SVERIGES RIKSBANK

# Monetary Policy Report

## October 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.[1] 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 23 October 2019. The report may be downloaded in PDF format from the Riksbank's website www.riksbank.se, where more information about the Riksbank can also be found.

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

# Monetary policy in Sweden

**MONETARY POLICY STRATEGY**

- According to the Sveriges Riksbank Act, the objective for monetary policy is to maintain price stability. The Riksbank has defined this as a 2 per cent annual increase in the consumer price index with a fixed interest rate (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 ten days 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.

# Contents

# CHAPTER 1 – Monetary policy considerations

In Sweden, as in the rest of the world, the economy has entered a phase with a lower growth rate. Taken together, the new information that has been received since September suggests that economic activity is slowing down faster than expected. At the same time, the slowdown implies the normalisation of an economic situation that has been strong for many years with high growth and strong development on the labour market. So, even though the forecasts have been revised downwards, they are not giving a picture of a recession – neither abroad nor in Sweden. Since the start of 2017, inflation has been close to the inflation target. It has fallen back over recent months but this was expected and, taken together, the inflation prospects for the next year remain unchanged since September. Consequently, the Executive Board has decided to keep to the previously announced monetary policy plan in the near term. This involves keeping the repo rate unchanged at –0.25 per cent now, while the forecast, as in September, indicates that the repo rate will, most probably, be raised in December to zero per cent. However, there is substantial uncertainty over the economic outlook and inflation prospects abroad and in Sweden over the coming years. The forecast for the repo rate has therefore been revised downwards and indicates that the repo rate will stay unchanged for a prolonged period after the expected increase in December. 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.

## Faster slowdown towards normal economic situation

### Gradual slowdown in global economy

Since the end of 2017, GDP growth abroad has slowed down towards more normal levels. Growth is expected to continue to fall slightly in the near term. Risks linked to the trade conflict between the United States and China and the unclear situation around the United Kingdom's withdrawal from the EU persist and are creating uncertainty over growth prospects. Even though interest rates are expected to be very low over the entire forecast period, GDP abroad (weighed with KIX weights) is expected to grow at a modest rate, just below 2 per cent per year in the years ahead. This is slightly below the historical average. Underlying inflation has been low for quite some time, especially in the euro area. Long-term inflation expectations remain at low levels, particularly according to market-based measures. An expansionary monetary policy in many countries is expected to contribute to limit the slowdown so that a recession is avoided. Considering factors such as strong labour markets, core inflation is expected to rise abroad.

Market rates have recently stabilised in many countries after the downturns that began at the start of the year. The development of the financial markets continues to be characterised by concern that economic developments will worsen and by expectations of an increasingly expansionary monetary policy. Even though interest rates have fallen since the start of the year, prices for higher-risk assets such as equities

**Table 1:1.**

| **Important factors for monetary policy** |
|---|
| Monetary policy stimulus measures are continuing to support global economic activity. Inflation is rising slowly and the long-term inflation expectations remain on low levels, particularly in the euro area. |
| A clear downturn in economic activity in Sweden, towards more normal levels, is now occurring. |
| Inflation in Sweden has fallen as forecast but is expected to rise again over the coming period. 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 repo rate will most probably be raised in December to zero per cent, after which it will stay unchanged over almost the entire forecast period. |

**Table 1:2.**

| **Important forecast revisions since September MPR** |
|---|
| Unexpectedly weak outcomes and indicators are pointing to lower growth and inflation in the euro area over the period ahead. Slightly lower policy rates during the forecast period. |
| Outcomes and indicators point to declining Swedish growth and a slightly faster slowdown on the labour market. The rate of wage increase has therefore also been revised slightly downwards for the period ahead. |
| The development of the krona has been weaker than anticipated and is also expected to be weaker over the entire forecast period. |
| More restrained resource utilisation, together with slower wage growth, implies slightly lower inflation after 2020. However, the weaker krona and more expansionary monetary policy are partly counteracting this. The revision of the inflation prospects towards the end of the forecast period is therefore minor. |

have risen and the difference between the yields on risky and safe assets has decreased. In all, pricing on the financial markets thereby does not signal any expectations of a rapid downturn in global economic activity. Over the year, many central banks abroad have made their monetary policies more expansionary in various ways. Taken together, the financial conditions abroad are still expansionary.

**Slowdown in the Swedish economy**

Sweden has benefited from the strong international economy and low interest rates but, after several years of good growth and strong economic activity, the Swedish economy is now growing more slowly (see Figure 1:2). This year, this is primarily due to domestic demand having weakened: housing construction is continuing to decrease and the development of household consumption has been weaker than previously. Growth in domestic demand is expected to be slightly higher in the coming years, but, at the same time, the rate of increase of exports will slow down. In the second half of the forecast period, uncertainty in the global economy is predicted to decrease. Taken together, the Swedish growth is therefore expected to rise from 1.2 per cent next year to 1.8 per cent in 2022.

As economic activity has entered a phase of lower growth in 2019, the labour market has also cooled down. Unemployment is deemed to have increased slightly during the year. However, the assessment is still that a historically high proportion of the working-age population are in employment. Demand for labour has slowed down, reflected by companies no longer experiencing equally large labour shortages and no longer planning to recruit at the same pace as before. Demand for labour is expected to diminish further over the forecast period, meaning that the employment rate will fall slightly and unemployment will rise at a slow rate.

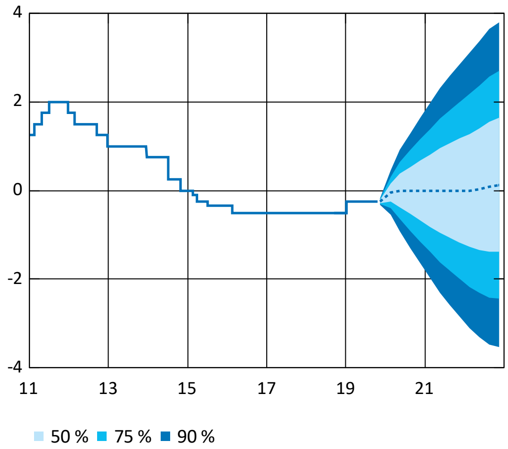
After several years of strong economic activity, overall resource utilisation in the Swedish economy is expected to be close to a normal level over most of the forecast period.

