

Monetary Policy Report

September 2021



Rectification 21 September 2021

Table corrected on page 74

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 includes 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 special material 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 20 September 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 shall 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 publishes its own 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. The trade-off is 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 production and employment, while a slow return may weaken confidence in the inflation target. The Riksbank's general ambition has 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 spans between 1 and 3 per cent, which captures around three quarters of the historical monthly outcomes of CPIF inflation. The Riksbank always strives 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, 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.

Contents

1	Expansionary monetary policy for inflation more permanently close to target	6
1.1	High global growth even if pandemic is not over	6
1.2	Zero interest rate and large holdings of securities to grant support to inflation	12
1.3	Better balance of risks for inflation	17
2	Continued optimism on the financial markets despite increase in infection	20
2.1	Continued optimism, but signs of less willingness to take risk	20
2.2	Good financing terms for Swedish households and companies	31
3	High growth despite increased spread of infection	35
3.1	High growth prospects abroad despite increased spread of infection	35
3.2	High growth in Sweden	45
	ARTICLE – Foreign central banks' plans for a gradually less expansionary monetary policy	62
	ARTICLE – New monetary policy strategy in the euro area	67
	ARTICLE – Different methods of measuring housing costs in the consumer price index	70
	Forecast tables	73

IN BRIEF – Monetary policy September 2021



In conjunction with an increasing number of people having been vaccinated, and restrictions around the world being eased, global growth has risen, supported by economic policy. Since the monetary policy meeting in June, outcomes and indicators have continued to confirm that the recovery in Sweden and abroad is strong.



Rapidly rising energy prices, and global demand combined with supply limitations and logistics problems, have led to consumer prices increasing at a fast pace in several areas. In the near term, the Riksbank's inflation forecast has been revised up, primarily because electricity prices have risen unexpectedly sharply. Swedish inflation, which has been fairly close to the inflation target of 2 per cent in recent months, is assessed to become higher than 2 per cent in the coming year, before falling back again. Underlying inflation, which shows more of a trend, is lower and it will take a couple years more before CPIF inflation is assessed to be more permanently close to 2 per cent.



The expansionary monetary policy is a prerequisite for inflation to also be close to the target in the slightly longer run. The Executive Board has therefore decided to keep the repo rate at zero per cent. It is expected to remain at zero per cent for the entire forecast period, which stretches until the third quarter of 2024. The Riksbank will also continue to purchase securities in 2021 in line with earlier decisions and the Executive Board's forecast is that the holdings will be more or less unchanged in 2022.

1 Expansionary monetary policy for inflation more permanently close to target

Global growth has strengthened as more and more people have been vaccinated and restrictions have been eased. However, in many poorer countries with little access to vaccines, the development of the pandemic is still very troublesome.

Since the monetary policy meeting in June, outcomes and indicators have continued to confirm that the recovery in Sweden is strong. GDP and inflation have become higher than expected and the Riksbank's forecasts for the near term have been revised up. Swedish inflation, which has been fairly close to the inflation target of 2 per cent in recent months, is assessed to be higher than 2 per cent in the coming year. This is mainly because electricity prices have risen substantially. Underlying inflation, which shows more of a trend, is lower and it will take a couple of years more before CPIF inflation is more permanently close to 2 per cent.

The expansionary monetary policy is a prerequisite for inflation to also be close to the target in the slightly longer run. The Executive Board has therefore decided to keep the repo rate at zero per cent. It is expected to remain at zero per cent for the entire forecast period, which stretches until the third quarter of 2024. The Riksbank will also continue to purchase securities in 2021 in line with earlier decisions and the Executive Board's forecast is that the holdings will be more or less unchanged in 2022. The Executive Board has also decided to now close lending facilities that were launched during the pandemic and to restore the requirements for the collateral the banks have to provide when borrowing from the Riksbank. This is because the need for these measures to guarantee access to liquidity in the financial system has been low for some time.

1.1 High global growth even if the pandemic is not over

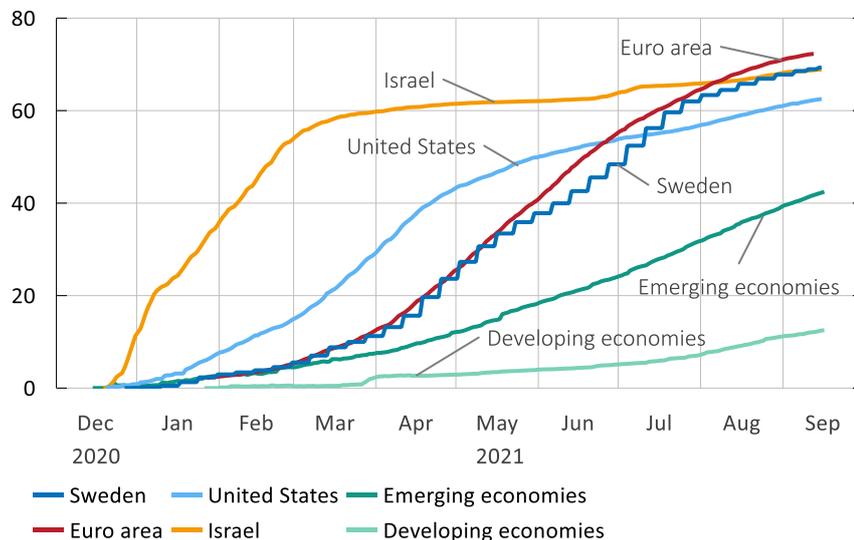
Recovery at different speeds

Although the pace of vaccination has declined markedly in certain areas, the degree of vaccination is continuing to rise (see Figure 1). Many countries have further eased the restrictions that are holding back economic development. However, there are

large variations from country to country and the percentage of vaccinated people remains low in parts of the world. New, more infectious variants of the virus mean a continued risk of setbacks and, in many areas, the rate of infection has picked up again after the summer. In many countries there are now significantly fewer fatalities or people entering intensive care facilities, but there are exceptions. For instance, a worrying development can be seen in the United States, which also means that growth prospects for the US economy have cooled off slightly. In parts of Latin America, Asia and Africa, the coronavirus is spreading rapidly and, in many emerging market economies and developing economies with low immunity, even this wave of infection is having serious humanitarian and economic consequences. However, studies show that the vaccines give a good protection against serious illness. As more people are vaccinated, countries can therefore open up again.

Figure 1. Percentage of population that has received at least one vaccine dose

Per cent of total population



Note. In the aggregate developing economies and emerging market economies, data has been projected for some smaller countries where there is still a lack of outcomes.

Source: Our World in Data.

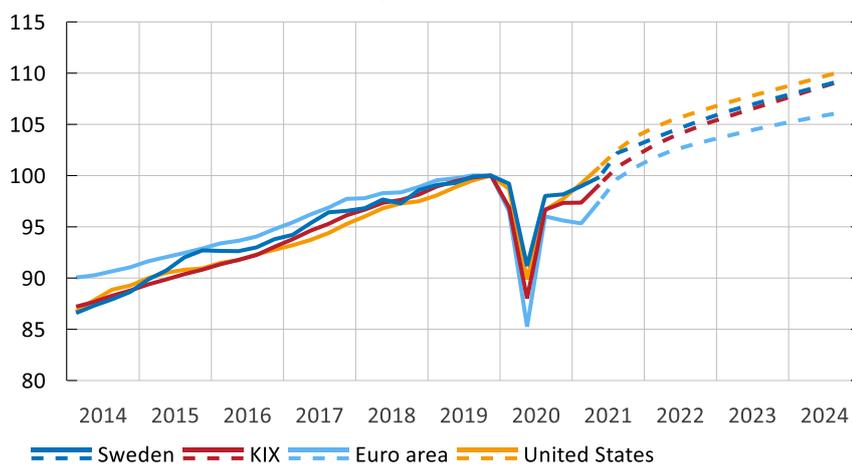
Different countries have made different progress in terms of vaccination. This contributes to the differences with regard to recovery from the heavy falls during the pandemic. In the developed countries an increasing number of restrictions have been withdrawn and optimism among companies and households is at a high level. In these countries, development is also supported by continued expansionary economic policy from governments and central banks. Household consumption is growing quickly in the developed economies and, within some goods industries, companies are now finding it difficult to meet the rapidly rising demand. Global trade in goods has increased rapidly after the heavy fall in 2020, and in recent months has levelled off somewhat at a level that is a good 5 per cent higher than prior to the pandemic (see Figure 25 in Chapter 3).

Supported by a continued expansionary economic policy, GDP abroad (KIX-weighted) is expected to grow by just over 5 per cent this year, and by a good 4 per cent next year. GDP will grow rapidly when restrictions are eased and household consumption patterns become more similar to the pre-crisis patterns. Many of the countries that are most important for Swedish exports have largely recovered the fall in economic activity (see Figure 2). Towards the end of 2021, KIX-weighted GDP is expected to be a good 1.5 per cent higher than prior to the crisis. However, growth will be gradually lower during the forecast period.

Rapidly rising energy prices, in combination with rising demand, supply limitations and logistics problems have led to consumer prices increasing at a rapid pace in several countries, and especially the United States. The upturns are assessed to be largely temporary. During 2022, inflation abroad is expected to fall back and then to be close to 2 per cent (see Figure 29 in Chapter 3).

Figure 2. GDP in Sweden and abroad

Index, 2019 Q4 = 100, seasonally adjusted data



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

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

The Swedish economy – high growth and ever-higher employment

Growth is high in the Swedish economy. GDP increased by 0.9 per cent in the second quarter of 2021, seasonally-adjusted, compared with the first quarter. Growth was primarily driven by increasing consumption and investment. Swedish exports and industrial production recovered rapidly during the second half of last year and are now at higher levels than prior to the crisis. Going forward, they are expected to grow more slowly. The shortage of semiconductors and other intermediate goods, as a result of high demand and limitations in production capacity, will contribute to a more subdued growth in exports and industrial production in the coming period.

Household consumption has been dampened as a result of pandemic-related restrictions since the fall in spring 2020. But outcomes and indicators point to a rapid upturn in recent months. During the summer, the restrictions have been eased and according to Statistics Sweden's monthly consumption indicator, demand rose substantially in July in some of the sectors that were hit hardest by the pandemic, in particular the hotel and restaurant industry.

The Government has decided, in line with the recommendations by the Public Health Agency of Sweden, to continue its plan for phasing out the restrictions on 29 September. Limits on audiences and the number of visitors in the restaurant sector are no longer considered justified on the basis of infection and public health. This means that no national restrictions holding back demand in the economy remain, although some general recommendations are expected to remain for a further period. Some restrictions, such as foreign travel, still remain, but they are assessed to have minor effects on overall economic activity.

Growth is expected to have picked up further during the third quarter, when GDP is expected to increase by 2.4 per cent, seasonally-adjusted in relation to the previous quarter. This is supported by Statistics Sweden's monthly GDP indicator, which points to high growth in recent months. Later this year, growth is expected to gradually slow down as the falls in consumption and investment that followed in the wake of the pandemic are recovered.

The overall picture from various sources regarding developments in the labour market is that employment has increased strongly since last summer. However, unemployment in several of the industries hit hardest is still lower than prior to the crisis. The number of hours worked in the economy has risen faster than the number of persons employed, which can primarily be explained by many employers having terminated short-time work compensation schemes and decreased sick leave due to COVID-19.

Indicators, such as employment plans in the business sector according to the Economic Tendency Survey, imply a continued strong demand for labour. Employment is therefore assessed to increase relatively rapidly also during the second half of the year 2021. As the economic recovery continues, employment is expected to rise faster than the labour force and unemployment to fall back. Towards the end of the forecast period, unemployment is expected to be around 7 per cent (see Figure 3).

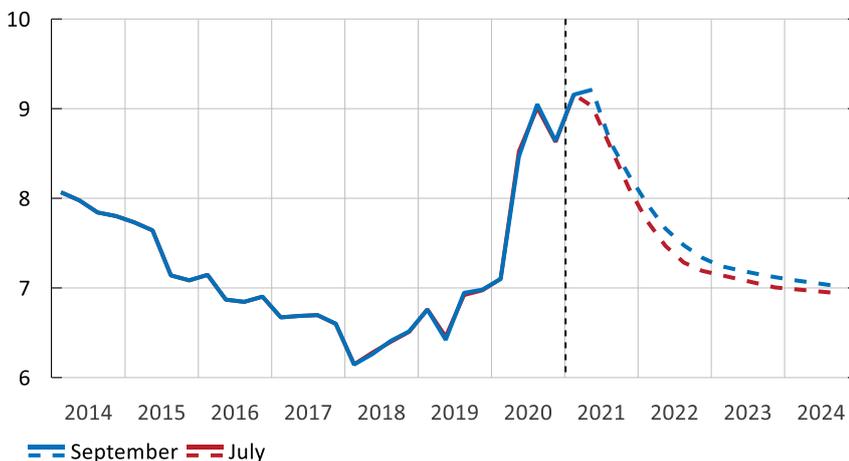
The crisis has made entry and return to the labour market more difficult for some groups. There are now more people than before who have been unemployed for more than twelve months. Long periods of unemployment can affect individuals' knowledge and skills and make it more difficult to find a new job. The continued economic recovery this year and next year is important for long-term unemployment to decline and thereby for the long-term development of the labour market. The recovery of the hotel and restaurant industry is particularly important, as this is an industry where many young people and people with a weak connection to the labour market often obtain their first jobs.

The higher percentage of long-term unemployed means that some negative effects of the pandemic are expected to remain in the longer run. This means that, even if the

strong economic situation causes unemployment to fall back, it is expected to remain on an elevated level for some time to come.

Figure 3. Unemployment in Sweden

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



Note. Solid line refers to outcome, broken line represents the Riksbank’s forecast. The vertical line marks the date for the overhaul of the LFS (the labour force survey).

Sources: Statistics Sweden and the Riksbank.

At present, the amount of spare capacity is varying more than normal between different sectors, although the differences have declined as the economy has opened up. The Riksbank’s assessment is that average resource utilisation in the Swedish economy has risen quickly, but that it is still significantly lower than normal in some of the industries that were most affected by the pandemic. Supported by expansionary economic policy, resource utilisation is expected to continue to rise and the economic situation is projected to be strong in the coming years.

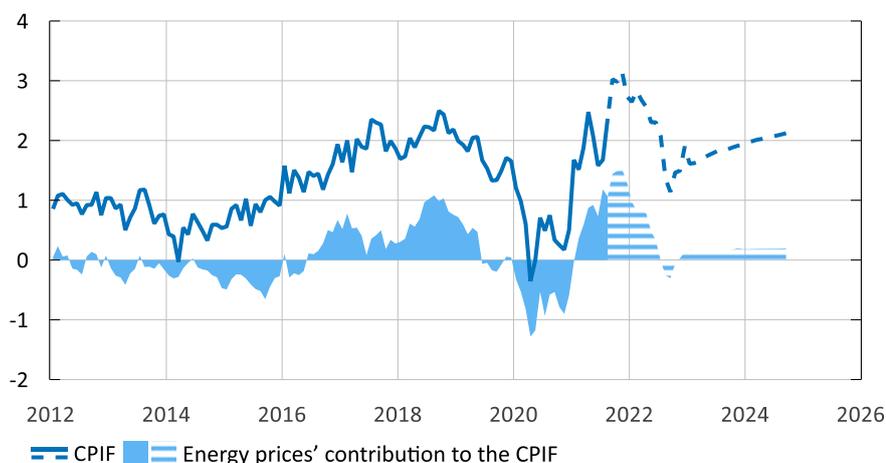
Rising inflation and stable inflation expectations

CPIF inflation varied substantially in 2020 (see Figure 4). This year, it has remained volatile, but risen and amounted to 2.4 per cent in August. The substantial fluctuations in the inflation figures since the start of 2020 are mainly due to heavy swings in energy prices and changed consumption patterns as a result of the pandemic.

CPIF inflation is expected to continue to rise in the coming months, and to be around 3 per cent towards the end of the year, before falling back in the middle of next year (however, the price level is expected to shift upwards lastingly; see the fact box “The relationship between price level and inflation rate”). Higher energy prices will continue to provide a positive contribution to CPIF inflation during the coming year (see Figure 4). It is electricity prices in particular that have risen over the summer, and they are expected to keep CPIF inflation up.

Figure 4. CPIF and contributions from energy prices

Annual percentage change and percentage points



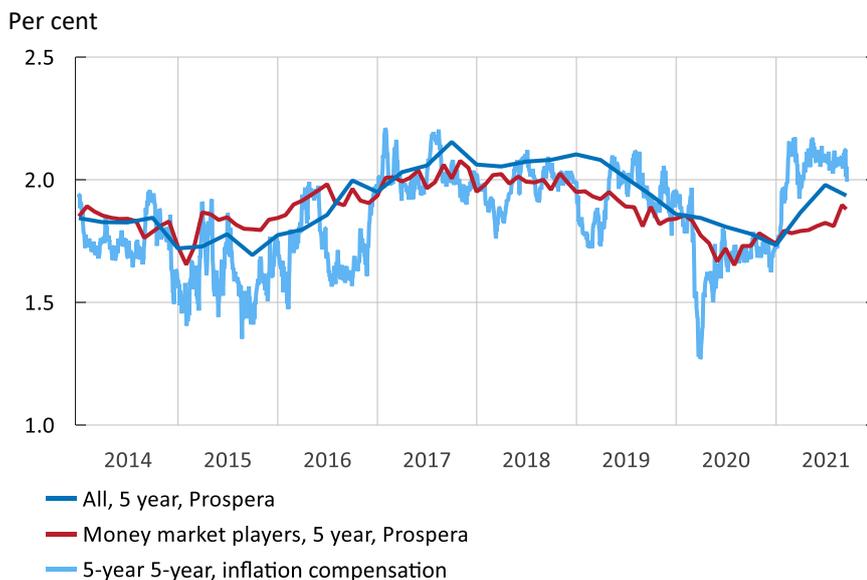
Note. The contribution of energy prices to the CPIF in the forecast is calculated as the annual percentage change in energy prices multiplied by their current weight in the CPIF. Solid line refers to outcome, broken line represents the Riksbank's forecast.

Sources: Statistics Sweden and the Riksbank.

Excluding energy prices, inflation was 1.4 per cent in August and the median of various measures of underlying inflation was 1.7 per cent (see Figure 43 in Chapter 3). The upturn in the CPIF excluding energy was relatively broad in August and reflects somewhat higher inflationary pressures in the near term. The Riksbank assesses that some of the steeply rising freight prices and commodity prices, as well as price-driving supply limitations, is passed on to consumers, leading to a slightly higher rate of price increase for certain goods.² As the economic situation improves, wages increase at a faster pace and inflation abroad rises, CPIF inflation is expected to rise more permanently and be close to 2 per cent in a couple of years. In the period ahead, the krona exchange rate is expected to remain relatively unchanged and to no longer affect inflation to the same extent in the coming years.

Inflation expectations have risen over the year, both abroad and in Sweden. Considering the dramatic downturn in economic activity and the rapid fall in inflation at the start of the crisis, various measures of long-term inflation expectations have been remarkably stable. The expectations measured via market pricing for various financial contracts recovered most of the initial fall quite rapidly and have been just over 2 per cent this year (see Figure 5). Even survey-based expectations fell in 2020 but have climbed back towards 2 per cent this year. The overall picture is that long-term inflation expectations are close to 2 per cent.

² See also the article "How are higher commodity prices and freight costs affecting inflation in Sweden?" in *Monetary Policy Report*, July 2021, Sveriges Riksbank.

Figure 5. Long-term inflation expectations

Note. The inflation compensation refers to a 5-year period starting in 5 years' time, calculated from bond yields. Both inflation compensation and expectations from Prospera refer to the CPI.

Sources: Kantar Sifo Prospera and the Riksbank.

The financial conditions in Sweden and abroad are still very expansionary. Market rates are low, equity prices have risen further since the spring and the Swedish krona has depreciated slightly. Interest rates charged to Swedish households and companies are low. Lending to households is continuing to rise and companies' possibilities of obtaining funding via banks or borrowing on the securities market seem to be good.

1.2 Zero interest rate and large holdings of securities to give support to inflation

Strong recovery with temporarily high inflation

Since the monetary policy meeting in June, outcomes and indicators have continued to confirm that the recovery is strong. Growth in Sweden has been higher than expected, but it is primarily inflation that has been surprisingly high in relation to the Riksbank's forecasts in July (see Figures 6 and 7). Inflation prospects have therefore been revised upwards. The fact that CPIF inflation is expected to be higher in the coming year is largely due to electricity prices having increased more than expected. High electricity prices clearly impact households' living costs, but the price changes are assessed to be temporary and the forecast in the slightly longer run remains largely unchanged. Monetary policy affects the economy with a time lag, and needs to disregard temporary price fluctuations.

Even excluding energy prices, the Riksbank's forecast for inflation has been revised up. CPIF Inflation excluding energy is expected to be close to 2 per cent during the

first half of next year on average. Pandemic-related price increases as a result of the supply shocks are assessed to be temporary. Inflation is therefore expected to fall back and it will take some time before inflation is close to 2 per cent more persistently.

Figure 6. CPIF

Annual percentage change

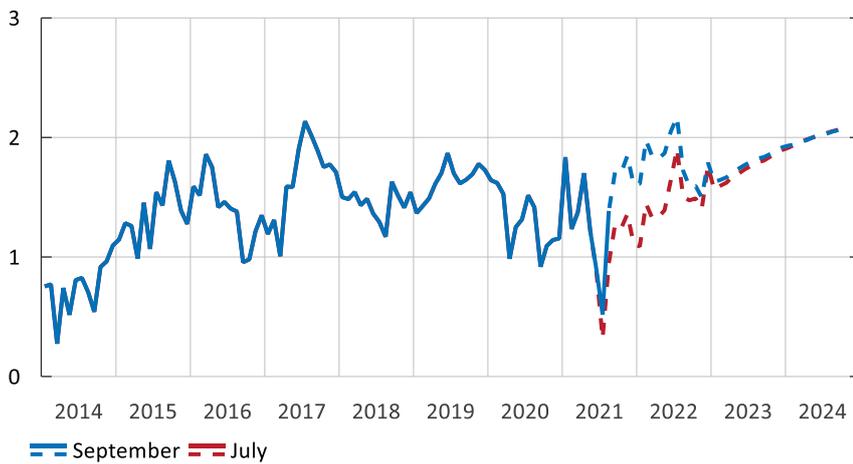


Note. Solid line refers to outcome, broken line represents the Riksbank's forecast.

