

# Monetary Policy Report

September 2019





## Monetary Policy Report

The Riksbank's Monetary Policy Report is published six times a year. The report describes the deliberations made by the Riksbank when deciding what is an appropriate monetary policy.<sup>1</sup> 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, 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 4 September 2019. The report may be downloaded in PDF format from the Riksbank's website [www.riksbank.se](http://www.riksbank.se), where more information about the Riksbank can also be found.

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<sup>1</sup> 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 (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 through 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 1 to 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 six 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 THE MONETARY POLICY DECISION

The monetary policy decision is presented in a press release at 9:30 a.m. on the day following the monetary policy meeting. The press release also states how the individual Executive Board members voted and provides the main motivation for any reservations entered. A press conference is held on the day following the monetary policy meeting.

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## CHAPTER 1 – Monetary policy considerations

Since the Monetary Policy Report in July, the real economy and inflation abroad have mainly developed in line with the Riksbank's forecast. Sentiment, however, has deteriorated over the year. Market rates have fallen substantially and inflation expectations have also fallen, above all in the euro area. Several central banks have cut their policy rates or communicated that monetary policy may be made more expansionary. Additional monetary policy stimulation measures are now also being assumed in the Riksbank's forecast, meaning that revisions of the prospects for the real economy and inflation are small.

As in the rest of the world, the Swedish economy has entered a calmer growth phase. Economic activity remains strong, but compared with the assessment made in July, GDP growth has become slightly lower and the recent unexpectedly weak development of the labour market indicates that the high level of resource utilisation will normalise slightly faster over the forecast period. If anything, inflation has become higher than expected, with conditions remaining in place for it to remain close to 2 per cent in the period ahead too. In line with the forecast from July, the repo rate will be held unchanged at -0.25 per cent and the forecast indicates that the next increase will take place towards the end of the year or at the start of next year. Low interest rates abroad and the worsened sentiment underline the importance of proceeding cautiously with monetary policy. The economic prospects are based on the repo rate being raised at a slower rate in the period ahead than in the previous forecast. The expansionary monetary policy emphasises the Riksbank's aim to safeguard the role of the inflation target as nominal anchor for price setting and wage formation.

### Greater uncertainty and lower level of international interest rates

#### Global economic activity subdued

GDP growth abroad, which has been strong for several years, has slowed down and is expected to be approximately in line with the historical average over the next few years. The extended period of high growth has resulted in resource utilisation in the most important countries for Swedish exports becoming higher than normal. However, inflation has developed weakly and inflation expectations have fallen, above all in the euro area.

The risk of a faster slowdown in the world economy has increased. Among other things, this is linked to the trade conflict between the United States and China, as well as uncertainties surrounding the United Kingdom's withdrawal from the EU, which risk having powerful negative effects on global economic activity. However, it is very difficult to put a value on these risks and they are therefore largely outside of the forecast described in this report.

In the wake of unease over economic activity and inflation, market rates have fallen substantially over the year. Several central banks have cut their policy rates or communicated that monetary policy may be made more expansionary. Market pricing indicates that market participants expect powerful

Table 1:1.

Important factors for monetary policy
Monetary policy stimuli are giving continued support to the global economic outlook, but the risk of a faster slowdown has increased.
As in the rest of the world, the Swedish economy has entered a phase with a calmer growth rate.
Even though economic activity has slowed down a little faster than expected, resource utilisation continues to be higher than normal and is contributing to inflation also being close to 2 per cent in the period ahead. Long-term inflation expectations have fallen slightly over the year but remain close to 2 per cent.
Conclusion: The repo rate will be held unchanged at -0.25 per cent. The forecast for the repo rate indicates that the next increase in the rate will be towards the end of the year or at the beginning of next year. The economic prospects are based on the repo rate subsequently being raised at a slower rate than in the previous forecast.

Table 1:2.

Important forecast revisions since July MPR
The forecast for policy rates abroad has been revised down. The additional monetary policy stimulation measures will counteract the worsened sentiment and, all in all, the forecasts for GDP and inflation abroad are largely unchanged.
Slightly lower employment and higher unemployment in Sweden due to weaker outcomes than expected. Slightly faster normalisation of resource utilisation over the forecast period.

monetary policy stimulation measures. All in all, the financial conditions abroad remain expansionary, which is contributing towards holding up growth and inflation.

**Swedish economy in a calmer growth phase, resource utilisation becoming normalised**

The development of economic activity in Sweden resembles that in the rest of the world. After several years of high GDP growth, growth has now slowed down (see Figure 1:2). Confidence indicators have fallen and together indicate growth close to or slightly below normal levels in the quarters ahead. The development of the labour market has also slowed down and the employment rate has fallen slightly from a historically high level. Other measures of demand for labour, such as companies' recruitment plans and newly registered job openings give a slightly stronger picture, however. Even if economic activity is entering a calmer phase and resource utilisation has started to become normalised, the level of activity in the economy is still higher than normal.

**Inflation at target**

High resource utilisation with rising cost pressures in the Swedish economy, the recent years' weakening of the krona and rising energy prices have contributed to inflation having been close to the target of 2 per cent since the start of 2017 (see Figure 1:3). The Riksbank's different measures of core inflation also indicate that the permanent part of the inflation rate is close to 2 per cent. The very recent weak development of energy prices has led inflation, as expected, to fall back (see Figure 1:4). Towards the end of the year, inflation is expected to be close to 2 per cent again, among other things due to the earlier depreciation of the krona. Continued higher than normal resource utilisation is contributing towards inflation being expected to remain close to 2 per cent in the period ahead too.

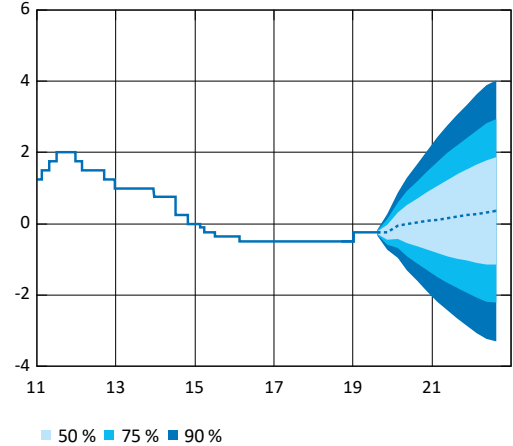
**Current monetary policy**

With a long period with a negative repo rate and extensive purchases of government bonds, monetary policy has contributed to resource utilisation in the Swedish economy being high in recent years and inflation being close to the target, at the same time as inflation expectations have been close to 2 per cent. Given this, the Riksbank raised the repo rate in December 2018 from -0.50 per cent to -0.25 per cent. The net purchases of government bonds were concluded in December 2017 and since then the Riksbank has upheld the level of its government bond holdings.

**Good economic activity in Sweden but lower global level of interest rates**

Since the Monetary Policy Report in July, the development of the real economy and inflation abroad have been largely in line with expectations. Sentiment, however, has deteriorated over the

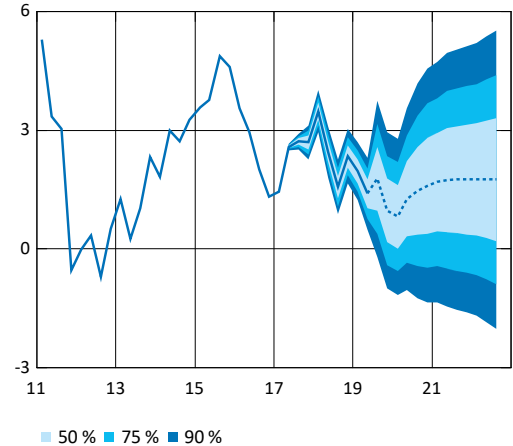
**Figure 1:1. Repo rate with uncertainty bands**  
Per cent



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

Source: The Riksbank

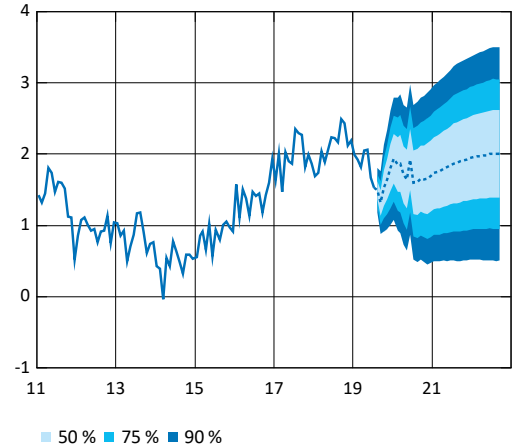
**Figure 1:2. GDP with uncertainty bands**  
Annual percentage change, seasonally-adjusted data



Note. The uncertainty bands are based on the Riksbank's historical forecasting errors. The reported outcomes for GDP are also uncertain, as the National Accounts figures are revised several years after the first publication.

Sources: Statistics Sweden and the Riksbank

**Figure 1:3. CPIF with uncertainty bands**  
Annual percentage change



Note. The uncertainty bands are based on the Riksbank's historical forecasting errors.

Sources: Statistics Sweden and the Riksbank



year. Market rates have fallen substantially and inflation expectations have also fallen, above all in the euro area. Several central banks have cut their policy rates or communicated that monetary policy may be made more expansionary. The Riksbank's forecasts for international policy rates have therefore been revised downwards. All in all, the additional monetary policy stimulation measures mean that revisions of the international forecasts for the real economy and inflation are small.

For some time, the Riksbank has held the view that economic activity in Sweden would peak in 2018 and thereafter slow down. Compared with the forecast in the Monetary Policy Report in July, GDP growth has been a little lower than expected and the slowdown on the labour market looks like taking place slightly faster than in the earlier assessment. In recent months, employment growth has become lower, and unemployment higher, than expected and the forecasts take account of this. Economic activity, however, remains strong, even if resource utilisation will become normalised a little faster over the forecast period. Inflation outcomes have been, if anything, higher than expected and the prospects are largely unchanged (see Figure 1:5).

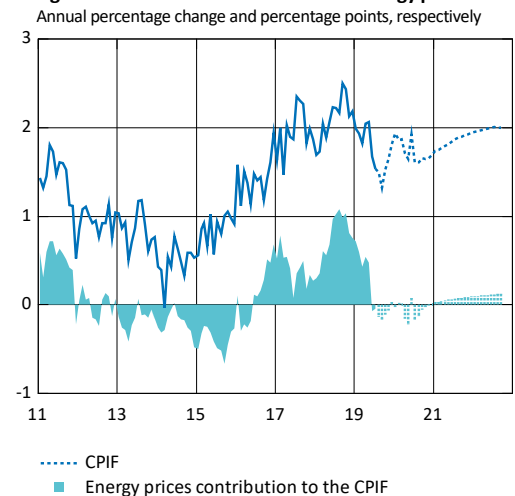
#### Continued target fulfilment with rate rises at a slower pace

The economic prospects are based on monetary policy, as abroad, continuing to be expansionary and the repo rate being raised very slowly in the period ahead. The downturn in foreign and Swedish bond yields that has occurred over the year indicates that global interest rates will be low for an even longer period to come. Low interest rates abroad and the worsened sentiment underline the importance of proceeding cautiously with monetary policy. The forecast for the repo rate has therefore been revised downwards (see Figure 1:6). The real repo rate is expected to be negative over the entire forecast period (see Figure 1:7).

The expansionary monetary policy has contributed to resource utilisation in the Swedish economy becoming higher than normal and to inflation, since the start of 2017, having been close to the Riksbank's inflation target of 2 per cent. The measured rate of inflation is affected by both temporary and more persistent price variation. The Riksbank's different measures of core inflation indicate that the more permanent part of inflation has gradually risen. So far this year, the median of these measures has been close to 2 per cent (see Figure 3:3). According to Prospera's survey, over the year, the money market participants' long-term inflation expectations have fallen slightly. However, this downturn is fairly small and the overall view of long-term expectations is that they are still close to 2 per cent (see the article "Inflation expectations in Sweden close to 2 per cent").

Even though economic activity has slowed down a little faster than expected, resource utilisation will continue to be higher than normal in the next few years and is contributing to inflation

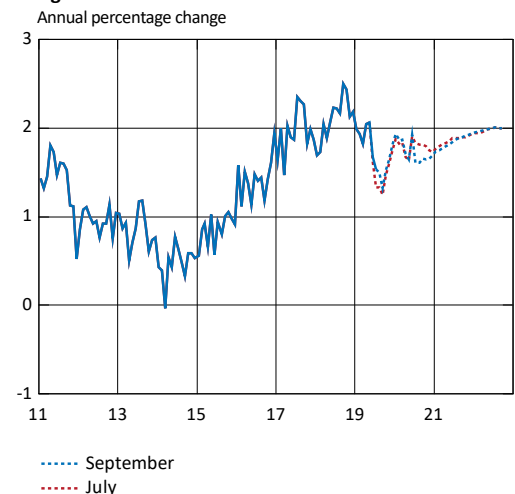
**Figure 1:4. CPIF and contribution from energy prices**



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.

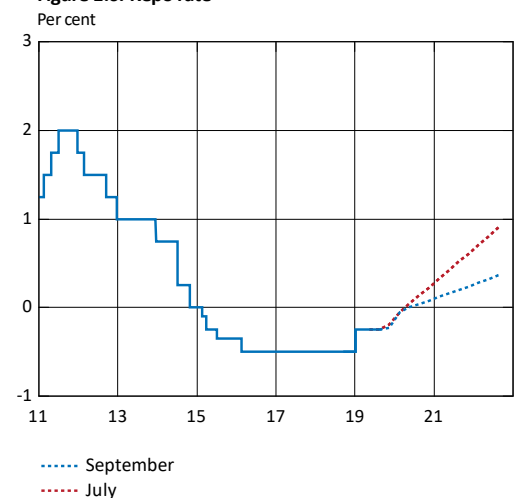
Sources: Statistics Sweden and the Riksbank

**Figure 1:5. CPIF**



Sources: Statistics Sweden and the Riksbank

**Figure 1:6. Repo rate**



Note. Outcomes are daily data and the forecasts refer to quarterly averages.

Source: The Riksbank

also being close to 2 per cent in the period ahead. The low level of interest rates will continue to support the economic outlook and inflation. The fact that developments have been approximately in line with the Riksbank's forecast argues in favour of keeping, at present, to the previously communicated direction of monetary policy over the next six months. In line with the assessment in July, the repo rate will therefore be held unchanged at -0.25 per cent. The forecast for the repo rate indicates that the next increase in the rate will be towards the end of the year or at the beginning of next year.

All in all, the economic prospects and risk outlook suggest that the repo rate will be raised slightly over the forecast period, but at a slower rate than previously assumed. Major risks to the development of the economy remain, not least due to the ongoing trade conflict and uncertainties surrounding the United Kingdom's withdrawal from the EU. The forecasts consider that there has been a deterioration of sentiment but assume that there will not be any further significant downturns in confidence among households and companies abroad and in Sweden. Should the economic outlook and inflation prospects change, monetary policy in the period ahead will be adjusted.

**The Riksbank will continue to purchase government bonds**

The repo rate is the primary tool for monetary policy. However, as a complementary monetary policy measure, the Riksbank has also purchased a significant volume of nominal and real Swedish government bonds. At the end of August, the holdings were about SEK 320 billion as a nominal amount. To retain an appropriate level of bond holdings and the Riksbank's presence on the market, the Executive Board decided in April that from July 2019 to December 2020 the Riksbank will purchase government bonds for a total nominal amount of SEK 45 billion (see Figure 1:8). The decision means that the Riksbank maintains holdings close to the average level since the beginning of 2018, when the net purchases were concluded (see Figure 1:9). That the Riksbank is continuing to purchase government bonds to maintain the level of its holdings is in line with the strategy for gradually normalising monetary policy that was communicated earlier.<sup>2</sup>

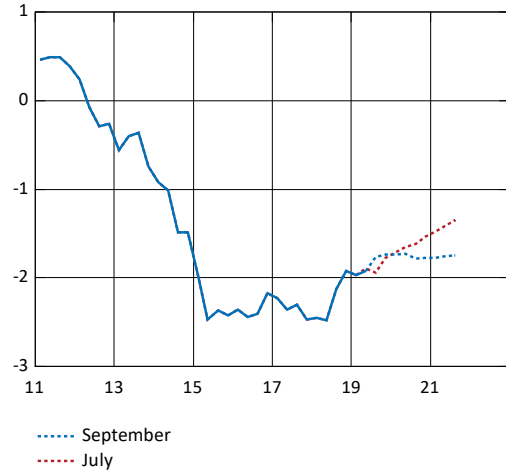
The Executive Board will determine in good time whether it is appropriate to continue purchasing government bonds after December 2020. In the long term, the holding is expected to be smaller than it is today. The Riksbank will adapt the details regarding the normalisation of monetary policy with consideration to how the economy develops.

**Uncertainty and risks**

Forecasts of future economic developments are always uncertain, as illustrated by the uncertainty bands in Figures 1:1–

<sup>2</sup> See the article "The Riksbank's strategy for a gradual normalisation of monetary policy" in the December 2017 Monetary Policy Report.

