payments during the year.

Figure 53. Unevenly distributed principal payments but even purchasing rates

Nominal amounts, SEK billion



Note. Positive bars show decided purchases of bonds (but not treasury bills) during the first and second quarters of 2021, a forecast for the third and fourth quarters of 2021 based on an even purchasing rate, which means that the entire purchase envelope will be utilised, and then a technical projection assuming an even purchasing rate that will maintain holdings on the same level at the end of 2022 as at the end of 2021. Black bars show total bond purchases per quarter with an as-yet undecided distribution among categories. Negative bars show a forecast for forthcoming principal payments which partly depends on technical assumptions regarding the maturity distribution of upcoming purchases.

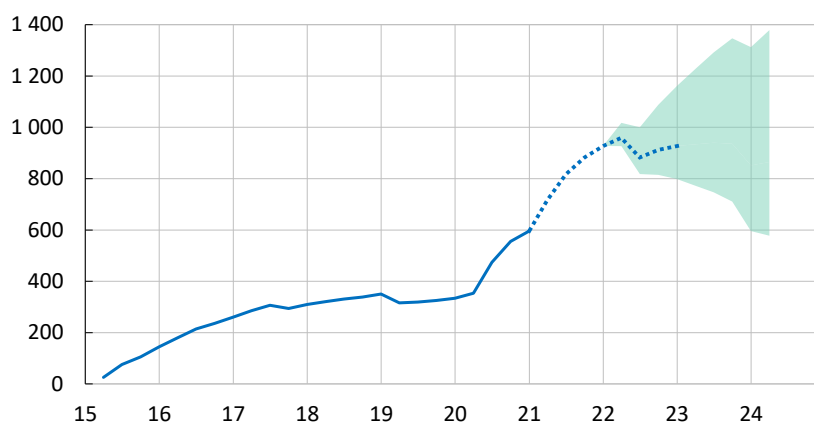
Source: The Riksbank.

The even purchasing rate and the uneven principal payments mean that holdings will rise in the first, third and fourth quarters of 2022, but will fall in the second quarter when the largest principal payments occur. This variation in the Riksbank's securities holdings so that they will be on the same level at the end of 2022 as at the end of 2021 is also shown by the forecast for holdings in Figure 54.

The uneven principal payments mean that the Riksbank's communication on asset purchases and holdings differs somewhat from that of the major central banks despite similar future plans for asset-purchase programmes (see further Chapter 2). With purchases that sometimes need to be less than and sometimes more than the principal payments, and holdings that, as a result, sometimes increase and sometimes decrease, the Riksbank cannot announce its intention to continue to increase its holdings as the Federal Reserve does, at least not without more detailed clarification. It is also difficult to do as the ECB does when describing its plans in terms of net purchases during a period (i.e. purchases that exceed principal payments) followed by a period of reinvestments of principal payments (i.e. purchases of new bonds for the principal payment amounts when the principal payments occur). The Riksbank must instead, as in this article, express decisions and forecasts in terms of purchases and the effect they are expected to have on the development of the securities holdings.

Figure 54. The Riksbank's holdings of assets in Swedish kronor

Nominal amounts, SEK billion



Note. Holdings of assets, excluding commercial paper, issued in Swedish kronor. Broken line shows a forecast for holdings up until the end of 2021 and thereafter a technical projection assuming an even purchase rate that will maintain the holdings at the same level at the end of 2022 as at the end of 2021. The interval's upper limit reflects a development in which the Riksbank's asset purchases continue at more or less the same pace as during 2021. Its lower limit is a projection of holdings assuming that no more asset purchases are made after 2021.

Source: The Riksbank.

Securities holdings can go in different directions in the period ahead

The major central banks make it clear that the development of their holdings depends on economic developments and obviously, the Riksbank's securities holdings can also

go in different directions depending on how the Swedish economy develops.²⁴ One possibility is that the ongoing crisis deepens, becomes more permanent or is soon followed by new, related or independent crises, which require the support from asset purchases to be increased. The upper limit of the interval in Figure 54 reflects a development in which the Riksbank does not consider it appropriate to reduce the purchasing rate after 2021.²⁵ Another possibility is that a situation arises in due course where good credit supply, balanced economic activity and inflation close to target no longer require such extensive support from the Riksbank and it is therefore considered appropriate to let holdings decrease. A natural starting-point for this is that the holdings are gradually phased out as a result of principal payments rather than some assets being sold off. The lower limit of the interval illustrates how quickly holdings could decrease in the event of the fastest possible phase-out as a result of principal payments, i.e. if no new purchases are made after 2021.

²⁴ See also the article "Alternative scenarios for the economic recovery".

²⁵ More specifically, the upper limit corresponds to a development in which asset purchases continue at approximately the same pace as in 2021.

ARTICLE – Alternative scenarios for the economic recovery

In the Riksbank's forecast, GDP will grow at a good pace this year and next year, both in Sweden and among our most important trading partners, and resource utilisation will rise quickly towards a normal level. But the forecast is uncertain. This article illustrates the uncertainty with the aid of two alternative scenarios. Household consumption has been held back during the pandemic, and it is not impossible that consumption expenditure could increase at a faster pace than is assumed in the forecast. In such a scenario, resource utilisation in the Swedish economy can become much higher than normal towards the end of the forecast period. If the spread of infection were instead to begin to increase again, before we have built up an adequate resistance to the disease, the recovery will probably be much slower. There would then also be a risk that countries with high indebtedness and weak banking systems would be hit particularly hard. In this worse scenario, both domestic demand and demand for exports would be lower than in the main scenario, and unemployment would become entrenched at a high level. To support the recovery, there may be motivation for further measures from both monetary policy and fiscal policy.

Several sources of uncertainty in the forecast

Spread of infection, vaccinations and restrictions

The economic prospects for the coming quarters are still affected to a large degree by how the spread of infection develops, by the measures taken to limit the spread of infection, and by the authorities' economic support measures. The successes in developing effective vaccines probably mean that many households can gradually return to their earlier living and consumption patterns during 2021. In the Riksbank's forecast, it is assumed that mass vaccination will be carried out during the first half of 2021 and that the spread of infection will therefore be slowed down in the United States, Europe and Sweden. As immunity increases, and the spread of infection slows down, the authorities are also expected to gradually ease the restrictions that have been introduced.