Sources: Statistics Sweden and the Riksbank.

Figure 7. CPIF excluding energy

Annual percentage change



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

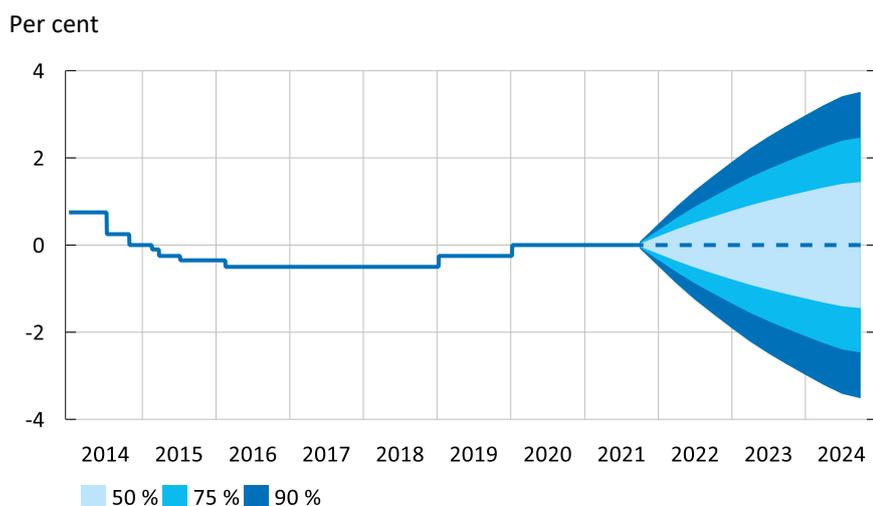
Sources: Statistics Sweden and the Riksbank.

With the assistance of extensive economic policy support measures, the economic situation becomes increasingly strong and the high level of resource utilisation contributes to cost pressures rising. Expansionary monetary policy is therefore a prerequisite

for inflation to be close to the target more persistently going forward. To avoid jeopardising the prospects for inflation in the slightly longer run, it is important that financial conditions remain expansionary. The Executive Board has therefore decided to keep the repo rate at zero per cent. The repo rate is expected to remain at zero per cent for the entire forecast period, which stretches until the third quarter of 2024 (see Figure 8). The Riksbank will also continue to purchase securities in 2021 in line with earlier decisions and the Executive Board's forecast is that the holdings will be more or less unchanged in 2022. Significantly reducing the holdings of securities next year could lead to an undesirable tightening, with interest rates in a worst-case scenario rising rapidly.

In the Riksbank's forecast, inflation is expected to be just over 2 per cent towards the end of the forecast period. This is not a reason to now make monetary policy less expansionary in different ways. In recent decades, inflation has undershot the target on average. If inflation overshoots the target for a time, this would help to more clearly anchor price and wage expectations in a way that is compatible with close-to-target inflation. The risks with reducing stimulation measures too early are therefore still judged to be greater than the risks of retaining them too long.

Figure 8. Repo rate with uncertainty bands



Note. The uncertainty bands are based on the Riksbank's historical forecasting errors and on risk premium-adjusted forward rates' forecasting errors for the period 1999 until the Riksbank began publishing forecasts for the repo rate, in 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 the forecasts refer to quarterly averages.

Source: The Riksbank.

Riksbank closes lending facilities where demand is very low

The Riksbank's measures have mitigated the effects of the crisis on the Swedish economy and facilitated a recovery. Many of the measures implemented during the acute initial phase of the crisis were aimed at ensuring the impact of monetary policy and

preventing the financial markets from functioning poorly, a situation that risked aggravating the economic crisis. These measures have strengthened the banks' access to liquidity in Swedish kronor and US dollars, facilitated their funding and supported their role as suppliers of credit to Swedish companies.

The Riksbank's measures during the pandemic are summarised in Table 1.³ The table also shows that the demand for some of the Riksbank's lending facilities has been low for some time. For example, within the funding for lending programme, a large share of the loans have fallen due. At present, SEK 16 billion remains in this lending facility, where the banks have the possibility to borrow up to SEK 500 billion. The Riksbank is every month also offering longer maturity loans in US dollars and in Swedish kronor in extraordinary market operations. There is now SEK 3 billion outstanding in these facilities.

The Swedish economy has largely recovered from the economic downturn that occurred in conjunction with the start of the pandemic. Interest rates and yield spreads are at low levels and the situation on the financial markets has stabilised. In such a situation, it is natural for optimism among market participants to strengthen gradually and for the need for Riksbank measures to strengthen access to liquidity in the financial system to decrease. The Executive Board has decided to now conclude the programme for corporate lending via the banks, as well as the monthly offers of loans in Swedish kronor in extraordinary market operations. The Executive Board has also decided to restore the collateral requirements the banks have to provide when borrowing from the Riksbank to the rules applying prior to the pandemic.⁴ Neither will the Riksbank extend the offer of loans in US dollars.

The Riksbank assesses that these decisions in the current market situation do not entail any deterioration in the liquidity supply or that end rates to households and companies will rise. However, the Riksbank is prepared to re-introduce the lending facilities if new, serious problems were to arise in the supply of liquidity that risked having a major impact on economic activity, and therefore inflation prospects.

Riksbank purchasing securities at a slower pace

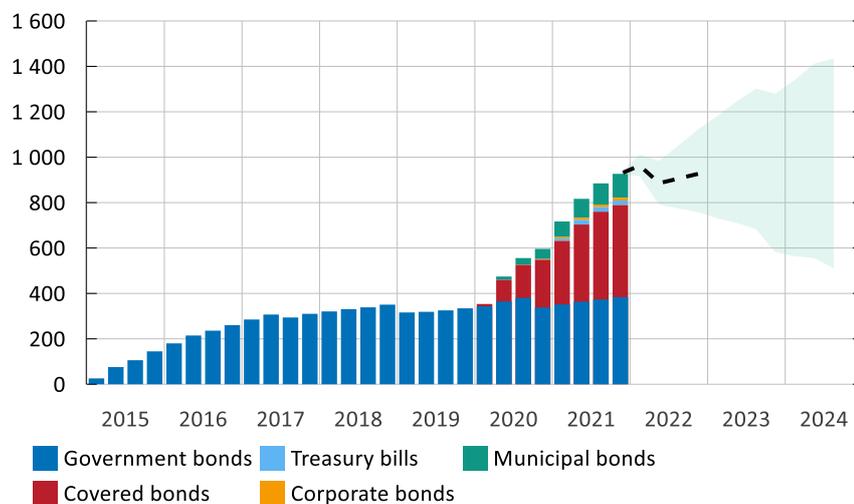
Previous monetary policy decisions mean that, during the fourth quarter, the Riksbank will buy bonds for an aggregate nominal amount of SEK 68.5 billion. This means that the purchasing rate will continue to be reduced but that the envelope for the Riksbank's asset purchases will be utilised to the full during 2021. The Riksbank's holdings of securities are expected to increase to almost SEK 930 billion at the end of the year (see Figure 9).

³ More details on the asset purchases can be found on the website: [Monetary policy instruments | Sveriges Riksbank](#)

⁴ To give the counterparties an opportunity to adjust, the stricter collateral requirements and limits will be introduced 3 January 2022. With regard to outstanding loans in the Programme for funding to banks to support corporate lending, the existing collateral requirements will apply until the loan has been paid, no later than 2024.

Figure 9. The Riksbank's holdings of securities and forecast for holdings

Nominal amounts, SEK billion



Note. The bars refer to executed and decided purchases. The broken line shows a forecast for holdings under the assumption of 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 lower interval limit is a projection of holdings assuming that no more asset purchases are made after 2021. Its upper limit reflects a development in which the Riksbank's asset purchases continue at more or less the same pace as during 2021.

Source: The Riksbank.

In the coming years, the Executive Board intends to conduct a continued expansionary monetary policy by holding the repo rate low and maintaining an extensive holding of securities. The holdings will therefore need to develop in a way compatible with continuing expansionary financial conditions. In practice, this is assessed to mean that the holdings will remain more or less unchanged through 2022 by means of new purchases compensating for redemptions in various asset types. The redemptions are, however, unevenly distributed over time, at the same time as purchases are expected to occur at a fairly even rate. A decision on purchases after 2021 will, as before, take into account operational and practical limitations. This will lead to some variations in the Riksbank's asset holdings even during periods when the aim is to keep the holdings unchanged.

Necessary expansionary economic policy also entails vulnerabilities

To alleviate the crisis and to support the recovery and inflation, it has been necessary to stimulate the economy by holding interest rates low and facilitating the credit supply. But there are vulnerabilities and long-term risks that can be built up by very expansionary monetary policy.

Combined with support measures from governments, the central banks' monetary policies have led many countries, companies and households to increase their debts.⁵

⁵ See the article "Expansionary fiscal policies abroad are contributing to the recovery" in *Monetary Policy Report*, July 2021, Sveriges Riksbank.

This may lead to future recessions being both deeper and more prolonged than would otherwise be the case. Low interest rates can also lead to excessive risk-taking, mean that homes and other assets become overvalued, and lead to risks being incorrectly priced. It is therefore important to increase resilience in the financial system. One step in this direction is that Finansinspektionen has announced that the value of the countercyclical capital buffer will be raised to 1 per cent.

Vulnerabilities linked to the high indebtedness of Swedish households and the major exposures of banks to property have increased further during the pandemic, even though interest rates have not changed very much. The housing market has developed strongly, with rapidly rising house prices, despite the economic downturn.⁶ There are now signs that the price upturn is levelling off, but this is at a high level. In addition, household debt has increased, as housing purchases are largely financed by loans. Higher indebtedness makes households more sensitive than previously to both price falls in the housing market and rising interest expenses. First and foremost, housing and tax policy measures are required to mitigate the risks associated with household indebtedness.

Vulnerabilities and long-term risks that can be built up by the expansionary monetary policy have been subordinated to the need to counteract the economic effects of the pandemic. However, as the economy has recovered from the crisis, it is increasingly important to focus more on issues of how best to manage these vulnerabilities. Overall economic policy needs to take responsibility for alleviating crises, but also take longer-term vulnerabilities into account. The most appropriate way of counteracting these is via targeted structural measures, well-designed financial regulation and macroprudential policy.

Fiscal policy and monetary policy complement each other

Over the last year, monetary policy and fiscal policy both in Sweden and abroad have complemented each other and thereby been able to mitigate the crisis and facilitate the recovery more effectively. Fiscal policy measures have a greater effect on growth and resource utilisation if the policy rate is kept unchanged when they are implemented. Several central banks have also announced that they plan to continue to keep policy rates low and maintain extensive purchases of assets, even if inflation overshoots the target for a while. It is therefore probable that the fiscal policy measures currently being implemented in many countries are being strengthened by the expansionary monetary policy. The low interest rates and strong public finances in Sweden make it possible to continue to give extensive economic policy support to the economy.

1.3 Better balance of risks for inflation

There is always uncertainty regarding the Riksbank's forecasts in both the short and long term. Developments abroad are highly significant for Sweden and the economic

⁶ See the article "Rapidly rising housing prices despite the coronavirus crisis" in Monetary Policy Report, April 2021, Sveriges Riksbank.

outlook and inflation prospects in the world economy are still being affected by the pandemic. Although reduced infections and rising vaccinations among the global population provide hope that the crisis is coming to an end, new, more infectious variants of the virus have evolved. In the United States, the number of people infected and admitted to hospitals for treatment has increased substantially. Even in countries such as China, the spread of infection has worsened and tougher restrictions have therefore been introduced. In many emerging market economies and developing economies, the vaccination process is also slow, which can hamper growth in other countries too. Mutations of the virus can lead to an increased need for medical care and new restrictions even in countries where a large percentage of the population is vaccinated.

If the recovery is too unsynchronised, imbalances may arise, particularly in countries with substantial borrowing in foreign currency. A related uncertainty factor is the development of inflation, especially in the United States. If inflationary pressures were to be much stronger than expected, US interest rates might rise rapidly and thus cause problems, for both the United States and other countries. The direct economic consequences for Sweden of such a development would probably be small, but it cannot be ruled out that problems may spread via the financial markets and in this way have relatively major consequences for the Swedish economy as well.

There are also factors that could lead to the global economy developing more strongly than in the Riksbank's main scenario. Further easing in economic policy cannot be ruled out, not least in the United States, where there is still considerable uncertainty regarding the expansiveness of fiscal policy.

Inflation has been higher than expected in recent months, and the Riksbank has made substantial upward revisions to the forecast for the coming year. This illustrates the uncertainty regarding inflationary pressures both in Sweden and abroad. Demand is growing rapidly and many companies are now having difficulty meeting it. It is difficult to obtain some intermediate goods, in the transport sector there are logistics problems and indicators point to a labour shortage in certain industries. The Riksbank assesses that some of these price increases will be passed on to consumers and lead to a slightly higher rate of price increase on certain goods over the coming year. It is assumed in the forecast that the supply disruptions are transitory and that the effects on inflation will be temporary. If the disruptions were to be managed sooner than expected, or electricity prices to fall in the same way as they have risen this year, inflation would be lower. On the other hand, the supply-side problems could become more prolonged than in the Riksbank's assessment and also affect wages and inflation expectations in a way that gives rise to a broader upturn in cost pressures and inflation.

Monetary policy needs to be constantly adapted to changes in the economic outlook and inflation prospects. The Executive Board may cut the repo rate or in some other way make monetary policy more expansionary if inflation prospects weaken. This applies in particular if confidence in the inflation target were to be under threat. A less expansionary monetary policy might be justified if inflation were to risk overshooting the target significantly and persistently.

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

Measure	Scope	Purchased/utilised so far up to 17 September	Status
Envelope for the Riksbank's asset purchases	Envelope amounts to SEK 700 billion.	Total holdings have increased by SEK 609.2 billion since the beginning of March 2020	Purchase programme lasts until 31 December 2021. Purchase decision applying until end of fourth quarter 2021, after that forecast for holdings.
- Of which government bonds		SEK 79.8 billion	
- Of which municipal bonds		SEK 90.9 billion	
- Of which covered bonds		SEK 380 billion	
- Of which treasury bills		Holdings: SEK 17.5 billion	Purchases so that holdings are SEK 20 billion as of 31 December 2021
- Of which corporate bonds		SEK 11.6 billion	
- Of which commercial paper		Holdings: SEK 0.0 billion	Purchases up to holdings of SEK 32 billion during the rest of 2021.
Interest rate in standing loan facility cut	Cut from 0.75 to 0.10 percentage points above the repo rate.		The adjustment is in line with the plan for a simplification of the operational framework that the Riksbank presented in September 2019, but was brought forward as a result of the coronavirus crisis.
Programme for funding to banks to support corporate lending	Up to SEK 500 billion	Outstanding SEK 16.0 billion	The Riksbank will offer no further loans after 21 September.
Weekly market operations whereby banks are offered loans against collateral at three and six months maturities at the repo rate.	Unlimited	Outstanding SEK 3.0 billion	The Riksbank will offer no further loans after 21 September.
Eased collateral requirements when borrowing from the Riksbank	—		Stricter requirements will be introduced 3 January 2022. (The existing collateral requirements will apply for outstanding loans in the Programme for funding to banks to support corporate lending, until the loan has been paid, no later than 2024.)
Lending in US dollars	Up to USD 60 billion	Outstanding USD 0.0 billion	To be concluded when current decision expires on 30 September.

Note. Municipal bonds are 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 Continued optimism on the financial markets despite increase in infection

The economic recovery and the expansionary economic policy are continuing to characterise developments on the international financial markets and are contributing to a continued high willingness to purchase risky assets. In many ways, international developments have marked the development of the Swedish financial markets over the summer. Interest rates are still very low, equity prices have risen and the krona has weakened, largely due to a general strengthening of the US dollar. Swedish companies' securities borrowing is continuing to grow, while funding via bank loans is subdued. The financial conditions are expected to remain expansionary due to economic developments and the expansionary economic policy.

2.1 Continued optimism, but signs of less willingness to take risk

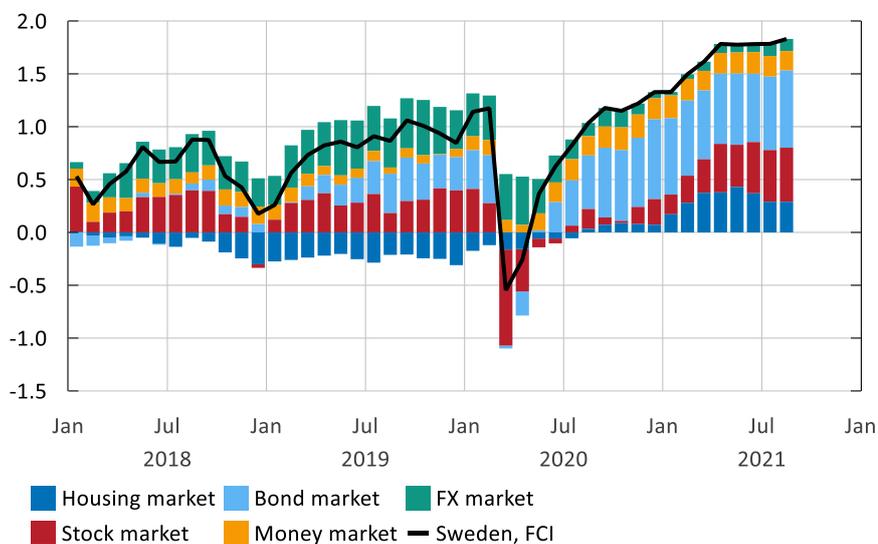
Willingness among financial market participants to purchase risky assets remains high. Yield spreads between higher risk bonds and government bonds remain small and stock exchange prices have continued to rise. The spread of the delta variant of the coronavirus has increased during the summer, however, and this has affected the financial markets. Investors in developed economies have turned to less cyclically-sensitive equities and yields on long-term government bonds have fallen.

Inflation outcomes during the summer have continued to be high, both in the United States and the euro area, and the question of whether the upturn in inflation is temporary or lasting is still cause for concern among investors. In the United States, market-based measures of inflation expectations, such as yield spreads between long-term nominal and index-linked government bonds, have changed marginally over the summer. This indicates that market actors' concerns regarding lastingly high inflation may remain, but that it is largely unchanged since June.

In Sweden, interest rates remains very low. Long-term bond yields have followed developments abroad and yield spreads between higher risk bonds and government bonds have remained very low over the summer. The low interest rates is an important explanation for the financial conditions in Sweden continuing to be highly expansionary. Developments on the stock market and housing market, as well as the development of the krona, also contribute to the expansionary financial conditions (see Figure 10).

Figure 10. Index for financial conditions in Sweden

Standard deviations. A higher value indicates more expansionary financial conditions



Source: The Riksbank.

Central banks discussing reducing monetary policy stimulation

The major central banks are continuing to pursue an expansionary monetary policy. At the start of the summer, the European Central Bank (ECB) presented changes to the monetary policy framework and introduced, among other things, a new symmetric inflation target of 2 per cent (see the article “New monetary policy strategy in the euro area” in this report). As the market participants’ inflation forecasts for 2022 and 2023 tend to undershoot 2 per cent, this decision has been interpreted by market participants as signalling that the ECB will continue to pursue a highly expansionary policy for a long time to come.

At the monetary policy meeting in September, the ECB announced that it would hold policy rates unchanged at the current levels and that it would continue the net purchases amounting to EUR 20 billion per month made within the framework of the asset purchase programme determined prior to the pandemic (APP). The programme for lending to households and companies via the banks (TLTRO-III) will continue as before, and they also retained the envelope of EUR 1,850 billion for the asset purchased made within the special pandemic programme (PEPP). However, the ECB decided that the monthly purchases within the pandemic programme, which have previously amounted to around EUR 80 billion, would now take place at a slower pace than before.

At its monetary policy meeting at the end of July, the US central bank, the Federal Reserve, held its monetary policy unchanged. The policy rate was held within the interval of 0.0–0.25 per cent, the net purchases of government securities will remain at USD 80 billion a month, and its net purchases of covered bonds and other mortgage-

backed securities is USD 40 billion a month.⁷ In the minutes to the monetary policy meeting that were published in mid-August, many members of the MPC considered that if economic developments continued as expected, the asset purchases can be reduced later this year (see the article “Foreign central banks’ plans for a gradually less expansionary monetary policy” in this report).

The Bank of England has also opened discussions of how monetary policy can become less expansionary in the period ahead. At its latest monetary policy meeting at the start of August, it decided to hold monetary policy unchanged, but discussed how its asset portfolio could be reduced when the time was right (see the article “Foreign central banks’ plans for a gradually less expansionary monetary policy” in this report).