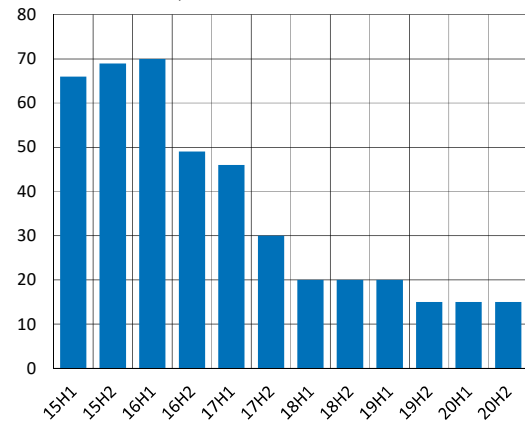
**Figure 1:7. Real repo rate**  
Per cent, quarterly averages



Note. The real repo rate is the Riksbank's expected real interest rate, calculated as a mean value of the Riksbank's repo rate forecast for the year ahead minus the inflation forecast (CPIF) for the corresponding period. Outcomes are based on the latest forecasts at that time.

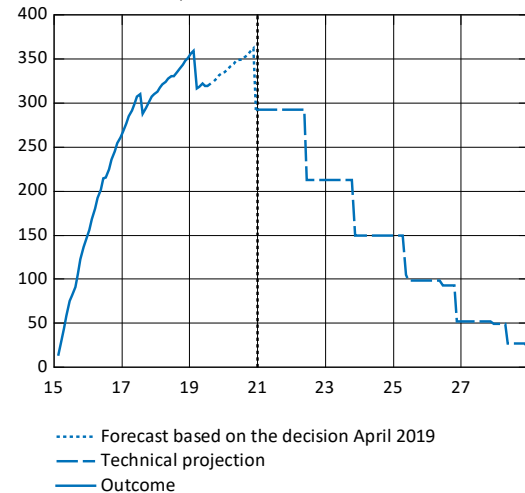
Source: The Riksbank

**Figure 1:8. The Riksbank's purchases of government bonds**  
Nominal amounts, SEK billion



Source: The Riksbank

**Figure 1:9. The Riksbank's holdings of government bonds**  
Nominal amounts, SEK billion



Note. Forecast up until December 2020, after that a technical projection with the assumption that no further purchases are made. The vertical line marks the shift between the forecast and technical projection.

Source: The Riksbank

1:3. In principle, in the Riksbank's forecasts, the risks of both stronger and weaker development shall be balanced. However, it is difficult to assess the likelihood of future events and the consequences they might have should they occur. Neither is it obvious how monetary policy should relate to uncertainty and risks. There are occasions on which monetary policy deliberations may wish to pay particular attention to certain risks, the consequences of which may have a severe impact on economic development. However, on other occasions, it may be necessary to await more information before adjusting monetary policy.

### **Uncertainty over economic developments**

Sweden is a small, open economy, meaning that developments abroad have great significance for the economic outlook.

Uncertainty over the development of the global economy remains high. Three factors have dominated the risk outlook in recent years: the trade conflict between the United States and China, uncertainty over the United Kingdom's withdrawal from the EU and developments in Italy.

The trade conflict between the United States and China is continuing to create significant uncertainty over world trade and global growth. Above all, a continued escalation of the trade conflict would risk restraining growth further in the Chinese economy, which has been an important driving force behind global economic activity for a long time. More countries and regions may also come to be involved in trade conflicts, which could have significant repercussions for Swedish growth.

Uncertainty over the United Kingdom's withdrawal from the EU has increased further since July. The risk that the United Kingdom will leave the EU without an agreement at the end of October is deemed to have increased, not least because the new Prime Minister, Boris Johnson, has declared that he is not afraid of such an alternative.

In Italy, political intrigues over governmental power in recent weeks have caused fluctuations in yields for the country's government bonds. These market movements illustrate the uncertainty existing among investors over the sustainability of public finances. Italy has high public debt and growth has long been impeded by structural problems in the economy. In addition, significant challenges remain within the country's banking sector. Developments in Italy are therefore deemed to continue to form a risk to economic activity in Europe.

Geopolitical tensions in the Middle East are also contributing towards increasing uncertainty over the economic outlook abroad in the period ahead, among other things due to their effects on the price of oil.

In addition to economic risks abroad, there is also uncertainty over domestic demand. For some time, household consumption has shown signs of weakness, which are coinciding with a decline in consumer confidence. However, confidence seems to have stabilised in recent months around the new, lower level. Among other things, the Riksbank's forecast is based on the assumption that the current high saving will fall slightly in the period ahead so

that growth in household consumption can be maintained. However, different sources of statistics provide slightly different views of how high saving, and thus the resilience of households, actually is.<sup>3</sup>

One risk factor that the Riksbank has long highlighted, and which could trigger a weaker development than in the Riksbank's forecast, is a fall in housing prices. After the decline in the autumn of 2017, housing prices have recovered to some extent (see Figure 1:10). The moderate rate of price rises seen over a period may have contributed to a stabilisation of the housing market and have reduced the risks of a strong correction. According to the Riksbank's forecast, prices will continue to rise weakly. However, the future development of housing prices is very uncertain. If prices should turn down again, both housing investment and household consumption would risk a weaker development than expected.

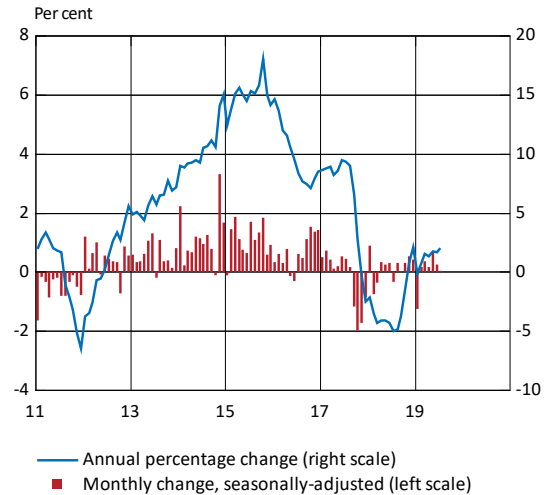
### Uncertainty over forecast for inflation in Sweden

The risks that are affecting Swedish growth prospects could also lead to a different outcome for inflation in comparison with the Riksbank's forecast. Most of the risks reflect weaker demand and would lead to inflation becoming lower than expected. However, through changed trade flows and rising production costs, the trade conflict could restrain production capacity abroad and in Sweden. This could lead to higher inflation than expected.

However, even if the economic outlook is largely realised, inflation may be either higher or lower than in the Riksbank's forecast. One source of uncertainty is the development of domestic cost pressures. Despite strong development in economic activity in recent years, wage increases in Sweden have remained low. According to the Riksbank's forecast, the rate of wage increases is expected to rise over the next few years, among other things because the wage bargaining round in 2020 will take place in a situation where the labour market has been strong and inflation close to 2 per cent for several years. However, both the conditions for negotiation and their outcome is, naturally, uncertain. The level of domestic cost pressures is determined by the development of wages in relation to productivity, which is usually measured using unit labour costs. In recent years, productivity in Sweden has grown strikingly slowly, meaning that unit labour costs have increased faster than normal. In the period ahead, unit labour costs are expected to increase at a historically normal rate of around 2 per cent per year. Behind this development lie both slightly faster productivity growth and a slightly higher rate of wage increases. However, the uncertainty surrounding both wages and productivity is together making it harder to assess future domestic cost pressures.

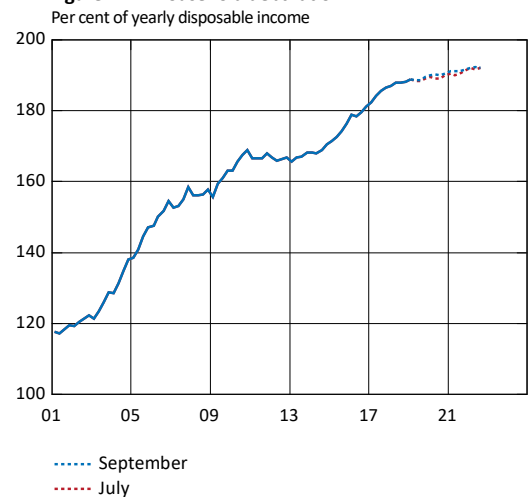
The Swedish krona is another uncertainty. This is not just a matter of actual exchange rate movements but also of how the exchange rate affects Swedish inflation. One factor that affects

Figure 1:10. House prices according to HOX Sweden



Sources: Valueguard and the Riksbank

Figure 1:11. Household debt ratio



Note. Households' total debts as a share of their disposable income totalled over the past four quarters.

Sources: Statistics Sweden and the Riksbank

<sup>3</sup> Data from the Financial Accounts indicates that saving is not so high, and Statistics Sweden has communicated that saving will be revised downward in its review of the National Accounts to be published in September.

the krona exchange rate is monetary policy abroad. In the euro area, the ECB has signalled that monetary policy may be made more expansionary in the period ahead. However, the extent and form of this stimulation are presently unclear. In the United States, the Federal Reserve has already cut its policy rate, among other things in light of weaker inflationary pressures. All other factors being equal, a more expansionary monetary policy abroad should strengthen the krona exchange rate. At the same time, factors such as the trade conflict between the United States and China have increased uncertainty on the international financial markets. In such an environment, the krona tends to depreciate. The krona could thus become either stronger or weaker than forecast by the Riksbank.

Difficulties in estimating the impact of the exchange rate on inflation form an uncertainty factor for the forecast. The way that the krona affects consumer prices is determined by a number of factors, which makes the relationship between the exchange rate and inflation more complicated.<sup>4</sup>

All in all, there are thus a number of factors that could lead to either lower or higher inflation than is now being assumed. The Riksbank is prepared to adapt its monetary policy if the inflation prospects were to change.

### **The Swedish housing market is characterised by comprehensive structural problems that need to be managed**

Household debt as a percentage of disposable income is expected to continue increasing somewhat in the coming years (see Figure 1:11). This contributes to increased macroeconomic risks in Sweden. Highly indebted households are sensitive to factors such as falling housing prices and rising interest rates, which can have negative consequences on their consumer demand. Finansinspektionen's amortisation requirements provide an example of a measure aimed at reducing these risks over the long term.<sup>5</sup>

It is important to point out that the Swedish housing market is characterised by a number of structural problems. These do not just create risks in the form of indebtedness among households, but can also hamper the efficiency of the Swedish economy, among other things by making it harder to move to a new home to find work. Addressing these structural problems will therefore require comprehensive reform work within housing and tax policy. Feasible measures include reviewing the regulations regarding the new production of housing, as well as the rent-setting system, the taxation of capital gains from housing property sales and also property tax and tax relief on interest expenditure.

### **Side-effects of monetary policy**

The Riksbank continuously analyses the effects on the economy of the negative repo rate and the government bond purchases. Low interest rates can create incentives for substantial risk-taking in the economy. Assets may become overvalued, risk may be incorrectly priced and the indebtedness of various agents may increase in an unsustainable manner. The increase in Swedish household indebtedness has long been a cause for concern. Among other factors, the increase is due to structural problems on the housing market and the falling trend for real interest rates in Sweden and abroad, while the expansionary monetary policy has also contributed. Several years of rapidly rising housing prices and heavily increased indebtedness have made households sensitive to both price falls on the housing market and rising interest costs. It is therefore important to increase households' resilience in different ways and to limit the risks of their high indebtedness.

The functioning of the financial markets may be affected by a negative repo rate and government bond purchases. So far, the markets have been able to manage negative interest rates relatively smoothly. The Riksbank's purchases of government bonds have meant that a large proportion of the stock is not available for trade on the market. According to the Financial markets survey published by the Riksbank in June, just over half of the respondents thought that liquidity on the government bond market was poor or very poor. Among the respondents, market makers tend to be more negative in their view of the functioning of the market when compared with investors. However, they considered that other markets where the participants can manage interest rate risk were functioning well.

The negative interest rates have not led to a greater demand for cash. The value of outstanding banknotes and coins is much lower now than when the repo rate first became negative. It is still only a small portion of borrowing that takes place at negative interest rates and then only from certain larger companies and parts of the public sector. The Swedish banks' profits have been high and stable in recent years and although there are differences between the banks, profitability is good overall. The banks' results and lending capacity have not been tangibly affected by low and negative interest rates.

The Riksbank's overall assessment is that the side effects of a negative policy rate and government bond purchases have so far been manageable.

<sup>4</sup> See the article "The significance of the krona for inflation" in the Account of monetary policy 2018.

<sup>5</sup> An evaluation carried out by Finansinspektionen makes the assessment that the requirements have largely had the intended effect. See Finansinspektionen, "Finansinspektionens arbete med makrotillsyn" (Finansinspektionen's work on macroprudential policy), 2019.

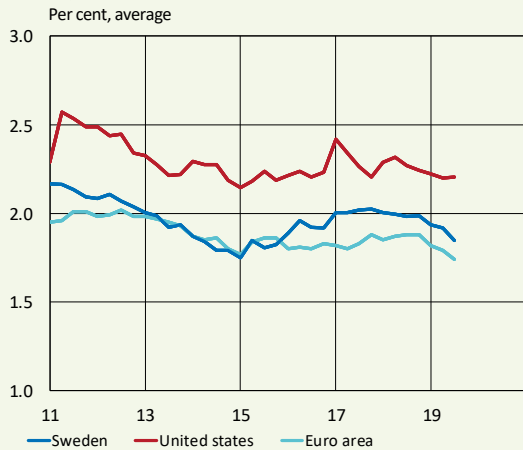
## ARTICLE – Inflation expectations in Sweden close to 2 per cent

Long-term inflation expectations are a measure of the amount of confidence various participants in the economy have in the inflation target. According to both pricing on the financial markets and survey-based measures, long-term inflation expectations have risen in Sweden since 2015 and the overall view is that they have been close to 2 per cent for a few years. This development differs from other countries where expectations have developed weakly, particularly in the euro area.

Monetary policy aims to stabilise inflation around the inflation target with the goal of creating stability and predictability in price setting and wage formation. To reach the target, it is important that participants in the economy trust the central bank to return inflation to the target after shocks resulting in target deviations. Long-term inflation expectations that do not deviate too much from the target can be seen as a sign that participants have such confidence in monetary policy.

In Sweden, long-term inflation expectations have risen since 2015 and have been close to 2 per cent in recent years. This concerns long-term expectations measured both in surveys and from pricing on the financial markets (see Figures 1:12 and 1:13). This development coincides with a rise in inflation and differs from developments abroad, where expectations have developed more weakly, particularly in the euro area.

**Figure 1:12. Survey based measures of long-term inflation expectations**

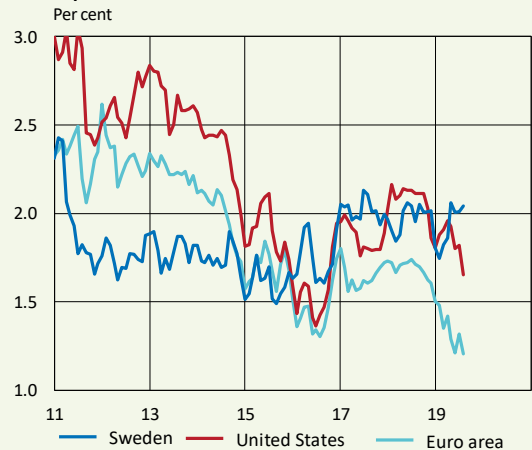


Note. Sweden: Expectations 5 years ahead from money market participants, calculated on a quarterly basis. Euro area and United States: Expectations according to the ECB's and Federal Reserve Bank of Philadelphia's Surveys of Professional Forecasters.  
Sources: Kantar Sifo Prospera, ECB and Federal Reserve Philadelphia

According to Prospera's survey, money market participants' inflation expectations 5 years ahead have fallen back slightly in Sweden over the year. However, this downturn is fairly small. In the most recent measurement to be published in August, money market participants expected CPI inflation to be 1.8 per cent in 5 years (see Figure 1:14). For a larger group

of respondents, which includes the business sector and social partners, the downturn in long-term inflation expectations is even smaller (see Figure 1:14). According to both pricing on the financial markets and survey-based measures, long-term inflation expectations are close to 2 per cent.

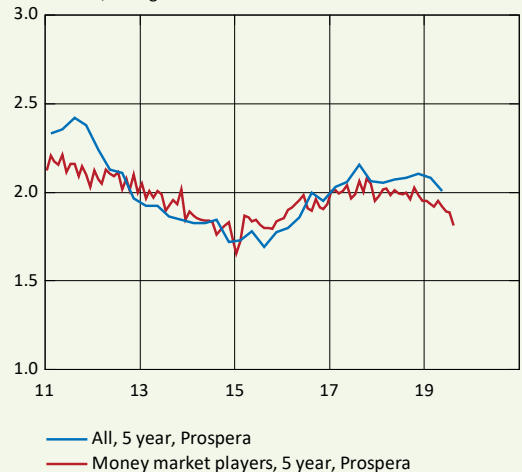
**Figure 1:13. Market-based measures of long-term inflation expectations**



Note. Inflation expectations refer to a 5-year period starting in 5 years' time. For the United States and Sweden, these are calculated on the basis of bond yields. For the euro area, they are calculated on the basis of inflation swaps.