But there are still risks of a setback when it comes to the spread of infection and immunity. New mutations of the virus causing COVID-19 are being spread and several companies in the pharmaceuticals industry are now preparing to deal with future mutations. Many governments are aiming to vaccinate most of their citizens during the

first half of 2021, but the logistical challenges are substantial and it is still unclear what percentage of the population in various countries is willing to be vaccinated. It is also clear that access to vaccines will vary substantially between countries and regions, which will affect economic prospects on a global level.

Uncertainty over strength of recovery

Even if the assumptions in the main scenario regarding the spread of infection, immunity and restrictions are realised, the continued economic recovery is still fraught with uncertainty. One question is how quickly and to what extent households and companies will return to earlier consumption patterns and ways of working, when this is possible. Will some households invest more money than normal on travel, restaurant visits and other forms of entertainment? The first scenario describes how GDP growth, unemployment and inflation may develop once the spread of infection has been slowed down, if households in Sweden and abroad increase their consumption at a faster pace that was assumed in the main scenario.

Another question concerns the size of the economic damage caused by the crisis. Last year, unemployment rose rapidly around the world and many companies were forced to take out large loans to save their businesses. Moreover, public indebtedness has increased substantially in many countries as a result of extensive economic support measures. When the support is phased out and the loans are to be repaid, many companies may experience difficulty in meeting their payment obligations. In some areas, unemployment may rise again, banks may suffer rising credit losses and some countries may then have difficulty implementing new support measures as their public finances are already weak. In the second scenario, it takes longer than expected to reduce the spread of infection and private consumption therefore increases at a slower pace than in the main scenario. At the same time, the problems with indebtedness and corporate bankruptcies are larger than expected, particularly in some European countries. Altogether, this means the recovery is much slower than in the main scenario, both in Sweden and abroad.

Alternative scenario - faster recovery in Sweden and abroad

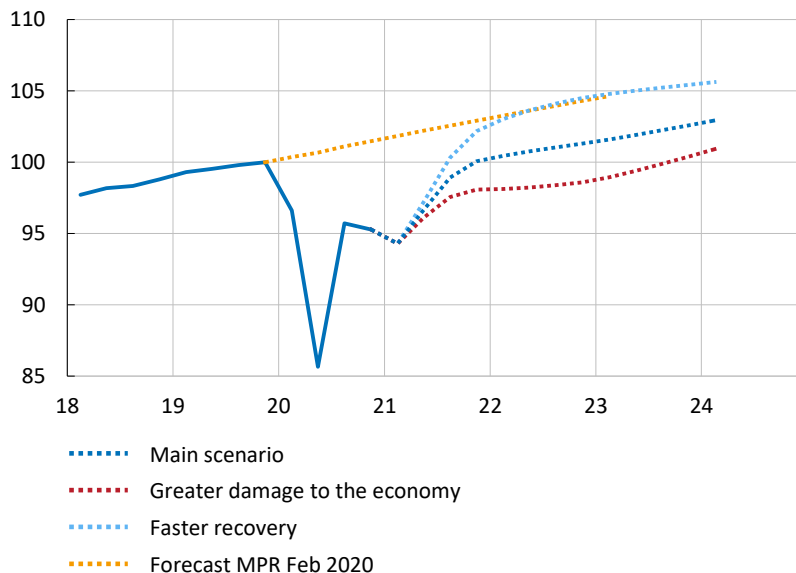
In the scenario “Faster recovery”, it is assumed that the spread of infection and restrictions develop roughly as described in the main scenario, but that consumption and GDP increase at a faster pace, both in Sweden and abroad. Despite some initial problems with deliveries, vaccination gets under way on a large scale in the spring. It then becomes clear that many households want to return to their earlier consumption patterns very quickly, and demand therefore rises substantially. Some households with relatively high incomes, who as a result of the pandemic have had an involuntarily high level of saving over the past year, decide to indulge themselves with more expensive restaurant visits, travel and other forms of entertainment.²⁶ In this scenario,

²⁶ Analyses of high-frequency data regarding consumption, business income and employment in the United States show that last year’s deep and sudden fall in GDP can largely be explained by relatively well-off

it is assumed that companies in service sectors succeed well on the whole in rapidly expanding their operations again, following the cutbacks, even if bottlenecks arise in some areas.

Figure 55. GDP abroad (KIX-2)

Index, 2019 Q4 = 100, seasonally adjusted data



Note. KIX-2 is an aggregate of GDP in the United States and the euro area. Unbroken line refers to outcomes, broken lines to the Riksbank's forecast.

Sources: Bureau of Economic Analysis, Eurostat and the Riksbank.

Figure 55 shows a KIX-weighted measure of GDP in the euro area and the United States, called KIX-2. The figure shows the dramatic GDP development in 2020 and the Riksbank's growth forecast for this year and the coming years. As a comparison, the corresponding forecast published one year ago in the February 2020 Monetary Policy Report is also shown. In the scenario "Faster recovery", the strong increase in private consumption leads to GDP abroad (KIX-2) growing by almost 6 per cent, both this year and next year. This can be compared with the growth in the main scenario of just over 4.5 per cent this year and 4 per cent next year. In Sweden, too, GDP grows much faster than in the main scenario (see Figure 56 and Table 2).

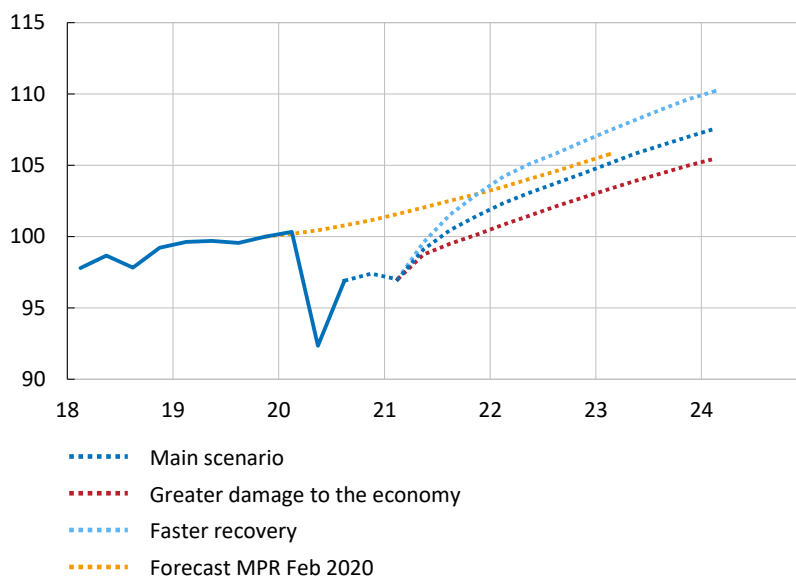
The higher growth means that the problems in the labour market become less serious. Many of those who lost their jobs last year worked in industries that require relatively low qualifications and in Sweden a disproportionate amount of young people