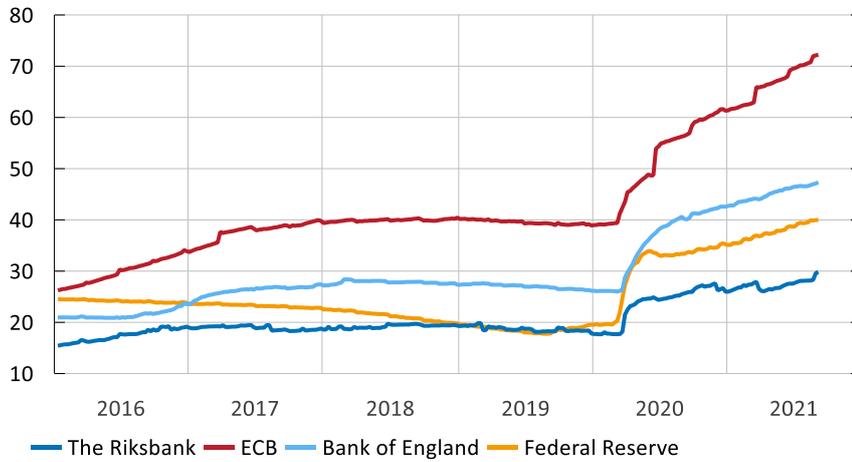
Other central banks have also signalled tapering of asset purchases, and in some cases have already begun to do so. The Canadian central bank, which had already earlier reduced its rate of purchases, decided on further tapering of asset purchases at its monetary policy meeting in July. On the other hand, they decided not to make any changes to asset purchases at their September meeting. The Australian central bank decided at its meeting in September to continue asset purchases at least until February next year, but that the weekly purchases would be for a lower amount than before. The decision was motivated by the ongoing recovery of the economy continuing, despite the somewhat increased spread of the delta variant increasing the risk of temporary setbacks. A strong economic recovery and lower risk of low inflation, caused the New Zealand central bank to decide at the end of July to completely discontinue asset purchases. As the spread of infection has increased, however, the bank has so far waited before raising the policy rate, although market participants are expecting a rate increase later in the autumn. According to market expectations, Norges Bank will also raise its policy rate at the meeting in September.

Overall, the central banks’ expansionary monetary policy measures during the pandemic have contributed to the strong growth of their balance sheets as a proportion of GDP (see Figure 11).

⁷ As a part of the monetary policy decision in July, the Fed also decided to set up two standing market maintenance facilities to support the functionality of the US government securities market in times of stress.

Figure 11. Central banks' balance sheet totals

Per cent of GDP



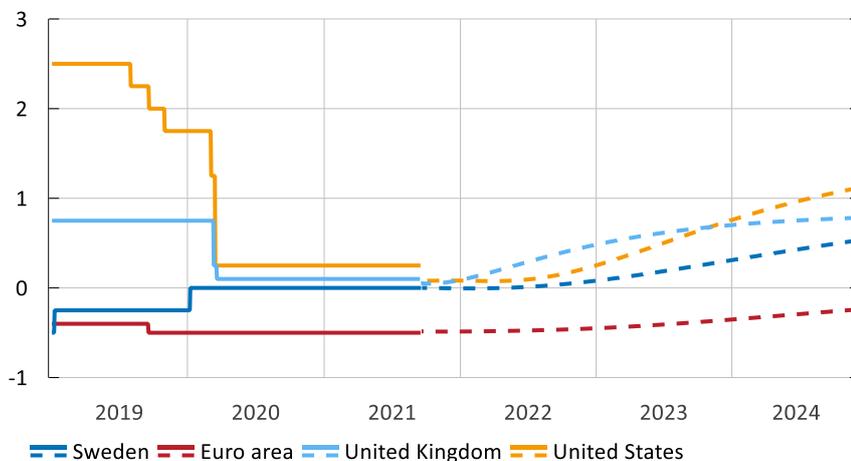
Note. GDP is calculated as the sum of the present quarter and the three previous quarters. For any quarter(s) that GDP has not yet been published, the most recently-published GDP statistics are used.

Sources: Bank of England, ECB, Federal Reserve, Macrobond and the Riksbank.

In the United States, forward rates now indicate a high probability that rate rises will begin at the end of 2022. According to market pricing, there is also a high probability that the Bank of England will have raised its policy rate by then, too. The ECB is expected to raise its policy rates much later, not until 2024. According to compilations of market participants' forecasts, the central banks are in several cases expected to raise their policy rates somewhat later than is shown by market pricing. The overall view is that central banks' policy rates will remain low for a long time to come (see Figure 12).

Figure 12. Policy rates and rate expectations according to forward pricing

Per cent



Note. Forward rates describe the expected overnight rate, which does not always correspond to the policy rate. However, in Sweden the forward rate describes the expected repo rate. Broken lines represent forward rates 16 September 2021.

Sources: Macrobond and the Riksbank.

Money market rates in Sweden remain low

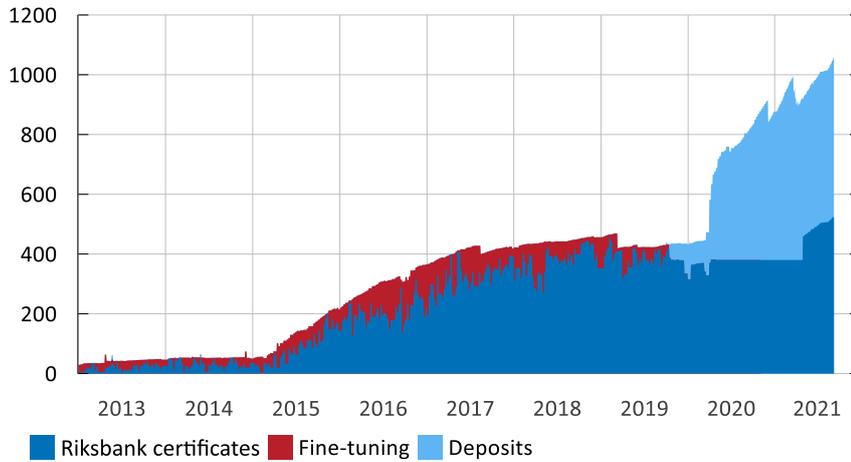
Pricing on the market indicates that the Riksbank's policy rate is expected to remain unchanged for another year or so, but that it will be raised in 2023 (see Figure 12). A similar view emerges from Kantar Sifo's Prospera survey, conducted on behalf of the Riksbank. According to the September survey, money market participants see, on average, a high probability that the repo rate will be raised to 0.25 percentage points in two years' time. On the other hand, according to the median, the repo rate is expected to remain unchanged over the next two years.

In addition to market participants' expectations, the Riksbank's asset purchases are an important explanation for rates being low. According to Kantar Sifo's Prospera survey, the median response of market participants expects the framework for the Riksbank's asset purchases of SEK 700 billion to be utilised and the size of the asset portfolio to be maintained, at least during the first half of next year.

The purchases of bonds for monetary policy purposes, initiated in 2015, have led to an increase in surplus liquidity in the banking system. The decisions on new asset purchases and lending programmes launched by the Riksbank during the pandemic have substantially strengthened this trend (see Figure 13).

Figure 13. Liquidity in the banking system, deposits and Riksbank Certificates

SEK billion



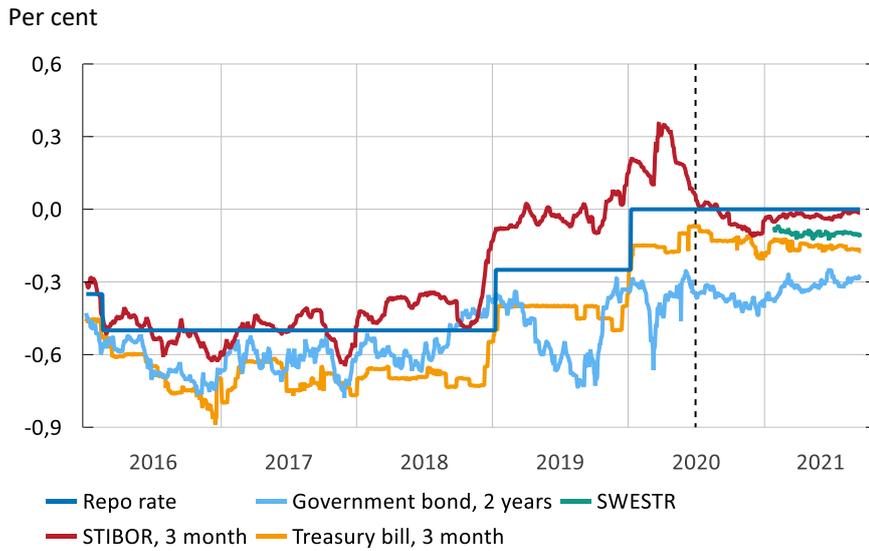
Note. The banks' liquidity surplus towards the Riksbank represents the Riksbank's liquidity debt to the banking system. Around half of this liquidity debt is comprised of the banks' deposits with the Riksbank, and the rest comprises Riksbank Certificates that are promissory notes with a short maturity issued by the Riksbank. The liquidity surplus grows, for instance, when the Riksbank purchases securities.

Source: The Riksbank.

Rates on the Swedish money market, such as STIBOR 3 months, have remained low and been in line with the repo rate (see Figure 14). The Riksbank's new reference rate, SWESTR, shows that the actual transactions made in Swedish krona from one business day to the next banking day are at an interest rate that is close to the deposit rate in the Riksbank's standing facility, and thus somewhat lower than the repo rate.⁸ Yields on government securities with maturities of up to 5 years are also lower than the repo rate.

⁸ See the Riksbank's reference rate SWESTR, <https://www.riksbank.se/sv/statistik/swestr/>. The repo rate is applied to Riksbank Certificates, while the deposit rate in the standing facility is applied to the banks' deposits overnight with the Riksbank. The deposit rate is 0.1 percentage points lower than the repo rate, at present -0.1 per cent. SWESTR has been close to the deposit rate since it was introduced on 1 September.

Figure 14. Repo rate and market rates



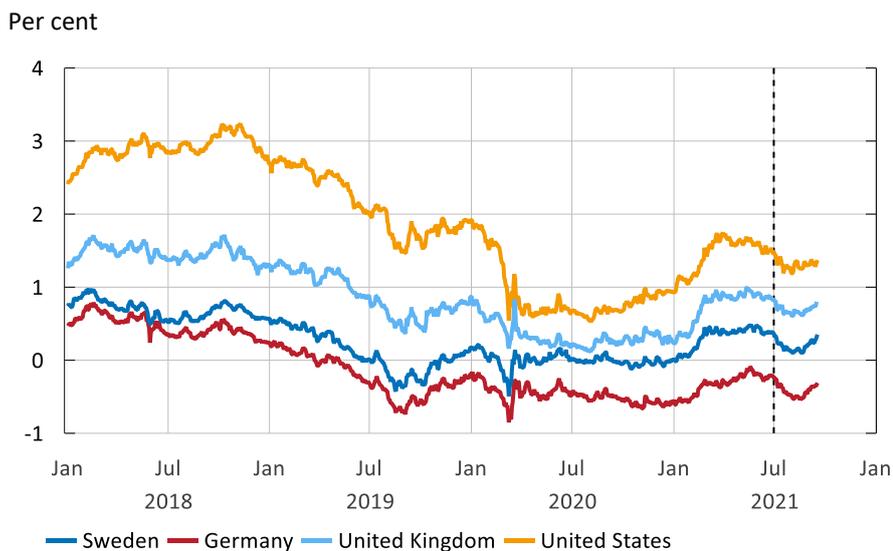
Note. The broken line marks the time of the monetary policy meeting in June.

Sources: Macrobond, Refinitiv and the Riksbank.

Bond yields fell over the summer but have increased recently

Government bond yields around the world remain low. This is primarily because the market participants expect low policy rates in the period ahead and for the central banks' asset purchase programmes to continue.

Figure 15. Yields on 10-year government bonds



Note. Zero coupon rates for Sweden, Germany and the United Kingdom. 10-year benchmark rate for USA. The broken line marks the date of the monetary policy meeting in June.

Sources: National central banks, U.S. Treasury and the Riksbank.

During the summer, the spread of the coronavirus delta variant has increased. Initially, government bond yields with a long maturity then fell back (see Figure 15). Recently, they have risen again, particularly in the euro area, but they remain lower than they were at the monetary policy meeting in June. On the other hand, long-term Swedish government bond yields are largely unchanged.

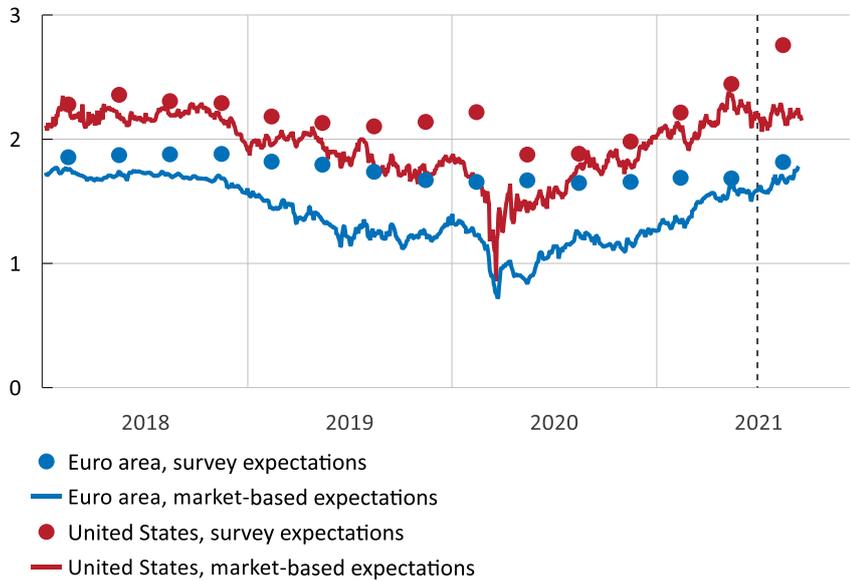
Market-based measures of inflation expectations have risen somewhat

Inflation has remained high over the summer, both in the United States and the euro area. Since the monetary policy meeting in June, market-based measures of long-term inflation expectations in the United States have changed marginally, but are lower than they were in the spring (see Figure 16). On the other hand, survey-based long-term inflation expectations in the United States have continued to rise since the monetary policy meeting in June. In the euro area, both market-based measures and surveys have continued to rise over the summer, although they are still lower than the inflation target of 2 per cent announced by the ECB in July (see Figure 16).⁹

⁹ However, the market-based measures vary relatively heavily, which may be because they also reflect changing conditions on the market. For instance, the supply of nominal and index-linked government bonds can affect the market-based inflation expectations measured. See, for instance, the article “What drove the recent increase in the US inflation breakeven rate?” in *Quarterly Review*, March 2021, pp. 12-13, Bank for International Settlements.

Figure 16. Long-term inflation expectations in the euro area and United States

Per cent



Note. Market-based measures of inflation expectations refer to a 5-year period starting in 5 years' time. For the United States and Sweden, they 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. Survey-based expectations refer to average inflation over the next 5 years (United States) and inflation 5 years ahead (euro area) according to the Federal Reserve Bank of Philadelphia and the ECB's Survey of Professional Forecasters. The broken line marks the date of the monetary policy meeting in June.

Sources: Bloomberg, Macrobond and the Riksbank.

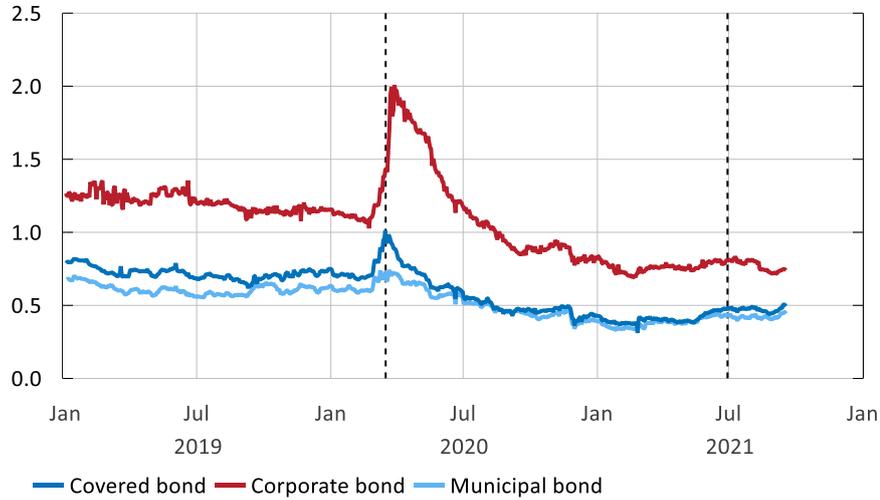
Swedish inflation expectations have risen during 2021 (see Figure 5 in Chapter 1). Since the monetary policy meeting in June, market-based measures of long-term inflation expectations have largely remained unchanged. As for the foreign equivalents, the market-based measures are not necessarily pure measures of expectations, as they also reflect market conditions. One indication of this is that the survey-based measures, on average, are somewhat lower than the market-based measures. According to Kantar Silos Prospera survey in September, money market participants are expecting inflation to be close to 2 per cent in five years' time (according to the CPI), which is substantially higher than the bottom levels in spring 2020. The survey also shows that all groups responding to the survey are expecting inflation five years ahead to be close to 2 per cent.

Risk premiums on the bond markets are still very low

The yields on risky bonds have fallen in line with the yields on government bonds over the summer. Yield spreads between corporate bonds and government bonds, which are a measure of risk premiums on the market for corporate bonds, have therefore, in principle, remained unchanged and are very low in both the United States and the euro area. This applies in particular to corporate bonds with high credit ratings. A similar development can be seen in Sweden, where yield spreads between higher risk bonds and government bonds also remain small (see Figure 17).

Figure 17. Yield spread between different types of bond and government bonds in Sweden, 5 year maturity

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. Covered bonds refer to bonds issued by Stadshypotek and municipal bonds are issued by Kommuninvest i Sverige AB. Broken lines mark 16 March 2020, when the Executive Board decided to extend the asset purchases to cover municipal bonds and covered bonds, and the date of the monetary policy meeting in June 2021, respectively.

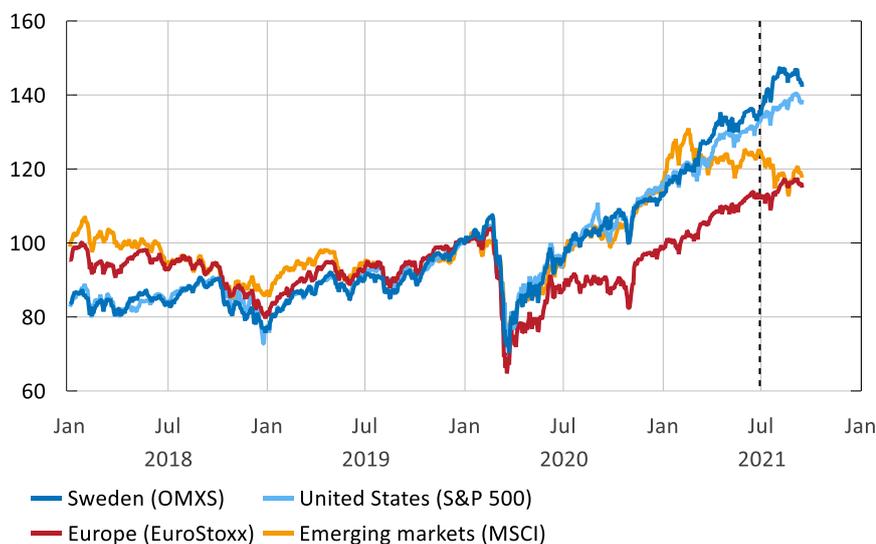
Sources: Bloomberg, Macrobond, Refinitiv and the Riksbank.

Prices on the stock markets have continued to rise

Growing optimism in the face of the global recovery and expectations of continued expansionary economic policy have contributed to equity prices developing very strongly since the start of the year, not least in Sweden. Prices on many stock markets have continued to rise over the summer and both the Swedish share index OMXS30 and several US indices attained all-time highs in August (see Figure 18).

Figure 18. Stock market movements in domestic currency

Index, 31 December 2019 = 100



Note. The broken line marks the date of the monetary policy meeting in June.

Source: Macrobond.

The financial contracts traded on the market and which reflect expected variations in stock market value have risen somewhat since the June meeting and there are signs that willingness to take risk on the equity markets is not quite as high as it was before. It is above all prices for equities from larger, better-known companies that have increased, while prices for smaller companies' equities have not increased to the same extent. There are also indications that prices of cyclically-insensitive equities, which are related to healthcare and the non-durable goods segment, have increased more than equity prices in general. This could imply a higher degree of caution on the financial markets. Over the summer, the Chinese authorities have also introduced regulations aimed at domestic companies. These have burdened the Chinese stock exchange but have also affected other exchanges, above all in emerging market economies.

Swedish krona basically unchanged

Following the rapid crisis management in spring 2020, investors willingness to take risk has returned. Yields on higher risk bonds then fell, and equity prices rose. The Swedish krona, which investors normally regard as a higher-risk currency than the dollar or euro, also appreciated significantly. Since the monetary policy meeting in June, the Swedish krona has weakened in terms of the KIX exchange rate index (see Figure 19). Even if it was not a large depreciation, this development may be a sign that risk propensity on the financial markets was not as high during the summer. Something that strengthens this view is the fact that the US dollar has appreciated against most currencies over the same period, which is common when risk propensity falls. Following the CPI outcome for August, the krona appreciated, however, and is now only slightly weaker than at the time of the June monetary policy meeting.

Figure 19. 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 marks the date of the monetary policy meeting in June.

Sources: National sources and the Riksbank.

2.2 Good financing terms for Swedish households and companies

The Swedish banks have low funding costs

One important precondition for households and companies to obtain loans is that the Swedish banks are willing and able to lend money. The very low interest rates on the Swedish money market are helping to make it cheap for the banks to obtain funding, which makes it possible for them to continue to offer low interest rates when lending to households and companies. Swedish banks do not just obtain short-term funding in kronor on the Swedish money market but also by borrowing in other currencies such as the US dollar and the euro. Their costs measured in Swedish krona to fund themselves in foreign currency are very low, and are somewhat lower than the interest rates to finance themselves in SEK.

The banks' more long-term funding largely takes place through the issue of covered bonds. Interest rates on this type of financing also remain very low, partly as a result of the Riksbank's monetary policy (see Figures 14 and 17). For example, the yield for a covered bond in Swedish kronor with a maturity of 2 years has been lower than the repo rate since the autumn of 2020. The banks can also obtain funding via deposits from households and companies. Deposits have increased in recent years, partly as a result of the Riksbank's asset purchases.