Sources: Bloomberg, Macrobond and the Riksbank

**Figure 1:14. Long-term inflation expectations, Sweden**



Source: Kantar Sifo Prospera

## CHAPTER 2 – Financial conditions

Since the end of 2018, the development on the financial markets has been affected by worsened sentiment in the global economy and the downward adjustment of market participants' expectations of future policy rates. This development has continued since the July Monetary Policy Report. Internationally, bond yields and long-term inflation expectations according to several different measures have fallen. In the United States, the Federal Reserve has cut its policy rate, while the European Central Bank (ECB) has signalled that monetary policy in the euro area may be made more expansionary already in the start of the autumn. Market participants also expect monetary policy to become more expansionary, both in the United States and in the euro area. The overall view is that long-term inflation expectations in Sweden have been close to 2 per cent for a few years now. This development differs from other countries where expectations have developed weakly, particularly in the euro area. However, in Sweden too, market participants have adjusted their forecasts of future interest rate levels downwards, at the same time as bond yields with longer maturities have fallen. Over the summer, the krona has shown weaker development than expected. The financial conditions in Sweden thus remain expansionary and are contributing support to economic development.

### International developments

Since the end of 2018, the mood in the global economy has worsened, which has marked the development of the financial markets. One important factor for the worsened mood is the ongoing trade conflict between the United States and China. Market participants have adjusted their expectations of future policy rates downwards and bond yields have fallen since the end of last year (see Figure 2:1). Falling long-term inflation expectations have also contributed towards the downturn in nominal bond yields, particularly in the euro area, where underlying inflation has been low for a longer period (see Figure 2:2).

Since the monetary policy meeting in July, the trade conflict between the United States and China has continued and developments on the financial markets indicate that market participants deem that the risk of a clear global economic slowdown has increased. Many investors have turned to safer assets, with falling equity prices and rising bond prices as a result. Bond yields fall when bond prices rise (see Figure 2:3). Risk premiums, in the form of differences in yield between high-risk and safer assets, have risen slightly.

Table 2:1.

Developments on the financial markets since the Monetary Policy Report was published in July
Market participants' expectations of future policy rates have fallen both in Sweden and abroad.
Government bond yields have fallen both in Sweden and abroad.
The krona exchange rate is weaker.
Share indices in Sweden and abroad are slightly lower and volatility is slightly higher.

#### The transmission mechanism - from the repo rate to interest rates for households and companies

The repo rate has a direct effect on short-term interbank rates and government bond yields via the overnight rate. Expectations regarding the future repo rate and government bond purchases affect the development of longer-term government bond yields, which are also influenced by foreign yields. Government bond yields act as an anchor for other types of bond yields, which in turn affect banks' funding costs. This ultimately affects the lending rates for households and companies.



Over the summer, the ECB indicated that monetary policy could be made more expansionary and the US central bank, the Federal Reserve, cut its policy rate at the end of July. Although participants on the financial markets deem that the economic risks have increased, equity prices in most developed economies remain higher than at the start of the year. Both risk premiums and volatility have risen over the summer but are still lower than, or approximately in line with, their historical average.

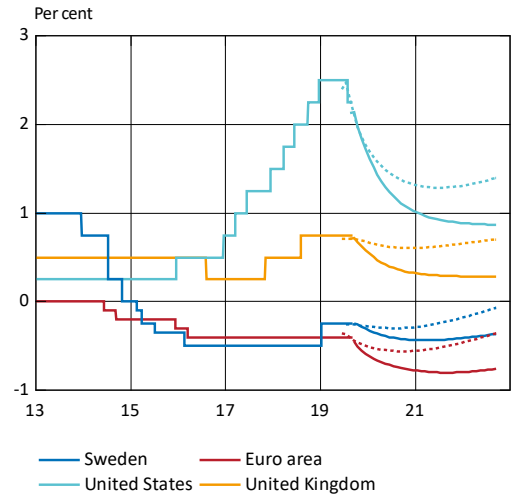
**The ECB indicates a more expansionary monetary policy**

At its monetary policy meeting in July, the European Central Bank (ECB) decided to hold its policy rates unchanged and to continue to reinvest principal payments in the asset portfolio. In conjunction with the decision, the ECB communicated its intention to take measures to make monetary policy more expansionary in the event that inflation prospects in the medium term continue to fall short of target. The measures being considered include being even clearer in guidance concerning the future level of interest rates, making changes to the framework for the implementation of monetary policy to prevent the banks from facing negative interest rates on their entire deposits in the ECB, and investigating various alternatives for the asset purchase programmes. It also communicated that policy rates will be held at current levels, or lower, until at least the first half of 2020. Compared with the monetary policy decision taken in June, the ECB emphasised that policy rates can also be cut. Market participants interpreted the decision as a clear signal from the ECB that monetary policy will become more expansionary in September of this year.

The US Federal Reserve cut the target interval for its policy rate by 0.25 percentage points, to 2.00–2.25 per cent in conjunction with its monetary policy meeting at the end of July. The Federal Reserve also announced that the scaling back of its balance sheet would be concluded in July, and not in September, as previously announced. The actual decision to cut the policy rate at the meeting in July was in line with market participants' expectations. On the other hand, the Federal Reserve gave no clear indications of further cuts, as some market participants had expected. Pricing on the financial markets indicates that the participants expect several further cuts to the policy rate over the coming year (see Figure 2:1). In various surveys too, market participants say that they expect cuts of the policy rate in the United States, although not as much as market pricing indicates.

In the United Kingdom, the central bank, the Bank of England, has announced that the direction for its monetary policy will be affected to a great extent by the uncertainty surrounding the United Kingdom's withdrawal from the EU and the consequences this will have for the British economy. The new prime minister has declared that he is not afraid of a disorderly no-deal withdrawal at the end of October. Since the monetary policy report was published in July, pricing on the financial markets has also changed and now indicates that market participants expect the policy rate to be cut in the period ahead (see Figure 2:1).

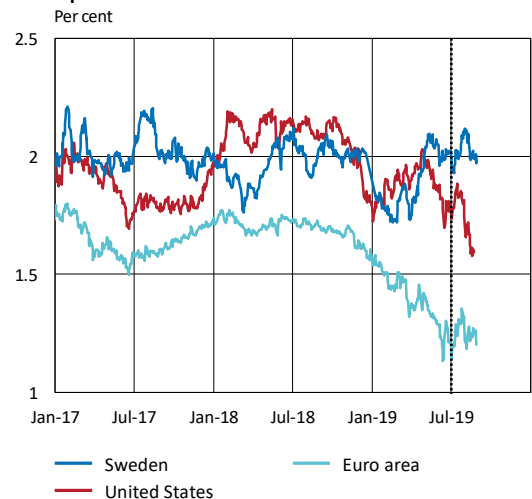
**Figure 2:1. Policy rates and rate expectations according to forward rates**



Note. Forward rates describe the expected overnight rate. Unbroken lines refer to 2 September 2019, broken lines refer to 28 June 2019.

Sources: The national central banks, Macrobond and the Riksbank

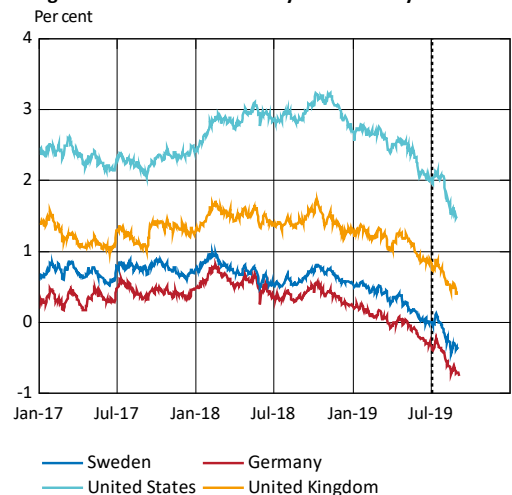
**Figure 2:2. Market-based measures of long-term inflation expectations**



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

Sources: Bloomberg, Macrobond and the Riksbank

**Figure 2:3. Government bond yields with 10 years to maturity**



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

Sources: The national central banks and the Riksbank



In light of the increased uncertainty over global economic developments, the Australian central bank cut its policy rate at the start of July. At the start of August, the central bank of New Zealand also cut its policy rate with a similar justification. The view that monetary policy in small, open economies has been redirected in a more expansionary direction is not clear-cut, however. In the spring, the Czech National Bank raised its policy rate, while Norges Bank raised its policy rate at the start of the summer. At its monetary policy meeting in August, Norges Bank gave no indication of changes to its plan to raise the rate further.

**Long-term inflation expectations have fallen in the euro area**

Expectations that monetary policy will be made more expansionary have led bond yields abroad to continue to fall over the summer (see Figure 2:3). The development of inflation has been weaker than expected, in particular in the euro area, but also in the United States. Both the ECB and the Federal Reserve have emphasised the development of inflation in conjunction with the summer’s monetary policy decisions. Various market-based measures indicate that the long-term inflation expectations in the euro area and United States have fallen below the rate of inflation targeted by the central banks (see Figure 2:2). Various surveys among market participants also make clear that long-term inflation expectations have fallen (see Figure 2:4). The Fed has expressed some unease over this and, at its July meeting, the ECB emphasised that, for a time, both actual and expected inflation has been lower than what they consider compatible with the target for price stability in the euro area.

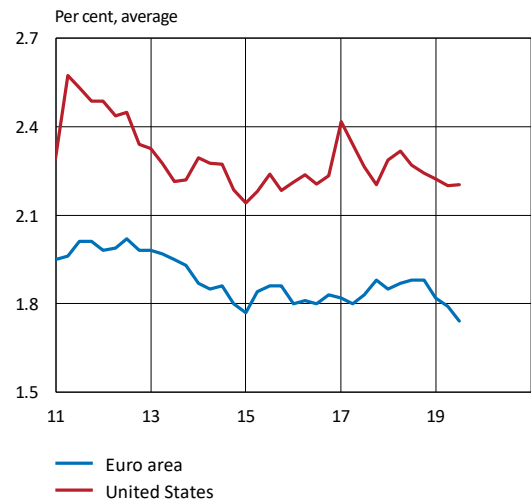
Bond yields have also fallen as a consequence of rising demand for bonds as investors turn to safer assets. German bond rates are now on negative levels for maturities of up to 30 years. The differences between yields for Italian and German bonds rose slightly at the start of August due to political unease connected to the formation of a government in Italy but has since then fallen and are now lower than at the start of the year (see Figure 2:5).

As the Federal Reserve had previously made monetary policy less expansionary, bond yields in the United States are higher than in Germany. However, the slope of the US yield curve is negative and some market participants are interpreting this as an indication that there is a risk of a recession.

**Volatile stock market movements over the summer**

The increasing unease over global economic developments has led prices on the stock market to fall over the summer (see Figure 2:6). Volatility on the bond market and on the stock market in the United States has increased, but is still lower or approximately in line with its historical average (see Figure 2:7). The credit markets have also been affected by the worsened mood. Yields for higher-risk bonds have fallen over the summer but yields for government bonds have fallen even more. These yield differentials make up measures of risk premiums, which have risen since the Monetary Policy Report was published in July. Just

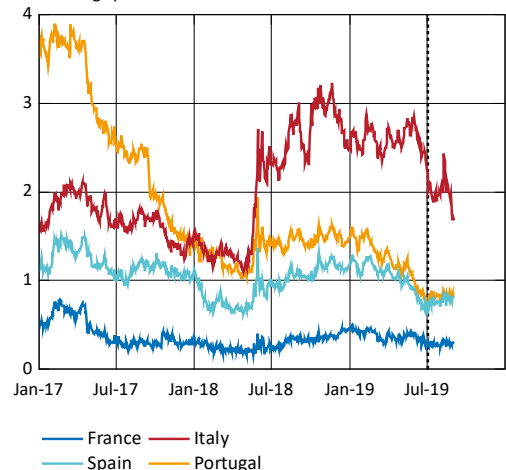
**Figure 2:4. Inflation expectations over the long term in the euro area and United States**



Note. Expectations according to the ECB’s and Federal Reserve Bank of Philadelphia’s Survey of Professional Forecasters, inflation according to the HICP 5 years ahead and CPI 10 years ahead, respectively.

Sources: ECB and Federal Reserve Bank of Philadelphia

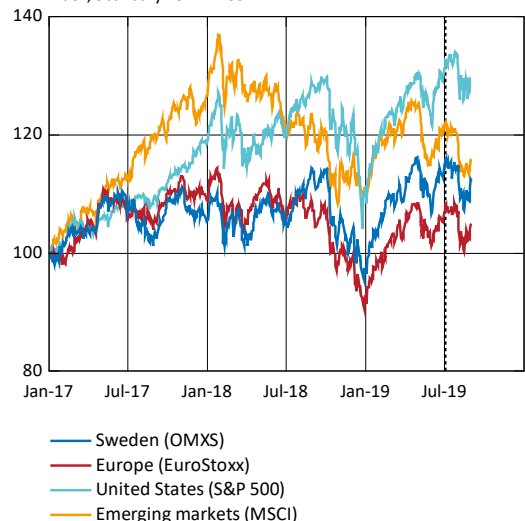
**Figure 2:5. Yield differential in relation to Germany, 10-year**



Note. Yield differentials refer to 10-year benchmark bonds. The vertical line indicates the Monetary Policy Meeting in July.

Source: Macrobond

**Figure 2:6. Stock market movements in domestic currency**



Note. The vertical line indicates the Monetary Policy Meeting in July.

Source: Macrobond

as with the slope of the yield curve, measures of risk premiums are sometimes used as indicators of the risk of recession. However, risk premiums remain low compared with the historical average and are lower than they were at the start of the year (see Figure 2:8).

### Developments in Sweden

Stock prices on the Swedish stock market have fallen since the monetary policy decision from July and volatility has risen. Over the summer, rates on the interbank market and to households and companies have largely been unchanged. Housing prices are continuing to rise after last year’s decline and household debt is increasing at a moderate rate. However, the krona exchange rate has developed more weakly than expected and bond yields have fallen. The financial conditions in Sweden thus remain expansionary and are contributing with support to the economic development.

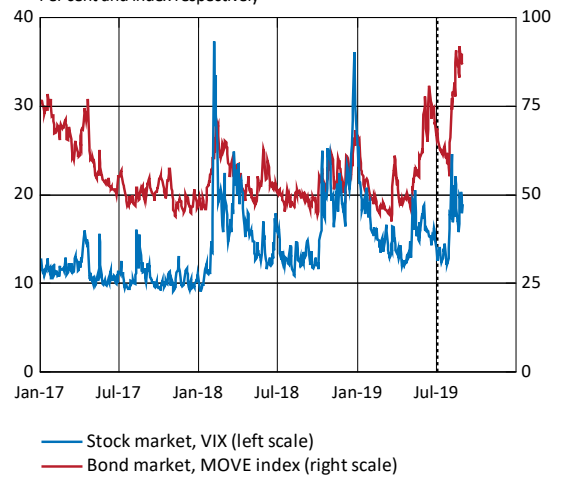
#### Lower equity prices and lower bond yields in Sweden

Over the summer, equity prices on the Swedish stock exchange have followed the international outlook and have fallen as sentiment in the global economy has deteriorated (see Figure 2:6). However, equity prices are higher than at the start of the year and volatility is in line with the historical average.

Swedish macroeconomic data has indicated some weaknesses over the summer months. In combination with increased global risks to the economy and expectations of a more expansionary monetary policy abroad, this is leading market participants to expect a more expansionary monetary policy in Sweden too. According to pricing on the financial markets, the repo rate will be at a lower level than at present over the coming year (see Figure 2:9). Expectations according to Prospera’s survey in August show that respondents still expect the repo rate one and two years ahead to be higher than it is today. However, they expect a lower repo rate than they did earlier. Compared with Prospera’s survey in June, expectations of the repo rate one and two years ahead have fallen by about 0.2 percentage points, and slightly more in the long term (see Figure 2:9).

Swedish government bond yields have fallen over the summer in light of market participant expectations of a more expansionary monetary policy in Sweden. As unease over economic activity has picked up, demand for Swedish government bonds has increased as investors turn to safer assets. This has also contributed to Swedish bond yields falling by a relatively large degree since the end of July. Yields for Swedish government bonds are now negative for all maturities up to 15 years.

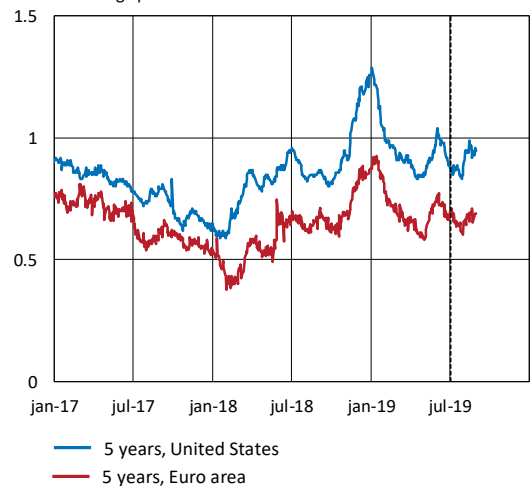
**Figure 2:7. Volatility index for US equity and bond markets**  
Per cent and index respectively



Note. Volatility Index (VIX) shows the expected volatility on the US stock market based on options prices. Merrill Lynch Option Volatility Estimate (MOVE) Index is a measure of the expected volatility of US government bonds based on options prices. The vertical line indicates the Monetary Policy Meeting in July.