households quickly cutting back on certain types of luxury consumption of services, such as visits to restaurants and beauty parlours and travel. Expenditure on other types of consumption, which require less physical contact with other people, was much smaller and recovered relatively quickly; in the middle of July, consumption in goods was higher than prior to the pandemic. The results indicate that the high savings ratios measured last year were largely due to households involuntarily cutting back on their consumption to avoid the spread of infection. See Chetty et al. (2020), "How did Covid-19 and stabilization policies affect spending and employment? A new real-time economic tracker based on private sector data.", NBER working paper no. 27431, published in June 2020 and most recently revised in November.

were affected by unemployment.²⁷ This means that in many cases it is a question of workers who are flexible and jobs that can relatively easily be recreated when demand rises again. In this scenario, employment rises faster than in the main scenario and in Sweden unemployment falls to below 7 per cent towards the end of the forecast period (see Figure 57). The lower unemployment also means that wages rise at a faster pace and that inflation is pushed up. It is assumed in this scenario that Swedish monetary and fiscal policy remain as expansionary as in the main scenario, and this contributes to resource utilisation and CPI inflation rising faster than in the main scenario (see Figure 58). An inflation rate that overshoots the target could help to anchor inflation expectations more firmly around 2 per cent, which would be good for price setting and wage formation. A scenario where inflation rises more quickly during the forecast period need not be a reason to make monetary policy less expansionary in different ways.

Figure 56. GDP in Sweden

Index, 2019 Q4 = 100, seasonally adjusted data



Note. Unbroken line refers to outcomes, broken line to the Riksbank's forecast.

Sources: Statistics Sweden and the Riksbank.

Alternative scenario - greater damage to economy

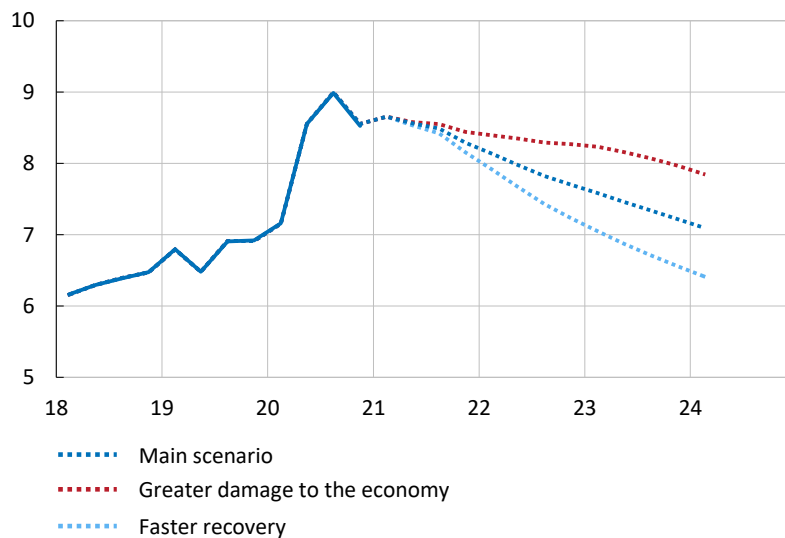
In the scenario “Greater damage to the economy” it takes longer than expected to manage the spread of infection and build up immunity to the disease. Private consumption therefore grows more slowly than in the main scenario, both in Sweden and abroad. At the same time, it becomes clear that an unexpectedly large number of companies have experienced difficulties during the crisis, not least in some euro area countries, which have suffered particularly large falls in GDP. When the authorities

²⁷ Unemployment also rose relatively quickly in the group of those born abroad. See I. Häkkinen Skans “The coronavirus crisis and the labour market - effects in the short and long term”, Economic Commentary no. 1 2021.

begin to phase out the extensive support measures implemented in 2020, and when companies are to begin paying back the loans they took during the crisis, many businesses find it difficult to manage their payments.²⁸ Bankruptcies increase and the situation is further aggravated when the problems in some countries spread to the banking system.

Figure 57. Unemployment in Sweden

Percentage of labour force, 15–74 years, seasonally-adjusted data



Note. Unbroken line refers to outcomes, broken line to the Riksbank's forecast.

Sources: Statistics Sweden and the Riksbank.

Slower growth in consumption, more bankruptcies and tighter credit terms mean that GDP abroad grows much slower than in the main scenario (Figure 55 and Table 2). When the economic outlook for the euro area is adjusted downwards, Swedish households also become more cautious with their expenditure and consumption growth is slowed down further. However, demand for Swedish exports also slows down, and altogether this means that GDP growth this year is no higher than 2 per cent. Next year, growth rises to just over 3 per cent, but this is nevertheless much lower than the almost 4 per cent growth in the main scenario (see Figure 56 and Table 2). Lower GDP growth also means that the demand for labour is lower and that unemployment only falls below 8 per cent towards the end of the forecast period (see Figure 57). The lower resource utilisation on the labour market in turn slows down wage growth.

In this scenario, it is assumed that the ECB will take action to make monetary policy in the euro area more expansionary. Economic prospects are weakened in particular in

²⁸ Last year, many national parliaments in the euro area decided on extensive, temporary emergency measures. According to the European Commission's calculations, these emergency measures corresponded on average to almost 3.5 per cent of the euro area's GDP, but the size of the measures varied significantly between the different countries in the monetary union. A large share of the money was used for direct support payments to households and companies to cover loss of income. This year, many countries are planning to substantially reduce the size of their support and at the same time, to increase expenditure on more traditional fiscal policy measures aimed at stimulating demand in general. See "Communication from the Commission to the European parliament, the Council, and the European Central Bank on the 2021 Draft Budgetary Plans" issued in Brussels on 18 November 2020.

the euro area, and moreover fiscal policy in several countries in the monetary union is limited by high public sector debt. The calculations reported here are based on the same assumptions regarding Swedish monetary and fiscal policy as in the main scenario. In this scenario, resource utilisation in the Swedish economy is much lower, compared with the main scenario, and this also has repercussions on the rate of price increase. It takes longer time for CPIF inflation to reach the target of 2 per cent. Such a development could very well motivate making economic policy more expansionary in Sweden, too. If the need for monetary policy stimulation increases, asset purchases and measures to promote the supply of credit in the economy will continue to be important tools. It is also entirely possible that the repo rate may be cut, particularly if confidence in the inflation target were under threat. In a scenario with new downturns in the economy, fiscal policy at the same time has an important role to play. This applies in particular if economic problems affect one particular sector of society harder than others.