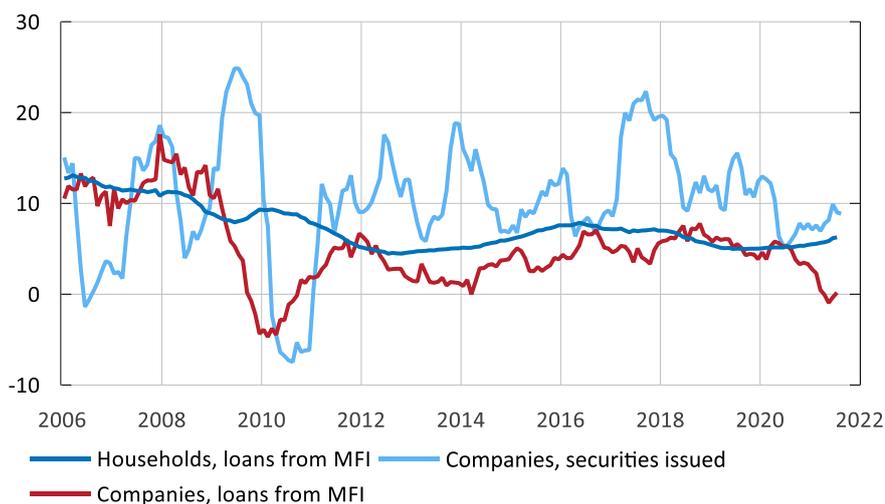
It is easy and cheap for households and companies to borrow

One purpose of many of the measures implemented by the Riksbank shortly after the outbreak of the pandemic last year was to maintain the supply of credit. This has been vital in avoiding an even steeper downturn in economic activity.

The majority of Swedish households' debt with MFIs (monetary financial institutions) consists of mortgages. Housing prices have risen during the pandemic and, as households largely finance their housing purchases through loans, their debts have also continued to rise. Compared with July last year, mortgage lending from MFIs to households increased by 6.4 per cent. Even consumption loans, also known as unsecured loans, increased relatively rapidly by 5.8 per cent. The increase in total household debt was therefore broad and total annual growth was 6.3 per cent in July, which is higher than prior to the pandemic (see Figure 20).

Figure 20. Household and corporate borrowing

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. Loans from MFIs constitute around two thirds of total lending to companies, while securities issues constitute around a third.

Source: Statistics Sweden.

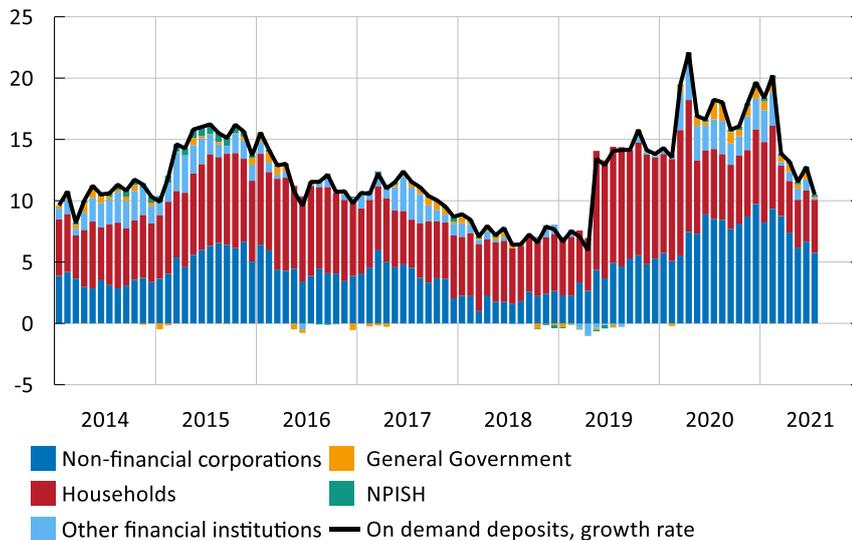
Swedish companies are continuing to use bank loans as their primary source of funding. In recent years, however, many companies, particularly larger ones, have increasingly chosen to use market funding. In recent months, growth in outstanding volumes of issued securities has continued to rise and, in August, the increase was around 9 per cent compared with the same month one year ago. On the other hand, growth in lending from banks and other Monetary Financial Institutions (MFIs) was more or less unchanged in July, compared with one year ago (see Figure 20). All in all, this means that companies' total borrowing is continuing to grow more slowly now than prior to the crisis.

The fact that lending from MFIs is not increasing could be because companies are not demanding as many loans as previously, or that credit institutions are tightening their lending, or a combination of the two. But the main reason would not appear to be a credit crunch. In spring 2020, borrowing was unusually high and the current low growth in lending is probably more the result of a high level of borrowing one year ago, rather than borrowing being at an unusually low level now. This conclusion is supported by it primarily being large, privately-owned companies that have reduced their borrowing in recent months, in terms of the annual growth rate. This is the same group of companies that increased their borrowing particularly strongly during the initial months of the pandemic. Smaller companies have instead increased their loans in 2021, but account for a much smaller share of total lending than the large companies. Companies in some sectors have also utilised temporary support measures to reduce their running costs, reducing the funding requirement. It is also conceivable that some companies may have chosen to wait before making investments, due to the uncertainty over economic developments.

Deposits from non-financial corporations to MFIs are also higher than before the crisis, although growth in deposits has slowed down in recent months (see Figure 21).

Figure 21. Deposits and contributions to deposits in MFIs

Annual percentage change and percentage points



Note. Deposits refer here to demand deposits that constitute some of the M1 measure of the money supply. Households refer to households excluding non-profit institutions serving households (NPISH). Financial companies refer to financial companies excluding MFIs. From May 2019, a revision has been made to data concerning the move from deposits with certain conditions to transaction accounts. The revision primarily affects other households, but also financial companies, non-financial corporations and entrepreneurial households.

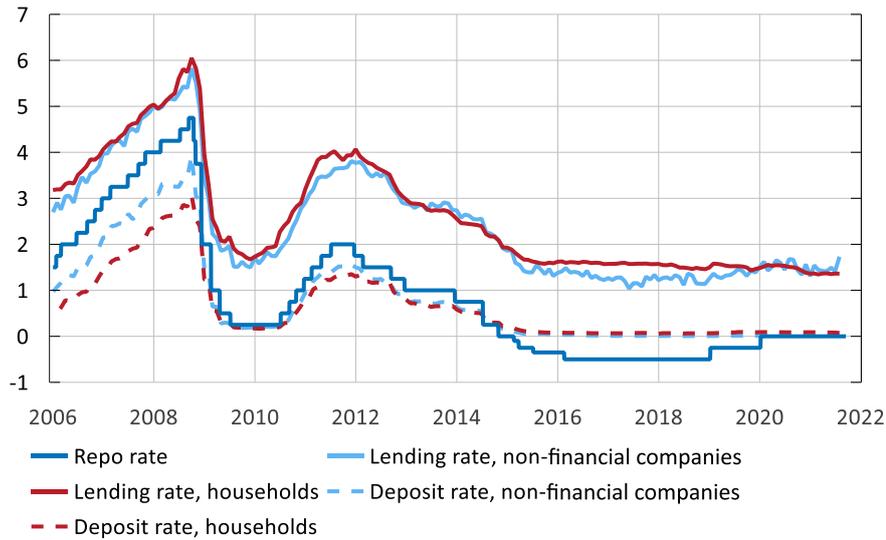
Source: Statistics Sweden.

The average interest rate for households' new or renegotiated mortgages for all interest-rate fixation periods was 1.36 per cent in July (see Figure 22). Lending rates to both households and companies continue to be low and have largely been unchanged

over a longer period (see Figure 22). The fact that banks' interest rates to companies have been relatively stable provides further support for the assessment that credit institutions have not tightened their lending.

Figure 22. Repo rate, and average deposit rate and lending rate to households and companies, new and renegotiated loans

Per cent



Note. Deposit and lending rates are volume-weighted averages of monetary financial institutions' deposits and lending at all maturities.

Sources: Statistics Sweden and the Riksbank.

Neither do National Institute of Economic Research surveys suggest that companies, on average, are experiencing any credit crunch. Some sectors, particularly the service industry, still perceive their funding situation to be worse than prior to the pandemic, but the situation has shown a clear improvement since spring 2020. Moreover, interest rates on loans from MFIs to both small, medium-sized and large companies have declined from the higher levels that prevailed at the beginning of the pandemic, and have remained low in 2021. The Riksbank's overall assessment is thereby that there are no signs of banks having tightened their lending.

3 High growth despite increased spread of infection

The recovery abroad has picked up again after the slowdown at the beginning of the year. Growth is largely driven by the service industries and is supported by an expansionary economic policy. During the summer, the spread of infection has increased rapidly in a number of countries. However, the rate of vaccination is rising and growth prospects are good in most countries important to Sweden's trade. In the United States and the euro area, the rapid increase in demand, together with supply problems in some sectors, has led to higher inflation. However, the upturn in the rate of price increase is expected to be temporary and, in 2022, inflation abroad is expected to retreat.

Growth in Sweden is high. This is mostly because vaccinations and the subsequent easing of restrictions are leading to the rapid recovery of activity in the sectors impacted by the pandemic. Forward-looking indicators point to the situation in the labour market continuing to improve over the year, although some effects of the pandemic are expected to be more long-lasting. Energy prices will rise this year and contribute to inflation being high this year, but lower next year. CPIF inflation amounted to 2.4 per cent in August and is expected to continue to rise in the coming months, and to be around 3 per cent towards the end of the year, before falling back in the middle of next year. Even excluding energy prices, inflation is expected to rise. CPIF Inflation excluding energy is expected to be on average close to 2 per cent during the first half of next year, before falling back again. From 2023, inflation is expected to rise gradually as demand strengthens and wages increase at a faster pace. Inflation is not expected to be more permanently close to the target of 2 per cent until towards the end of the forecast period.

3.1 High growth prospects abroad despite increased spread of infection

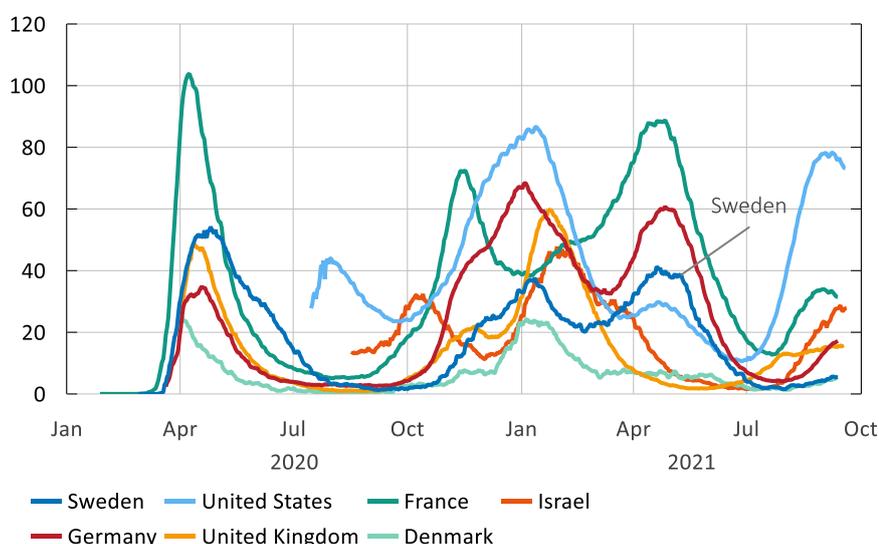
Vaccinations have continued at a fairly good rate in Western Europe over the summer (see Figure 1 in Chapter 1) and, despite an increase in the spread of infection, so far relatively few patients who have become ill have had serious symptoms. In the United States, on the other hand, the death figures have risen in a worrying manner and the number of patients in intensive care has in recent weeks reached almost the same

level as at the start of the year (see Figure 23). The vaccination rate varies considerably in different parts of the United States, and in several states less than half of the population is fully vaccinated.

Scientific studies show on the one hand that several of the most common vaccines provide a very good and lasting protection against serious illness. On the other hand, the results indicate that the protection against being infected has declined over time. The fact that many people are infected and become ill entails an increased risk of new, dangerous mutations.

Figure 23. Number of patients in intensive care wards for COVID-19

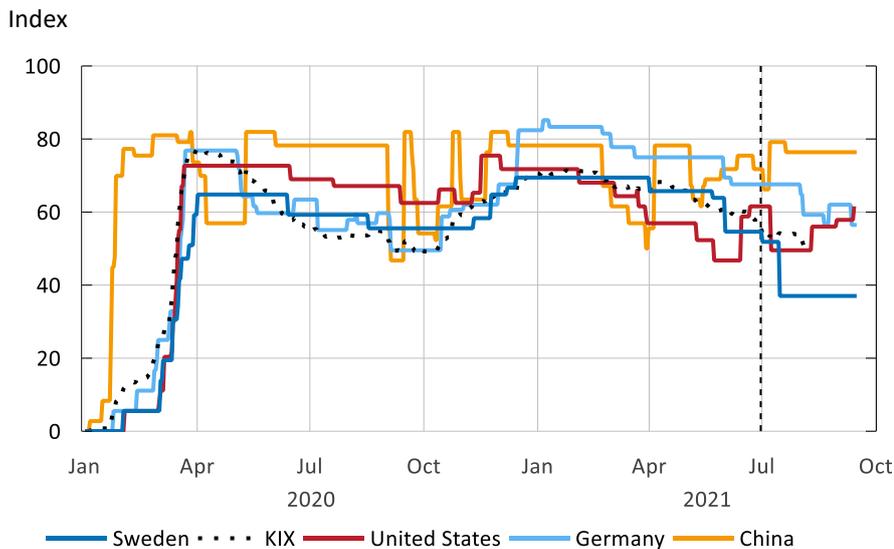
Per million inhabitants



Note. The series show the number of patients in intensive care wards for COVID-19 up to the end of week 37 2021. Outcomes for recent weeks are uncertain due to time delays in reporting.

Source: Our World in Data.

The development of the economy over the end of 2021 and start of 2022 will depend, to some extent, on how the spread of infection develops. However, more significant factors are the authorities' decisions regarding continued easing of restrictions and consumers' and companies' assessments of the risks arising when more contact-intensive activities are resumed. How quickly the vaccination process progresses in different parts of the world will therefore be very important. For example, households and companies are more optimistic in countries where many have already been vaccinated. In the United States, China and a number of countries in Europe, the increased spread of infection in recent months has led to some restrictions being tightened again. However, in Western Europe many countries are in the process of easing their restrictions. In most of the countries that are important to Sweden's trade, the restrictions are now less rigid, or cover a smaller part of the population, than at the time of the monetary policy meeting in June (see Figure 24).

Figure 24. Degree 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 refers to an aggregate of 32 countries that are important for Sweden’s international trade. The vertical broken line marks the time of the monetary policy meeting in June.

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

Some restrictions will probably remain in place for a longer time to come. However, it is assumed in the forecast that the restrictions abroad will be eased significantly this year, or alternatively that they will affect a declining percentage of the population. Over time, the authorities have become better at designing appropriate measures and companies have learnt to organise their work so that production can be maintained while limiting contagion risks. Fewer and more specifically targeted restrictions mean that the activity in contact-intensive service industries can continue to increase gradually this year and next year. In Sweden, the Government and the Public Health Agency have announced that almost all of the remaining restrictions will be lifted with effect from 29 September.

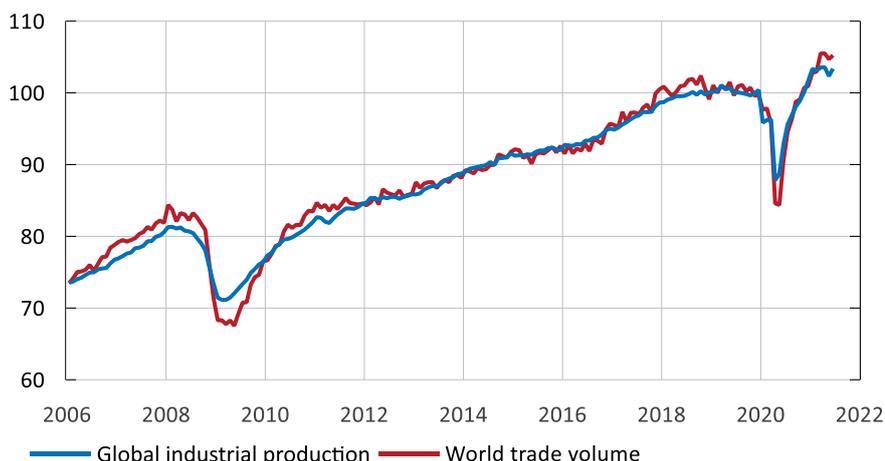
Supply limitations in the manufacturing sector and the stabilisation of commodity prices

Global industrial production recovered rapidly during the second half of last year and the first quarter of this year. However, production stagnated during the second quarter (see Figure 25), something that can be partly explained by the difficulty in obtaining intermediate goods. These problems, which are partly due to a shortage of semi-conductors and to disruptions in global logistics chains, have continued to limit production and trade in goods over the summer. During the second quarter of the year, world trade in goods fell to 1.3 per cent, following a rise of 3.5 per cent in the first quarter (Figure 25).

During the pandemic, demand for many goods has varied substantially and it has been difficult for producers and freight companies to quickly adapt their supply. The problems have been aggravated by natural disasters and by outbreaks of COVID-19 in harbours and important production plants. In some commodity branches, supply can be increased relatively quickly when demand increases, but in other branches it is much more difficult to quickly increase volumes. Production of semiconductors in particular is highly specialised and capital-intensive and only a few companies have access to the know-how required. The shortage of semiconductors has created major problems, for instance in the motor vehicle industry, and several of the world's largest car manufacturers have recently been forced to stop production temporarily. It is assumed in the forecast that the disruptions to supply are of a transitory nature, and that global trade in goods will continue to grow this year and in the coming years. There is however considerable uncertainty over how long the supply disruptions will affect the global economy.

Figure 25. World trade volume and global industrial production

Index, 2019 Q4 = 100



Note. World trade refers to trade in goods.

Source: CBP Netherlands Bureau for Economic Policy Analysis.

In recent months, prices of several commodities have stabilised. The oil price has fallen back somewhat since the end of July, and one barrel of oil now costs around 75 dollars. In July, the OPEC+ members agreed to increase production to meet the increase in demand, and concerns over the spread of infection may have led to expectations of future demand having been subdued. Forward prices indicate that the oil price is expected to fall in the coming years, to a level just above USD 60 per barrel. Prices of other commodities, such as industrial metals and foods, rose sharply in the spring, and are now at higher levels than prior to the pandemic. In recent months, however, prices of several industrial metals have stabilised, and the world market price for iron ore has fallen heavily due to decreased steel production in China (see Figure 26).

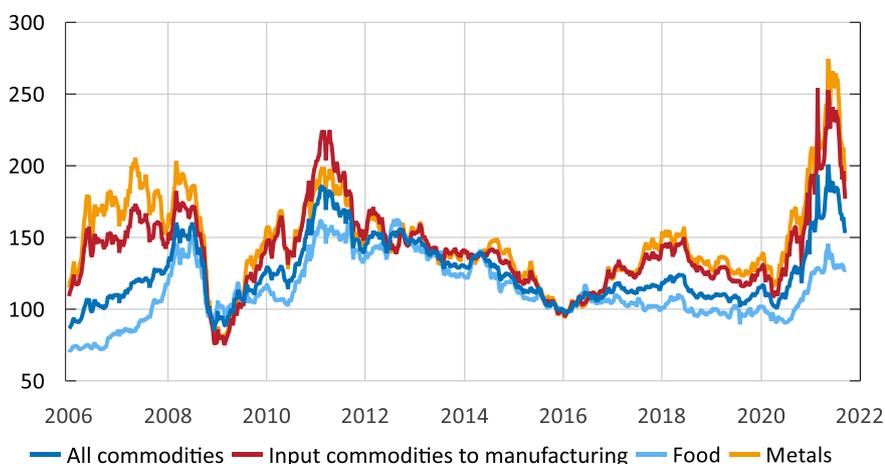
Consumption of services driving continued recovery

The recovery in Sweden’s trade-weighted (KIX) partners slowed down at the end of 2020 and early 2021, when the spread of infection was high and the restrictions in several countries were tightened. However, growth has picked up again and during the second quarter KIX-weighted GDP rose by 1.8 per cent, seasonally-adjusted and compared with the previous quarter, which was somewhat more than was assumed in the July Monetary Policy Report. In the current forecast, growth in the current quarter has been revised down, but the Riksbank still assesses that growth will be strong in the coming years. GDP abroad is now expected to reach a somewhat higher level in 2024, compared with what was assumed at the time of the monetary policy meeting in June. The easing of restrictions and decline in concern over the spread of infection mean that consumption of services will grow at a higher rate than usual in the coming years. The increased activity in the services industries in turn means that investments increase and that demand for goods increases. It is assumed in the forecast that monetary policy abroad will continue to be expansionary and that the extensive fiscal policy stimulus measures will be gradually phased out. GDP abroad (KIX) is expected to grow by just almost 5.5 per cent this year and by just over four per cent next year. In time, households’ consumption patterns will be increasingly like those prevailing prior to the pandemic, and growth will therefore decline gradually during the forecast period. In 2023, GDP abroad is expected to increase by just below 2.5 per cent.

Rapidly rising demand, supply limitations and logistics problems have led to consumer prices now increasing rapidly in the United States. Inflation has also recently risen in the euro area. Inflation among Sweden’s trade-weighted partners (KIX) is expected to rise to 2.3 per cent this year, from 1.1 per cent last year. However, it is assumed in the forecast that one will gradually manage most of the supply problems that are now pushing up inflation, and that inflation abroad in 2022 and 2023 will amount to 2.1 and 1.9 per cent respectively.

Figure 26. Commodity prices in US dollars

Index, 2015 week 52 = 100



Source: The Economist.