Sources: Chicago Board Options Exchange and Merrill Lynch

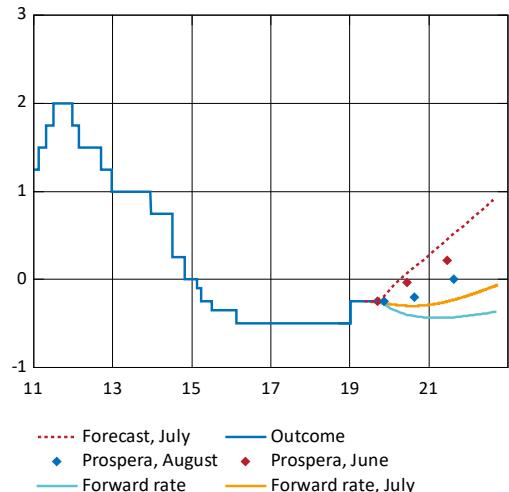
**Figure 2:8. Difference between yields on corporate bonds and government bonds in the United States and euro area**  
Percentage points



Note. Yield differentials refer to 5-year benchmark bonds. Refers to bonds for companies with good credit ratings. The vertical line indicates the Monetary Policy Meeting in July.

Source: Macrobond

**Figure 2:9. Repo rate and market repo rate expectations**  
Per cent



Note. The forward rate refers to 2 September 2019 and is a measure of the expected repo rate. The Prospera survey responses show the average for money market participants 29 May 2019 (Prospera June) respectively 7 August 2019 (Prospera August).

Sources: Kantar Sifo Prospera, Macrobond and the Riksbank

**Unchanged conditions on the money markets and cautious optimism on the housing market**

The development of short interest rates on the interbank market reflects the conditions on the Swedish money market. Over the summer, these rates have largely stayed unchanged (see Figure 2:10). Since the Riksbank’s rate hike last year, lending rates to households and companies have not increased to a corresponding degree and deposit rates have been unchanged. This development was largely expected (see Figure 2:11).

The new actors on the mortgage market have gained market share, but remain responsible for a very small part of total lending to households.<sup>6</sup> However, they are contributing to increased competition on the mortgage market, which could have contributed to holding back a rise in mortgage rates. Lower yields on mortgage bonds have also resulted in the banks’ funding of mortgages becoming cheaper. Mortgage rates with longer maturities, for example the five-year listed mortgage rate, have fallen slightly over the summer.

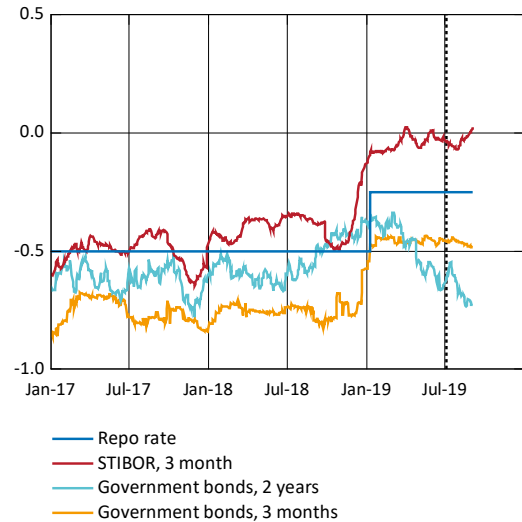
Measured as an annual percentage change, housing prices fell over most of last year before increasing at a moderate rate this spring. However, in June and July, prices increased for tenant-owned apartments and detached houses in line with the historical seasonal pattern. Various indicators suggest a cautious optimism among both households and estate agents over the future development of prices. Lending for housing purposes is continuing to grow slightly more weakly than it did in recent years (see Figure 2:12).

ALMI’s survey indicates that Swedish companies are facing approximately the same credit terms as previously, but that there has been a certain tendency towards increased difficulty in obtaining credit. However, the banks’ lending to non-financial undertakings is continuing to grow by between 5 and 6 per cent per year (see Figure 2:12). Companies are also borrowing to an increasing extent directly on the capital markets, for example by issuing corporate bonds. This form of funding now makes up more than a third of total corporate debt. Interest rates are very low for credit worthy companies and these have fallen approximately in line with the decline in government bond yields over the summer. Unlike in other countries, risk premiums in Sweden have remained relatively unchanged.

**Swedish krona weaker than expected**

In KIX-weighted terms, the krona has developed more weakly over the summer than expected (see Figure 2:13). This weakening occurred partly in conjunction with the publication of domestic macro statistics. For example, the krona weakened by almost one per cent when GDP outcome for the second quarter turned out to be weaker than market participants had expected. The krona has also weakened as sentiment in the global economy has deteriorated and equity prices have fallen. However, it is not

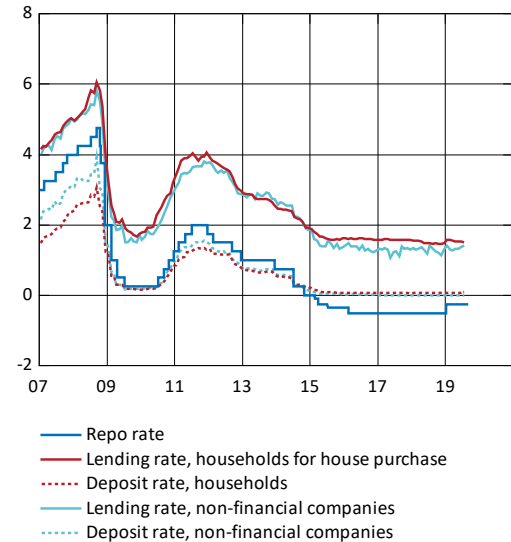
**Figure 2:10. The repo rate, interbank rates and market rates**  
Per cent



Note. Zero coupon yields are calculated on government bonds. The vertical line indicates the Monetary Policy Meeting in July.

Sources: Macrobond and the Riksbank

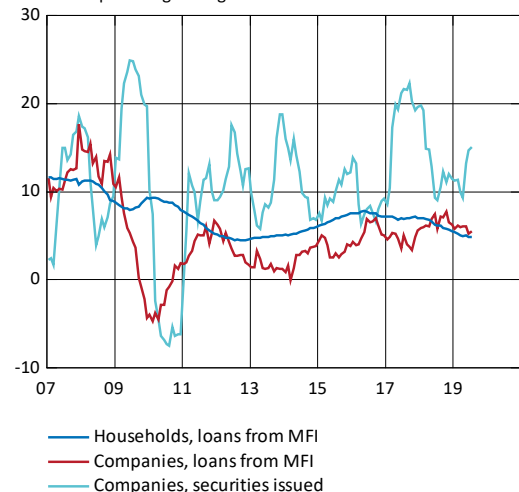
**Figure 2:11. Repo rate together with the average deposit and lending rate to households and companies, new contracts**  
Per cent



Note. MFIs’ average deposit and lending rates are a weighted average of all interest rates for different maturities.

Sources: Statistics Sweden and the Riksbank

**Figure 2:12. Bank lending to households and companies**  
Annual percentage change



Note. Lending by Monetary financial institutions (MFI) to households and non-financial corporations adjusted for reclassifications and bought and sold loans, according to financial market statistics. Securities issued by non-financial corporations have been adjusted for currency impact.

Source: Statistics Sweden

<sup>6</sup> New actors on the mortgage market include Stabelo AB, Svensk Hypotekspension AB and Hypoteket Bolån Sverige AB.

unusual for the Swedish krona to depreciate in times when uncertainty on the financial markets is rising.

**Figure 2:13. Competition-weighted nominal exchange rate, KIX Index, 18 November 1992 = 100**



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

Sources: National sources and the Riksbank

## CHAPTER 3 – The current economic situation

The high resource utilisation, depreciation of the krona and rising energy prices have helped inflation to remain close to the target of 2 per cent since the start of 2017. Although the recent downturn in energy prices has led to weaker prices temporarily, inflation is expected to show an upturn towards the end of the year. However, sentiment abroad has deteriorated and growth among several important trading partners for Sweden is expected to be slightly lower than in recent years. According to preliminary calculations, Swedish GDP fell during the second quarter. Confidence indicators, which have fallen to levels below the historical averages, and a continued decline in housing investment point to GDP growth in Sweden being lower than normal in the coming quarters. On the labour market, too, the recent outcomes and indicators point to a slowdown and the high resource utilisation will normalise.

### Inflation in Sweden

#### Lower energy prices subdue inflation temporarily

CPIF inflation has fallen clearly in recent months, in line with expectations (see Figure 3:1). This is primarily because energy prices have been lower than last year (see Figure 3:2). In July, CPIF inflation was 1.5 per cent, while the rate of increase in the CPIF excluding energy was 1.7 per cent. Both outcomes were slightly higher than the Riksbank's forecast.

The depreciation of the krona in recent years has caused the prices of many goods, to a large degree imported goods, including food, to increase more rapidly than normal. Given the krona depreciation, prices of clothing, shoes and foreign travel have all increased unusually slowly.

The high resource utilisation has contributed to the rate of price increase for services increasing. During the second half of this year, developments in service prices slowed down temporarily when Statistics Sweden introduced a new method of measuring dental care.<sup>7</sup>

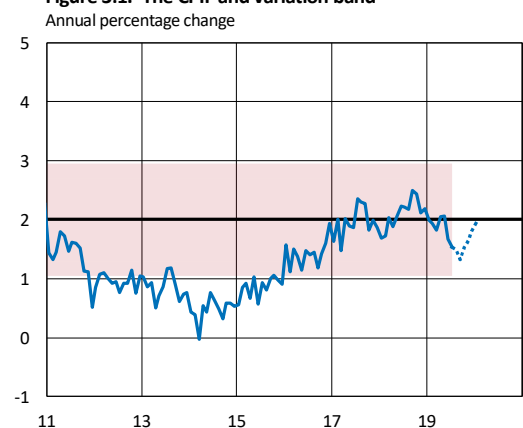
The measured rate of inflation is affected by both temporary and more persistent price variation. To estimate the level of the more persistent component, the Riksbank studies different measures of core inflation. These measures exclude or reduce the significance of prices that have previously been shown to vary considerably. The Riksbank's different measures of core inflation indicate that the permanent part of the inflation rate has risen towards 2 per cent (see Figure 3:3).<sup>8</sup> UND24 and CPIFPC, the

**Table 3:1. The economic situation compared with the assessment in the previous report.**

Expected development in July MPR	Actual development
CPIF inflation 1.3 per cent and CPIF excluding energy 1.6 per cent in July.	CPIF inflation was 1.5 per cent and CPIF excluding energy increased by 1.7 per cent.
GDP growth 0.3 per cent in second quarter.	According to Statistics Sweden's quick calculations, growth was -0.3 per cent.
Unemployment 6.3 per cent in second quarter.	Unemployment was 6.4 per cent.

Note. MPR refers to the Monetary Policy Report. Inflation refers to the annual percentage change. GDP growth refers to the seasonally adjusted quarterly change in per cent, calculated at an annual rate. Unemployment refers to percentage of the labour force.

**Figure 3:1. The CPIF and variation band**



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. The broken line represents the forecast for the next 6 months.

Sources: Statistics Sweden and the Riksbank

<sup>7</sup> For further information on how the change in the method of measuring affects inflation, see the box "New method of measuring dental care costs to affect inflation rate in 2019" in the Monetary Policy Report in February 2019.

<sup>8</sup> The new method for measuring dental care costs will probably also contribute to dampening the measure of core inflation further.

measures that were shown in an evaluation to be the most useful, are close to, but somewhat lower than 2 per cent.<sup>9</sup>

**Inflation rising towards the end of the year**

The good economic situation, together with the weaker krona and rising energy prices has contributed to inflation increasing and being close to 2 per cent in recent years. The strong economic activity and the effects of the earlier krona depreciation are expected to continue contributing to a somewhat higher inflation rate towards the end of the year. At the same time, the rate of increase in energy prices is expected to remain lower than the corresponding period last year, which means that CPIF inflation will remain somewhat below 2 per cent in the near term and then approach 2 per cent towards the end of the year (see Figure 3:1).

The Riksbank’s model forecast, which summarise the information in a large number of indicators, suggests that the rate of increase in the CPIF excluding energy will rise slightly in the coming months (see Figure 3:4). The upturn is partly explained by prices in the producer channel increasing more rapidly than normal, both prices of imported goods and of goods produced in Sweden (see Figure 3:5). According to the Economic Tendency Survey, more companies than normal in the trade sector are planning to increase prices in the months ahead. Plans in the entire business sector, however, are now more normal (see Figure 3:6). The Riksbank’s forecast for the second half of the year is close to the model forecast.

**Inflation forecast revised slightly upwards in the short term**

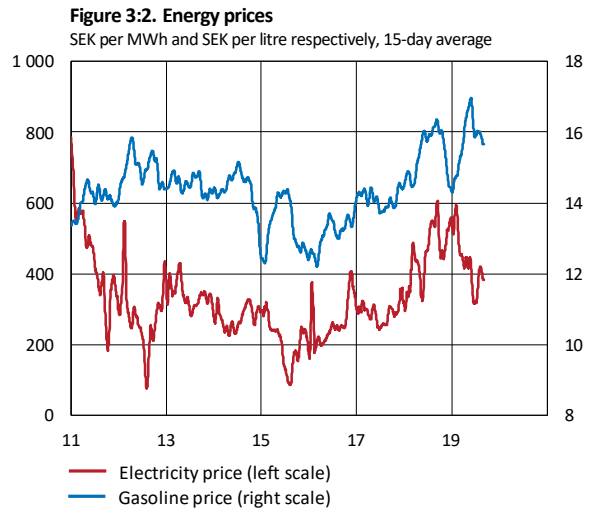
The forecast for the rate of increase in the CPIF excluding energy is in line with the forecast in July. Energy prices have risen somewhat more than the Riksbank’s forecast in July. The forecast for CPIF inflation has therefore been revised up somewhat for the coming few months (see Figure 1:5).

**Global and Swedish economic activity**

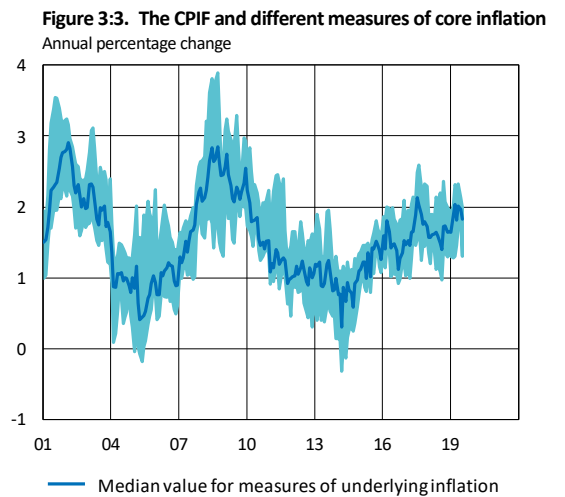
**Good economic activity, but uncertain growth and inflation prospects**

GDP growth among several of Sweden’s most important trading partners slowed down during the second quarter, roughly in line with the forecast in July. The fact that growth is now lower than in recent years primarily reflects the fact that resource utilisation is in many areas more strained now and it is normal that growth slows down when the output level is high. At the same time, there is still considerable uncertainty surrounding global economic prospects. This is partly due to the uncertainty over the effects of the trade conflict between the United States and China and of the United Kingdom’s withdrawal from the EU. This uncertainty has probably contributed to confidence in the

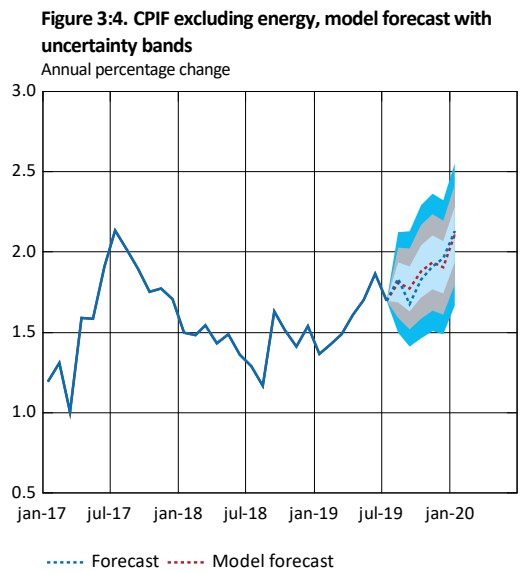
<sup>9</sup> UND24 gives greater weight to smaller volatile sub-groups in the CPIF, while the CPIFPC is based on common trends among the sub-groups. See also the article “Why measures of core inflation?” in Monetary Policy Report, October 2018.