**Slightly lower inflation in the years ahead**

Since the start of 2017, inflation has been close to the target of 2 per cent. In recent months, inflation has fallen, as expected, as the rate of increase in energy prices has slowed down. CPIF inflation amounted to 1.3 per cent in September (see Figure 1:3). At the same time, the rate of increase in the CPIF excluding energy was higher, amounting to 1.6 per cent. The Riksbank's different measures of core inflation indicate that the permanent part of the inflation rate is just below 2 per cent. Towards the end of the year, inflation according to both the CPIF and the CPIF excluding energy is expected to rise towards 2 per cent, among other things because the krona has depreciated and because energy prices will stop falling. The increase can also be explained by the previous low price increases for certain goods and services now affecting the rate of inflation to a decreasing extent. The influence of the krona on inflation will drop off over the course of

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

Per cent

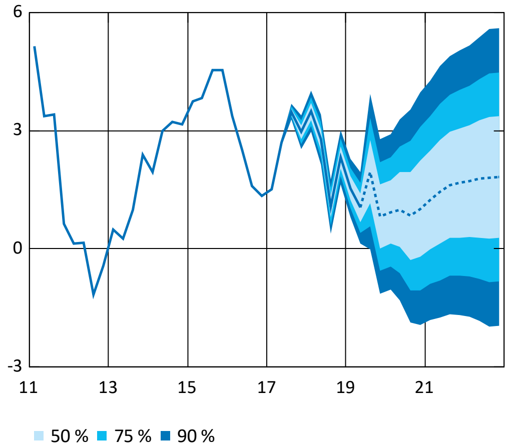



Note. The uncertainty bands for the repo rate are based on the Riksbank's historical forecasting errors and the ability of risk-premium adjusted forward rates to forecast the future repo rate for the period 1999 up to the point when the Riksbank started to publish forecasts for the repo rate during 2007.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

Source: The Riksbank

**Figure 1:2. GDP with uncertainty bands**

Annual percentage change, seasonally-adjusted data

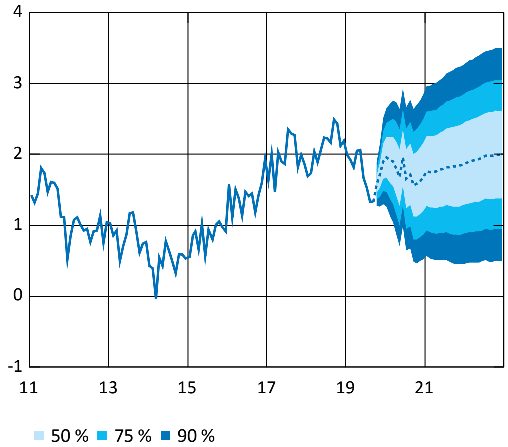



Note. The uncertainty bands are based on the Riksbank's historical forecasting errors. The reported outcomes for GDP are also uncertain, as the National Accounts figures are revised several years after the first publication.

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

next year, at the same time as energy prices will have a restraining effect on price developments. Inflation will therefore be somewhat lower in 2020. However, the conditions for inflation to be close to the inflation target are expected to remain good. Economic activity has been strong for several years and, even if it is now slowing down, the situation remains good, the krona is not expected to appreciate dramatically and companies' costs, measured as unit labour costs, are increasing by approximately 2 per cent per year. Towards the end of the forecast period, inflation is expected to be close to the target of 2 per cent.

## Current monetary policy

**Faster slowdown towards normal economic situation**

In Sweden, as in the rest of the world, the economy has entered a phase with a lower growth rate. Compared with the assessment made in September, the economic outlook for the euro area has deteriorated slightly and growth and inflation prospects have been revised downwards. Both the US central bank, the Federal Reserve, and the European Central Bank (ECB) have made monetary policy more expansionary. The risks and uncertainty over the development of the global economy persist.

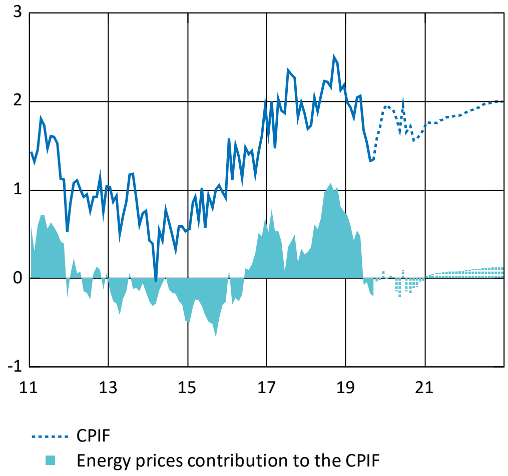
In Sweden, GDP growth in the first six months of 2019 has been characterised, above all, by the weak development of domestic demand, which has been burdened by the lower rate of housing construction. According to the regular (?) outcome for the National Accounts for the second quarter of this year, growth of Sweden's GDP was 0.5 per cent compared with the first quarter and calculated at an annual rate. Although this was slightly higher than in the forecast from September, the outcome for the first quarter was also simultaneously revised down.

Economic activity has been strong for several years but has slowed down since mid-2018. Indicators suggest that growth will remain modest in the period ahead. Confidence among Swedish households has slowed down over the last year. Confidence has also fallen among companies, particularly within the manufacturing sector. At the same time, monthly statistics for demand and production have shown that development has been relatively strongly recently. Both household consumption indicators and foreign trade in goods give a more optimistic view than the confidence indicators in the third quarter. Taken together, however, the slowdown in the Swedish economy is expected to be faster than expected and the GDP forecast has therefore been revised down.