Recovery continuing in the euro area

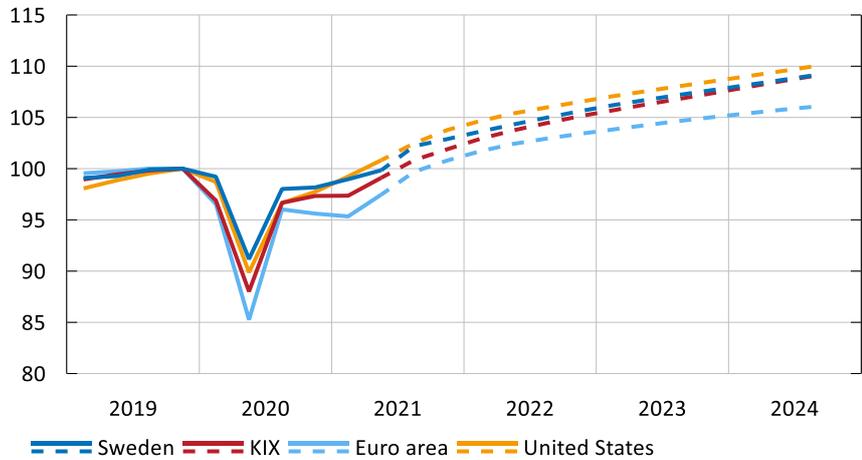
During the second quarter, GDP in the euro area grew by 2.2 per cent, seasonally-adjusted and compared with the first quarter (see Figure 27). Growth was primarily driven by household consumption, which increased by 3.7 per cent. In Germany, France and Italy the recovery has now come quite a long way, and GDP is approaching the levels that prevailed prior to the pandemic. However, in Spain, where the business sector is more dependent on international tourism, GDP is still almost 7 per cent lower, compared with the level in the fourth quarter of 2019. Over the summer, the spread of the coronavirus has increased in most countries, but the number of new infections is still low in relation to the peaks measured earlier, and in several countries the number of new cases has begun to fall again. The process of vaccination continues and, so far, the upswing in the numbers in intensive care and the number of fatalities has been relatively limited. The authorities in several countries are now using “vaccine passports” for the purpose of easing restrictions for the majority of inhabitants who are fully vaccinated.

Demand for labour has increased rapidly and in July unemployment in the euro area fell to 7.6 per cent (see Figure 28), which means that unemployment is now one percentage point lower than it was a year ago. Short-term work schemes has also declined, and in some industries many companies are saying that it is difficult to find suitable people to hire.

So far, there are few signs that the increased spread of infection over the summer has harmed growth prospects. In July, turnover in the retail trade fell by 2.3 per cent compared with June, but more high-frequency data indicates that households’ total consumption continued to grow. Confidence is high among both households and companies. Households’ savings ratio increased substantially during the most acute phase of the pandemic, as households cut back on consumption to a significantly greater degree than incomes fell. This high level of saving implies good conditions for the continued upturn of household consumption. Higher demand, in turn, is expected to contribute to the continued improvement of the labour market and the continue rise of household incomes.

Figure 27. GDP in Sweden and abroad

Index, 2019 Q4 = 100, seasonally adjusted data

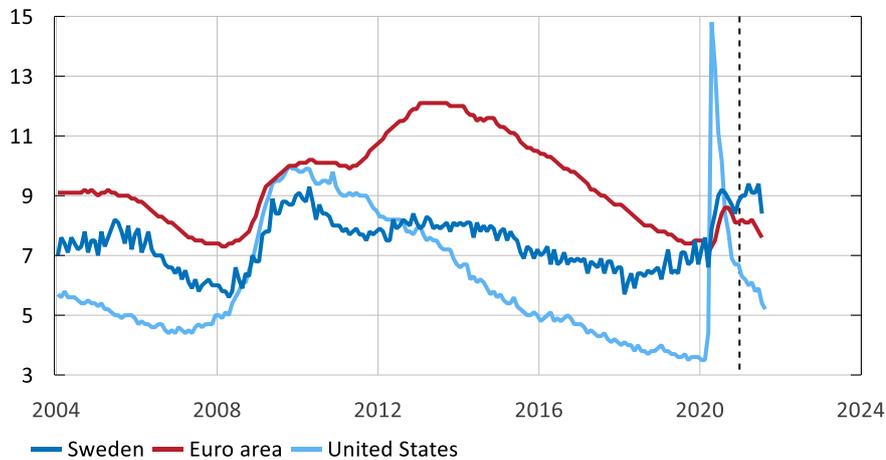


Note. The KIX is an aggregate of 32 countries that are important for Sweden’s international trade. Solid line refers to outcome, broken line represents the Riksbank’s forecast.

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

Figure 28. Unemployment in Sweden, the euro area and the United States

Percentage of the labour force, seasonally adjusted data



Note. Refers to 15–74 years in the euro area and Sweden and 16 years and older in the United States. The vertical line marks the date when the labour market statistics were reorganised within the EU.

Sources: Eurostat, Statistics Sweden and the U.S. Bureau of Labor Statistics.

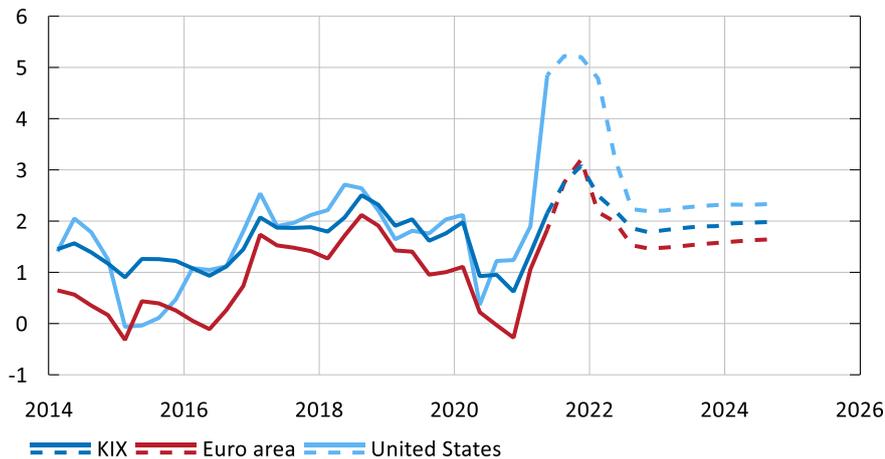
All in all, GDP in the euro area is expected to rise by just over 5 per cent this year and by around 4.5 per cent next year, after a fall of more than 6 per cent last year. The increased activity is explained to a large degree by increased mobility in society as restrictions are eased and concern over infection declines. Consumption and investment are therefore expected to grow at a relatively rapid pace this year and next year. The positive effects on growth will gradually decline and GDP growth will fall to just over

2 per cent in 2023. The recovery is supported by an expansionary monetary policy and by the EU's joint fiscal policy package, Next Generation EU. The extensive fiscal policy stimulus measures implemented last year and this year by individual countries in the euro area will be phased out going forward. For instance, many companies that have received help during the crisis with loans and deferral of tax payments, are expected to begin paying off their debts. It is assumed in the forecast that the measures will be gradually phased out, in a way that does not jeopardise the recovery.

HICP inflation rose to 3.0 per cent in August, from 2.2 per cent in July. This upswing can partly be explained by rapid price rises for energy and higher food prices. However, in August there was a marked upturn in underlying inflation, too. The annual rate of increase in the HICP excluding energy, food, alcohol and tobacco then rose to 1.6 per cent, which can be compared with a rate of increase in July of 0.7 per cent. Several temporary factors contribute to inflation in the euro area now being higher than it has been for several years. These include an earlier VAT increase in Germany, and that many companies were very cautious with regard to raising their prices a year ago, because of the spread of infection and earlier closures. According to the forecast, the monthly rate of price increase will slow down in the autumn and underlying inflation is assessed to be 1.3 per cent this year. In the coming years, there will then be a gradual upturn as the continued recovery contributes to wages and other costs rising. Underlying inflation is expected to amount to 1.5 per cent in 2023. HICP is expected to rise by 2.2 per cent this year, almost 2 per cent next year and by around 1.5 per cent in 2023 (see Figure 29).

Figure 29. Consumer prices in various countries and regions

Annual percentage change



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

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

Signs that growth is slowing in the United States

In several US states, less than half of the population is fully vaccinated. The spread of the delta variant has led to many serious cases and to several hospitals finding it difficult to manage the large influx of new patients. During the late summer, the number of COVID-19 patients in intensive care has risen to levels comparable to those prevailing around the start of the year, during the second wave of the pandemic (see Figure 23). The spread of infection now seems to be restraining both household demand and corporate optimism.

However, household consumption rose at a relatively rapid rate in the second quarter, partly as a result of the direct cash support paid out by the federal government in March. GDP increased by 1.6 per cent between the first and second quarters, which was somewhat lower than in the Riksbank's forecast from July. Growth was impeded slightly by shortages of components and long delivery times in the manufacturing sector. These problems, combined with companies' stock levels beginning to empty, indicate that they will continue to find it difficult to meet demand. Industrial production has otherwise recovered well since the fall in April last year.

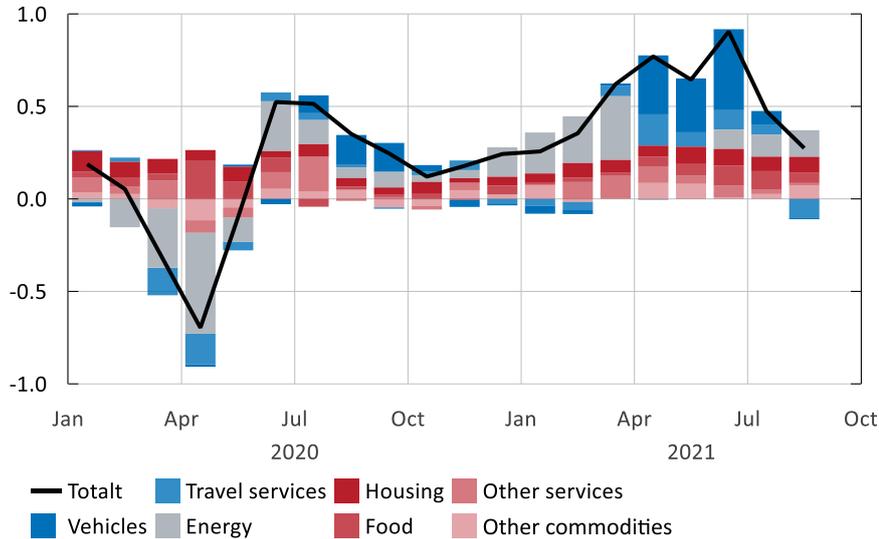
Demand in the US labour market has risen substantially since spring 2020, when many jobs in the service sector vanished and unemployment rose to almost 15 per cent. Unemployment has continued to fall and amounted to 5.2 per cent in August (see Figure 28). This is mainly due to the number of employed increasing significantly. However, during the crisis, many working-age people chose to leave the labour force, which has also contributed to there now being fewer people looking for work. The low labour force participation rate is due to factors such as an increase in early retirement, to a fear of the virus and to many parents staying at home with their children due to school closures. Despite the employment rate having increased during the recovery, from 51.3 per cent in April last year to just over 58.5 per cent in August this year, it is still a couple of percentage points lower than prior to the crisis. The number of persons employed is certainly expected to increase over the next few years, but this increase risks being dampened, as it will become increasingly difficult to match job seekers with vacancies.

The fiscal policy stimulation package approved by Congress in March is now helping to increase growth. The stimulus measures will also have positive effects on GDP in 2022 and 2023. However, the direction for US fiscal policy is now changing, with fewer elements of stabilisation policy measures and more focus on investment and reforms to the social insurance systems. One example is the cross-party agreement reached in the Senate over the summer, which is expected to lead to a significant increase in the federal budget allocations to infrastructure investments. The package will to some extent contribute to strengthening growth prospects for the coming years, but the investments are spread over many years and financed to a significant degree by increases in revenue. All in all, the changes are expected to mean that the public sector's cyclically adjusted net lending will increase with effect from next year, albeit from low levels. US GDP growth is expected to amount to just over 6 per cent this year and then shift down to 4 per cent in 2022 and 2 per cent in 2023 (see Figure 27).

However, the forecast is uncertain, partly due to the negotiations on new reforms and tax increases now taking place in the US capital.¹⁰

Figure 30. Consumer prices in the USA

Monthly change, per cent. Seasonally adjusted data



Note. Solid black line shows the percentage, monthly rate of increase in the CPI. The columns show the contribution to the rate of price increase from different product categories in the CPI. Prices especially impacted by the coronavirus pandemic are marked in blue.

Sources: U.S. Bureau of Labor Statistics and the Riksbank.

CPI inflation in the United States has increased substantially over the spring and amounted to 5.4 per cent in both June and July (see Figure 29). This is the highest rate of increase in the CPI measured since August 2008. In August, CPI inflation was 5.3 per cent, and underlying inflation, measured in terms of the CPI excluding energy and food, amounted to 4 per cent.

As the economy reopens, demand has risen in several of the service industries impacted most severely last year, such as hotels and air travel. Substantial price increases on used cars have contributed to goods inflation having increased too (see Figure 30). The high demand for used cars comes partly from car hire firms, which reduced their car fleets during the most acute phase of the crisis, but which now need to increase their fleets again. However, the market for used cars is also being affected by the semiconductor shortage, which has led to disruptions in the production of new cars.

The CPI outcomes for July and August show signs that inflation has now begun to slow down. In August prices of used cars fell, compared with the level in July, and the same

¹⁰ Using President Biden’s American Jobs and Families Plan as a starting point, Democrats in Congress are now working on a proposal for further significant increases in federal expenditure. It is still unclear exactly how large the proposed increase in expenditure is and to what extent they plan to cover it by higher taxes and other increases in federal income. Implementation is expected to be over a period of around ten years.

applies to travel prices (see Figure 30). However, even if the unusually rapid price increases of recent months are assessed to be transitory, there have also been some upturns in cost increases for homes and in the rate of price increase on goods other than used cars. The Riksbank assesses that CPI inflation in the United States will be 4.3 per cent this year, and then fall back to just over 2 per cent at the end of the forecast period (see Figure 29).

Rapid spread of infection dampens recovery in emerging market economies

In parts of Latin America and Asia, the coronavirus is now spreading very quickly. One cause of this is that relatively few individuals in these parts of the world have been vaccinated against COVID-19 (see Figure 1, Chapter 1). The economic policy stimulus in most emerging market economies has also been much more limited than in countries that are more economically developed. All in all, this means that the global economic recovery will be uneven and that in many countries it will take time before production approaches the trends forecast prior to the outbreak of the pandemic.

The Chinese economy has recovered rapidly and during the second quarter of this year GDP was around nine per cent higher than prior to the pandemic. GDP rose by just over 1.5 per cent between the first and second quarters, which was stronger than expected. However, growth is expected to fall gradually over the coming years and there are signs that a slowdown is already taking place in the current quarter. The rate of increase in both industrial production and retail trade sales has fallen. The decline is partly due to the spread of infection having increased and to flooding. Imports of various commodities have also slowed down in recent months, and credit growth has fallen, albeit from a high level. Tighter fiscal policy is expected to slow down investment growth, which has so far been the driving force behind the recovery in the Chinese economy. GDP growth is expected to be around nine per cent this year, and just under 6 per cent during the two following years, which is in line with the Chinese government's growth targets. Recently, liquidity problems in one of China's largest property companies have contributed to weaker stock market development. There is a risk that this will have contagion effects on other parts of the economy and that growth will therefore be lower than in the Riksbank's forecast.

3.2 High growth in Sweden

Rapid growth when restrictions are eased

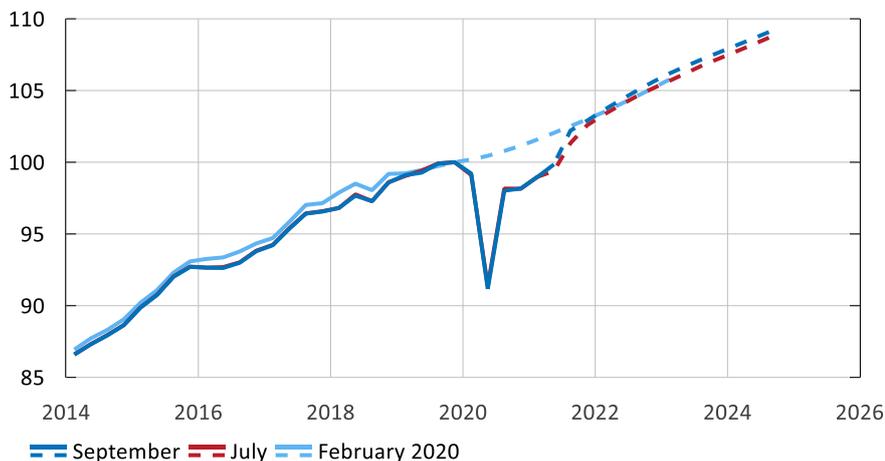
Growth is high in the Swedish economy. Many companies, not least those the tourism and sales in shops have suffered during the pandemic and it is primarily these sectors that are now showing a recovery in recent months. Low spread of infection, a rising vaccination rate and the lifting of national restrictions are all important explanations for the rise in demand over the summer. These circumstances are also important conditions for the high demand remaining going forward. Some restrictions on, for instance, foreign travel, will remain, but are expected to have only minor effects on the economy, even though they may have more impact on individual economic agents.

Fiscal policy is continuing to support the economy. To counteract and alleviate the economic consequences of the pandemic, the Government has implemented comprehensive fiscal policy measures. Last year, several temporary measures were taken to limit the spread of infection, increase the resources in the medical sector and counteract rising unemployment. The measures for 2021 and 2022 are to a greater extent aimed at restarting the economy. This year, the cost of the government measures is expected to amount to around SEK 190 billion. Further measures are expected in the coming years. The Government's budget for 2022 is expected to contain unfunded measures for SEK 74 billion. The forecast for economic developments is based on the Riksdag, the Swedish parliament, adopting a budget that contains measures of a corresponding size. Together with the measures presented in the budget bill for this year, this entails continued fiscal policy stimulation measures, although the cost of the measures is expected to be less next year than this year and last year.

GDP increased by 0.9 per cent in the second quarter of 2021, seasonally-adjusted and compared with the first quarter, and growth was primarily driven by increasing consumption and investment. Growth is expected to have picked up further during the third quarter, when GDP is expected to increase by 2.4 per cent on a quarterly rate. This is supported by Statistics Sweden's monthly GDP indicator, which points to high growth in recent months. During the course of the second half of the year growth is expected to gradually slow down as the falls in consumption and investment that followed in the wake of the pandemic are recovered (see Figure 32).

Figure 31. GDP in Sweden

Index, 2019 Q4 = 100, seasonally adjusted data



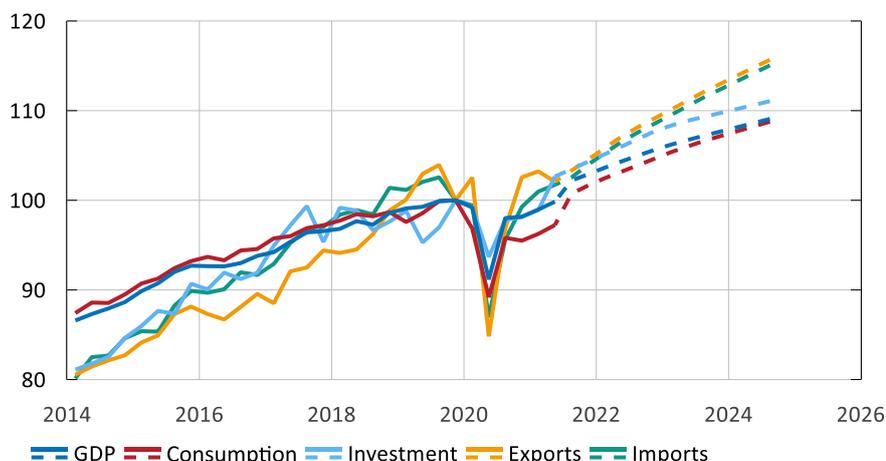
Note. Solid line refers to outcome, broken line represents the Riksbank's forecast.

Sources: Statistics Sweden and the Riksbank.

During the initial phase of the pandemic, in principle all areas of the economy as well as domestic demand and exports fell heavily (see Figure 32). During the second quarter of this year, it was primarily household consumption, and in particular consumption of hotel and restaurant services, for instance, as well as clothing and shoes, that had still not recovered the fall that took place in 2020.

Figure 32. GDP, consumption, investment, exports and imports

Index, 2019 Q4 = 100, seasonally adjusted data



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

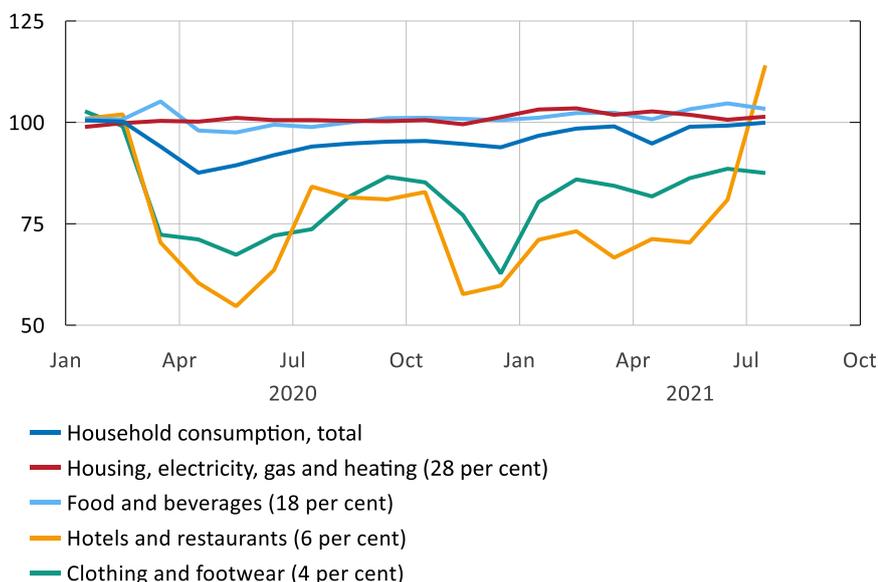
Sources: Statistics Sweden and the Riksbank.