Note. Prices refer to a 15-day average of the system price per MWh electricity and 95-octane gasoline.  
Sources: Macrobond and Nordpool



Note. The field shows the highest and lowest outcomes among different measures of core inflation. The measures included are the CPIF excluding energy, UND24, Trim85, CPIF excluding energy and perishables, persistence-weighted inflation (CPIFPV), factors from principal component analysis (CPIFPC) and weighted median inflation (Trim1).  
Sources: Statistics Sweden and the Riksbank



Note. The uncertainty bands 50, 75 and 90 per cent are based on the models’ historical forecast errors.  
Sources: Statistics Sweden and the Riksbank

manufacturing industry having fallen to low levels, according to the purchasing managers' index. Confidence in the service sectors, on the other hand, remains relatively high. Consumer confidence is also slightly higher than normal. One contributory cause can be that unemployment has fallen to a relatively low level in many countries. The Riksbank's forecast for the economic outlook in the short term entails an assessment that confidence in the household and corporate sectors will not fall significantly from current levels.

Inflation in both the euro area and the United States is, at the same time, lower than their inflation targets and inflation expectations have fallen.

### Normal growth in the euro area in the coming quarters

Growth in the euro area has slowed down over the past year and GDP increased by 0.8 per cent during the second quarter of 2019 compared with the first quarter and calculated as an annual rate (see Figure 3:7).

Confidence in the service sector is close to the historical average, according to the purchasing managers' index and the retail trade is showing a good development, while confidence in the manufacturing industry is low (see Figure 3:8). This difference between the manufacturing and service sector is greater in the euro area than in other parts of the world. Confidence in the manufacturing industry has fallen particularly heavily in Germany, and there mainly among producers of capital and input goods. However, good credit terms support investment growth. Growth also benefits from confidence in the household sector still being well above the historical average. One explanation can be the strong development in the labour market that has led to rising real wages. Given this, and that corporate sector confidence is expected to stabilise going forward, GDP growth in the euro area is expected to rise somewhat during the second half of this year.

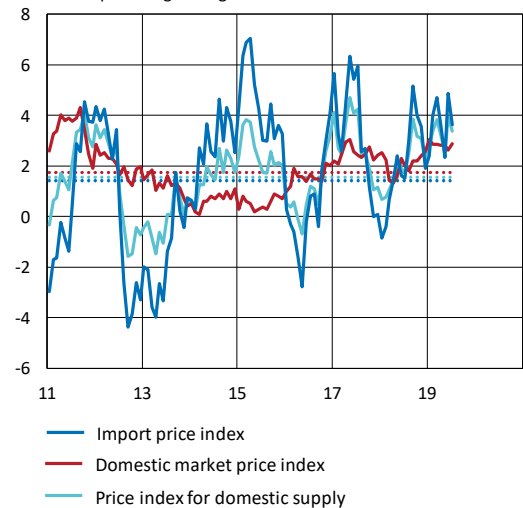
### US growth slowing down second half of this year

GDP in the United States increased by 2.0 per cent during the second quarter, compared with the first quarter and in annualised terms (see Figure 3:7). Domestic demand was strong, primarily due to good growth in household consumption, but also solid growth in public consumption, while investment, exports and investment in stocks declined.

The situation on the labour market continues to be strong. Unemployment was 3.7 per cent in July, at the same time as employment has continued to increase relatively quickly. Wage growth fell somewhat in the second quarter, but the strong development on the labour market is expected to contribute to wage growth rising once again in the coming quarters.

Confidence in the household sector is at the same time expected to remain high. Corporate sector confidence has fallen in recent months, however, both with regard to service companies and in the manufacturing sector, but it is still high for the service sector. The relatively weak development in industry is

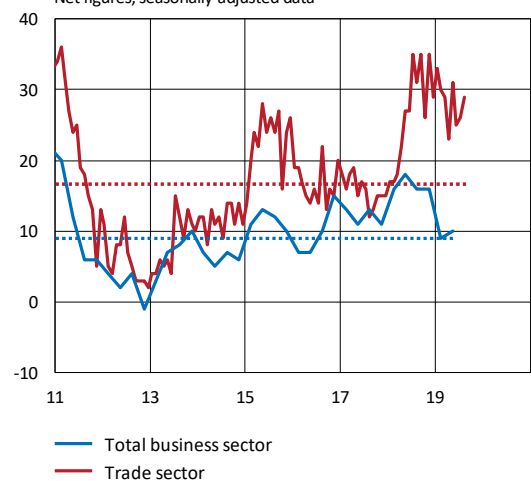
**Figure 3:5. Prices of consumer goods in the producer channel**  
Annual percentage change



Note. The import price index measures how much Swedish importers pay for their goods at the border. Domestic market prices measure how much Swedish producers are paid when sales take place in Sweden. The price index for domestic supply is an aggregate of the import price and home market price indices. Broken lines refer to average rate of increase since the year 2000.

Source: Statistics Sweden

**Figure 3:6. Price plans in the business and trade sectors**  
Net figures, seasonally-adjusted data

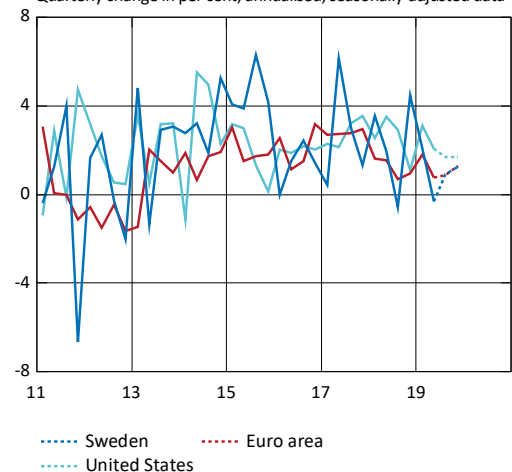


Note. The net figure is the difference between the proportion of companies stating that they expect higher sales prices and those expecting lower sales prices over the next three months. Broken lines represent mean values since May 2003.

Source: National Institute of Economic Research

**Figure 3:7. GDP in Sweden and abroad**

Quarterly change in per cent, annualised, seasonally-adjusted data



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

also reflected in industrial production, which had a weak outcome in July. The decline in confidence indicates at the same time that economic activity is slowing down and that GDP growth will decline somewhat in the second half of the year in relation to developments during the second quarter.

**Low inflation and lower inflation expectations**

The world market price for Brent oil fell heavily at the beginning of August and is now at around USD 60 a barrel. The decline is explained by concerns that slow down growth and demand globally. According to forward pricing, the oil price is expected to remain at roughly the same level going forward (see Figure 3:9). This development is in line with the Riksbank’s assessment in July and is expected to give a limited contribution to inflation going forward.

In the euro area, inflation continued to be low in August and reached 1.0 per cent measured as the HICP. At the same time, core inflation, measured in terms of the HICP excluding energy and food, amounted to 0.9 per cent. According to both market expectations and the ECB’s survey of forecasters, the long-term inflation expectations have moreover fallen (see the article “Inflation expectations in Sweden close to 2 per cent”). Inflation is expected to be low during the third quarter, and then to rise gradually, thanks to the continuing strong labour market with an increasingly high wage growth and continued low interest rates.

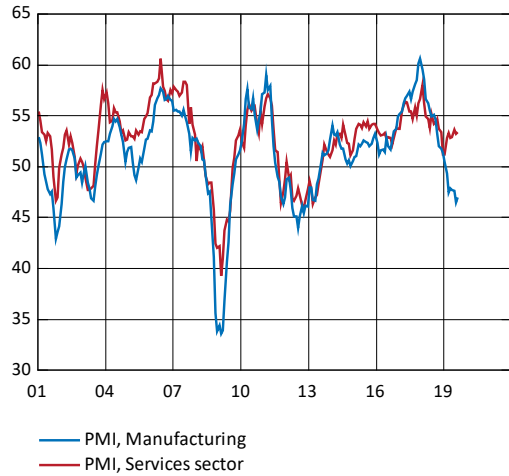
In the United States, CPI inflation increased to 1.8 per cent in July. Various measures of core inflation paint slightly different pictures, but the rate of increase for the deflator for private consumption excluding energy and food, the measure the Federal Reserve considers most important, amounted to 1.6 per cent in July. Inflation expectations have been falling for some time. The strong labour market, with very low unemployment and higher wage growth, is expected to contribute, together with the low interest rates and increased tariffs, to inflation rising slightly towards the end of the year.

**Continued subdued growth in Sweden in the second half of the year**

Domestic demand slowed down during the first half of 2019, when both household consumption and business sector investment were weak. This development is also reflected in the fall in growth in imports, which is probably linked to the weak krona. According to the preliminary compilation of the National Accounts, Swedish GDP declined by 0.3 per cent in the second quarter against the first quarter, calculated at an annual rate. A very weak development in investment in machinery and the continued fall in housing investment had a very negative impact on growth, and exports also declined.

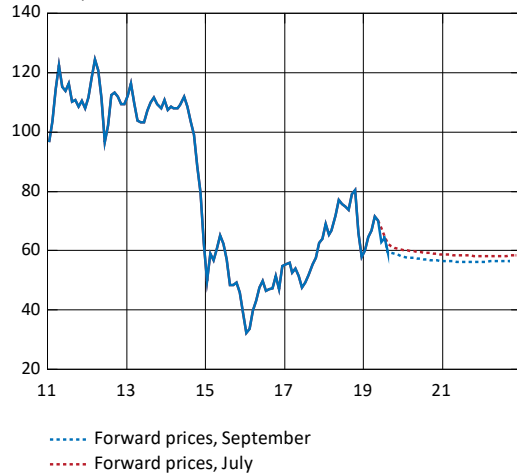
The National Institute of Economic Research’s Economic Sentiment Indicator, which reflects confidence among households and companies, has clearly slowed down over the past year (see Figure 3:10). One important explanation for this has been that confidence has fallen in the manufacturing

**Figure 3:8. Confidence indicators in the euro area**  
Index



Source: Markit Economics

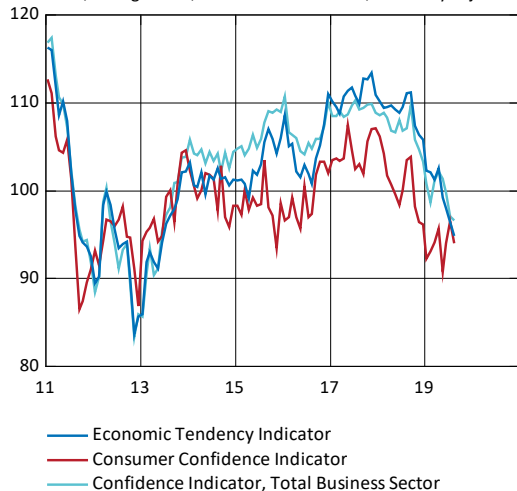
**Figure 3:9. Price of crude oil**  
USD per barrel, Brent oil



Note. Forward prices are calculated as a 15-day average. The outcomes refer to monthly averages of spot prices.

Sources: Macrobond and the Riksbank

**Figure 3:10. Confidence indicators**  
Index, average = 100, standard deviation = 10, seasonally-adjusted data



Source: National Institute of Economic Research



industry. This development continued during the summer, and the Economic Sentiment Indicator amounted to 94.9 in August, which is lower than the historical average for the Indicator. Household confidence also fell again in August, after two months of rising. It is mainly households' views on the prospects for the Swedish economy that have weakened. The sector-divided sub-indexes in the Business Tendency Survey are all relatively close to their historical averages. The monthly statistics for demand in the third quarter that are available as yet have shown a good pace in demand, but they are limited to foreign trade in goods and the retail trade turnover in July.

Both domestic demand and export demand are expected to increase at a moderate pace during the second half of this year. Export orders from Swedish companies indicate a moderate export growth in the coming quarters (see Figure 3:11). Investment is expected to show weak development, as housing investment is continuing to weigh it down. Households are also expected to be cautious in their consumption decisions, partly because the situation is so uncertain with regard to developments in the housing market and international economic activity.

The Riksbank's model forecast for GDP growth in the near term is based on confidence indicators and monthly statistics for output and demand. The reason why the forecast for GDP in the third quarter is somewhat lower than the model forecast is partly because the models are not assessed to fully take into account the decline in housing investment (see Figure 3:12). Calculated in annualised terms, GDP is expected to increase by 0.9 per cent during the third quarter and 1.2 per cent during the fourth quarter of 2019.

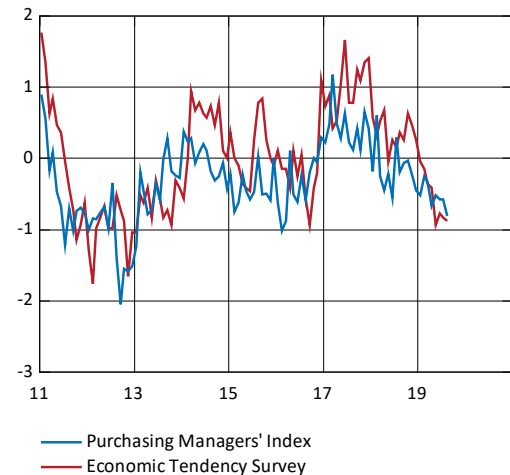
### Strong development on the labour market is slowing down

The labour market has shown very strong development for several years and both labour force participation and the employment rate have attained historically high levels (see Figure 4:8). However, outcomes and indicators suggest that the development of the labour market has now slowed down and entered a calmer phase.

In the first six months of 2019, the number of persons employed decreased and, in July, employment fell significantly. However, outcomes for individual months should be interpreted with caution, particularly outcomes over the summer months, which often vary greatly. As the development of employment has been weaker than that of the labour force so far this year, unemployment has risen slightly after reaching its lowest point at the end of 2018. Unemployment has also risen according to statistics from Arbetsförmedlingen (the Swedish public employment service). Arbetsförmedlingen highlights the fact that fewer people are now being offered subsidised posts as a possible contributory factor to the increased number of unemployed persons.

According to the Economic Tendency Survey, recruitment plans indicate unchanged employment in the coming months.

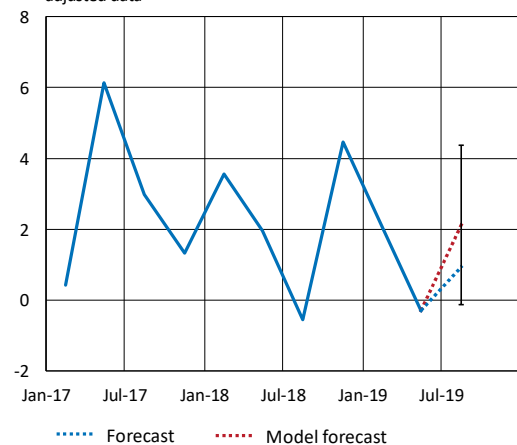
**Figure 3:11. New export orders in the manufacturing sector**  
Standard deviations



Note. The series have been seasonally adjusted and normalised so that the mean value is 0 and the standard deviation is 1.

Sources: National Institute of Economic Research and SiLF/Swedbank

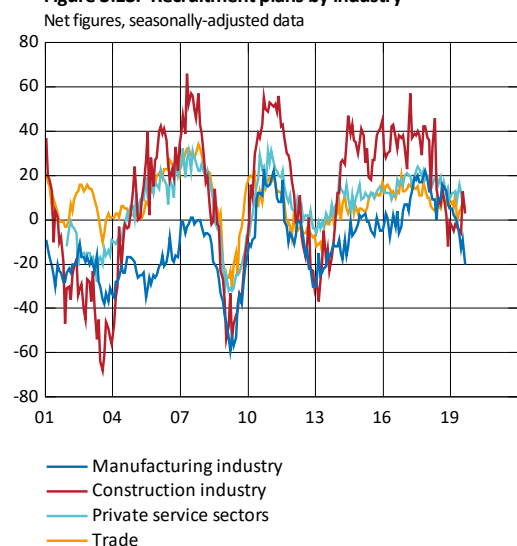
**Figure 3:12. GDP, model forecast with uncertainty bands**  
Quarterly change in per cent calculated in annualised terms, seasonally adjusted data



Note. The model forecast is a mean value of forecasts conducted using different statistical models. The vertical line represents a 50-per cent uncertainty band based on the models' historical forecasting errors.

Sources: Statistics Sweden and the Riksbank

**Figure 3:13. Recruitment plans by industry**



Note. Recruitment plans refer to expectations of the number of employed in the business sector three months ahead.

Source: National Institute of Economic Research

However, developments differ somewhat from sector to sector. For example, recruitment plans indicate that the number of employees in the services and trade sectors will increase slightly, while the number will fall in the manufacturing sector (see Figure 3:13). According to Arbetsförmedlingen, the number of new vacancies has decreased, even if it is still on a high level and redundancy notices remain low. Over the third quarter, employment is expected to decrease before then increasing slightly in line with indicators. Compared with the first six months of 2019, unemployment is rising and is expected to average 6.7 per cent in the second six months (see Figure 4:15). The forecast for unemployment has therefore been revised upwards slightly, compared with July.

**Resource utilisation is still higher than normal**

The amount of spare capacity in the economy is affecting the development of wages and prices with a certain time lag. However, resource utilisation cannot be measured exactly and the Riksbank therefore makes an assessment on the basis of a number of different indicators.