Table 2. GDP growth in Sweden and abroad

Annual percentage change

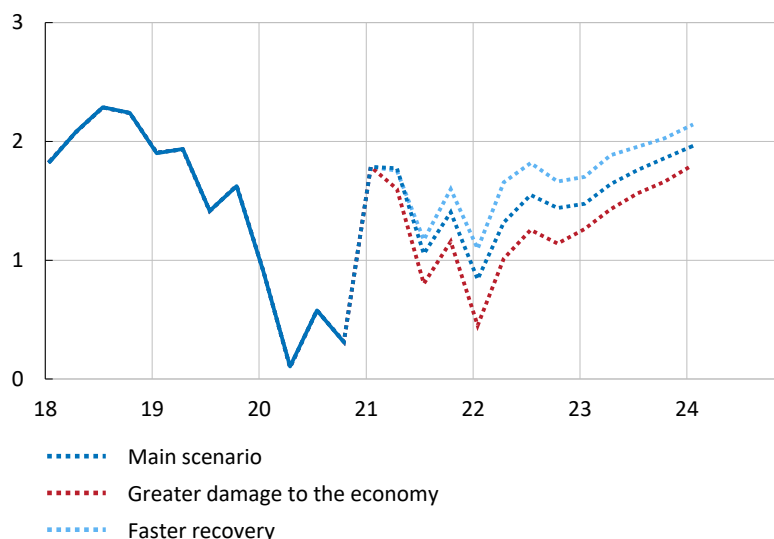
	2021	2022	2023
KIX-2, main scenario	4.7	4.0	1.2
Faster recovery	5.8	5.9	1.3
Greater damage to the economy	3.7	2.3	1.4
Sweden, main scenario	2.9	3.9	2.6
Faster recovery	3.5	5.3	2.8
Greater damage to the economy	2.0	3.1	2.2

Note. GDP KIX-2 is an aggregate of GDP in the United States and the euro area. Unbroken line refers to outcomes, broken lines to the Riksbank's forecast.

Source: The Riksbank.

Figure 58. CPIF

Annual percentage change, quarterly data



Note. Unbroken line refers to outcomes, broken line to the Riksbank's forecast.

Sources: Statistics Sweden and the Riksbank.

ARTICLE – Changed consumption during the pandemic affects inflation

The pandemic has led to unusually large changes in household consumption. This in turn means that it has become more difficult to measure inflation and that the statistics can be difficult to interpret and compare between countries. According to the calculations presented in this article, the inflation rate measured during 2020 underestimated the rate of increase in the prices actually paid by an average household. The way in which the CPIF is calculated means, however, that the changed consumption pattern will sooner or later affect the CPIF. According to Statistics Sweden's normal calculation methods, the CPIF would have been affected by the changes in 2020 mainly during 2022 and 2023. But when Statistics Sweden updates the weights in the CPIF this year, they will use a more up-to-date base for their calculations than they usually do. This will result in the rate of CPIF inflation measured being slightly higher this year than it would otherwise have been, especially at the beginning of the year. However, the change is not expected to lead to any lasting effects on inflation.

The pandemic has affected household consumption

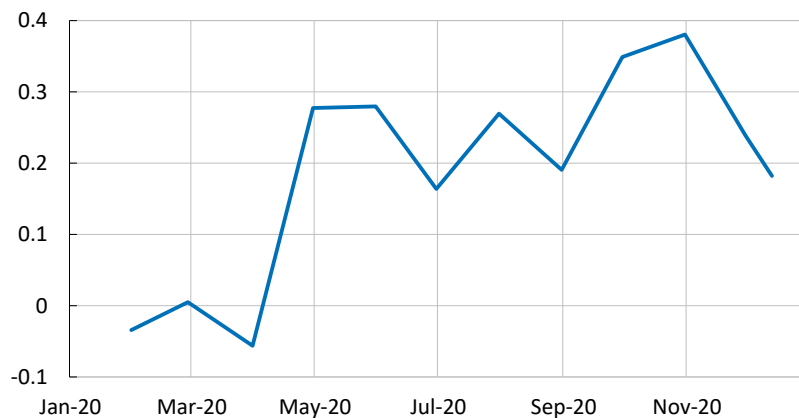
During the pandemic, there have been unusually large changes in household consumption. Air travel and package holidays were in principle not consumed at all during certain months. However, consumption of hotel stays, restaurant visits and various types of entertainment, such as theatre, cinema, sporting events has also declined substantially. Consumption of other things has increased instead, as people are to a larger extent working from home and also staying home when they are not working. This applies to consumption of food, games, products for home renovation and home electronics. The prices of the products consumed less have, in many cases, increased relatively slowly or fallen, while prices of products consumed more have in many cases instead increased relatively rapidly.

The CPIF is calculated as aggregate price movements for a representative 'basket' of products. But as the weights used to calculate the CPIF for 2020 are largely based on how consumption was broken down in 2018, the rate of inflation measured may seem to underestimate the rate of increase in the prices faced by an average household. If one had instead used the current weights for consumption, the aggregate rate of price increase would have been higher, as households have consumed less of the products with prices that are increasing relatively slowly and more of the products with prices that are increasingly relatively quickly.

Figure 59 shows the results of a calculation whereby the annual percentage change in almost 80 sub-groups, which together comprise the CPIF, have been weighed together using weights that reflect consumption during 2020. The difference between this rate of change and the corresponding rate of change calculated with weights based on consumption in 2018 is shown in the figure for 2020. During the period from April onwards, the difference has been between 0.2 and 0.4 percentage points.

Figure 59. Estimated difference between CPIF inflation calculated using weights from 2020 and weights from 2018

Percentage points



Note. Detailed data on household consumption from the National Accounts up to the end of the third quarter of 2020 has been used to calculate weights in 2018 and in 2020. After that, the actual weights for 2020 have been adjusted on the basis of the difference calculated between the whole year 2018 and the three first quarters of 2020. The annual rate of change in the 80 or so sub-groups of the CPIF has then been pooled with these weights.