Consumption has increased rapidly since last spring, and according to Statistics Sweden's monthly consumption indicator, household consumption was in July 2021 back to its pre-pandemic level (see Figure 33). Growth in the hotel and restaurant industry, which was hit hard by the pandemic, was particularly high during the summer. In July, consumption of hotel and restaurant services in Sweden increased very rapidly and was 40 per cent higher than the previous month and 14 per cent higher than prior to the pandemic, according to seasonally-adjusted statistics (see Figure 33). The rapid upturn in July is largely connected to the low spread of infection, rising vaccination rate and phasing out of restrictions that enabled households to recover some of the consumption they had postponed during the pandemic. Moreover, the fine weather and the fact that many Swedes holidayed in Sweden is expected to have contributed to temporarily raising demand in July. Statistics on card transactions from Swedbank indicate that consumption of hotel and restaurant services has been somewhat lower during August and September.

Some parts of consumption remain subdued compared with the pre-pandemic level, for instance, clothing and shoes and transport services. Within these industries, the recovery is expected to continue during the second half of the year as people's behaviour gradually returns to the way it was before the pandemic, for instance, when they gradually return to their workplaces. At the same time, consumption of certain products that has been unusually high during the pandemic, such as white goods, home electronics and leisure articles has slowed down somewhat.

All in all, household consumption is expected to increase at a rapid pace in the third quarter. In addition to indicators of household consumption, this is also supported by companies in the retail trade and tourism being more optimistic than normal.

Figure 33. Total household consumption and some selected subgroups
Index, 2019 Q4 = 100, seasonally adjusted data



Note. Percentages in brackets refer to the sub-groups' share of total household consumption expenditure (excluding foreign items) during 2020.

Source: Statistics Sweden.

Households have also saved a lot during the pandemic, as their incomes increased faster than their consumption when it was not possible to consume certain services. Household consumption is expected to increase faster than incomes in the coming period, and savings to decline. With regard to the month on month development, however, the growth peak is assessed to be behind us now, and consumption is expected to increase at a more historically normal pace going forward.

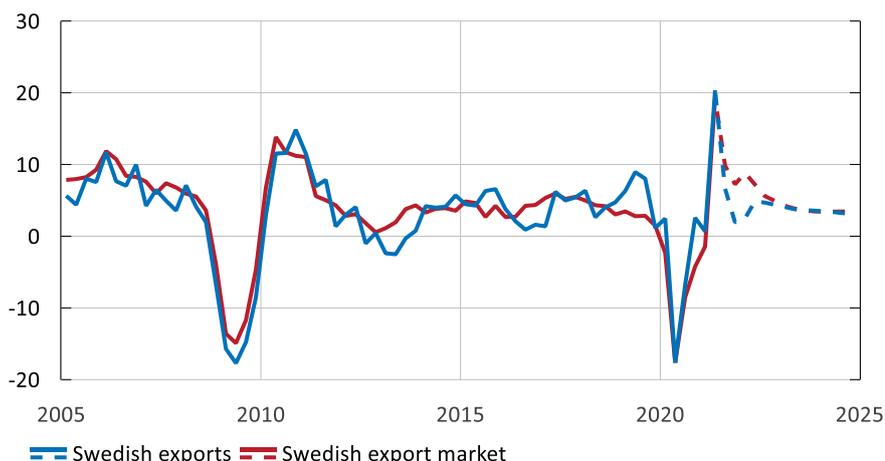
Exports and industrial production have grown rapidly

Companies in the business sector are optimistic, both regarding the current situation and developments in the coming months. Within the export-dependent manufacturing industry, for instance, production expectations and orders remain higher than normal, according to the Economic Tendency Survey. This signals that exports and industrial production will develop strongly in the coming period. At the same time, both are already back at normal levels after a steep rise during the second half of 2020, and there is no evident pandemic-related fall left to recover, which is reflected by new export orders having fallen from a high level to a more normal one, according to the Purchasing Managers' Index. Exports and industrial production are thereby not expected to grow as rapidly in the period ahead as they did at the end of last year, although they will at the same time benefit from the increase in global economic activity (see Figure 34).

There are several reports that parts of industrial production and exports, especially in the motor vehicle industry, will be slowed down by the shortage of semiconductors. During 2020, the shortage was due to their manufacture being closed down in various regions as a result of the pandemic. Currently, this is due instead to a combination of high demand and more lasting limits to production capacity. Without these limits, both exports and industrial production would have grown faster recently.

Figure 34. Exports and the Swedish export market

Annual percentage change, seasonally adjusted data



Note. The Swedish export market aims to measure import demand in the countries to which Sweden exports. This is calculated by aggregating imports in the countries included in KIX and covers around 85 per cent of the total Swedish export market. Solid line refers to outcome, broken line represents the Riksbank's forecast.

Sources: National sources, Statistics Sweden and the Riksbank.

Increased production and high housing prices contribute to rising investment

Investment in the business sector excluding housing is back at roughly the same level as prior to the pandemic. In the period ahead, however, companies will probably also have to catch up with their investments following the pandemic, when some investments were postponed. Together with rising production and optimism among companies, this means that companies' investments will continue to increase at a good pace. At the same time, companies report that they have good access to credits at low interest rates. However, the rate of increase will gradually slow down over the forecast period, when companies have made the majority of the investments that were postponed during the pandemic at the same time as production growth is declining.

The housing market has developed strongly during the pandemic. A high level of demand for housing has contributed to both housing prices and housing investment having risen rapidly (see Figure 35). There are now signs that the price upturn is levelling off, but this is at a high level, which indicates that housing construction will continue

to be profitable and at a high level. The forecast for housing prices and housing construction is based on the assessment that demand for housing will remain high in the coming years.¹¹

Figure 35. Housing prices and housing investment in Sweden

Annual percentage change



Sources: Statistics Sweden and Valueguard.

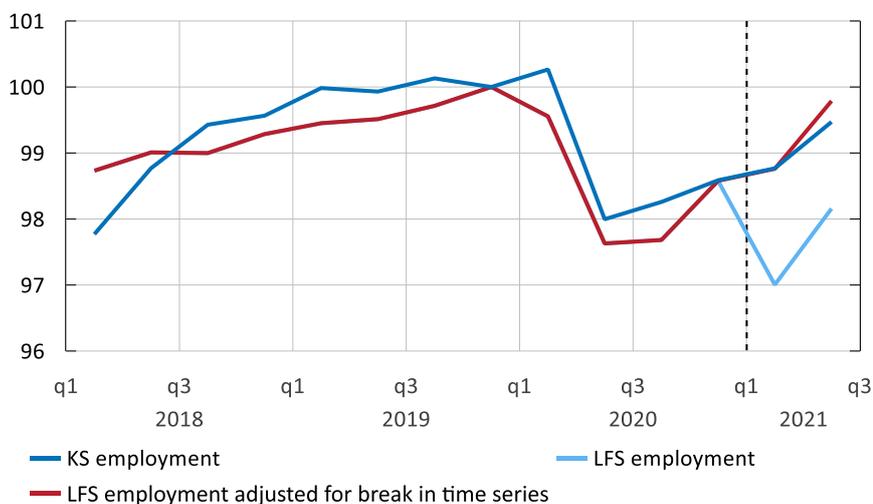
Strong recovery in employment

Developments in the labour market since the start of the year are difficult to interpret as the labour force surveys (LFS) now use new calculation methods. However, the overall picture from both the LFS and the short-term employment statistics (KS) is that employment increased substantially during the second quarter (see Figure 36). Above all, this increase was among temporary workers. Part of the heavy fall of almost 80,000 temporary workers at the start of the pandemic has thus been recovered. Large contributions to the development of employment in the business sector in the second quarter came from the care and welfare sector and the hotel and restaurant sectors. In July too, employment rose rapidly according to the LFS and the recovery continued among temporary workers.

¹¹ See the discussion in the article “Rapidly rising housing prices despite the coronavirus crisis”, in *Monetary Policy Report*, April 2021, Sveriges Riksbank.

Figure 36. Different measures employment

Index, 2019 Q4=100, seasonally adjusted data



Note. KS signifies short-term employment statistics, and they are seasonally-adjusted by the Riksbank. In the LFS series adjusted for a break in time series, Statistics Sweden has made an adjustment for the estimated effect of the change in the definition of employment. It has used RAMS, which was previously used as help information instead of AGI, and adjusted for changes in the target population. These adjustments are not all-inclusive, for instance no adjustments have been made for changed in the unemployment question. The vertical line marks the date when the labour market statistics were reorganised within the (LFS).

Sources: Statistics Sweden and the Riksbank.

After having fallen heavily at the start of the pandemic, the number of hours worked has gradually risen. These have risen faster than the number of persons employed, which can primarily be explained by many employers having terminated short-time work compensation schemes and decreased sick leave due to COVID-19. According to the Swedish Agency for Economic and Regional Growth, around 600,000 people were affected by the short-term working schemes at some point during 2020. Given applications received so far, the Riksbank deems that the number of people in short-term working schemes fell this year and amounted to an average of about 80,000 in the second quarter. The strengthened support for short-term working schemes introduced in response to the pandemic is to cease in September. After this, the ordinary system, which is significantly less generous, will apply. The number of employees on these schemes is expected to continue to decrease considerably towards the end of the year.

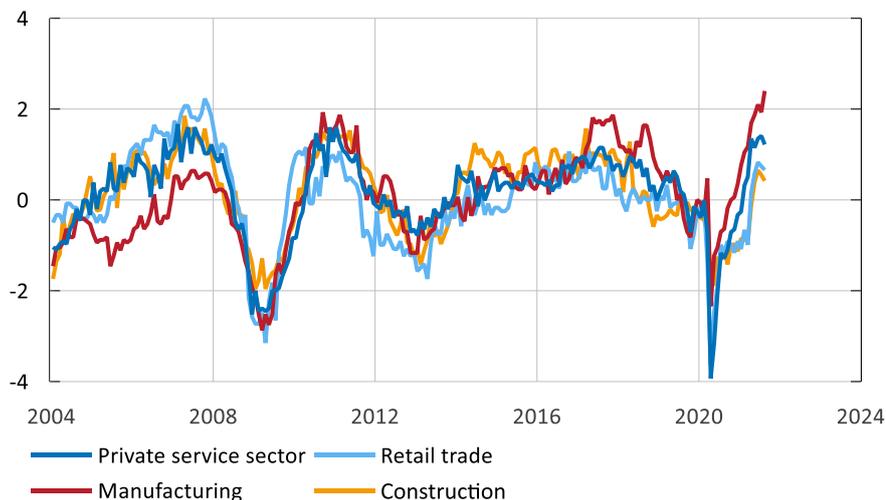
Continued high demand for labour in the coming months

Recruitment plans in the business sector, according to the Economic Tendency Survey, are more optimistic than normal and indicate that employment will increase in many sectors over the next few months (see Figure 37). Among other things, hotel and restaurant industry recruitment plans indicate that they intend to continue employing people at a brisk rate. The number of newly registered vacancies according to the Swedish Public Employment Service and the number of vacancies according to Statistics Sweden have increased substantially, at the same time as redundancy notices are

at very low levels. All in all, the indicators point to a strong demand for labour and employment is therefore expected to increase relatively rapidly in the second six months of 2021.

Figure 37. Recruitment plans in different sectors

Standard deviations, seasonally adjusted net data



Note. The series are normalised so that the mean value is 0 and the standard deviation is 1, since 2002.

Source: National Institute of Economic Research.

Divided picture of recent developments in unemployment

According to the Swedish Public Employment Service statistics, unemployment has fallen back since the highest level last summer and amounted to 7.6 per cent in August. On the other hand, according to the LFS, unemployment has remained at a high level during the beginning of 2021, and amounted to 8.4 per cent in July. Different methods of measurement and coverage explain a large part of the difference, as LFS captures to a greater extent young people who are not registered with the Swedish Public Employment Service. The level of unemployment among young people aged 15–24, who to a larger degree work in branches impacted by the pandemic, such as hotels and restaurants, remains elevated. At the same time, the number of people in the labour force who are now looking for work has increased unexpectedly strongly since the start of the year, according to the LFS. Part of the measured upswing is deemed to be due to new calculation methods in the LFS.¹² As the economic recovery

¹² With effect from January 2021 the LFS asks “have you looked for or tried to find a job in the last 4 weeks?”. Previously, the question was “have you looked for work in the last 4 weeks?”. The change makes the concept a broader one. If the respondent answers “yes” to the question earlier, an open question was then asked about how they had looked for work. Today, the interviewer instead asks 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. The order of the questions in the survey has also been changed. All in all, the Riksbank assesses that this has increased the potential work force and raised the long-term sustainable level of unemployment as measured by the LFS. However, it is difficult to assess the size of the effects. See also the discussion in the article “The LFS reorganisation and the Riksbank’s analysis of the labour market” in the *Monetary Policy Report*, February 2021, Sveriges Riksbank.

continues, however, employment is expected to rise faster than the labour force and unemployment to fall back. Towards the end of the forecast period, unemployment is expected to be 7 per cent (see Figure 38).

Figure 38. Unemployment according to LFS and the Swedish Public Employment Service

Percentage of labour force, 15-74 years and 16-64 years respectively, seasonally adjusted data



Note. Unemployed persons according to the Swedish Public Employment Service include openly unemployed persons and participants in labour market programmes. Solid line refers to outcome, broken line represents the Riksbank's forecast. The vertical line marks the date when the labour market statistics were reorganised within the (LFS).

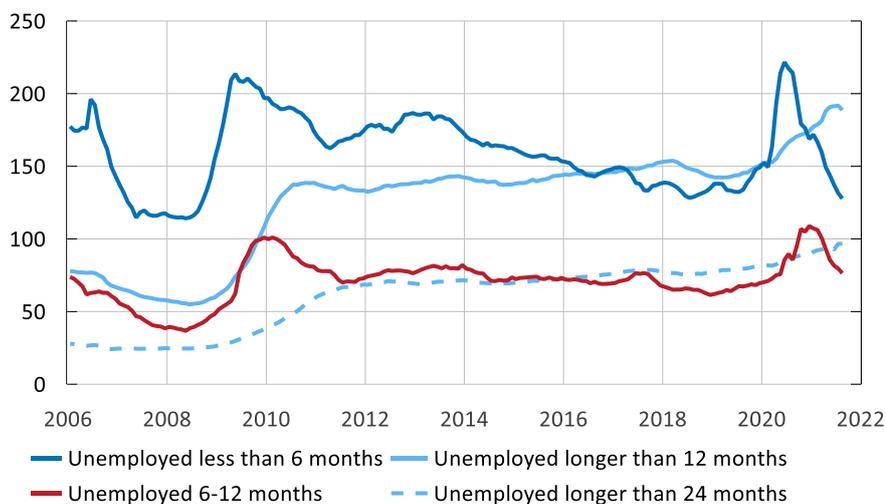
Sources: Swedish Public Employment Service, Statistics Sweden and the Riksbank.

More long-term unemployed

The pandemic has led to a rapid increase in persons unemployed for over 12 months, who now form a very large proportion of the registered unemployed. According to the Swedish Public Employment Service, the decline in unemployment has primarily been among those with shorter periods as unemployed, while the number of persons that have been without work for longer than 12 months has continued to rise (see Figure 39).

Long periods of unemployment can affect individuals' knowledge and skills and make it more difficult to find a new job. Consequently, there is a risk that the long-term unemployment level will rise. The continued economic recovery this year and next year is therefore important for long-term developments on the labour market. The recovery in the hotel and restaurant industry in particular is important, as this is an industry where many young people and people with a weak connection to the labour market obtain their first jobs. However, a number of negative effects from the pandemic are expected to be long lasting, partly because the number of people who have been unemployed for more than twelve months has increased relatively significantly.

Figure 39. Unemployed registered at the Swedish Public Employment Service
Thousands, seasonally adjusted



Note. Seasonally-adjusted by the Riksbank.

Sources: The Swedish Public Employment Service and the Riksbank.

Resource utilisation is approximately normal

It is not possible to measure the spare capacity in the economy exactly, but this is important to know as it affects how wages and inflation will develop in the slightly longer run. The Riksbank therefore assesses resource utilisation using a number of different indicators, and these point to resource utilisation having continued to rise recently and now being approximately normal.

Indicators of resource utilisation in the economy, such as the Riksbank's RU indicator for example, various measures of capacity utilisation for the manufacturing industry and indicators of labour shortages have risen and are higher than the historical averages. However, these measures are not able to entirely capture developments in some of the parts of the service sector that have been most exposed during this crisis. At present, the amount of spare capacity differs from one sector to another. Above all, this is reflected in employment levels in some service sectors still being low, at the same time as others have already recovered.

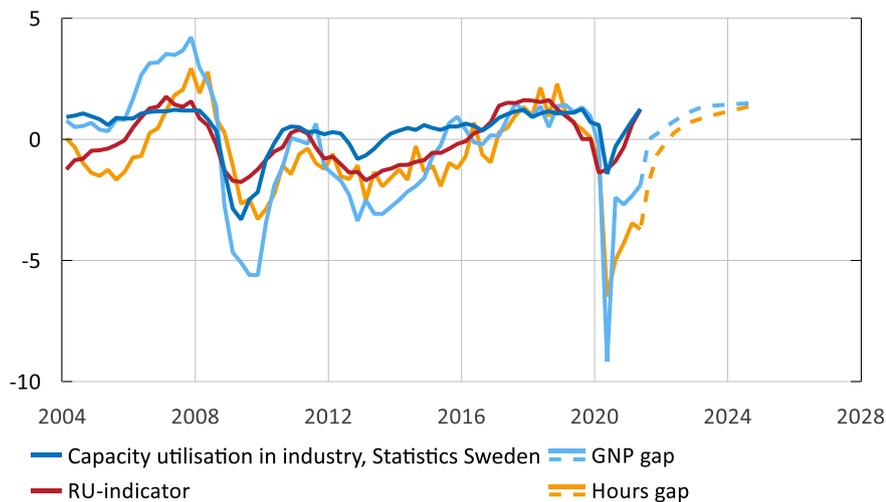
The Riksbank deems that total resource utilisation in the Swedish economy has risen rapidly in the second half of the year, but that it is still lower than normal in some of the industries that were most badly affected by the pandemic. For some sectors, such as aviation, the effects of the pandemic are expected to be long-lasting.

The crisis has also meant that entry and re-entry to the labour market has been made more difficult for certain groups, for instance due to extended periods of unemployment. Even though the demand situation is strong, unemployment is therefore expected to remain on an elevated level next year too. Supported by expansionary eco-

economic policy, resource utilisation is expected to continue to rise and the economic situation is projected to be strong in the coming years. This is illustrated by the Riksbank's forecasts for the GDP and hours gaps (see Figure 40).

Figure 40. Measures of resource utilisation

Per cent and standard deviation respectively



Note. The gaps refer to the deviation in GDP and number of hours worked respectively from the Riksbank's assessed trends. The RU indicator is a statistical measure of resource utilisation. The RU indicator and capacity utilisation in the manufacturing industry are normalised so that the mean value is 0 and the standard deviation is 1, since 1996. Solid line refers to outcome, broken line represents the Riksbank's forecast.

Sources: Statistics Sweden and the Riksbank.

Wage growth on the up

Wage growth has risen over the first six months of the year and is deemed, on average, to have amounted to 2.9 per cent according to short-term wage statistics, which is an improvement compared to last year, when wages increased by an average of 2.1 per cent.

The wage agreements, which were negotiated at the end of 2020, resulted in the centrally-agreed wages increasing by an average of about 2 per cent annually until the end of the first quarter of 2023. In addition, the social partners agreed on increased allocations to pensions corresponding to an increase in labour costs of a further couple of tenths of a percentage point a year.¹³

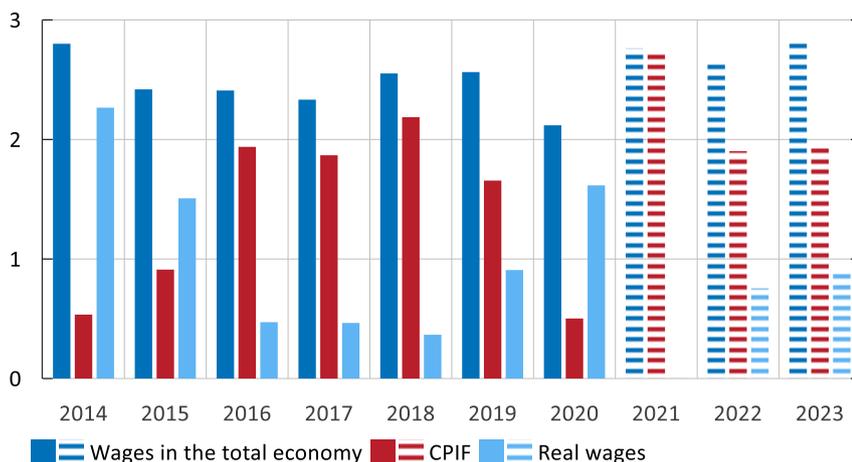
When the agreements for 2023 and onwards are to be negotiated, the economic situation is expected to be better and unemployment to be significantly lower than when the current agreements were signed. As economic activity abroad is also improving, wages abroad are expected to increase at a faster pace, which affects wage bargaining in Sweden. The rate of wage growth will therefore rise in the coming years. After

¹³ Total wage growth is not just determined by centrally-agreed wages but also by local pay reviews. The size of these is affected by the supply of various skills and the level of demand on the labour market.

having amounted to almost 2 per cent in 2020, it is expected to amount to around 3 per cent in the coming years, according to the National Mediation Office’s short-term wage statistics (see Figure 41). As inflation will rise during the same period, real wages, that is, wage growth minus inflation will increase moderately.

Figure 41. Wages, the CPIF and real wages

Annual percentage change



Note. Real wages are calculated as the difference between wage growth and the rate of increase in the CPIF, which is to say the blue bar minus the red bar. Unbroken bars refer to outcomes, broken bars to the Riksbank’s forecast. The outcome for wages in 2020 is preliminary.