The forecasts have for some time been showing that economic activity and thereby the labour market were to enter a slowdown phase. The most recent outcome of the labour force surveys (LFS) has indicated that the slowdown is proceeding faster than expected. Other statistics and indicators have not painted such a dramatic picture as the LFS and, upon publication in October, Statistics Sweden announced it had identified quality

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

Annual percentage change and percentage points, respectively

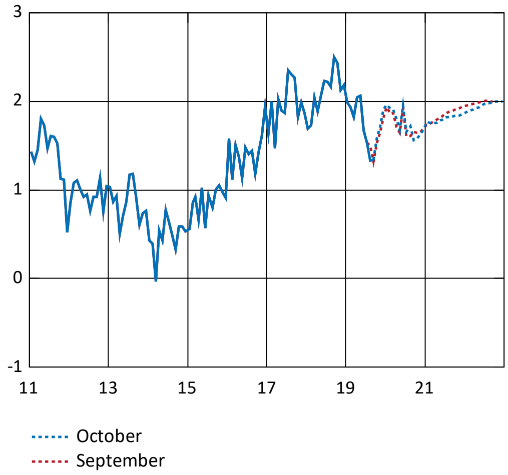



Note. The contribution of energy prices to the CPIF in the forecast is calculated as the annual percentage change in energy prices multiplied by their current weight in the CPIF.

Sources: Statistics Sweden and the Riksbank

**Figure 1:5. CPIF**

Annual percentage change




Sources: Statistics Sweden and the Riksbank

flaws in the data collection meaning that the sudden rise in unemployment is misleading.[2] The outcomes will be revised but it is unclear how long this will take. In light of the available information, labour market development looks slightly weaker than the Riksbank's forecast in September.

Apart from the strong economic activity, rapidly rising energy prices contributed to inflation being close to 2 per cent last year (see Figure 1:4). For some time, the Riksbank has forecast that the rate of increase in energy prices would retreat in 2019 and the downturn in inflation seen in recent months has therefore been expected. Inflationary outcomes in September were well in line with the Riksbank's forecast, measured both with and without energy prices. All in all, the inflation forecast for the next year is largely unchanged compared with the forecast from September (see Figure 1:5). As the development of the labour market is expected to be slightly weaker, wage growth is also expected to be somewhat lower over the next few years. Together with lower resource utilisation, this is contributing towards the inflation forecast being revised slightly downwards over the later part of the forecast period (see Figure 1:5). The effect on inflation of a faster slowdown in the Swedish economy is partly being counteracted by the weaker than expected development of the krona.

According to both pricing on the financial markets and survey-based measures, long-term inflation expectations have risen in in Sweden since 2015 (see Figure 1:6). However, according to Prospera's survey, inflation expectations five years ahead have fallen back slightly over the current year. Nevertheless, the overall view is that inflation expectations have been close to 2 per cent for a few years now.[3]

**Repo rate held unchanged at –0.25 per cent**

Taken together, the new information received since September indicates that the slowdown in economic activity is proceeding faster than expected and that resource utilisation in the Swedish economy will be close to normal levels over the greater part of the forecast period. In Sweden, we have had a long period of high growth and strong development on the labour market. The slowdown means the normalisation of economic activity that has been strong for many years. Even though the forecasts have now been revised downwards, they are not giving a picture of a recession – neither abroad nor in Sweden.

Since the start of 2017, inflation has been close to the inflation target. It has certainly fallen back slightly in recent months, but this was expected and, compared with September, these are only small overall revisions of the inflation forecast. After 2020, it will take slightly longer for inflation to approach 2 per cent again.

[2] See press release from SCB https://www.scb.se/om-scb/nyheter-och-pressmeddelanden/kvalitetsbrister-i-datainsamlingen-paverkar-aku/

[3] See also the article "Inflation expectations in Sweden close to 2 per cent" in Monetary Policy Report, September 2019.

**Side-effects of monetary policy**

The Riksbank continuously analyses the effects on the economy of the negative repo rate and the government bond purchases. This is because 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 for the Riksbank. 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.

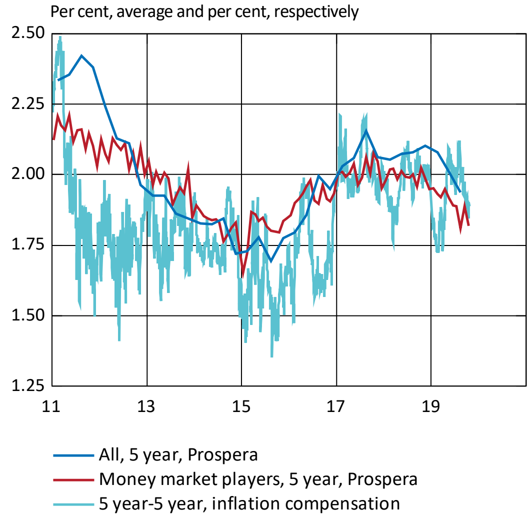
The way financial markets functionmay be affected by a negative repo rate and government bond purchases. So far, however, the markets have been able to manage negative interest rates relatively smoothly. But the Riksbank's purchases of government bonds have meant that a large proportion of the stock 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 than investors in their view of the functioning of the market. 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 the low and negative interest rates.

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

**Figure 1:6. Long-term inflation expectations**

Per cent, average and per cent, respectively




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

Sources: Kantar Sifo Prospera and the Riksbank

Since the start of 2015, the repo rate has been negative, at the same time as the Riksbank has carried out extensive purchases of government bonds. The negative repo rate and purchases of government bonds have worked well and had a positive impact in the economy. But if negative nominal interest rates are perceived as a more permanent state, the behaviour of agents may change and negative effects may arise.

In light of this, the Executive Board considers it appropriate, in the near term, to keep to the monetary policy plan presented in the Monetary Policy Report in September. This involves keeping the repo rate unchanged at –0.25 per cent now, while the forecast, as in September, indicates that the repo rate will, most probably, be raised in December to zero per cent (see Figure 1:7). Even with this increase, monetary policy will continue to be highly expansionary, supporting economic activity and inflation.

In the longer term, it is reasonable to expect the repo rate to be higher than zero per cent. However, uncertainty over the development of economic activity and inflation abroad and in Sweden is substantial, which makes it difficult to say, at present, when it will be appropriate to raise the repo rate next time. Resource utilisation fell towards a more normal level slightly faster than in the Riksbank's forecast in September. The forecast for the repo rate has therefore been revised downwards and indicates that the repo rate will stay unchanged for a prolonged period after the first rise. The revised forecast for the repo rate means that monetary policy over the next few years will in all be more expansionary than in the forecast in September. The real repo rate is expected to be negative over the entire forecast period (see Figure 1:8). Monetary policy will thus continue to create good conditions for inflation close to the target.