Sources: Statistics Sweden and the Riksbank.

A number of studies using international data have shown the same results, that inflation would probably have been higher during the pandemic if weights based on actual consumption patterns had been used in the calculations of inflation.²⁹ A similar pattern to Sweden can be seen in other countries, where consumption of, for instance, transport services has declined substantially, at the same time as the price of these services has fallen.

Changes in consumption will affect the measured rate of inflation this year and in coming years

As the weights in the calculation system for the CPIF are normally based on consumption two years previously, the changed consumption behaviour last year has not af-

²⁹ See, for example, Cavallo, Alberto, "Inflation with Covid Consumption Basket", Working Paper no. 27352, NBER Working Paper Series (2020), Diewert, W. Ervin and Fox, Kevin J., "Measuring Real Consumption and CPI Bias under Lockdown Conditions", Working Paper no. 27144, NBER Working Paper Series (2020) and Reinsdorf, Marshall "COVID-19 and the CPI: Is Inflation Underestimated?", WP/20/224, IMF Working Paper Series (2020).

affected the measured rate of inflation yet, apart from when it has affected price developments. However, the way in which the CPIF is calculated will mean that the changes in the weights affect inflation in 2021 and the coming years.

The CPIF aims to measure how price changes affect households' costs for maintaining the same standard of consumption as before. Calculation of the index therefore needs to take into account changes in both prices and the products consumed by households. Technically, this is achieved through an index construction that tries to estimate how consumers adapt to changes in relative prices. The index construction means, for instance, that the index level changes in January every year when the consumption weights are updated. In theory, a change in the index between January and December of the previous year could therefore happen, even if all prices had remained unchanged over these months. Normally, the updating of the weights would contribute to the index falling, as households tend to have replaced products that have become relatively more expensive with products that have become relatively cheaper. This is what Statistics Sweden calls the 'basket effect'.³⁰ The purpose of this adjustment is for the index level in the CPIF to be 'right' in the long run. Consequently, sooner or later, inflation will be affected by the unusually large change in how households have been consuming during the pandemic.

This year, Statistics Sweden will calculate the weights on the basis of more up-to-date data than usual. The weights will mainly be based on the consumption breakdown in 2020 instead of in 2019, which would have been the normal approach.³¹ Among other things, this means that some of the adjustment in level that normally would have been visible in the index in 2022 will instead be visible as early as 2021.³² The rest of the adjustment in level will be visible in the index in 2022.

Is it possible to say anything about what direction the effect of this change will take and how large the effect will be? Intuitively, one can expect the effect to be positive. In practice, a reversed substitution effect has arisen, as households have consumed less of products whose prices have increased relatively slowly. This should contribute to a somewhat higher rate of inflation being measured in 2021 than if Statistics Sweden had applied their usual procedure.

Figure 60 shows how the forecast for the CPIF has been affected by Statistics Sweden's new method of calculating weights. The changes are expected to lead to inflation being just over 0.1 percentage points higher on average this year. At the same time, the change is expected to affect the development of the CPIF over the year and to contribute to higher measured inflation, especially during the first half of the year. One reason for this is the decreased significance given to the price of foreign travel by the new weights. Prices for foreign travel have a clear seasonal pattern, and tend to fall quickly at the start of the year and rise quickly during the summer months and

³⁰ For a technical description of how the basket effect is calculated, see the document "Korgeffekten 2020" (the Basket Effect 2020) on Statistics Sweden's website.

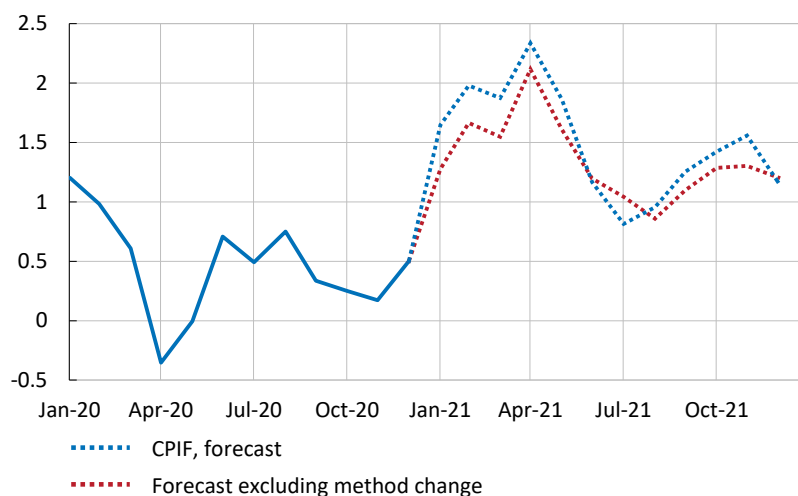
³¹ The reason why the weights are normally based on consumption two years earlier is that one then has access to more reliable data. Normally, there are not so very large shifts in consumption patterns between the years.

³² For a more detailed description of how this works, see J. Johansson, M. Löf, O. Tysklind "Changed consumption during the pandemic affects inflation", Economic Commentaries, No. 14, 2020, Sveriges Riksbank.

around Christmas, when many people have time off. As an example, the downturn in the prices of foreign travel will have less significance for the monthly change in the CPIF in January this year than the corresponding month last year, which contributes to the annual percentage change in the CPIF rising in January this year. But the assessment of the effects is uncertain, for many reasons. For one thing, the Riksbank does not have access to the same detailed data that Statistics Sweden will use as a base in calculating the final weights and, for another thing, the results depend on how prices develop over the year.

Figure 60. CPIF forecasts with and without Statistics Sweden's method changes

Annual percentage change



Note. Unbroken line refers to outcomes, broken line to the Riksbank's forecast.

Sources: Statistics Sweden and the Riksbank.

Inflation statistics will be difficult to interpret over the coming years

In addition to the problems with shifts in consumption and weights discussed in this article, there are also other measurement problems connected to certain products in Statistics Sweden's sample simply not being available, making it impossible to measure their prices.³³ The statistics on price movements are therefore difficult to interpret and will remain so in the coming years. At the same time, it will be particularly difficult to make international comparisons, as the measurement problems are of different sizes and the changed weights have different effects on inflation in different countries.³⁴

It is important to understand what is happening in the statistics, if we are to be able to assess how much of a change in the inflation rate measured is permanent and will

³³ See, for instance, the discussion in the article "Inflation outlook during the corona crisis" in Monetary Policy Report, July 2020.