According to several of these indicators, resource utilisation is still higher than normal, even though it fell slightly in the first six months of the year. For example, according to the Economic Tendency Survey, the percentage of companies reporting a shortage of labour has fallen over the three last quarters, but is still on a high level. Capacity utilisation in the manufacturing sector is high from a historical perspective according to both the National Institute of Economic Research and Statistics Sweden (see Figure 3:14). Other signs that there is little spare capacity on the labour market are the high vacancy rate, which measures the number of unfilled jobs that need to be filled immediately, and the long average time for recruitment in the business sector.

All in all, the Riksbank deems that resource utilisation in the economy has slowed down in 2019, even though it remains higher than normal, a view which is supported by the Riksbank’s indicator for resource utilisation (see Figure 3:15).

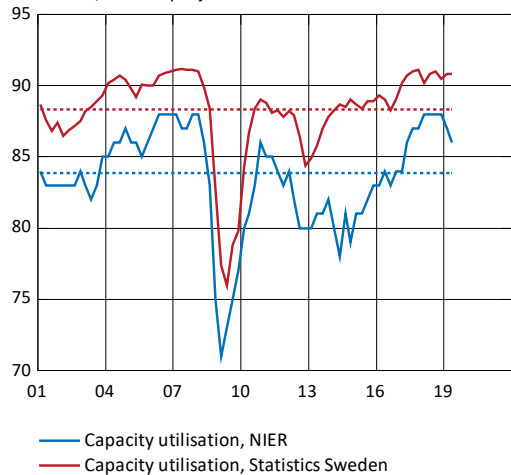
**Rising rate of wage increases**

The rate of wage increases has risen in recent months. According to preliminary statistics, wages increased across the entire economy by 2.6 per cent in June (see Figure 3:16). In the business sector too, wages increased by 2.6 per cent in June, which was an increase compared with the start of the year.

The rate of wage increases is expected to rise slightly over the coming quarters. At the same time, existing wage agreements from the last wage bargaining round, which was concluded at a historically low level, are contributing to the increase being modest. The change in real wages has been weak in recent years but is expected to increase somewhat going forward (see Figure 4:18).

In addition to wage development, cost pressures, measured as the rate of increase in unit labour costs, also depend on how productivity is developing. As productivity has increased slowly

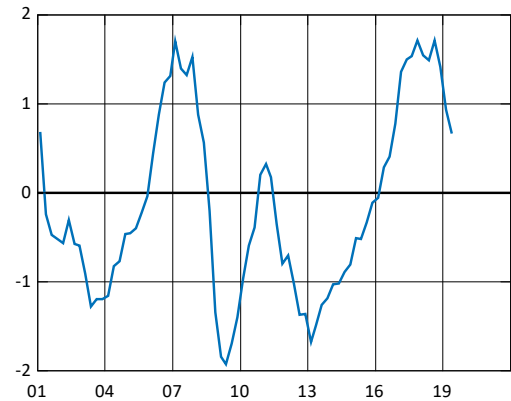
**Figure 3:14. Capacity utilisation in the manufacturing industry**  
Per cent, seasonally-adjusted data



Note. The broken lines represents the mean value since 1996.

Sources: National Institute of Economic Research and Statistics Sweden

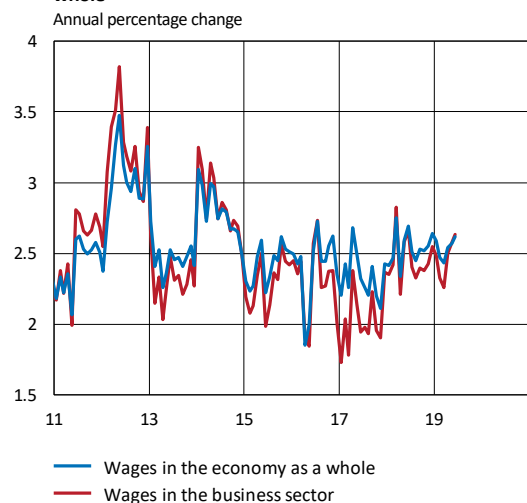
**Figure 3:15. Resource utilisation indicator**  
Standard deviations



Note. The RU indicator is a statistical measure of resource utilisation. It is normalised so that the mean value is 0 and the standard deviation is 1.

Source: The Riksbank

**Figure 3:16. Wages in the business sector and economy as a whole**  
Annual percentage change



Note. The National Mediation Office’s forecast of final outcome July 2018–June 2019.

Source: National Mediation Office

for several years, unit labour costs have risen faster than normal, despite moderate wage increases. According to the preliminary National Accounts, productivity increased slowly in the second quarter and the rate of increase in unit labour costs rose to 2.8 per cent. These costs will increase in the period ahead in line with the historical average, which is approximately 2 per cent (see Figure 4:17).

## CHAPTER 4 – The economic outlook and inflation prospects

International GDP growth, which has been strong for several years, has slowed down. Sentiment among households and companies has deteriorated and the risk of a poorer development has increased since the assessment in July. At the same time, more monetary policy stimulation means that the prospects for growth and inflation remain largely unchanged. The Swedish economy has benefited in recent years from the good international economic activity, which combined with low interest rates has contributed to resource utilisation being higher than normal at present. Following several years of good growth, however, the Swedish economy is expected to grow more slowly this year and in the coming years. Developments are marked by the moderate export demand from Sweden's most important trading partners, as well as subdued domestic demand. Inflation has been close to 2 per cent since the beginning of 2017, although a lower rate of increase in energy prices has contributed to inflation falling slightly in recent months. A long period with good demand and resource utilisation levels remaining higher than normal, together with a rise in wage growth, means that inflation is also expected to be close to 2 per cent in the period ahead. As with the international forecasts, the economic outlook for Sweden is based on the repo rate being raised at a slower pace than in July, which is contributing towards the inflation forecast in general being unchanged.

### International developments

#### International growth at normal levels going forward

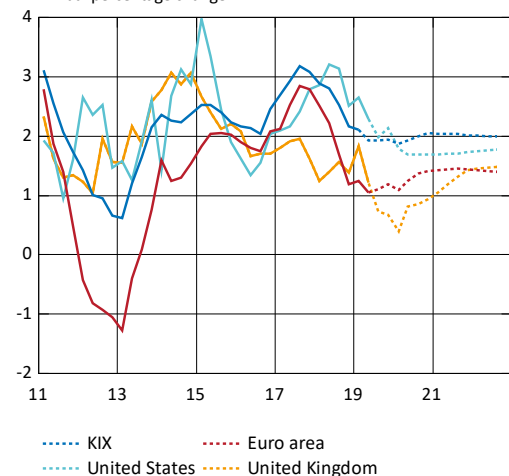
In recent years, growth in trade-weighted (KIX-weighted) GDP has been strong. However, growth has now slowed down and over the coming years GDP is expected to grow more in line with the historical average (see Figure 4:1).

The Riksbank's assessment in July was based on the trade conflict between the United States and China continuing, probably with further measures from the parties, and the forecast for international GDP growth was therefore revised down. Developments in the trade conflict since July have therefore only changed the forecasts marginally. Sentiment regarding economic prospects has deteriorated, however, which can be partly linked to the trade conflict. The assessment is therefore that a more expansionary monetary policy is needed to support the economic and inflation prospects.

The continuing unclear situation regarding the United Kingdom's withdrawal from the EU is creating uncertainty over growth prospects for the United Kingdom, as well as for the rest of Europe. The United Kingdom is, for example, Germany's fifth most important export partner and motor vehicle exports are particularly important.

The division in the euro area economies is continuing, with weak confidence in the manufacturing industry but relatively strong confidence in the service sector.

**Figure 4:1. GDP in various countries and regions**  
Annual percentage change



Note. KIX is an aggregate of countries that are important to Sweden's international transactions.

Sources: Bureau of Economic Analysis, Eurostat, national sources, Office for National Statistics and the Riksbank

**Figure 4:2. Consumer confidence in the euro area**  
Net values, seasonally adjusted data



Source: The European Commission

**Low inflation and low interest rates in the euro area**

Since the start of the year, the spread between confidence indicators for different sectors in the euro area has increased. Confidence among households and companies in the service sector is on the whole close to the historical average, while confidence in the manufacturing industry is low (see Figures 4:2 and 3:8). Confidence in the manufacturing industry has declined most in Germany (see Figure 4:3).

Despite the labour market being strong and wages rising, inflation is low, and long-run inflation expectations have fallen to historically low levels (see Figure 1:13). This, together with the ECB’s communication, has led to market participants now expecting the ECB to cut its policy rate further and also to make monetary policy more expansionary. Low interest rates and continuing favourable credit terms mean that the conditions for GDP growth and inflation remain relatively good going forward.

Consumer confidence is relatively high and the labour market is strong with reduced unemployment and high employment growth (see Figure 4:4). Demand for labour is expected to be high enough for unemployment to continue to fall slightly in the years ahead, albeit at a slower rate than before. This will help to hold up wage growth during the forecast period.

The uncertainty over how world trade will develop going forward also comprises a risk for the euro area. This applies in particular to the German economy. The uncertainty over trade developments and the United Kingdom’s withdrawal from the EU is expected to subdue investment. Investment and household consumption are expected to grow at a slower pace at the end of the forecast period when unmet needs have been satisfied and employment growth slows down. GDP is expected to grow by 1.1 per cent this year. Growth will subsequently increase, amounting to 1.4 per cent in 2021 (see Figure 4:1).

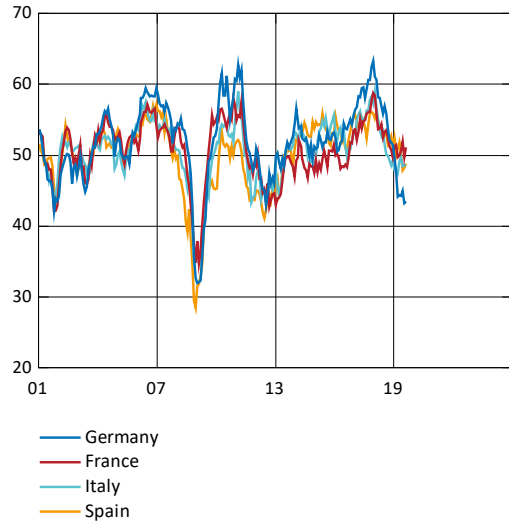
**US growth slowing down from high levels**

Economic activity in the United States remains strong and GDP growth is good. However, there are some storm clouds in the manufacturing industry, where confidence has been subdued and is somewhat lower than normal. Confidence in the service sectors has also slowed down to roughly normal levels. However, confidence in the household sector remains high.

The Senate has approved a budget agreement that includes raising the debt ceiling for a further two years, until the end of July 2021. Although negotiations remain with regard to the distribution of the budget, the agreement is thought to have reduced the risk of a new shut down of the US federal government.

The US labour market is strong and is expected to remain so in the coming years, despite the assumption that unemployment will rise somewhat. The high resource utilisation is expected to help wage growth continue to rise over the coming year, after which it will decline gradually as unemployment increases. The good development in the labour market has contributed to

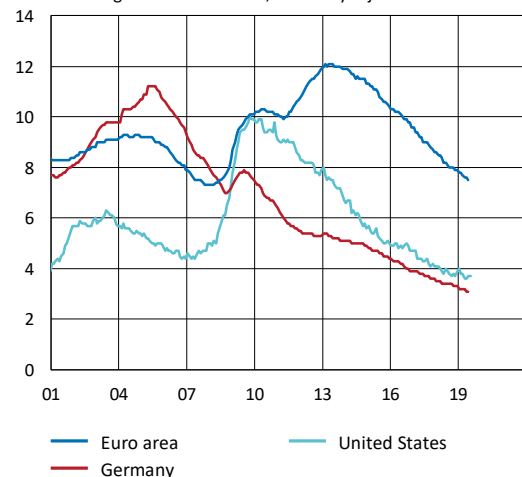
**Figure 4:3. PMI manufacturing sector for the euro area**  
Index



Note. An index figure above 50 indicates growth, while an index figure below 50 indicates a decline.

Source: Markit Economics

**Figure 4:4. Unemployment in various countries and regions**  
Percentage of the labour force, seasonally adjusted data



Source: OECD

**Figure 4:5. Development of the Chinese currency against the dollar**  
CNY per USD



Source: Macrobond

household consumption being strong and it is expected to remain so in the coming years.

All in all, GDP growth is expected to grow by 2.3 per cent this year and then gradually slow to 1.7 per cent in 2021 (see Figure 4:1). The reasons for expecting growth to decline include the strained labour market, where companies are experiencing greater difficulty in employing staff with the right competence, the high costs that contribute to subduing demand and the risks linked to the trade conflict with China and which contribute to dampening the will to invest. However, a lower forecast for the policy rate means that the forecast for GDP growth has been revised up somewhat from next year and on, in relation to the July forecast.

### Chinese growth in line with the target but declining gradually going forward

Growth in China is expected to decline gradually over the coming years. This is partly due to the continued attempts to rebalance the Chinese economy against growth that is driven by consumption instead of investment and where the service sector is gaining a larger role. Investment is expected to grow at a slower pace, partly due to lower activity on the property market.

The ongoing trade conflict with the United States is also expected to slow down growth, but various forms of economic policy stimulation will contribute to growth this year being around the official target of 6–6.5 per cent. However, a further escalation in the conflict between China and the United States risks subduing growth more than was assumed. The tension between the countries has also increased since the Chinese currency weakened against the dollar (see Figure 4:5).

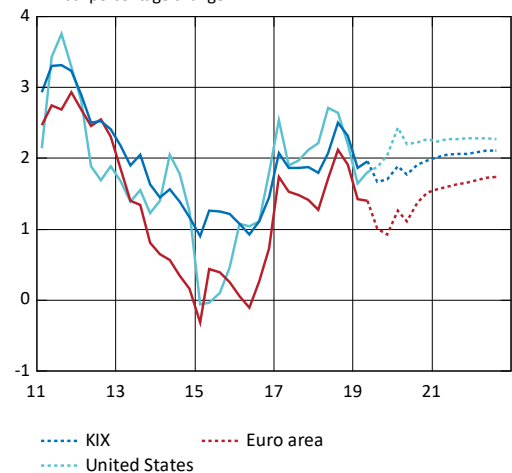
### Slowly rising cost pressures abroad in the coming years

Low inflation outcomes during the first half of 2019 will contribute to the KIX-weighted inflation rate abroad being just below 2 per cent this year. In the coming years, the effects of the earlier upturn in resource utilisation are expected to contribute to inflation abroad slowly rising to around 2 per cent (see Figure 4:6).

In the euro area, the inflation outcome for July indicates lower underlying inflation for the third quarter than was forecast in July. HICP inflation was at 1 per cent in August and the core HICP inflation rate, which excludes energy and food, was at 0.9 per cent. Core HICP inflation has been around 1 per cent in recent years. Inflation expectations have fallen over the last year, according to both market pricing and surveys (see Figures 1:12 and 1:13). The increasingly strong labour market is expected to continue to contribute towards increased cost pressures, which will lead to a gradual rise in core inflation. Inflation measured as both HICP and core HICP will rise to around 1.7 per cent at the end of the forecast period.

In the United States, a lower policy rate going forward is expected to contribute to somewhat higher growth and core inflation this year and next year. The strong US labour market is

**Figure 4:6. Consumer prices in various countries and regions**  
Annual percentage change



Note. KIX is an aggregate of the countries that are important to Sweden's international transactions. Euro area refers to HICP.

Sources: The Bureau of Labor Statistics, Eurostat, national sources and the Riksbank

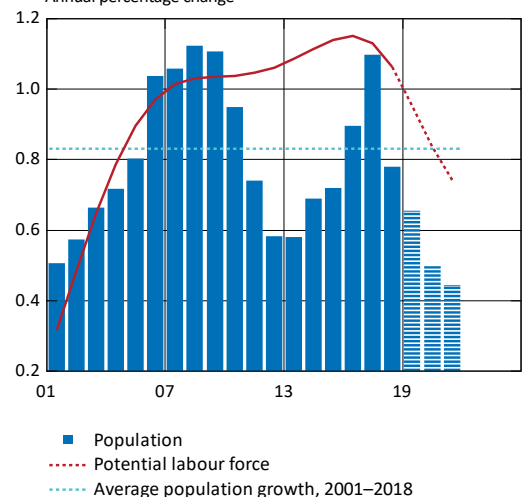
### Trade conflict between the US and China continuing with new measures

The trade conflict between the United States and China is continuing, with new measures taken after President Trump announced that the United States would introduce further tariffs during the autumn of 15 per cent on goods imported from China, corresponding to around USD 300 billion. Together with the previous tariff increases, this means that almost all US imports from China (just over USD 560 billion a year) will be subjected to tariffs.

China decided to raise tariffs by 5–10 per cent on US goods worth USD 75 billion in the autumn. The majority of the tariffs concern goods already subjected to tariffs. Examples of new goods subjected to tariffs include US oil, motor vehicles and soya beans. In total, US goods worth just over USD 120 billion will be subjected to tariffs.

The recent escalation of the trade conflict means that the risk of further measures has increased. Examples of potential measures that might be taken included raising existing tariffs or putting tariffs on further goods, as well as trade barriers such as longer lead times on imports and complex customs procedures, especially in China.