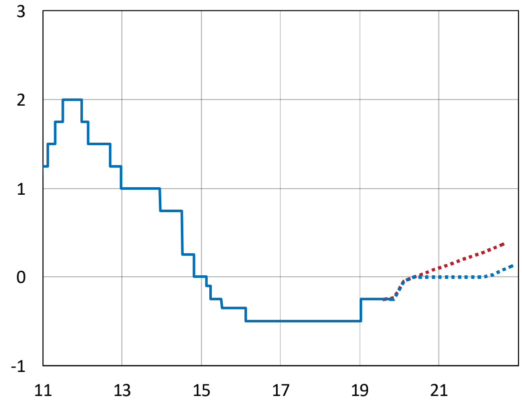
If the economic outlook and inflation prospects were to change, monetary policy in the period ahead may need to be adjusted. Improved prospects would justify a higher interest rate but, if economic growth instead were to be worse than forecast, the Executive Board may cut the repo rate or take other measures to make monetary policy more expansionary.

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

The repo rate is the primary tool for monetary policy. But, 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 September, the holdings were about SEK 325 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 1:9). This means that the Riksbank maintains holdings close to the average level since the beginning of 2018, when the net purchases were concluded (see Figure 1:10). The decision is

**Figure 1:7. Repo rate**

Per cent

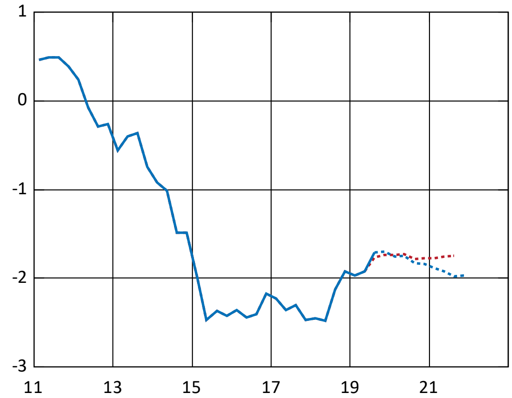



Note. Outcomes are daily data and the forecasts refer to quarterly averages.

Source: The Riksbank

**Figure 1:8. Real repo rate**

Per cent, quarterly averages

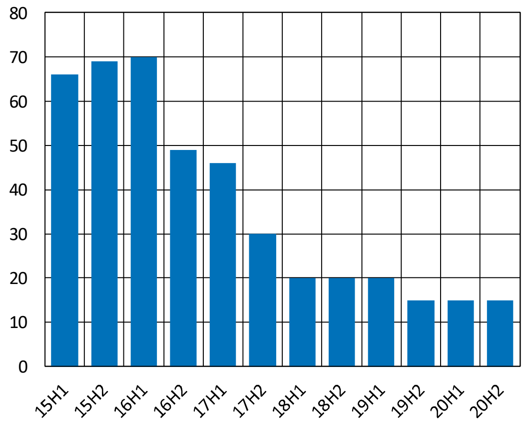



Note. The real repo rate is the Riksbank's expected real interest rate, calculated as a mean value of the Riksbank's repo rate forecast for the year ahead minus the inflation forecast (CPIF) for the corresponding period. Outcomes are based on the latest forecasts at that time.

Source: The Riksbank

**Figure 1:9. The Riksbank's purchases of government bonds**

Nominal amounts, SEK billion




Source: The Riksbank

in line with the previously communicated strategy of gradually normalising monetary policy.[4]

The Executive Board will determine in good time whether or not it is appropriate to continue purchasing government bonds after December 2020. In the long term, the holdings are expected to be smaller than today. The Riksbank will adapt the details regarding the purchases of government bonds 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 1:1–1:3. In the Riksbank's forecasts, the risks of both stronger and weaker development shall, in principle, be balanced. It is difficult, however, 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. But, on other occasions, it may be necessary to await more information before adjusting monetary policy.

**Great uncertainty over global economic developments**

Sweden is a small, open economy, meaning that developments abroad are very important. Uncertainty over the development of the global economy remains high. Above all, the trade conflict between the United States and China and uncertainty over the United Kingdom's withdrawal from the EU have dominated the risk outlook in recent years. These factors have already had a significant negative impact on the German economy, which is heavily dependent on foreign trade (see the box "Clear slowdown in the German economy" in chapter 3).

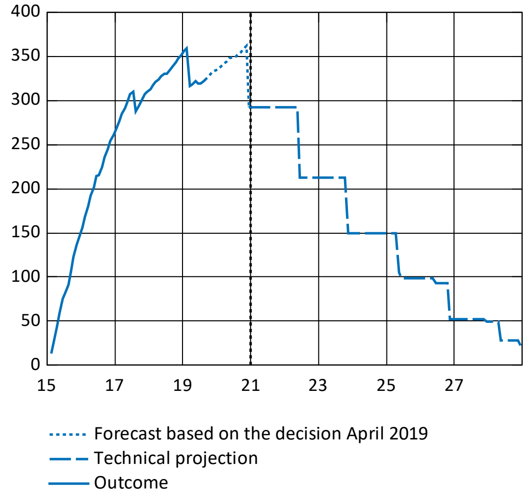
The trade conflict between the United States and China is continuing to create significant uncertainty over world trade and global growth. In a longer perspective, a continued trend towards increased protectionism also risks restraining productivity growth (see the article "World trade in constant change" in chapter 4).

There is still uncertainty over the United Kingdom's withdrawal from the EU. The British parliament has approved the government's withdrawal agreement until further notice but not the timetable that would allow a withdrawal on 31 October. The EU will now take a decision on the possibility of extending the negotiation period.