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

Krona expected to remain at today’s level in the coming years

The Swedish krona appreciated last year. Explanations for this could be a high risk propensity and a strong development on the financial markets. Over the summer, the krona has depreciated slightly.¹⁴ The real exchange rate is still assessed as marginally weaker than can be expected, given Swedish productivity in relation to the rest of the world. This year the exchange rate has been relatively stable. In trade-weighted terms the krona is expected to remain at more or less the current level for the coming three years (see Figure 42).

¹⁴ See also the discussion in Chapter 2 of this report.

Figure 42. 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. Outcomes are daily rates and forecasts refer to quarterly averages. Solid line refers to outcome, broken line represents the Riksbank's forecast.

Source: The Riksbank.

Temporarily higher inflation over the next year

Inflation was low in 2020 and averaged 0.5 per cent, measured in terms of the CPIF. CPIF inflation rose in 2021 and amounted to 2.4 per cent in August, which was 1 percentage point higher than the assessment in the July Monetary Policy Report. Just over half of the forecast error can be explained by electricity prices being higher than expected. Adjusted for energy prices, CPIF inflation was lower and amounted to 1.4 per cent in August, which was 0.4 percentage points higher than expected.

CPIF inflation is expected to continue to rise in the coming months, and to be around 3 per cent at the end of the year, before falling back clearly next year (however, the price level is expected to shift upwards lastingly; see the fact box "The relationship between price level and inflation rate"). It is primarily energy prices that are contributing to this development. Electricity prices started to rise in the spring and are expected to remain on a high level over the next year. This will contribute to keeping up CPIF inflation in the coming period. There are several reasons for the rising electricity prices, but the main explanation is that water levels in reservoirs in Norway and Sweden are unusually low for the time of year.¹⁵

Even excluding energy prices, inflation is expected to rise over the coming year. CPIF inflation excluding energy is expected to rise to a good 2 per cent in the middle of next year. The Riksbank expects inflationary pressures to be temporarily heightened over the next year. There are several reasons for this. Freight prices have continued to soar over the summer as a result of disruptions in global trade. At the same time,

¹⁵ The low water levels are leading to falling capacity in the Nordic region. In turn, this is leading to prices for emission rights and coal, which have risen clearly since the spring of 2021, affecting electricity prices to a greater extent.

commodity prices remain high, even if they have fallen slightly following the rapid rise in the spring. Some of these price increases will be passed on to consumers and lead to a higher rate of price increase on certain goods over the coming year. There are also reports from some areas about shortages of certain goods in the shops, which is connected to freight problems and poorer harvests for some foodstuffs, among other things. At the same time, demand for hotel and restaurant services has risen rapidly recently, for example, which has also placed an upward pressure on prices. These supply problems and the high freight costs and commodity prices are expected to drop off fairly rapidly in line with historical patterns.¹⁶ A calmer growth rate in consumption is expected to reduce bottlenecks, for example in the transport sector and in the service sectors that are growing rapidly just now. Overall, therefore, the monthly rate of price increases is expected to slow down over the next few months and the annual rate of increase in the CPIF excluding energy will therefore fall back over the end of 2022.

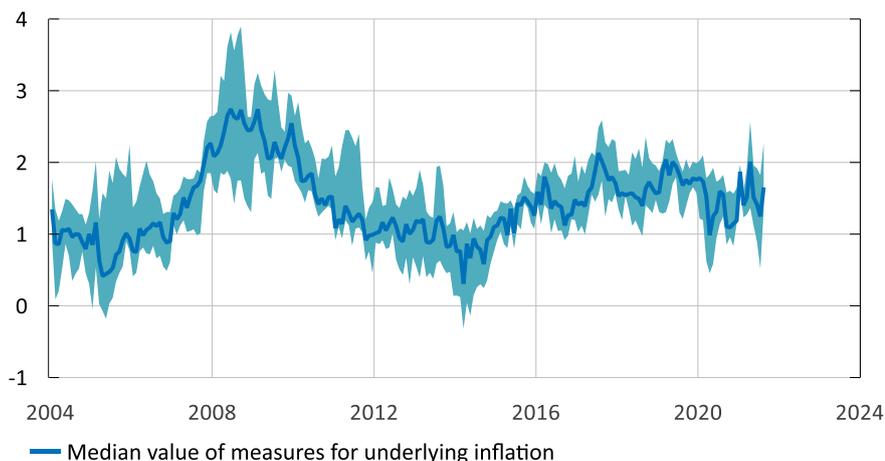
Rising inflation over the next year is supported by indicators for price development in other channels than the consumer channel, and by business tendency data. Producer prices are now rising at a rapid pace. The rate of increase in prices of consumer goods produced and sold in Sweden is still higher than the historical average, which prices in the producer channel for imported consumer goods have stopped falling on an annual basis. At the same time, according to the Economic Tendency Survey, increasing numbers of companies are now planning price rises. This applies both to the business sector as a whole and within the retail trade.

Like many other central banks, the Riksbank calculates and publishes various different measures of so-called core inflation. These measures, which exclude or reduce the significance of prices that have previously varied substantially, have become less stable since spring 2020. This is probably connected to changed weights and different measurement problems during the pandemic. The measures indicate that the more persistent inflation rose in August. The median of the various measures amounted to 1.7 per cent (see Figure 43). The measures that have proved best in surveys (UND24 and CPIFPC) are at 2.0 and 1.3 per cent respectively.

¹⁶ See the article "How are higher commodity prices and freight costs affecting inflation in Sweden?" in *Monetary Policy Report*, April 2021, Sveriges Riksbank.

Figure 43. 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.

Inflation will rise in 2023 and 2024

As of 2023, inflation will rise as demand strengthens, wages increase faster and inflation abroad rises (see Figure 44). In the period ahead, the krona exchange rate is assumed to remain relatively unchanged and is therefore not expected to affect inflation to any great extent (see Figure 42). The CPIF will increase somewhat faster than the CPIF excluding energy towards the end of the forecast period due to fuel prices being assessed to increase somewhat faster than other prices (see Figure 4 in Chapter 1).¹⁷

¹⁷ The Riksdag, the Swedish parliament, decided in June 2021 to introduce an increased reduction obligation regarding fuel. In brief, the decision means that fuel suppliers must gradually increase the mixture of renewable or other fossil-free fuels in petrol and diesel. This is expected to lead to the price of petrol and diesel rising faster than would otherwise have been the case. All in all, this is expected to contribute around one half of a tenth of a percentage point per year to CPIF inflation during the entire forecast period.

Figure 44. The 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. Solid line refers to outcome, broken line represents the Riksbank's forecast.

Sources: Statistics Sweden and the Riksbank.

FACT BOX – The relationship between price level and inflation rate

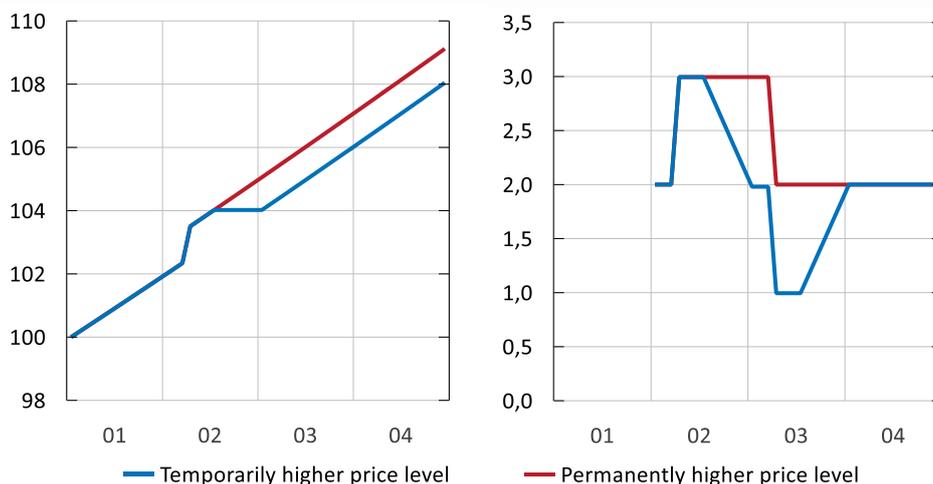
CPIF inflation is often described as the annual percentage change in the CPIF. In turn, this corresponds (approximately) with the sum of the 12 most recent percentage monthly changes. An upturn in the level of the CPIF in a given month will thus affect inflation over the next 12 months. What looks like higher inflation over a whole year, before inflation falls back again, may thus actually be a rise in the level of prices in one single month.

To clarify how changes in the price level and the annual percentage change relate to each other, two different examples are shown below (see Figure 45). The development of the price level is illustrated in the left-hand diagram and the rate of inflation, expressed as an annual percentage change, is shown in the right-hand one. In the first example (red lines), the price level has a trend growth of 2 per cent per year. In month 4, year 2, some prices suddenly rise so that the price level rises by 1 per cent, before continuing to grow by 2 per cent per year. In the example, the price rise is thus permanent and the price level does not return to the old trend. In the second example (blue lines), the price level again rises by 1 per cent but, here, the price level falls back to the original trend again after a couple of months. These two different developments of the index give rise to two different profiles in the rate of inflation. In the example in which the price level shifts upwards permanently, we see a temporarily higher rate of inflation for a year after the price rise. In the example where the price level gradually returns, the inflation dynamic becomes a little more complex. The annual percentage change now initially goes up before gradually falling and then, for a

period, becoming lower than it was previously. This is despite the price level never falling below the original trend.

Figure 45. Example of development of index and rate of inflation

Index level (left) and annual percentage change (right), respectively



Source: Own calculations.

The way that unexpectedly high inflation outcomes affects the forecast in the slightly longer term thus depends on how lasting the price increase is judged to be. If the price level is expected to fall back, the inflation rate will fall below the old forecast after a while. But if the price level is instead expected to become permanently higher, the rate of inflation will join the old, lower, path after 12 months. It is important to note that the inflation rate does not increase permanently in any of these cases. For this to happen would require that the price level not only became higher, but also continued to follow a steeper trend than before. One can express this as price formation in this case having to change more fundamentally.

In the forecasts presented in this report, the annual rate of increase in the CPIF falls back quickly next year and becomes lower than the previous forecast for a few months. This is connected with this year’s electricity price increases falling out of the twelve-month comparisons, at the same time as the electricity price level is expected to fall back somewhat in the coming year. Developments here are fairly similar to the second example (blue lines) in Figure 45.

The forecast for the annual rate of increase in the CPIF excluding energy, on the other hand, is expected to be higher for one year and then to return to roughly the same forecast as the previous report. This is because the price level in this case is not expected to fall back, roughly as in the first example (red lines) in Figure 45. The assumption made is thus that the pandemic pushes up certain prices of goods and services permanently, although the prices do not forever in the future increase at a faster pace than before.

ARTICLE – Foreign central banks’ plans for a gradually less expansionary monetary policy

During the coronavirus crisis, central banks have conducted an expansive monetary policy by keeping policy rates low and, in many cases, by purchasing both publicly and privately issued securities. The central banks have purchased securities to make monetary policy more expansionary in a situation where policy rates have been deemed to be at or close to their effective lower bound. Another aim has been to improve the efficiency of monetary policy by supporting specific credit markets that have functioned poorly. The central banks’ holdings of securities are now large. The future development of these holdings will therefore affect the global financial conditions.

Many economies have come far in the recovery from the coronavirus crisis and, in many places, the holdings of securities that were primarily purchased for market maintenance purposes have already been phased out or are being phased out. As the economic situation continues to improve, the question arises of what central banks will do with their large bond holdings and policy rates. The information so far communicated by central banks has some common features. Several central banks have resolved or communicated that the first step will be to lower the rate of bond purchases (tapering), before keeping the holdings constant for a time by reinvesting principal payments. Some central banks expect, as a next step, to ensure that their policy rate reaches some way above its effective lower bound before they start reducing their bond holdings. There are also differences in central banks’ plans and actions, among other things concerning purchases of private assets and how the reduction of securities holdings will proceed.

Historically large securities holdings and low policy rates

Many central banks, including the Riksbank, have used a number of different monetary policy tools during the coronavirus crisis. In general, the central banks have cut their policy rates to levels where further cuts are deemed ineffective (see Figure 12 in Chapter 2). In addition, the central banks have purchased significant volumes of securities, with both public and private issuers, to keep interest rate levels down and facilitate monetary policy transmission by counteracting deteriorated functionality of specific markets that are important to the credit supply in the economy. With similar

aims, the central banks created various facilities last year to facilitate access to liquidity in important parts of the financial markets. Overall, the measures seem to have contributed to the rapid recovery of the global economy by preventing the hard impact of the coronavirus pandemic on the economy from resulting in a financial crisis. An important part of this has been ensuring that access to credit at low interest rates has been good, despite the heavy shocks entailed by the pandemic.

The central banks’ holdings of securities are now very large (see Figure 11 in Chapter 2) and also include different types of assets. What the major central banks choose to do with their securities holdings when they judge that monetary policy needs to be made less expansionary may therefore have significant consequences for interest rate levels and economic developments worldwide.

Several tools are available to eventually decrease the stimulus

The restraining effect of the pandemic on the developed economies is now starting to ease, employment is rising and inflation is above central bank targets in several countries. In this situation, major central banks’ plans for a less expansionary monetary policy have come into focus with market participants and other economic analysts.

In this situation, central banks are facing several questions and trade-offs, such as how changes to the policy rate and the size of the securities holding can be used to regulate the expansiveness of monetary policy. Another question concerns how large the holdings should be in the longer term and how rapidly they should be allowed to decrease. The remaining time to maturity of a central bank’s holdings can also affect these deliberations. If the holdings consist of bonds with a long remaining time to maturity, a sale could be more appropriate. In addition, there may be differences, from asset type to asset type, concerning both the manner in which holdings will be reduced and the phase in which it may happen. For example, when a market is again functioning well, securities primarily purchased to counteract a temporary disturbance on this market may be phased out earlier and faster than securities purchased with the aim of lowering the general level of interest rates.¹⁸

In its latest monetary policy report, the Bank of England has given a clear account of its strategy for the gradual reduction of monetary policy stimulus and has specified the order in which it expects the policy rate to be raised and securities holdings decreased.¹⁹ Considering that the effects of changes in the policy rate can be assessed with greater certainty than those of changes in the securities holdings, and that it is also easier and faster to implement policy rate changes, the Bank of England expects to be able to raise its policy rate before it starts to reduce its securities holdings. This is intended to create scope for later use of the interest rate to counteract possible unexpected negative effects of the reduction of securities holdings or other shocks requiring further stimulus. Once the Bank of England has raised the policy rate to 0.5

¹⁸ For an overview of possible reasons to start a reduction of securities holdings at an early stage, see K. Forbes, “Unwinding Monetary Stimulus in an Uneven Economy: Time for a New Playbook?” August 2021, www.kansascityfed.org/documents/8341/Forbes_Unwinding_Stimulus_in_an_Uneven_Economy_final.pdf.

¹⁹ “Box A: The MPC’s strategy for the mix of monetary policy instruments to deliver tighter policy”, Monetary Policy Report, August 2021.

per cent, it will be time to start reducing the securities holdings, initially by ceasing to reinvest principal payments. In a later phase, once the policy rate has reached 1 per cent, it may become appropriate to reduce holdings more rapidly through active sales. However, the Bank of England does not expect to sell so much that its balance sheet does not stay significantly larger than it was ahead of the financial crisis.

Other central banks’ strategies and plans

The US central bank, the Federal Reserve, is currently continuing to make net purchases (extending its holdings) of government bonds and mortgage backed securities. On the other hand, it has terminated purchases and reduced holdings of commercial paper and corporate bonds, as well as interest-bearing instruments with short maturities issued by states and local authorities.²⁰ The Federal Reserve has described the conditions that need to be fulfilled for it to cut down on its net purchases, as well as further conditions for when, later on, it may become appropriate to raise the policy rate (see also Chapter 2).²¹ The minutes of the monetary policy meeting in July reveal that the Federal Open Market Committee (FOMC), which decides on monetary policy, discussed whether the economy had approached the targets for employment and inflation closely enough for it to be appropriate to start purchasing securities at a slower rate.²² The Committee also discussed whether purchases of mortgage backed securities should be tapered faster than purchases of government bonds.

The Federal Reserve has not communicated in which phase holdings of government bonds and mortgage backed securities shall start to be phased out. The last time the Federal Reserve was in a similar situation, in 2014, following several years of recovery from the financial crisis, it explained that several policy rate rises would be implemented before the asset portfolio would be allowed to shrink.²³ The asset portfolio would be phased out through principal payments rather than active sales, with the expectation of long-term securities holdings that were significantly smaller than they were at the time but larger than prior to the financial crisis. In the long term, the holdings would primarily be focused on government bonds, to avoid a lasting effect on the allocation of credits between different sectors. After the new securities purchases that were made to mitigate the economic consequences of the coronavirus crisis and the recent review of its monetary policy strategy, the Fed’s communication has not included correspondingly clear indications of the phase in which a possible reduction

²⁰ Purchases of commercial paper, corporate bonds and interest-bearing instruments with short maturities issued by states and local authorities were carried out with the approval, and occasionally the capital, of the US Treasury that has subsequently announced that this approval and support would be withdrawn at various points in 2021.

²¹ See speech by J. H. Powell, 27 August 2021, www.federalreserve.gov/newsevents/speech/powell20210827a.htm.

²² Net purchases refer to the total purchases (gross purchases) minus the principal payments taking place over the same period. In other words, net purchases of an asset lead to an increase in the holdings of that asset. Normally, the word ‘tapering’ means a reduction in the rate of net purchases and thereby a lowering of the rate at which holdings increase. A more detailed description of the FOMC discussions can be found in the minutes of the FOMC meeting of July 2021.

²³ “Policy Normalization Principles and Plans”, dated 17 September 2014 with addenda dated 18 March 2015 and 13 June 2017, www.federalreserve.gov/monetarypolicy/files/fomc_policynormalization.pdf.

of the securities holding would be initiated. At the same time, it has made it clear that it will be a long time before an initial rate rise becomes appropriate.²⁴

The European Central Bank (ECB) has two programmes for asset purchases: the APP (Asset Purchase Programme), initiated in 2014, and the PEPP (Pandemic Emergency Purchase Programme), initiated in March 2020 to mitigate the economic consequences of the pandemic. Net purchases of both public and private securities are still under way in both of these programmes. Under the framework of the PEPP, the ECB expects to make net purchases of securities until the coronavirus crisis is deemed to be over and no earlier than the end of March 2022. At its September meeting, the ECB decided to recalibrate monthly purchases to a lower rate. As regards net purchases of assets under the framework of the APP, the ECB GC has indicated that it expects to terminate these just before policy rates start to be raised. The holding of securities under APP is to be maintained for an extended period after policy rate rises have been initiated. Principal payments on assets purchases under the PEPP will be fully re-invested by the end of 2023 at latest and the “future roll-off of the PEPP portfolio will be managed to avoid interference with the appropriate monetary policy stance”.²⁵ Consequently, at present, it has not been clearly expressed what this will mean for the PEPP holdings.

Earlier in the year, the Bank of Canada concluded its programme aimed at supporting the functionality of important financial markets, including a programme for purchases of mortgage bonds and corporate debt securities. It is still purchasing government bonds but the rate of these purchases has gradually been tapered off with reference to the increasingly strong economy. In a speech held in March this year, Deputy Governor Gravelle said that he expected to move from net purchases of government securities to maintaining the holdings by reinvesting principal payments for a time before starting to raise the policy rate.²⁶

Major central banks are continuing to pursue an expansionary monetary policy

Few central banks have presented their exact plans in any great detail as economic developments are always uncertain and it needs to be possible to adapt monetary policy to new information. However, certain common features can be discerned in their communication as regards the large bond holdings. Several of the central banks are clear that they see a cautious and gradual management of these holdings ahead. Initially, the rate of net purchases will be cut, meaning that the holdings will continue

²⁴ For example, at a press conference on 16 June 2021, Chairman Jerome Powell stated that the focus now lay on asset purchases and that a first rate rise lay well into the future. See www.federalreserve.gov/media-center/files/FOMCpresconf20210616.pdf.

²⁵ See the ECB’s Economic Bulletin, March 2021, , www.ecb.europa.eu/pub/pdf/ecbu/eb202102.en.pdf.

²⁶ Other central banks have not communicated as much about their longer-term strategies and plans for their securities holdings, but it may be worth noting that the Reserve Bank of Australia has lowered the rate of its securities purchases with reference to the stronger economic recovery; that the Reserve Bank of New Zealand recently ceased asset purchases and has announced that policy rate rises will be on the way over the coming year; and that Norges Bank, which cut its policy rate to 0 per cent in conjunction with the coronavirus pandemic but has not had a securities purchase programme, has announced that it will soon be appropriate to raise its policy rate.

to increase, albeit at a declining rate.²⁷ Furthermore, the larger central banks that have clearly communicated on this subject, which is to say the ECB and Bank of England, have indicated that they expect their policy rates to be raised before they allow their bond holdings to be decreased. The Bank of England has clarified that its aim in this is for the policy rate to have had time to be raised a bit more above its effective lower bound before asset holdings are reduced, so that the possibility of using the policy rate to adjust the expansiveness of monetary policy has been regained. Furthermore, the central banks that have addressed the matter of the future size of their securities holdings have indicated that these will be significantly smaller than today in the long term but larger than prior to the financial crisis.

At the same time as there are certain common features in central banks communications of how they see the development of their securities holdings in the period ahead, differences are also apparent. Several central banks have already discontinued the purchases of private securities they initiated during the coronavirus crisis for market maintenance purposes, such as purchases of corporate debt securities. But this does not apply to them all – for example, the ECB is still purchasing a broad set of public and private securities. There are also signs that central banks, to an extent, have different plans for whether securities holdings must always be held to maturity or whether the holdings can also be reduced by sale. It is natural to reach different conclusions in this matter, among other reasons because experiences of how decreased holdings will affect economies are limited and because the financial systems have different characteristics in different countries.

The many important and difficult questions provide reason to expect more discussion and more clarifications of the central banks’ plans for policy rates and securities holdings in the period ahead.