**Figure 4:7. Population and potential labour force, 15–74 years**  
Annual percentage change



Note. Potential labour force refers to the long-term sustainable level according to the Riksbank's assessment.

Sources: Statistics Sweden and the Riksbank

also contributing to higher inflation, in that the rate of wage growth, and thereby the increase in corporate labour costs, will rise somewhat faster. Elevated tariffs will contribute initially to higher inflation due to an increase in the price of imported goods. The slowdown in growth and falling resource utilisation will dampen inflationary pressures in the longer run, however. Overall, CPI inflation is expected to be just above 2 per cent in the coming years (see Figure 4:6).

## Sweden

### Slower development in labour supply going forward

The developments in the labour supply and productivity provide a picture of the growth potential in the economy. In this context, demographic developments are important. In recent years, the working-age population has grown relatively rapidly on average (see Figure 4:7). This has contributed to a sharp increase in the labour supply.

The labour force participation rate has shown a rising trend since 2009 and, in 2018, over 73 per cent of the population aged 15–74 participated in the labour force (see Figure 4:8). The upturn has occurred among both Swedish-born and foreign-born persons.

In the coming years, growth in the working-age population will slow as the Swedish-born population gets older on average and immigration is assumed to fall. However, since labour force participation among foreign-born and older people is expected to increase, the growth in the labour supply is not expected to decline as rapidly as the growth in population (see Figure 4:7).

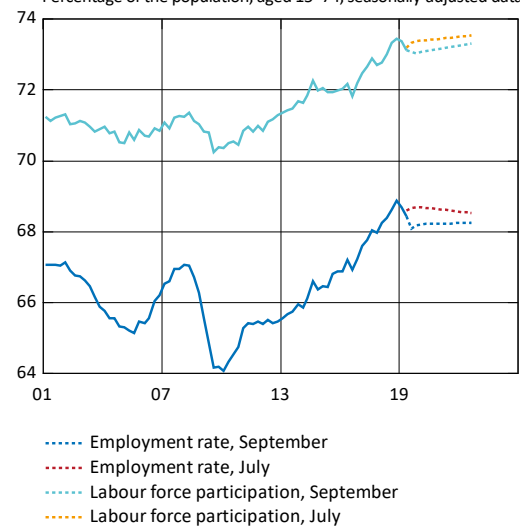
Since the financial crisis, productivity growth both in Sweden and abroad has been low, apart from a few individual years (see Figure 4:9).<sup>10</sup> Productivity growth is expected to increase slowly going forward and approach the historical average during the forecast horizon.

Overall, the increase in labour supply and productivity will lead to potential GDP growth of nearly 2 per cent a year in 2019–2021 (see Figure 4:10).

### Swedish growth slowing down

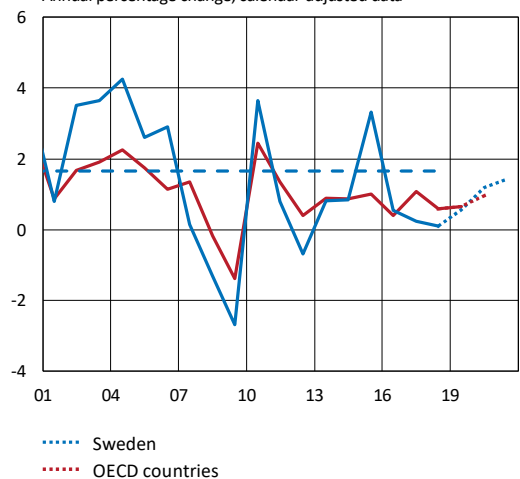
Following several years of good growth, the Swedish economy is expected to grow more slowly this year and in the coming years (see Figure 4:10). Growth is expected to be below the economy's growth potential and the strong economic activity will therefore slow down. Growth on Swedish export markets will be lower than the historical average, but domestic demand will also slow down, with weak investment growth and moderate growth in consumption. The assessment of economic developments is based on the repo rate being raised at a slower pace than was

**Figure 4:8. Employment rate and labour force participation**  
Percentage of the population, aged 15–74, seasonally-adjusted data



Sources: Statistics Sweden and the Riksbank

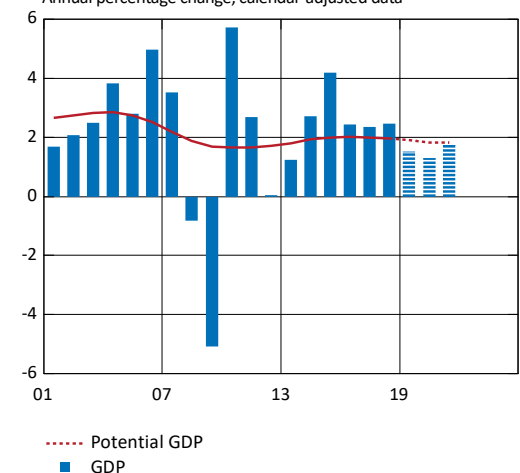
**Figure 4:9. Productivity**  
Annual percentage change, calendar-adjusted data



Note. The forecast for the OECD is taken from Economic Outlook, May 2019. Productivity for the OECD refers to GDP per employee. For Sweden, it refers to GDP per hour worked. The broken lines represent the average Swedish productivity growth 1994–2018.

Sources: OECD, Statistics Sweden and the Riksbank.

**Figure 4:10. GDP**  
Annual percentage change, calendar-adjusted data



Note. Potential GDP refers to the long-term sustainable level according to the Riksbank's assessment.

Sources: Statistics Sweden and the Riksbank

<sup>10</sup> For an international comparison and review of various explanatory factors, see the chapter "Produktiviteten i Sverige" ["Productivity in Sweden"] in "Lönebildningsrapporten 2017" (in Swedish only, summarised as Wage Formation in Sweden 2017), National Institute of Economic Research.

previously forecast. The revisions to the economic outlook and inflation prospects are therefore small.

**Continued weak development in housing investment**

The construction of housing was an important driving force when economic activity in Sweden strengthened during 2014–2017. However, when construction continued to increase very rapidly at the same time as demand for housing declined, housing prices fell in autumn 2017. The weaker prices have led to a rapid slowdown in the number of housing starts. The decline is expected to continue both this year and next year (see Figure 4:11). This dampens developments in housing investment and thereby GDP. However, housing prices have been rising moderately since spring 2018 and this contributes to stabilising housing construction, and housing investment will therefore slow down GDP growth to a lesser extent in 2021 and 2022. Moreover, despite the decline, the number of housing starts is expected to remain at historically high levels.

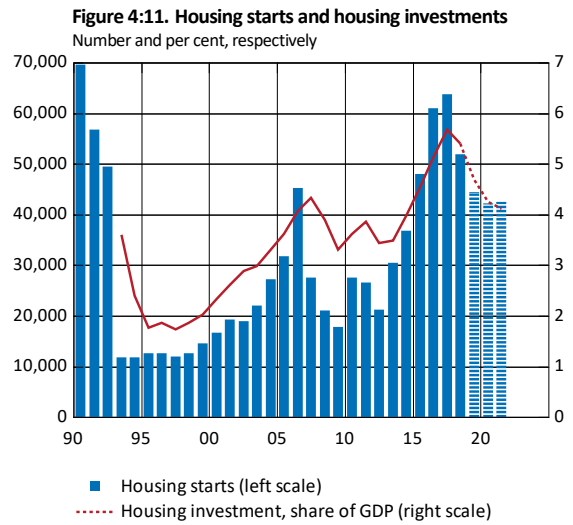
An adjustment towards a more long-term investment level is expected to contribute to business sector investment, excluding housing investment, growing more slowly than in recent years. Companies’ total gross investment, including housing investment, will decline somewhat this year and then increase slowly. Investment as a share of GDP will decline (see Figure 4:12).

**Some recovery in household consumption**

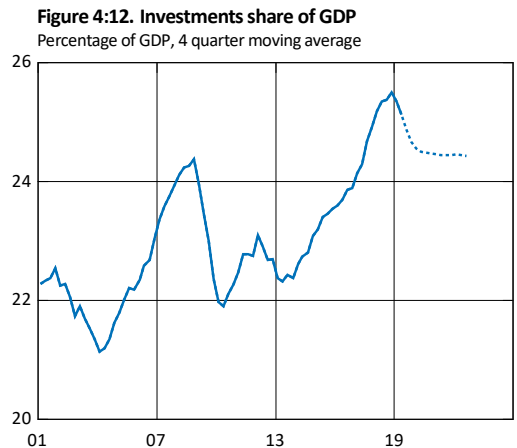
The slowdown on the labour market, together with marginally rising mortgage rates, will contribute to households’ disposable incomes increasing more slowly this year and in the coming years. Households are currently saving a historically high share of their incomes, according to the National Accounts.<sup>11</sup> This is thought to be partly explained by households leaving scope for rising interest rates. According to the National Institute of Economic Research’s Consumer Tendency Survey, households’ interest rate expectations are compatible with a somewhat larger rise than the Riksbank has forecast. A continuing strong labour market and a stabilisation of the situation on the housing market are expected to contribute to households consuming a greater share of their incomes (and saving less). Over the next few years, consumption is expected to increase somewhat more slowly than the historical average (see Figure 4:13).

**Weak rise in housing prices and debt ratio**

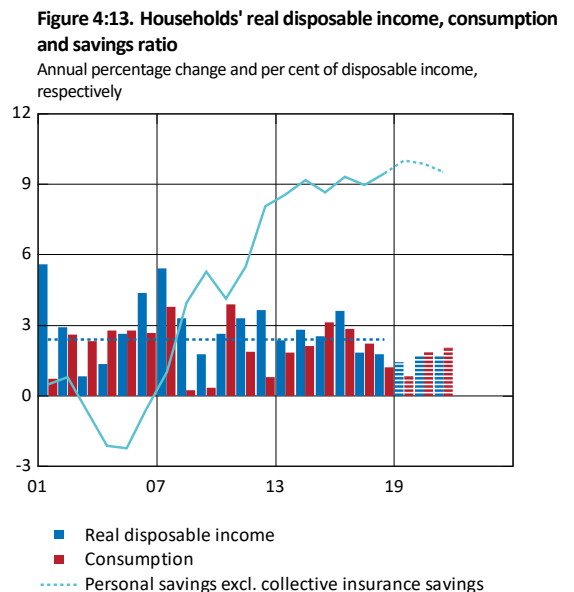
Housing prices have risen over the past year and an increasing number of people believe they will continue rising (see Figure 1:10). The Riksbank’s forecast is that the upturn in housing prices will be modest in the coming years, partly because the supply of new builds will remain large, mortgage rates will become slightly higher, and amortisation requirements will have a dampening effect on prices.



Sources: Statistics Sweden and the Riksbank



Sources: Statistics Sweden and the Riksbank



Note. Disposable income has been deflated using the household consumption deflator. Broken line is the average of consumption growth 1994–2018. Collective insurance savings consist of savings that households do not control themselves, such as premium pensions and group insurance policies.

Sources: Statistics Sweden and the Riksbank

<sup>11</sup> Other measures of savings and an imminent revision to the National Accounts figures do indicate that savings might be somewhat lower, but nevertheless relatively high.



Household debt usually covaries with housing prices, as housing purchases are largely financed through loans. One important reason for the development in debt is that the current house buyers on the secondary market must pay a much higher price on average for the home that the sellers paid when they bought it. The weak development in housing prices in recent years has meant that the build-up of debt has slowed down and debts are increasing at roughly the same pace as household incomes. However, even if the build-up in debt slows down further, incomes will be weaker and the household debt-to-income ratio will continue rising to just over 190 per cent at the end of 2022 (see Figure 1:11).

**High resource utilisation will normalise in the coming years**

Swedish economic activity is strong, but growth is now slowing down. In recent months the demand for labour appears to have declined and the number of employed has fallen. However, employment is expected to increase in the period ahead, albeit at a much slower pace than previously. During 2018 the number of employed rose by almost 2 per cent. This year growth is expected to be just below half a percentage point.

At the same time as developments on the labour market have been favourable, there are signs that it is difficult to match job seekers with vacant jobs. A common way of illustrating how well matching on the labour market is functioning is to use the Beveridge curve that shows the correlation between unemployment and the vacancy rate. Rising vacancy rates are normally associated with falling unemployment and vice versa.

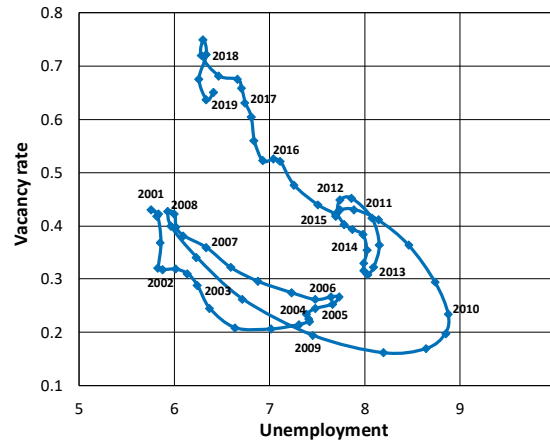
After the financial crisis unemployment has been higher for a given vacancy rate, which is illustrated by the Beveridge curve having shifted outwards (see Figure 4:14). This indicates that matching on the labour market has deteriorated. One explanation for this is probably the large inflow to the labour force of groups with weak connections to the labour market. This applies in particular to people lacking upper-secondary school education or work experience in the Swedish labour market.

On 1 January, the Swedish Public Employment Service stopped some recruitment incentives as a result of reduced allocations in the year's budget. The Employment Service now assesses that this cutback is one reason why the number of registered unemployed has increased, and it expresses concern that it may result in longer periods of unemployment. Today the percentage of registered unemployed with weak competitiveness is close to 75 per cent and going forward the inflow to the labour force is expected to consist largely of people who on average find it relatively more difficult to obtain work.<sup>12</sup> As the demand for labour is expected at the same time to grow more slowly, unemployment is expected to rise somewhat in the coming years (see Figure 4:15).

<sup>12</sup> The Swedish Public Employment Service defines people with weak competitiveness as unemployed persons who lack upper-secondary school education, and/or are born outside Europe and/or have a disability and/or are 55-64 years old.

**Figure 4:14. Beveridge curve**

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

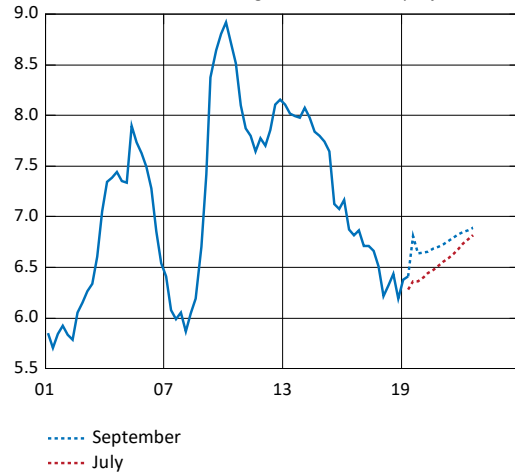


Note. Dates denote first quarter of each year respectively. Vacancies in the business sector.

Sources: Statistics Sweden and the Riksbank

**Figure 4:15. Unemployment**

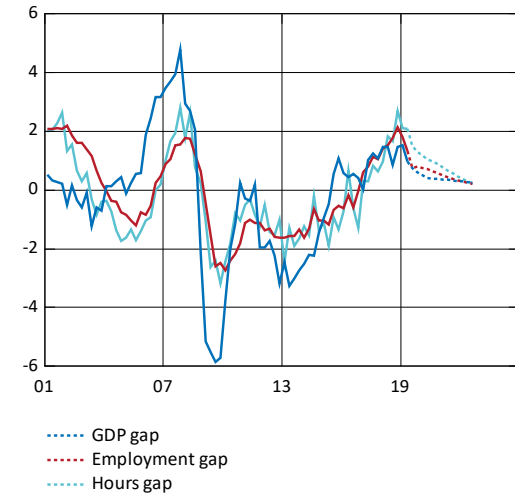
Per cent of the labour force, aged 15-74, seasonally-adjusted data



Sources: Statistics Sweden and the Riksbank

**Figure 4:16. GDP gap, employment gap and hours gap**

Per cent



Note. The gaps refer to the deviation of GDP, the number of those employed and the number of hours worked from the Riksbank's assessed trends.

Sources: Statistics Sweden and the Riksbank

Overall, resource utilisation on the labour market, and in the economy as a whole, is expected to remain higher than normal. As GDP growth, employment and hours worked become lower than their respective growth trends, resource utilisation will gradually normalise in the coming years (see Figure 4:16).

**Wage growth rising gradually**

In recent years, wages have increased at a modest pace, in relation to both the economic situation and their historical average. One important reason for this is that productivity growth has been low. Productivity growth affects the scope that companies have to raise wages. The low productivity growth has at the same time meant that cost pressures, measured as unit labour costs, have increased relatively rapidly (see Figure 4:17).