Developments in Italy form another factor that has played a part in the risk outlook. The political situation there has stabilised since the new government took office. The government which has also expressed an ambition to comply with the EU's budgetary regulations. This has reduced the uncertainty over public finances in the short term. However, Italy has high public

**Figure 1:10. 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

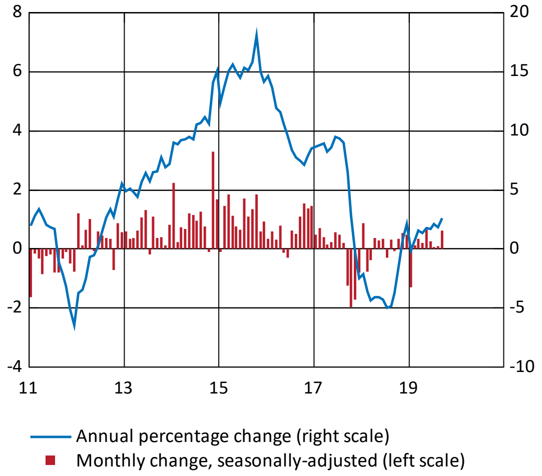
[4] See the article "The Riksbank's strategy for a gradual normalisation of monetary policy" in the December 2017 Monetary Policy Report.

debt, at the same time as growth has long been impeded by structural problems in the economy. In addition, significant challenges remain within the country's banking sector.

The geopolitical tensions in the Middle East are also contributing towards growing uncertainty over the economic and political outlook abroad, among other things due to their effects on the price of oil.

**Figure 1:11. House prices according to HOX Sweden**

Per cent




Sources: Valueguard and the Riksbank

**Doubts over domestic demand are creating further uncertainty over the forecast**

In addition to economic risks abroad, there are some questions over domestic demand. Since the start of last year, household consumption has shown signs of weakness, which is coinciding with a decline in consumer confidence. The National Accounts show that households have increased their saving over the same period. The Riksbank's forecast involves a gradual reduction of saving, so that growth in consumption is maintained. However, this assumes that confidence recovers from the current level. If it does not, consumption risks developing less strongly than in the Riksbank's forecast.

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 1:11). According to the Riksbank's forecast, prices will continue to rise weakly. However, the future development of housing prices is very uncertain. If housing prices should, instead, turn down again, both housing investment and household consumption would risk a weaker development than expected.

The Riksbank has anticipated that development on the labour market will be weaker once growth slows. This is also the development depicted by most labour market indicators. In conjunction with the outcome for the third quarter, Statistics Sweden announced that the Labour Force Surveys (LFS) give a misleading picture of the development since last summer and that the published figures show too rapid an increase in unemployment during the third quarter (see the box "Incorrect labour market statistics a cause for concern" in Chapter 3). Until new figures on the official statistics are published, there is increased uncertainty regarding developments on the Swedish labour market. This uncertainty may have a bearing on many components in the Riksbank's forecasts, for example the number of hours worked in the economy and productivity.

**Uncertainty surrounding the inflation forecast**

The risks that are affecting Swedish growth prospects could also lead to a different outcome for inflation than in the Riksbank's forecast. However, even if the economic outlook were largely to be realised, inflation may develop in an unexpected way.

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.

In recent years, productivity in Sweden has grown strikingly slowly, meaning that unit labour costs have increased faster than normal despite modest wage rises. In the period ahead, unit labour costs across the entire economy are expected to increase at a rate close to the historically normal. However, the uncertainty surrounding both wages and productivity is together making it harder to assess future domestic cost pressures.

One further uncertainty factor concerns the Swedish krona. The Riksbank's forecast involves the krona eventually strengthening from today's level.[5] Of course, the krona could become either stronger or weaker than forecast by the Riksbank. However, in recent years, it has overall become significantly weaker than expected. Compared to the assessment in September the krona is expected to be weaker during the whole forecasting period (see Figure 1:12). The last year´s weakening of the krona has contributed towards inflation rising. However, large, unexpected fluctuations in the krona exchange rate can also contribute to increasing uncertainty, thereby making it more difficult for households and companies to make long-term decisions. Ultimately, this could have a negative impact on the real economy. The difficulties in estimating the impact of the exchange rate on inflation are making a further contribution to uncertainty over the inflation forecast.[6]

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.

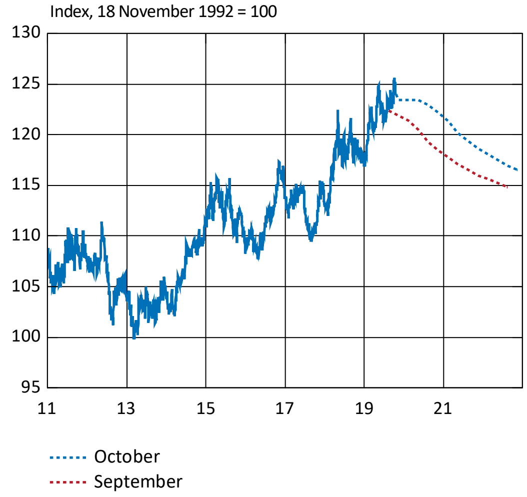
**The structural problems on the Swedish housing market must be managed**

Household debt as a percentage of disposable income is expected to increase slightly in the coming years from an already high level (see Figure 1:13). This is contributing towards increasing the macroeconomic risks in Sweden.[7] Finans-inspektionen's amortisation requirements provide an example of a measure aimed at reducing these risks over the long term.

At the same time, 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 growth 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. Examples of 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.

**Figure 1:12. Competition-weighted nominal exchange rate, KIX**

Index, 18 November 1992 = 100

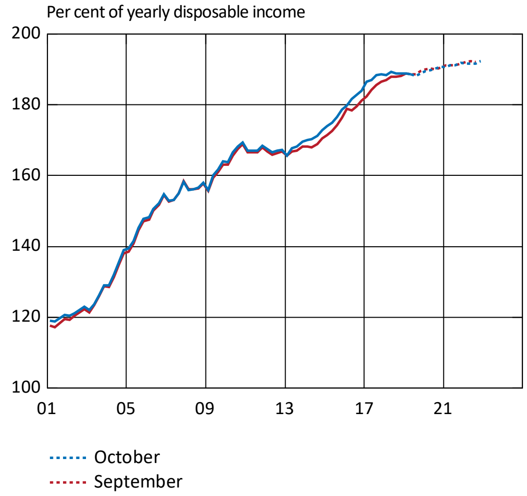



Note. Outcomes are daily rates and forecasts refer to quarterly averages. KIX refers to an aggregate of countries that are important for Sweden's international transactions.

Sources: National sources and the Riksbank

**Figure 1:13. Household debt ratio**

Per cent of yearly disposable income




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

Sources: Statistics Sweden and the Riksbank

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[5] This assessment is based on the real krona exchange rate currently being weaker than the long-term equilibrium level. See the article "Trend development of the Swedish krona" in the Monetary Policy Report of July 2019.