²⁷ In the research literature, it is the size of the central bank’s holdings that is normally decisive for how securities purchases affect interest rates and, ultimately, the economy as a whole. See also J. Alsterlind, H. Erikson, M. Sandström and D. Vestin, “How can government bond purchases make monetary policy more expansionary?”, *Economic Commentaries*, No. 12, 2015. To the extent that it is the proportion of outstanding stock in the holdings that determines expansiveness, the outstanding stock’s development is also significant in practice – if central government debt grows, net purchases may be needed to retain the degree of expansiveness. The actual purchase rate may also be significant for interest rate levels and thereby expansiveness for other reasons, particularly in markets with low liquidity under stressed market conditions. Ultimately, the significance of holdings and purchase rates is an empirical matter and the factual material here is not extensive, making definitive conclusions hard to reach.

ARTICLE – New monetary policy strategy in the euro area

On 8 July, the European Central Bank (ECB) decided on a new monetary policy strategy. According to the new strategy, price stability can best be achieved by aiming for 2 per cent inflation in the medium term. Unlike previously, when the target was for inflation to be below, but close to, 2 per cent, the inflation target is now symmetrical. This means that lasting deviations from target in the medium term, both negative and positive, are equally undesired. This makes the ECB's new inflation target more like the one the Riksbank has. The strategy confirms that the policy rate is still the primary monetary policy instrument but that other instruments used over the last decade will continue to be part of the ECB's tool kit and will be used when deemed appropriate. In its new strategy, the ECB also emphasises the importance of inflation not lastingly falling below target when the policy rate is close to its lower bound and that monetary policy may therefore need to be conducted in such a way that inflation lies slightly above target for a period.

The ECB's new monetary policy strategy also includes an action plan against climate change. Apart from integrating climate factors into its monetary policy assessments, the ECB will weigh climate considerations into risk assessments, the framework for collateral, corporate bond purchases and other activities.

Symmetrical target of 2 per cent inflation

On 8 July 2021, the ECB published the results of its review of the monetary policy strategy.²⁸ The review was initiated in January 2020 and is the ECB's first strategy review since 2003. The strategy will be evaluated more regularly in the period ahead. The next review is planned for 2025.

The inflation target, previously formulated as a rate of inflation below, but close to, 2 per cent, is now symmetrical and has been set at 2 per cent. The aim of the change is to clarify at which level of inflation the ECB is aiming. The new strategy also entails a slight increase in the inflation target. One consequence of the change is that the ECB inflation target will be more like the one the Riksbank has. The symmetry means that both negative and positive deviations from target in the medium term are equally undesired. However, in the short term, inflation will vary as the economy is constantly

²⁸ See the ECB's statement on its monetary policy strategy [The ECB's monetary policy strategy statement \(europa.eu\)](https://www.ecb.europa.eu/press/pr/20210708/monetary-policy-strategy-statement/index.en.html) and *Economic Bulletin*, 5/2021, European Central Bank.

being affected by various unexpected shocks that are not fully counteracted by monetary policy. The ECB points out that the inflation target provides a clear anchor for inflation expectations. Well-anchored inflation expectations make price and wage-setting more stable so it becomes easier to maintain price stability in the medium term.

The ECB emphasises the importance of taking account of the marked decline in the global equilibrium real interest rate as this means that the effective lower bound of nominal interest rates will probably limit monetary policy more often. When the interest rate is close to its lower bound, powerful or sustained monetary policy measures are needed to prevent negative deviations from the inflation target from becoming protracted. This could also mean monetary policy being designed so that inflation is moderately above target for a period.

The policy rate remains the primary monetary policy instrument for the ECB. However, other instruments, such as communication of the likely development of the policy rate (known as forward guidance), asset purchases and long-term lending to the banks, will also continue to be part of the ECB toolbox and will be used as appropriate. Above all, this is the case when the policy rate is at or close to its lower bound. The ECB deems that, in such situations, fiscal policy will also play an important part in macroeconomic stabilisation.

Costs for living in owner-occupied housing to be included in the HICP

The harmonised index for consumer prices (HICP) will continue to be the ECB's target variable, but it is recommended that costs for living in owner-occupied housing be included in the HICP going forward. These costs have not previously been included in the HICP, which the ECB sees as a shortcoming as they stand for a relatively large proportion of total household expenditure. However, integrating these costs into the HICP is expected to be a multi-year project and, during this time, the ECB will use preliminary estimates of these costs in its monetary policy assessments. The Riksbank deems that the effects of the change will be relatively small for the measured inflation of the euro area as a whole, but they may vary somewhat over time and from country to country. The Riksbank's target variable CPIF already includes households' costs for living in owner-occupied housing, albeit measured in a different way than that advocated by the ECB (see the article "Different methods of measuring housing costs in the consumer price index").

Financial stability is a prerequisite for price stability

According to the new strategy, the ECB's monetary policy decisions are to be based on an integrated assessment of all relevant factors, including the proportionality of the decisions. Proportionality means that the intended effects of various monetary policy measures on inflation and the financial conditions are weighed against unintended effects on the real economy and financial systems. The assessment of proportionality also takes into account the uncertainty concerning the effectiveness and side effects of different policy instruments as well as the risk that confidence in the inflation target will deteriorate. The mutual dependency between economic developments, the money supply and other monetary and financial factors shall therefore be analysed

and considered. Consideration of financial stability will be taken in a flexible manner in the monetary policy deliberations. The ECB will therefore neither systematically tighten monetary policy to counteract the accumulation of financial imbalances nor wait to act until the imbalances have possibly resulted in a crisis. Instead, in each situation, the ECB will assess which policy is appropriate based on the prevailing conditions.

Visualised and adapted communication to reach a broader public

Over time, communicating the monetary policy decisions has become more important and affects the efficiency of monetary policy. The ECB is therefore adjusting its communication to reflect the revised monetary policy strategy. To ensure understanding of and confidence in the policy measures among a broader public, the ECB will work with monetary policy communication that is visualised and adapted to different target groups and information channels. It will also make outreach activities a permanent feature of the Eurosystem's contacts with the general public. Examples of such activities include various events for a broader public to explain monetary policy.

Climate-related action plan set out

The ECB has also presented a climate-related action plan. The ECB's ambition is to ensure, within its mandate, that the Eurosystem takes full account of the consequences climate change and carbon emissions may have for monetary policy and central bank activities, and thereby works in line with EU's climate goals. The ECB will improve its analytical and macroeconomic modelling capacity, and develop statistical indicators to understand the consequences climate change may have for the macro economy, inflation and financial stability. Apart from integrating climate factors into its monetary policy assessments, the ECB will weigh climate considerations into risk assessments, the framework for collateral, corporate bond purchases and other activities.

ARTICLE – Different methods of measuring housing costs in the consumer price index

The ECB's new monetary policy strategy emphasises the desirability of including costs for owner-occupied housing in the harmonised index of consumer prices (HICP). These are already included in many countries' measures of inflation, including the CPIF in Sweden. However, it is not obvious how the cost of living in owner-occupied housing should be measured. Different methods have their advantages and disadvantages and the choice of method depends on what the price index is intended to measure. The CPIF uses a user cost approach that means, in practice, that housing costs follow a long moving average of the development of housing prices. As housing prices have risen at a relatively fast pace over a long period, housing costs are also increasing rapidly, which has made a positive contribution to the development of inflation in recent years.

Housing costs can be measured in different ways in the price index

It is not obvious how the cost of living in owner-occupied housing should be measured using an index for consumer prices. This is because housing is not consumed over the same period in which it is purchased. A litre of milk is purchased and consumed at (approximately) the same point in time, while a home is consumed over perhaps 20–30 years. Currently rising prices for houses are therefore not necessarily seen as a rising cost for consumers who already own their homes.²⁹ There are a number of different approaches that can be taken to measure housing costs, where different countries and institutions have made different choices. Basically, the choice of measurement method depends on what the price index is intended to measure.

The ECB's new monetary policy strategy presents a plan for how costs for owner-occupied housing can be included in the harmonised index of consumer prices (HICP). These costs have not previously been included. Once the costs for owner-occupied housing are included, the HICP is expected to capture better the price development that households are actually facing.³⁰ The method that the ECB advocates to measure these costs is known as the net acquisition approach. Put simply, this method can be described as treating housing like any other product or service. This means, therefore, that the price of newly built housing is measured every month, just like a litre of milk,

²⁹ This problem certainly applies to some durable goods such as cars and washing machines, but to a significantly lesser extent. For these goods, the price is measured during the same month that the purchase takes place.

³⁰ However, some housing costs have already been included, such as rent, heating and insurance costs.

for example. The price of sales of existing housing between private individuals is therefore not included. To a certain extent, however, purchasing housing is considered to be an investment, and capturing this in the HICP is not wanted. The value of land, for example, should thus be excluded from house prices measured using the net acquisition approach.³¹

The consumer price index (CPI) in Sweden and many other countries aims to measure the development of the costs of living of the average household.³² In a cost of living index, a housing purchase is considered an investment, which gives the household a flow of housing services. Housing costs for owner-occupied housing are therefore assumed to depend on the consumption of the services generated by the housing and not on the actual purchase of the housing. This is therefore compatible with the aim of the index to measure the price of the flow of services generated by living in owner-occupied housing. The HICP measure aims, instead, to be what is known as an inflation index and therefore differs, in some respects, from price indices aimed at measuring living costs.³³

It is primarily the view of the capital cost of living in owner-occupied housing that differs between the different methods.³⁴ On the whole, there are three different approaches that are used to measure these costs.

User cost approach – the households' costs for living in owner-occupied housing are measured directly. These costs include capital costs and costs for wear and tear. This method is compatible with the theory for the cost-of-living index and is therefore appropriate to use if this is what the index is intended to measure. One difficulty with the method is that the price of housing services is not directly observable but needs to be estimated and this is thus affected by the various assumptions made, for example regarding the degree of wear and tear or length of ownership.

Rental equivalence approach – the households' costs for living in owner-occupied homes are measured indirectly by following the development of rents for comparable objects. This method is also theoretically consistent with the user cost approach in a free market with perfect competition and thus answers the hypothetical question "how much rent would I demand if I were to let my home instead of living in it?". One problem with the method arises if there is no functioning rental market for single-family homes, as in Sweden for example, thus making the method difficult to apply. And, even if there had been a market, the object being rented is still not necessarily comparable with the object being owned.³⁵

³¹ The work of including housing costs will, however, be conducted in stages and, according to the ECB's timetable, costs for owner-occupied housing will be fully included in the HICP by 2027 at earliest. For more information, see the article, "An overview of the ECB monetary policy strategy" in Economic Bulletin no. 5 2021, ECB.

³² In brief, the cost-of-living index theory can be summarised as an index that specifies the relationship between the monetary amounts required to maintain, in two price situations, the same consumption standard, or the same level of benefit. See, for example the discussion in section 2.2 in "Översyn av konsumentprisindex" [Review of the consumer price index], SOU 1999:124.

³³ 130 "Harmonized Indexes of Consumer Prices: Their Conceptual Foundations, ECB Working Paper No. 130, 2002.

³⁴ That is to say, the one included in the COICOP group 04.X. in the Swedish nomenclature used in the CPI.

³⁵ In Sweden, until 2017, a rental equivalence approach was used to measure the cost of living in a tenant-owned apartment. As of 2017, a cost calculation has been used instead.

Net acquisition approach – the costs for living in an owner-occupied home are measured by following the development of prices for newly-built housing, excluding the value of the land upon which the house stands.³⁶ This method captures actual prices. However, current house prices do not reflect the cost of living in an average household, which is inconsistent with the theory for the cost of living index and is thus inappropriate for this type of index. It may also be difficult to separate the price of land from the total property price.

The table below shows how a selection of countries have opted to manage owner-occupied housing expenses in their main inflation measures.

Table 2. Methods for measuring housing expenses in each country's inflation measure

Country/Region	Method
Sweden, Canada	User cost approach
USA, Japan, Norway	Rental equivalence approach
Australia, New Zealand	Net acquisition approach
Euro area (HICP)	Excluded, but net acquisition approach recommended

Sources: The respective countries' statistical agencies.

Housing costs are already included in the CPIF

The Swedish CPI and CPIF thus already include a measure of the cost of living in owner-occupied housing using what is known as a user cost approach. Capital expenditure is captured in an interest expenditure index, which is a function of the level of interest rates (interest rate index) and how much capital has been put into the housing (capital stock index). In the CPIF, the mortgage-rate index is held constant and therefore it is only the development of the capital stock index that affects the development of the CPIF. The capital stock index measures the development, over time, of acquisition prices for the stock of single-family homes and tenant-owned apartments. For this, Statistics Sweden uses a model primarily based on the price index for housing. In practice, the development of the capital stock index follows the long moving average of housing price development. The length of these moving averages reflects how long people live in their homes and is therefore longer for single-family homes (about 30 years) than it is for tenant-owned apartments (about 10 years). In other words, the CPIF already captures the development of housing prices, albeit with quite a long time lag. As housing prices have risen at a relatively fast rate over a long period, the capital stock index is currently increasing by almost 6 per cent, which coincides with the average rate of increase in the index since 2005. In turn, this has meant that the contribution made by the capital stock index to CPIF inflation has averaged just over 2 tenths of a percentage point over the same period.³⁷

³⁶ The index normally includes the development of prices for running owner-occupied housing, including maintenance and repairs, as well as property insurance.

³⁷ The weight for the capital stock index in the CPIF is the same as the interest expenditure index in the CPI and is therefore affected by the level of interest rates. This means that the weight and thereby the contribution from the capital stock index has varied relatively strongly (from 0.1 to 0.5 percentage points) over the period. The weight is now 3.4 per cent, which is slightly lower than it has been historically, while the contribution is close to the average of 0.2 percentage points.

Forecast tables

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

Table 1. Repo rate forecast

Per cent, quarterly averages

	2021Q1	2021Q2	2021Q3	2022kv3	2023kv3	2024kv3
Repo rate	0.00 (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 (0.5)	2.3 (1.8)	2.1 (1.7)	1.8 (1.8)
CPIF excl. energy	1.6 (1.6)	1.3 (1.3)	1.4 (1.2)	1.8 (1.5)	1.8 (1.7)
CPI	1.8 (1.8)	0.5 (0.5)	2.0 (1.6)	2.1 (1.7)	1.8 (1.8)
HICP	1.7 (1.7)	0.7 (0.7)	2.5 (2.0)	2.0 (1.6)	1.6 (1.7)

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

Source: Statistics Sweden and the Riksbank.

Table 3. Supply balance

Annual percentage change unless otherwise specified

	2019	2020	2021	2022	2023
Household consumption	0.7 (0.7)	-4.7 (-4.8)	5.1 (4.0)	4.6 (5.2)	2.6 (2.6)
Public consumption	0.3 (0.3)	-0.6 (-0.5)	3.1 (2.3)	1.9 (1.6)	0.6 (0.4)
Gross fixed capital formation	-0.3 (-0.3)	-0.4 (-0.5)	5.5 (3.3)	3.9 (4.3)	2.2 (2.4)
Stock investments*	-0.1 (-0.1)	-0.7 (-0.6)	0.1 (0.2)	0.1 (0.0)	0.0 (0.0)
Exports	6.0 (6.0)	-4.6 (-4.6)	7.1 (9.5)	4.1 (4.1)	3.4 (3.2)
Imports	2.1 (2.1)	-5.7 (-5.7)	7.6 (8.5)	4.5 (5.0)	3.4 (3.5)
GDP	2.0 (2.0)	-2.8 (-2.8)	4.7 (4.2)	3.6 (3.7)	2.0 (1.9)
GDP, calendar-adjusted	2.0 (2.0)	-3.0 (-3.0)	4.6 (4.1)	3.6 (3.7)	2.2 (2.1)
Final domestic demand*	0.3 (0.3)	-2.4 (-2.4)	4.4 (3.2)	3.5 (3.8)	1.8 (1.9)
Net exports*	1.8 (1.8)	0.3 (0.3)	0.1 (0.8)	0.0 (-0.1)	0.1 (0.0)
Current account (NA), percentage of GDP	5.2 (5.2)	5.6 (5.7)	5.9 (6.4)	5.7 (6.0)	5.7 (5.8)

* 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 4. Production and employment

Annual percentage change unless otherwise specified

	2019	2020	2021	2022	2023
Population, aged 15-74***	0.7 (0.7)	0.4 (0.4)	-0.3 (-0.2)	0.2 (0.2)	0.2 (0.2)
Potential hours worked	0.9 (0.8)	0.8 (0.6)	0.7 (0.4)	0.5 (0.4)	0.4 (0.5)
Potential GDP	1.9 (1.9)	1.8 (1.7)	1.8 (1.6)	1.7 (1.5)	1.7 (1.7)
GDP, calendar-adjusted	2.0 (2.0)	-3.0 (-3.0)	4.6 (4.1)	3.6 (3.7)	2.2 (2.1)
Hours worked, calendar-adjusted	-0.2 (-0.2)	-3.8 (-3.8)	2.4 (3.2)	3.3 (2.1)	1.1 (0.9)
Employed persons***	0.7 (0.7)	-1.3 (-1.3)	0.1 (-0.2)	2.1 (1.7)	0.9 (0.6)
Labour force***	1.1 (1.1)	0.3 (0.3)	0.6 (0.3)	0.7 (0.3)	0.4 (0.2)
Unemployment*, ***	6.8 (6.8)	8.3 (8.3)	8.8 (8.7)	7.6 (7.4)	7.2 (7.1)
GDP gap**	1.2 (1.2)	-3.6 (-3.5)	-1.0 (-1.1)	0.8 (1.0)	1.4 (1.5)
Hours gap**	0.6 (0.8)	-4.1 (-3.7)	-2.4 (-1.0)	0.3 (0.7)	1.0 (1.1)

*Per cent of labour force **Deviation from the Riksbank's assessed potential levels, in per cent ***As a result of a changeover in statistics, the forecast for 2021 in particular is affected by a break in the time series. For further information, see the fact box in the April Monetary Policy Report and the article "The LFS reorganisation and the Riksbank's analysis of the labour market" in the February Monetary Policy Report.
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 5. 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)	2.1 (2.1)	2.8 (2.7)	2.7 (2.6)	2.8 (2.7)
Hourly wage, NA	3.9 (3.9)	4.9 (4.8)	2.2 (1.6)	2.2 (2.2)	2.8 (2.7)
Employer contributions*	-0.2 (0.1)	-0.8 (-1.1)	0.7 (0.7)	0.0 (0.0)	0.0 (0.0)
Hourly labour cost, NA	3.8 (4.0)	4.0 (3.7)	3.0 (2.3)	2.3 (2.2)	2.8 (2.7)
Productivity	2.2 (2.2)	0.8 (0.9)	2.1 (0.9)	0.3 (1.5)	1.1 (1.2)
Unit labour costs	1.6 (1.9)	3.3 (2.9)	1.2 (1.6)	2.0 (0.7)	1.7 (1.5)

* 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 in 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.

Table 6. International conditions

Annual percentage change unless otherwise specified

GDP	PPP weights	KIX weights	2019	2020	2021	2022	2023
Euro area	0.12	0.48	1.5 (1.3)	-6.5 (-6.7)	5.3 (4.9)	4.4 (4.3)	1.8 (1.8)
United States	0.16	0.08	2.3 (2.2)	-3.4 (-3.5)	6.1 (6.8)	4.0 (4.0)	2.0 (2.0)
Japan	0.04	0.02	0.0 (0.3)	-4.7 (-4.9)	2.6 (2.8)	2.2 (2.4)	1.8 (1.8)
China	0.18	0.09	6.1 (6.1)	2.0 (2.0)	9.1 (8.5)	5.8 (5.6)	5.6 (5.6)
KIX weighted	0.75	1.00	2.2 (2.1)	-4.9 (-5.0)	5.4 (5.0)	4.3 (4.2)	2.4 (2.4)
The World (PPP)	1.00	—	2.9 (2.8)	-3.3 (-3.3)	6.2 (6.2)	4.6 (4.5)	2.7 (2.7)

Note. Calendar-adjusted growth rates. PPP weights refer to purchasing-power adjusted GDP weights in the world for 2020, according to the IMF. KIX weights refer to weights in the Riksbank's krona index (KIX) for 2021. 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)	2.2 (1.9)	1.8 (1.4)	1.5 (1.5)
United States	1.8 (1.8)	1.2 (1.2)	4.3 (4.0)	3.1 (2.7)	2.3 (2.3)
Japan	0.5 (0.5)	0.0 (0.0)	-0.3 (0.2)	0.4 (0.5)	0.4 (0.4)
KIX weighted	1.8 (1.8)	1.1 (1.1)	2.3 (2.1)	2.1 (1.8)	1.9 (1.8)

	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)	-0.2 (-0.2)
Crude oil price, USD/barrel Brent	64.1 (64.1)	43.3 (43.3)	68.0 (67.5)	67.5 (67.1)	64.0 (63.6)
Swedish export market	2.6 (2.5)	-8.2 (-8.3)	8.3 (8.4)	6.6 (6.5)	3.8 (3.8)

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 7. Summary of financial forecasts

Per cent unless otherwise stated, annual average

	2019	2020	2021	2022	2023
Repo rate, per cent	-0.3 (-0.3)	0.0 (0.0)	0.0 (0.0)	0.0 (0.0)	0.0 (0.0)
10-year rate, per cent	0.1 (0.1)	0.0 (0.0)	0.3 (0.4)	0.5 (0.8)	0.8 (1.1)
Exchange rate, KIX, 18 Nov 1992 = 100	122.1 (122.1)	118.5 (118.5)	114.3 (113.8)	114.5 (113.7)	113.8 (113.1)
General government net lending*	0.6 (0.6)	-2.8 (-3.0)	-1.6 (-2.0)	-0.3 (-0.3)	0.2 (0.4)

* Per cent of GDP

Sources: Statistics Sweden and the Riksbank.



SVERIGES RIKSBANK

Tel +46 8 - 787 00 00

registratorn@riksbank.se

www.riksbank.se

PRODUCTION SVERIGES RIKSBANK

ISSN 2000-2076 (online)