³⁴ The harmonised index HICP is not affected by weight changes in the same way as the CPIF. For more information, see J. Johansson, M. Löf, O. Tysklind "Changed consumption during the pandemic affects inflation", Economic Commentaries, No. 14, 2020, Sveriges Riksbank.

therefore continue to affect inflation. The use of a more up-to-date base for calculations by Statistics Sweden this year will probably mean that measured inflation is slightly higher in 2021. However, this is not expected to lead to any lasting changes in inflation. The change can be seen as an adjustment to periodisation meaning that parts of the adjustments to the CPIF that would not have affected CPIF inflation until 2022 and 2023 will instead affect the CPIF this year.

ARTICLE – Changes in the LFS and the Riksbank's analysis of the labour market

As part of its efforts to harmonise statistics, the EU has decided on a new legal framework for labour market statistics that shall be implemented as of 1 January 2021.³⁵ This implies changes in the labour force survey (LFS), which will make it more difficult to interpret the Swedish labour market statistics in the coming year. For example, the new, narrower definition of the number of persons employed means a break in the time series when the outcome for January is published. Statistics Sweden estimates that around 30,000 fewer persons will be defined as employed.

The Riksbank's forecasts of labour market developments will continue to be based on the LFS, as this is the official labour market statistic. But data from other sources of statistics will play a greater role, especially in 2021. While awaiting the publication of the LFS for January, the forecasts in this report are based on the earlier statistics and therefore do not attempt to capture the expected shift in level or changes that can be linked to the changes in the statistics.

Changes in the Labour Force Survey LFS

The Labour Force Survey (LFS) is the official labour market statistics in Sweden and the way the surveys is carried out is governed by international resolutions and regulations. The surveys is carried out in all EU countries and to ensure the statistics are comparable, the EU endeavours to harmonise their production as far as possible. In 2019, the European Parliament decided on a new legal framework for labour market statistics to be applied in all EU countries from 1 January 2021.

Fewer in employment with narrower definition, but unclear how far unemployment will be affected

The new legal framework is leading to several changes in the LFS. Among other things, a narrower definition of who is employed is being introduced, along with a clarification of the term "active job seeker". In addition, the target population is being increased from 15–74 to 15–89 years of age.³⁶ The narrower definition of who is in employment concerns those who are temporarily absent from work. After the changes,

³⁵ A legal framework describes basic principles, guidelines and overall objectives without regulating in detail.

³⁶ However, Statistics Sweden will continue to report statistics for 15-74 years of age, which will also continue to be the group for which the Riksbank makes forecasts.

individuals with certain types of absence, where the expected period of absence is three months or more, will no longer be defined as employed. Among other things, this applies to persons who have taken an unpaid leave of absence to study, those on uncompensated parental leave and those who are entirely absent due to redundancy. In 2020, Statistics Sweden used supplementary questions to carry out an initial analysis of the effects of the change in definition, and estimates that about 30,000 fewer people will be defined as employed after the changes.³⁷ Many of these will probably be classified as being outside the labour force and unemployment will thereby not be affected to such a great extent.

Another change concerns the matter of unemployment. In the present survey, respondents are asked, “have you been **seeking employment** in the last 4 weeks?” This wording now being changed to “have you been **searching for employment** in the last 4 weeks?”, which makes the concept broader translated into Swedish. If the respondent answers yes to the question, this is currently followed up by an open question on how they have done this. Going forward, the interviewer will instead ask about concrete ways of searching, for example whether the respondent has looked at job advertisements, updated his or her CV online or asked friends and acquaintances about job vacancies. It is unclear what the consequences will be for the number of unemployed. The reformulation of the question could lead to more interviewees responding that they have looked for or tried to find work, at the same time as the more precise categories for looking for work may reduce the number of those classified as actively looking.

Break in time series managed with double measurement and model estimates

The changes are leading to a time series break in the LFS that means that data in 2021 will not be comparable with previous years. Statistics Sweden has chosen to manage the break in the time series with a combination of double measurement and model estimates. From January to September 2021, 80 per cent of the sample in the LFS will be collected using a new questionnaire that has been adapted to the new framework law and the remaining 20 per cent of the sample will be collected using the earlier questionnaire.³⁸ Double measurements will be needed for some time, to ensure that estimates of the time series break can give reliable results and, not least, to allow seasonal effects to be assessed. It will be some time before Statistics Sweden will be able to make a statement on the magnitude of the break with any precision. At the end of 2021, Statistics Sweden will publish linked time series going back to 2009.

³⁷ <https://www.scb.se/contentassets/6bfa8415fb004be7af3de325644cabb8/inforande-av-ramlagen-i-aku-2021.pdf>

³⁸ Every month, 18,200 people are interviewed for the LFS and the drop-off rate is currently about 50 per cent. This means that probably about 1,800 people will answer the old survey every month.

Changes make it difficult to analyse labour market

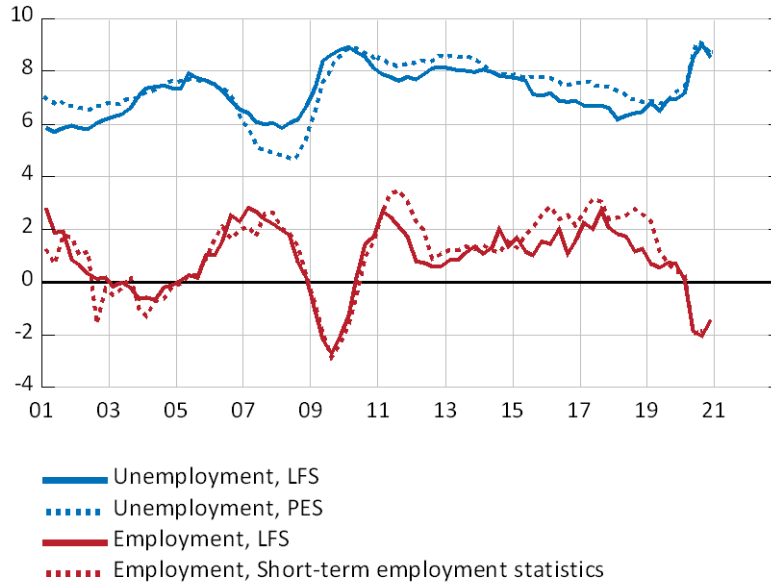
As the LFS provides the official labour market statistics, the Riksbank will also continue to make forecasts of development according to the LFS. However, it will become more difficult to analyse how the labour market develops in 2021 as it will not be possible to know, in the near term, whether developments according to the LFS are due to the changes of the survey or actual labour market changes. It is important that the statistics are harmonised to enable comparison of development in different countries. But it is particularly unfortunate that the LFS will become less reliable during a period when it is important to be able to monitor and assess whether and how rapidly the economy is recovering in the wake of the corona crisis. The Riksbank's assessment of the labour market situation is always based on an aggregate of information from different sources and indicators. However, when uncertainty is higher in the LFS, as it will be in 2021, the analysis needs to be based on other sources to a higher degree, both to gain an understanding of the actual development of the labour market and to make forecasts.