[6] See the article "The significance of the krona for inflation" in the Account of monetary policy 2018.

[7] See Financial Stability Report 2019:1, Sveriges Riksbank.

# CHAPTER 2 – Financial conditions

The development in the financial markets continues to be characterised, on one hand, by concern over the trade conflict between the United States and China, the United Kingdom's withdrawal from the EU and the weakening of the macro economy and, on the other hand, by expectations of a continued expansionary monetary policy. Since the turn of the year, several central banks have made their monetary policies more expansionary. The market expects further rate cuts going forward which has contributed to equity prices rising to higher levels than at the start of the year and to the differential between yields on high-risk and risk-free assets decreasing over the year. This indicates that market participants, given the lower interest rates, do not expect any strong slowdown in economic activity. Long-term inflation expectations remain at relatively low levels in some regions, primarily the euro area.

In Sweden too, the prices of high-risk assets, such as equities, have risen over the year. Government bond yields are on higher levels than at the monetary policy meeting in September, and market participants' expectations of future policy rates have risen. However, Swedish market rates are still below the rate implicit in the Riksbank's repo rate path.  At the same time, the krona is weaker than the Riksbank's forecast from September. Taken together, the financial conditions in Sweden are assessed to remain expansionary, which is contributing support to economic development.

## International developments

Over the year, the development in the financial markets has been characterised, on one hand, by concern over the trade conflict between the United States and China, the United Kingdom's withdrawal from the EU and the weakening of the macro economy and, on the other hand, by expectations of a more expansionary monetary policy. Bond yields have therefore fallen since the start of the year (see Figure 2:1). This has happened hand-in-hand with rising share prices and a shrinking differential between high-risk and safe assets (see Figures 2:2 and 2:3). The good development of higher-risk assets indicates that investors, given the expected monetary policy, are not expecting the approaching economic slowdown to be too strong.

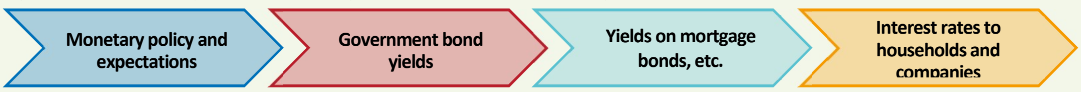
Since the Monetary Policy Report in September, the ongoing trade conflict has not escalated further at the same time as macroeconomic statistics overall have turned out to be slightly worse than expected. Government bond yields and market participants' expectations for future policy rates have risen since September (see Figure 2:1 and 2:4).

**Table 2:1.**

| **Developments on financial markets since the Monetary Policy Report in September** |
|---|
| Market participants' expectations of future policy rates have risen both in Sweden and abroad. |
| Government bond yields have risen both in Sweden and abroad. |
| After an initial depreciation and then appreciation of the krona, exchange rate is back to approximately the same level as in September. |
| Equity prices have risen in Sweden and abroad, while volatility has fallen on the stock market. |

**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.



**More expansionary monetary policy in Europe**

In light of the low inflation, low inflation expectations and apprehension over a clear slowdown in the economies of the euro countries, the European Central Bank (ECB) decided on a number of monetary policy measures at its monetary policy meeting in September. It decided 1) to cut the deposit rate from −0.40 per cent to −0.50 per cent, 2) to resume net purchases of assets at a monthly rate of EUR 20 billion until further notice, 3) to improve the conditions for its long-term loans to European banks (under the TLTRO III programme), and 4) to implement changes to its operational framework so that banks do not face a negative interest rate on their entire deposits at the ECB. At the same time, it communicated that policy rates are expected to remain at present or lower levels until inflation prospects are in line with target, close to or below 2 per cent, over the forecast period and until a rise in inflation has also materialised in a broad set of inflationary outcomes.[8] In conjunction with the decision, various European market rates rose, which can be interpreted as suggesting that market participants perceived the ECB's decision to be less expansionary than expected.

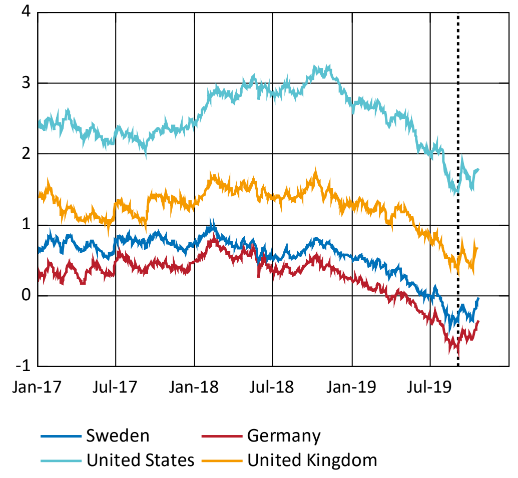
At its monetary policy meeting in September, the US central bank, the Federal Reserve, decided to lower the interval for its policy rate by 0.25 percentage points to 1.75–2.00 per cent. Weaker international growth and lower inflationary pressures were factors contributing to the decision. The subsequent press conference emphasised that the forecasts for both inflation and the real economy had not changed much recently and that, as previously, favourable economic development, a strong labour market and inflation close to 2 per cent are expected. The median forecast for the policy rate among members of the monetary policy committee (FOMC) is 1.9 per cent at the end of 2020, which is to say within the current interval for the policy rate. At the end of 2021, the median forecast is 2.1 per cent. The market interpreted the communication as slightly less expansionary than expected. One reason was that the market had expected signals for continuing interest rate cuts, which did not manifest in the members' interest rate forecasts.

In mid-September, turbulence arose on the US money market, when interest rates for intraday loans suddenly started to rise. It is difficult to point to a single factor that triggered the turbulence; instead it seems most likely that several factors interacted. Since 17 September, the Federal Reserve Bank of New York has supplied liquidity to the market through repo transactions, which has contributed towards stabilising the shortest money market rates. The Federal Reserve has announced that these transactions will continue at least until January next year. In addition to this, the Federal Reserve intends

[8] The formulation of the press release that the ECB published after the monetary policy meeting in September was as follows: "The Governing Council now expects the key ECB interest rates to remain at their present or lower levels until it has seen the inflation outlook robustly converge to a level sufficiently close to, but below, 2% within its projection horizon, and such convergence has been consistently reflected in underlying inflation dynamics".