Wage growth according to short-term wage statistics is expected to be 2.6 per cent this year. Resource utilisation is high and expected to contribute gradually to a rise in wage growth. At the same time, wage growth abroad has risen and in Germany is just over 3 per cent. During 2020, new wage negotiations will take place in a situation where the labour market has been fairly strong for a long time, at the same time as inflation and inflation expectations have been close to 2 per cent. Moreover, productivity is expected to rise slightly faster going forward. Overall, these factors suggest rising wage growth. Unit labour costs are expected to rise more or less in line with their historical average of around 2 per cent per year in the coming years (see Figure 4:17). Real wages, which have been weak in recent years, are expected to increase somewhat going forward (see Figure 4:18).

**Krona will appreciate in period ahead**

The Swedish krona has weakened since July (see Figure 4:19). It weakened somewhat in connection with the preliminary outcome for Swedish GDP during the second quarter, which was somewhat lower than expected, and in connection with the new measures in the ongoing trade conflict between the United States and China. The krona thus remains weaker than its long-term equilibrium level.<sup>13</sup> Going forward the krona is expected to gradually strengthen towards its long-term equilibrium level in line with the assessment in the July Monetary Policy Report (see Figure 4:19).<sup>14</sup>

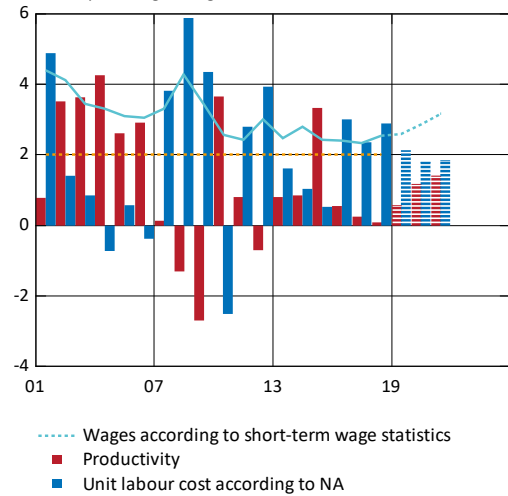
**Strong economic activity and high resource utilisation behind the favourable inflation rate**

Inflation has now been close to the Riksbank’s inflation target of 2 per cent since the start of 2017 (see Figure 4:20). The strong economic activity in Sweden has been important for the development of inflation. The krona depreciation, which has contributed to a higher rate of price increase on imported goods, is another important factor. Rising energy prices in recent years

<sup>13</sup> See the article “Trend development of the Swedish krona” in the Monetary Policy Report published in July 2019.

<sup>14</sup> The Riksbank’s assessment is that the long-term equilibrium level for the real exchange rate measured as KIX is in the interval 120-135.

**Figure 4:17. Wages and labour costs in the whole economy**  
Annual percentage change

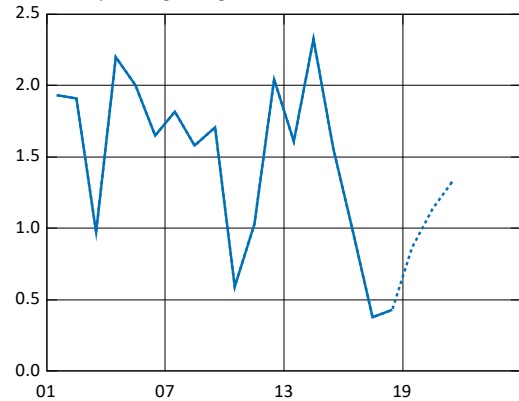


Note. Broken line is the average of unit labour cost according to NA 1994-2018.

Sources: National Mediation Office, Statistics Sweden and the Riksbank

**Figure 4:18. Real wages**

Annual percentage change

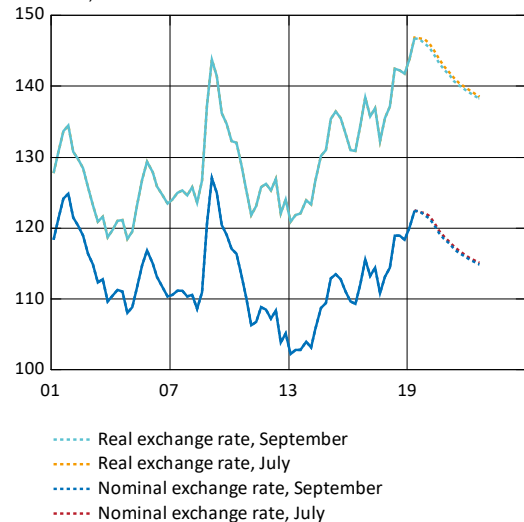


Note. Short-term wages are deflated by the CPIF.

Sources: National Mediation Office, Statistics Sweden and the Riksbank

**Figure 4:19. Real and nominal exchange rate, KIX**

Index, 18 November 1992 = 100



Note. The real exchange rate is calculated using the CPI for Sweden and the CPI for the rest of the world. The KIX (krona index) is a weighted average of the krona exchange rate against currencies in 32 countries that are important for Sweden's international transactions. A higher value indicates a weaker exchange rate.

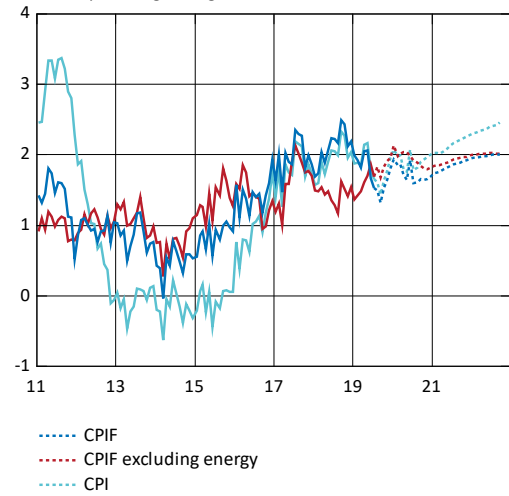
Sources: National sources, Statistics Sweden and the Riksbank

have also contributed. The lower rate of increase in energy prices recently has meant, however, that inflation has fallen to around 1.5 per cent. However, the earlier appreciation of the krona, continued high rates of price increase for food and the slower fall in energy prices are expected to contribute to inflation being close to 2 per cent again towards the end of the year.

Since the monetary policy meeting in July, inflation has been somewhat higher than expected. In July, CPIF inflation amounted to 1.5 per cent. If energy prices are excluded, CPIF inflation was higher and amounted to 1.7 per cent. The median of different measures of underlying inflation regularly analysed by the Riksbank lies close to 2 per cent.

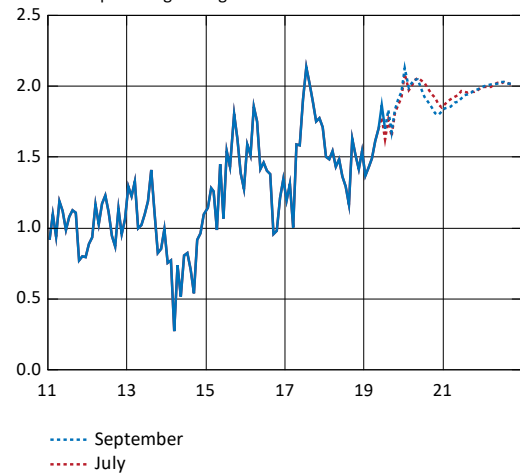
It is assumed that over the coming years, the krona will appreciate somewhat at the same time as energy prices are expected to increase more slowly than before, which will subdue inflation. However, inflation has been good for a long period and resource utilisation continues to be higher than normal. Together with rising wage growth, this means that companies are expected to continue raising their prices at a pace that means inflation in terms of both the CPIF and the CPIF excluding energy will be close to 2 per cent throughout the forecast period (see Figure 4:20). The forecast for the repo rate indicates that it will be raised at a slower pace than in the assessment in July, which contributes to inflation prospects remaining largely unchanged (see Figures 4:21 and 1:5).

**Figure 4:20. CPIF, CPIF excluding energy and CPI**  
Annual percentage change



Sources: Statistics Sweden and the Riksbank

**Figure 4:21. CPIF excluding energy**  
Annual percentage change



Sources: Statistics Sweden and the Riksbank

## Tables

The forecast in the previous Monetary Policy Report is shown in brackets unless otherwise stated.

**Table 1. Repo rate forecast**

Per cent, quarterly averages

	Q2 2019	Q3 2019	Q4 2019	Q3 2020	Q3 2021	Q3 2022
Repo rate	-0.25 (-0.25)	-0.25 (-0.25)	-0.23 (-0.19)	0.04 (0.14)	0.20 (0.52)	0.37 (0.90)

Source: The Riksbank

**Table 2. Inflation**

Annual percentage change, annual average

	2017	2018	2019	2020	2021
CPI	2.0 (2.0)	2.1 (2.1)	1.7 (1.7)	1.7 (1.8)	1.8 (1.9)
CPI excl. energy	1.7 (1.7)	1.4 (1.4)	1.7 (1.7)	1.9 (2.0)	1.9 (1.9)
CPI	1.8 (1.8)	2.0 (2.0)	1.8 (1.8)	1.9 (2.2)	2.1 (2.6)
HICP	1.9 (1.9)	2.0 (2.0)	1.7 (1.7)	1.7 (1.8)	1.8 (1.8)

Note. HICP is an EU harmonised index of consumer prices.

Sources: Statistics Sweden and the Riksbank

**Table 3. Summary of financial forecasts**

Per cent, unless otherwise stated, annual average

	2017	2018	2019	2020	2021
Repo rate	-0.5 (-0.5)	-0.5 (-0.5)	-0.3 (-0.2)	0.0 (0.1)	0.2 (0.5)
10-year rate	0.7 (0.7)	0.7 (0.7)	0.1 (0.3)	0.1 (0.6)	0.6 (1.1)
Exchange rate, KIX, 18 November 1992 = 100	112.9 (112.9)	117.6 (117.6)	121.7 (121.7)	119.9 (120.2)	116.8 (117.1)
General government net lending*	1.4 (1.4)	0.9 (0.9)	0.1 (0.3)	0.0 (0.3)	0.1 (0.3)

\* Per cent of GDP.

Sources: Statistics Sweden and the Riksbank

**Table 4. International conditions**

Annual percentage change, unless otherwise stated

GDP	PPP-weights	KIX-weights	2017	2018	2019	2020	2021
Euro area	0.11	0.49	2.6 (2.5)	1.9 (1.9)	1.1 (1.2)	1.3 (1.4)	1.4 (1.4)
USA	0.15	0.08	2.4 (2.2)	2.9 (2.9)	2.3 (2.5)	1.7 (1.6)	1.7 (1.6)
Japan	0.04	0.02	1.9 (1.9)	0.8 (0.8)	1.1 (0.8)	0.4 (0.5)	0.9 (0.9)
China	0.19	0.08	6.7 (6.7)	6.7 (6.7)	6.1 (6.0)	5.9 (5.9)	5.9 (5.9)
KIX-weighted	0.75	1.00	3.0 (2.9)	2.6 (2.6)	2.0 (2.0)	2.0 (2.0)	2.0 (2.0)
World (PPP-weighted)	1.00	—	3.8 (3.8)	3.6 (3.6)	3.3 (3.3)	3.6 (3.5)	3.6 (3.6)

Note. Calendar-adjusted growth rates. The PPP weights refer to the global purchasing-power adjusted GDP weights for 2018, according to the IMF. KIX weights refer to weights in the Riksbank's krona index (KIX) for 2019. 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 previous five years.

CPI	2017	2018	2019	2020	2021
Euro area (HICP)	1.5 (1.5)	1.8 (1.8)	1.2 (1.2)	1.3 (1.3)	1.6 (1.6)
USA	2.1 (2.1)	2.4 (2.4)	1.8 (1.8)	2.3 (2.2)	2.3 (2.2)
Japan	0.5 (0.5)	1.0 (1.0)	0.7 (0.6)	1.3 (1.4)	1.1 (1.1)
KIX-weighted	1.9 (1.9)	2.2 (2.2)	1.8 (1.9)	1.9 (1.9)	2.0 (2.0)

	2017	2018	2019	2020	2021
Policy rates in the rest of the world, per cent	-0.1 (-0.1)	0.1 (0.1)	0.1 (0.2)	0.0 (0.2)	0.0 (0.3)
Crude oil price, USD/barrel Brent	54.8 (54.8)	71.5 (71.5)	62.9 (64.3)	57.2 (59.5)	56.4 (58.5)
Swedish export market	5.3 (5.0)	3.4 (3.3)	3.2 (3.4)	3.5 (3.6)	3.4 (3.4)

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

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

**Table 5. GDP by expenditure**

Annual percentage change, unless otherwise stated

	2017	2018	2019	2020	2021
Private consumption	2.2 (2.2)	1.2 (1.2)	0.8 (0.7)	1.8 (1.8)	2.0 (2.0)
Public consumption	0.0 (0.0)	0.9 (0.9)	0.5 (0.8)	0.7 (0.8)	0.8 (0.8)
Gross fixed capital formation	6.0 (6.0)	4.0 (4.0)	-1.1 (0.4)	1.0 (1.5)	2.1 (1.8)
Inventory investment*	0.1 (0.1)	0.4 (0.4)	-0.2 (0.0)	-0.2 (-0.2)	0.0 (0.0)
Exports	3.2 (3.2)	3.9 (3.9)	3.8 (4.3)	3.7 (3.8)	3.6 (3.6)
Imports	4.8 (4.8)	3.8 (3.8)	0.6 (1.9)	2.8 (3.1)	3.4 (3.4)
GDP	2.1 (2.1)	2.4 (2.4)	1.5 (1.8)	1.5 (1.6)	1.9 (1.8)
GDP, calendar-adjusted	2.4 (2.4)	2.5 (2.5)	1.5 (1.8)	1.3 (1.4)	1.7 (1.7)
Final domestic demand*	2.4 (2.4)	1.8 (1.8)	0.2 (0.6)	1.2 (1.4)	1.6 (1.6)
Net exports*	-0.5 (-0.5)	0.2 (0.2)	1.5 (1.2)	0.5 (0.5)	0.3 (0.3)
Current account (NA), per cent of GDP	3.7 (3.7)	3.1 (3.1)	4.7 (4.4)	5.1 (4.7)	5.2 (4.8)

\*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 6. Production and employment**

Annual percentage change, unless otherwise stated

	2017	2018	2019	2020	2021
Population, aged 15–74	1.1 (1.1)	0.8 (0.8)	0.7 (0.7)	0.5 (0.5)	0.4 (0.4)
Potential hours worked	1.1 (1.1)	1.1 (1.1)	1.0 (1.0)	0.9 (0.9)	0.7 (0.7)
Potential GDP	2.0 (2.0)	2.0 (2.0)	1.9 (1.9)	1.8 (1.8)	1.8 (1.8)
GDP, calendar-adjusted	2.4 (2.4)	2.5 (2.5)	1.5 (1.8)	1.3 (1.4)	1.7 (1.7)
Number of hours worked, calendar-adjusted	2.1 (2.1)	2.4 (2.4)	0.9 (1.0)	0.1 (0.4)	0.3 (0.3)
Employed, aged 15–74	2.3 (2.3)	1.8 (1.8)	0.4 (0.9)	0.3 (0.5)	0.5 (0.4)
Labour force, aged 15–74	2.0 (2.0)	1.4 (1.4)	0.7 (0.9)	0.4 (0.6)	0.6 (0.5)
Unemployment, aged 15–74 *	6.7 (6.7)	6.3 (6.3)	6.6 (6.3)	6.7 (6.5)	6.8 (6.6)
GDP gap**	0.8 (0.8)	1.3 (1.3)	1.0 (1.3)	0.4 (0.8)	0.3 (0.7)
Hours gap**	0.5 (0.5)	1.8 (1.8)	1.7 (1.8)	1.0 (1.4)	0.6 (1.0)

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

Note. Potential hours refer to the long-term sustainable level for the number of hours worked according to the Riksbank's assessment.

Sources: Statistics Sweden and the Riksbank

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

Annual percentage change, calendar-adjusted data unless otherwise stated

	2017	2018	2019	2020	2021
Hourly wage, NMO	2.3 (2.3)	2.5 (2.5)	2.6 (2.6)	2.9 (2.9)	3.2 (3.2)
Hourly wage, NA	2.5 (2.5)	2.2 (2.2)	2.7 (2.6)	2.9 (2.9)	3.2 (3.2)
Employers' contribution*	0.0 (0.0)	0.5 (0.5)	0.0 (0.1)	0.1 (0.1)	0.1 (0.1)
Hourly labour cost, NA	2.5 (2.5)	2.7 (2.7)	2.7 (2.7)	3.0 (3.0)	3.3 (3.3)
Productivity	0.2 (0.2)	0.1 (0.1)	0.6 (0.8)	1.2 (1.0)	1.4 (1.3)
Unit labour cost	2.4 (2.4)	2.9 (2.9)	2.1 (1.8)	1.8 (2.0)	1.9 (2.0)

\* 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 cost per hour is defined as the sum of actual wages, social-security charges and wage taxes (labour cost sum) divided by the number of hours worked by employees. Unit labour cost is defined as labour cost sum divided by GDP in fixed prices.

Sources: National Mediation Office, Statistics Sweden and the Riksbank



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