An alternative source for the development of unemployment is the Swedish Public Employment Service register data, and an alternative source for the development of employment is the short-term employment statistics (KS).³⁹ Periodically, these sources have shown differences, but the changes over time have coincided relatively well (see Figure 61). However, the KS is published with a relatively long time lag, which makes it less relevant in forecasting work, but they can still be used to check the actual development of employment afterwards. A number of different indicators can be used to assess the development of the labour market in the near future. For example, recruitment plans according to the Economic Tendency Survey are usually a good indicator of employment growth, and the number of redundancy notices is a good indicator of the development of unemployment.

As a result of the changes in the LFS, labour market forecasts will become more uncertain. Alternative sources of statistics to the LFS will play a more important role than normal in understanding what actually happens on the labour market in 2021, when the economic recovery is expected to continue.

³⁹ There are, however, differences between the sources. For instance, Arbetsförmedlingen's statistics only capture those who are registered at Arbetsförmedlingen and are between the ages of 18–64, while the LFS captures all registered as resident in Sweden between the ages of 15–74. The KS statistics measure the number of people employed, while the LFS statistics also included self-employed people.

Figure 61. Unemployment and employment according to different measures
 Per cent of labour force and annual percentage change. Unemployment refers to seasonally adjusted data



Note. LFS refers to the 15–74 age group and unemployment according to Swedish Public Employment Service refers to the 16–64 age group. Short-term employment statistics refer to all employees.

Sources: Statistics Sweden and Swedish Public Employment Service.

Tables

The assessment in the previous Monetary Policy Report is given in brackets.

Table 1. Repo rate forecast

Per cent, quarterly averages

	2020Q4	2021Q1	2021Q2	2022Q1	2023Q1	2024Q1
Repo rate	0.00 (0.00)	0.00 (0.00)	0.00 (0.00)	0.00 (0.00)	0.00 (0.00)	0,00

Source: The Riksbank.

Table 2. Inflation

Annual percentage change, annual average

	2019	2020	2021	2022	2023
CPIF	1.7 (1.7)	0.5 (0.4)	1.5 (0.9)	1.3 (1.2)	1.7 (1.7)
CPIF excl. energy	1.6 (1.6)	1.3 (1.3)	1.2 (1.2)	1.4 (1.3)	1.6 (1.6)
CPI	1.8 (1.8)	0.5 (0.4)	1.3 (0.8)	1.3 (1.2)	1.8 (1.8)
HICP	1.7 (1.7)	0.7 (0.6)	1.5 (0.9)	1.2 (1.2)	1.6 (1.6)

Note. The HICP is an EU-harmonised index for consumer prices.

Source: Statistics Sweden and the Riksbank.

Table 3. Summary of financial forecasts

Per cent unless otherwise stated, annual average

	2019	2020	2021	2022	2023
Repo rate	-0.3 (-0.3)	0.0 (0.0)	0.0 (0.0)	0.0 (0.0)	0.0 (0.0)
Yields on 10-year government bonds	0.1 (0.1)	0.0 (0.0)	0.3 (0.3)	0.6 (0.7)	0.9 (1.0)
Exchange rate, KIX, 18 Nov 1992 = 100	122.1 (122.1)	118.5 (118.6)	113.5 (113.9)	112.9 (112.7)	112.4 (111.8)
General government net lending*	0.6 (0.5)	-3.3 (-4.4)	-2,6 (-3,6)	-0,9 (-1,2)	0.1 (-0.4)

*Per cent of GDP

Sources: Statistics Sweden and the Riksbank.

Table 4. International conditions

Annual percentage change unless otherwise specified

GDP	PPP weights	KIX weights	2019	2020	2021	2022	2023
Euro area	0.12	0.49	1.3 (1.3)	-6.8 (-7.1)	4.3 (4.7)	3.5 (3.7)	1.1 (1.3)
United States	0.16	0.08	2.2 (2.2)	-3.5 (-3.7)	5.6 (4.2)	3.3 (3.4)	1.5 (2.2)
Japan	0.04	0.02	0.3 (0.7)	-5.3 (-5.1)	2.4 (3.1)	2.1 (1.4)	2.1 (1.1)
China	0.17	0.09	6.1 (6.1)	2.0 (1.6)	9.5 (9.1)	5.4 (5.7)	5.5 (5.5)
KIX weighted	0.75	1.00	2.1 (2.1)	-5.3 (-5.8)	4.8 (4.9)	3.8 (3.8)	2.0 (2.3)
The World (PPP)	1,00	—	2.8 (2.8)	-4.4 (-4.4)	5.2 (5.2)	4.2 (4.2)	3.8 (3.8)

Note. Calendar-adjusted growth rates. PPP weights refer to purchasing-power adjusted GDP weights in the world for 2019, according to the IMF. KIX weights refer to weights in the Riksbank's krona index (KIX) for 2020. The forecast for GDP in the world is based on the IMF's forecasts for PPP weights. The forecast for KIX-weighted GDP is based on an assumption that the KIX weights will develop in line with the trend during the latest five years.