**Figure 2:1. Government bond yields with 10 years to maturity**

Per cent

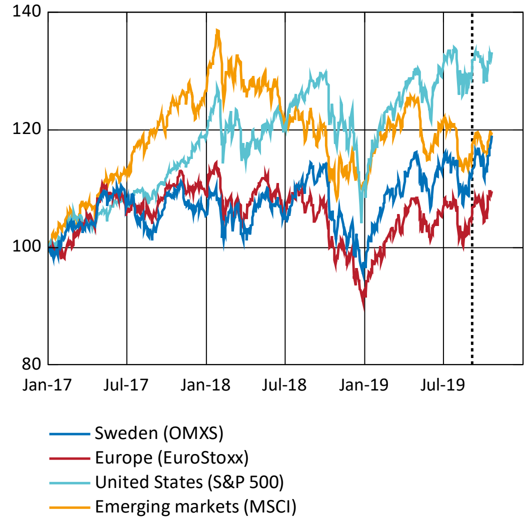



Note. Implied zero-coupon yields from government bonds for Sweden, Germany and United Kingdom. 10-year benchmark bonds for the United States. The vertical line indicates the Monetary Policy Meeting in September.

Sources: The national central banks and the Riksbank

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

Index, 3 January 2017 = 100

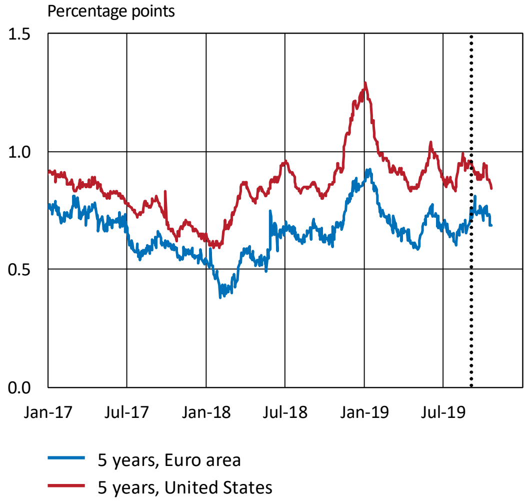



Note. The vertical line indicates the Monetary Policy Meeting in September.

Source: Macrobond

**Figure 2:3. 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 September.

Source: Macrobond

to increase the amount of outstanding reserves, by purchasing treasury bills, at least until the second quarter of next year. The measures are aimed at stabilising short-term market rates and are not intended to have monetary policy consequences.

In September, the Bank of England resolved to keep its policy rate unchanged at 0.75 per cent. Its press release communicated, as previously, that the direction of monetary policy would be affected, to a great extent, by the consequences for the UK economy of the United Kingdom's withdrawal from the EU.

In contrast to the larger central banks, Norges Bank decided in September to raise its policy rate by 0.25 percentage points to 1.50 per cent. According to Norges Bank, inflation is expected to be close to the target of 2 per cent in the period ahead, at the same time as unemployment will remain low. Norges Bank pointed out that the weak development of the Norwegian krone since the most recent monetary policy meeting could support an upward revision of the forecast for the policy rate. However, other factors, such as weaker growth prospects and lower interest rates abroad, led Norges Bank to lower its interest rate forecast slightly. The interest rate path thereby shows that the policy rate is expected to remain close to 1.50 per cent over the next three years.

**Long-term inflation expectations low in the euro area**

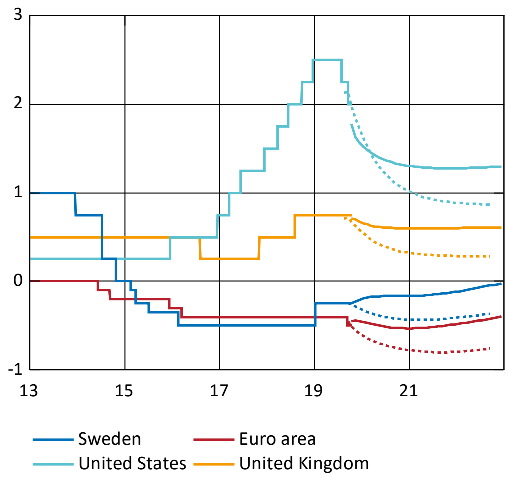
Inflationary pressures in the euro area are low, which was an important justification for the ECB's decision in September to make monetary policy more expansionary. Low inflationary pressures were also reflected by inflation expectations, which have fallen recently, according to both market-based and survey-based measures. According to the ECB's survey, market analysts expect inflation in five years to amount to 1.7 per cent (see Figure 2:5). At the same time, market-based measures of long-term inflation expectations are even lower, at about 1.2 per cent (see Figure 2:6). In the United States too, market-based measures of long-term inflation expectations are at relatively low levels from a historical perspective.

**Bond yields remain at lower levels than at the start of the year**

Since the start of the year, market listings of real interest rates have fallen sharply. A contributory explanation is expectations of a more expansionary monetary policy. The market has lowered its expectations for the real interest rates that are required for inflation and resource utilisation to stabilise around central bank targets within a few years (see Figure 2:7). This has occurred against the background of signals of an economic slowdown, the ongoing trade conflict and major uncertainty regarding the United Kingdom's withdrawal from the EU. Yields for nominal government bonds have also fallen over the year (see Figure 2:1). This is partly due to the falling real interest rates and partly due to falling inflation expectations over both the shorter and longer terms. In the United States, 10-year nominal government bond yields have fallen by more than one percentage point over the year and, since September, the equivalent Swedish and German

**Figure 2:4. Policy rates and rate expectations according to forward rates**

Per cent

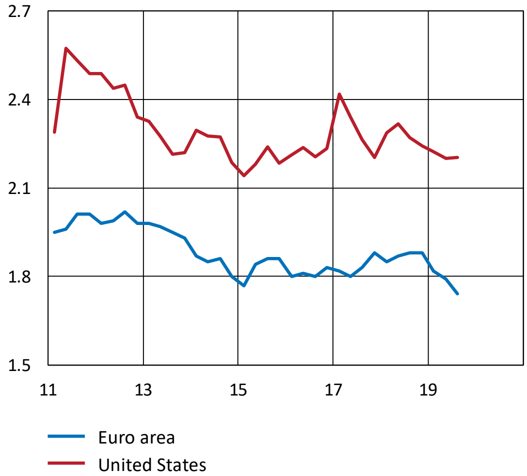



Note. Forward rates describe the expected overnight rate. Unbroken lines refer to 21 October 2019, broken lines refer to 2 September 2019.