CPI	2019	2020	2021	2022	2023
Euro area (HICP)	1.2 (1.2)	0.3 (0.3)	1.3 (0.7)	1.3 (1.4)	1.4 (1.5)
United States	1.8 (1.8)	1.2 (1.2)	2.4 (1.9)	2.0 (2.1)	2.2 (2.3)
Japan	0.5 (0.5)	0.0 (0.0)	-0.1 (0.1)	0.5 (0.4)	0.8 (0.4)
KIX weighted	1.8 (1.8)	1.1 (1.1)	1.7 (1.4)	1.7 (1.8)	1.8 (1.9)

	2019	2020	2021	2022	2023
International policy rate, per cent	0.1 (0.1)	-0.3 (-0.3)	-0.3 (-0.3)	-0.3 (-0.3)	-0.3 (-0.3)
Crude oil price, USD/barrel Brent	64.1 (64.1)	43.3 (42.3)	54.8 (42.7)	52.5 (44.8)	51.2 (46.2)
Swedish export market	2.5 (2.5)	-9.2 (-9.1)	7.0 (7.2)	6.5 (6.5)	3.4 (3.9)

Note. International policy rate is an aggregate of policy rates in the US, the euro area (EONIA), Norway and the United Kingdom.

Sources: Eurostat, IMF, Intercontinental Exchange, national sources, OECD and the Riksbank.

Table 5. Supply balance

Annual percentage change unless otherwise specified

	2019	2020	2021	2022	2023
Household consumption	1.3 (1.3)	-5.1 (-4.8)	3.2 (3.4)	6.2 (5.3)	2.8 (2.6)
Public consumption	0.3 (0.1)	-0.3 (0.1)	2.5 (2.3)	1.7 (2.3)	0.7 (1.1)
Gross fixed capital formation	-1.2 (-1.0)	-1.2 (-3.8)	2.6 (1.2)	2.8 (5.2)	2.6 (2.3)
Stock investments*	-0,1 (-0.1)	-0,7 (-0.8)	0.1 (0.1)	0.1 (0.2)	0.0 (0.0)
Exports	3.6 (3.3)	-4.9 (-6.7)	6.8 (3.1)	4.6 (9.0)	3.3 (3.9)
Imports	1.2 (1.1)	-6.5 (-7.1)	7.0 (3.3)	5.1 (8.4)	3.0 (3.9)
GDP	1.3 (1.3)	-2.8 (-4.0)	3.0 (2.6)	3.9 (5.0)	2.4 (2.2)
GDP, calendar-adjusted	1.4 (1.3)	-3.1 (-4.2)	2.9 (2.5)	3.9 (5.0)	2.6 (2.4)
Final domestic demand*	0.3 (0.3)	-2.7 (-3.1)	2.7 (2.4)	3.9 (4.3)	2.1 (2.0)
Net exports*	1.1 (1.0)	0.5 (-0.1)	0.2 (0.0)	0.0 (0.5)	0.3 (0.2)
Current account (NA), percentage of GDP	4.6 (4.2)	5.6 (4.7)	5.4 (4.6)	5.1 (4.9)	5.2 (4.9)

* Contribution to GDP growth, percentage points

Note. The figures show actual growth rates that have not been calendar-adjusted, unless otherwise stated. NA is the National Accounts

Sources: Statistics Sweden and the Riksbank.

Table 6. Production and employment

Annual percentage change unless otherwise specified

	2019	2020	2021	2022	2023
Population, 15–74 years	0.7 (0.7)	0.4 (0.4)	0.3 (0.4)	0.4 (0.4)	0.4 (0.4)
Potential hours worked	0.8 (0.8)	0.7 (0.7)	0.6 (0.6)	0.6 (0.5)	0.5 (0.5)
Potential GDP	1.7 (1.7)	1.6 (1.6)	1.6 (1.6)	1.6 (1.6)	1.7 (1.7)
GDP, calendar-adjusted	1.4 (1.3)	-3.1 (-4.2)	2.9 (2.5)	3.9 (5.0)	2.6 (2.4)
Hours worked, calendar-adjusted	-0.3 (-0.3)	-3.8 (-4.3)	1.4 (0.6)	2.8 (3.6)	1.6 (1.6)
Employed, 15–74 years	0.7 (0.7)	-1.3 (-1.5)	0.4 (-0.3)	1.2 (1.5)	1.1 (1.4)
Labour force, 15–74 years	1.1 (1.2)	0.3 (0.3)	0.6 (0.7)	0.6 (0.6)	0.5 (0.5)
Unemployment, 15–74*	6.8 (6.8)	8.3 (8.4)	8.5 (9.4)	7.9 (8.5)	7.4 (7.7)
GDP gap**	0.9 (0.9)	-3.7 (-4.8)	-2.5 (-4.1)	-0.3 (-0.8)	0.6 (-0.1)
Hours gap**	0.8 (0.8)	-3.8 (-4.2)	-3.0 (-4.2)	-0.7 (-1.2)	0.2 (-0.2)

* Per cent of labour force **Deviation from the Riksbank's assessed potential level, per cent

Note. Potential hours worked and potential GDP refer to the long-run sustainable level according to the Riksbank's assessment

Sources: Statistics Sweden and the Riksbank.

Table 7. Wages and labour costs for the economy as a whole

Annual percentage change, calendar-adjusted unless otherwise specified

	2019	2020	2021	2022	2023
Hourly wage, NMO	2.6 (2.6)	1.9 (2.0)	2.5 (2.5)	2.5 (2.5)	2.6 (2.6)
Hourly wage, NA	3.9 (3.9)	4.7 (4.4)	1.0 (1.0)	1.8 (1.7)	2.6 (2.6)
Employer contributions*	0.2 (0.1)	-0.8 (-1.1)	0.7 (1.0)	0.0 (0.0)	0.0 (0.0)
Hourly labour costs, NA	4.0 (4.0)	4.0 (3.3)	1.7 (1.9)	1.8 (1.7)	2.6 (2.6)
Productivity	1.7 (1.6)	0.8 (0.1)	1.4 (1.8)	1.1 (1.4)	1.0 (0.8)
Unit labour costs	2.5 (2.5)	3.2 (3.2)	0.3 (0.1)	0.7 (0.3)	1.6 (1.7)

* Difference in rate of increase between labour cost per hour, NA and hourly wages, NA, percentage points

Note. NMO is the National Mediation Office's short-term wage statistics and NA is the National Accounts. Labour costs per hour are defined as the sum of actual wages, social-security charges and wage taxes (total labour cost) divided by the total number of hours worked for employees. Unit labour costs are defined as the total labour cost divided by GDP at fixed prices. By utilising the short-time work scheme with state support, companies can reduce the number of hours while payroll expenses will not decrease as much. This means that the measured growth in hourly wages according to NA and unit labour costs will rise 2020. However, companies' costs are expected to increase more slowly than the statistics will show as the state provides support to short-time work schemes.

Sources: National Mediation Office, Statistics Sweden and the Riksbank.



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