Sources: The national central banks, Macrobond and the Riksbank

**Figure 2:5. Survey-based measures of inflation expectations over the long term in the euro area and United States**

Per cent, average

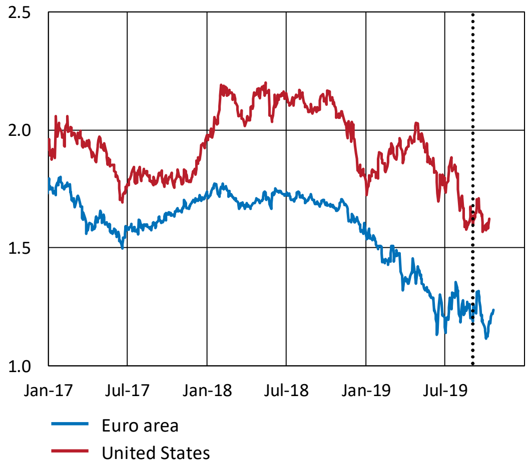



Note. Expectations according to the ECB's and Reserve Bank of Philadelphia's Survey of Professional Forecasters, inflation according to the HICP 5 years ahead and CPI 10 years ahead, respectively.

Sources: ECB and Federal Reserve Bank of Philadelphia

**Figure 2:6. Market-based measures of long-term inflation expectations**

Per cent




Note. Inflation expectations refer to a 5-year period starting in 5 years' time. For the United States 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 September.

Sources: Bloomberg, Macrobond and the Riksbank

10-year government bonds have had yields at approximately the same level as the policy rates of the Riksbank and the ECB, respectively. In Italy, the political situation has stabilised for the time being and the difference between Italian and German government bond yields has therefore fallen slightly (see Figure 2:8).

**Stable development for higher-risk assets**

Since the start of the year, as central banks have conducted increasingly expansionary monetary policies, prices for higher-risk assets have stabilised or even risen. For example, equity prices have risen in all larger regions since the start of the year (see Figure 2:2). What are known as P/E valuations, which show the relationship between equity prices and companies' profits, have remained high. At the same time, measures of uncertainty, known as implied volatility, have fallen on most stock markets over the year. The same development can be seen on the markets for higher-risk bonds, where the yields for corporate bonds with lower credit ratings have fallen over the year in relation to the yield for government bonds (see Figure 2:3). These indicators suggest that market participants do not expect any heavy slowdown of economic activity.

## Developments in Sweden

As in other countries, rates on the Swedish money market and yields on Swedish government bonds have fallen since the beginning of the year. They remain at low levels even though they have risen since the monetary policy meeting in September. The fall in market rates over the year has contributed towards high-risk assets such as equities rising in price. Together with low yields for covered bonds issued by mortgage institutions, these are contributing to low funding costs for the banks. The krona has weakened in recent years and is weak from a historical perspective. At the same time, the rapid rate of increase in housing prices has slowed to a halt and price growth is currently at a modest level. Taken together, the financial conditions in Sweden are expected to remain expansionary, which is contributing support to economic development.

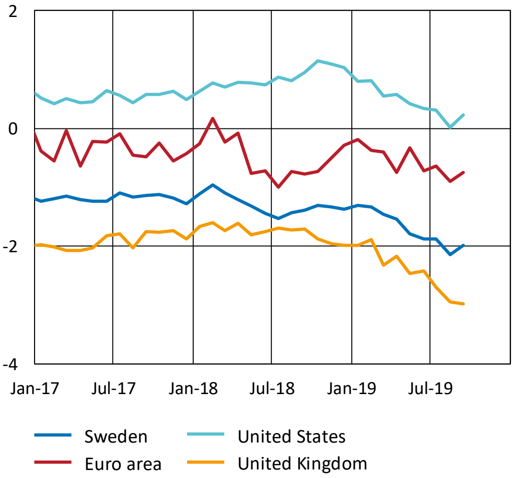
**Higher equity prices in Sweden since the start of the year**

Since the start of the year, equity prices on the Swedish stock exchange have risen in line with developments in the rest of the world (see Figure 2:2). Just as abroad, falling market rates have contributed to this positive development for high-risk assets. However, both equity prices and market rates have risen relative to the levels at the monetary policy meeting in September.

Compared with the monetary policy meeting in September, a higher repo rate is now expected over the forecast period, according to market pricing. However, the market continues to expect the repo rate to be significantly lower than the Riksbank's forecast (see Figure 2:9). In Prospera's survey of money market participants' expectations from October, interest expectations

**Figure 2:7. Real government bond yields with 10 years to maturity**

Per cent

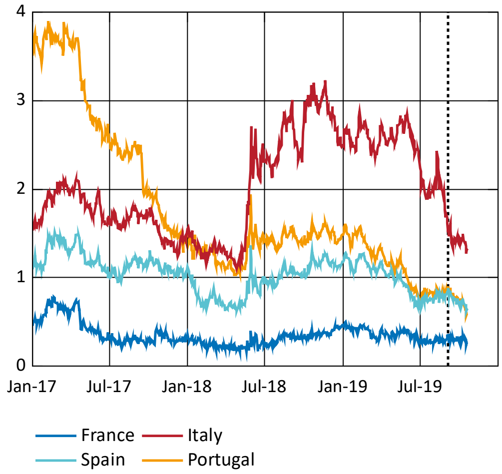



Note. The yields refer to 10-year yields for inflation-indexed bonds issued by states in each region. Data at a frequency of one month. For the euro area, a series is used for a real interest rate, representative of the euro area, compiled by the ECB.

Sources: ECB, Macrobond and the Riksbank

**Figure 2:8. Yield differential in relation to Germany, 10-year**

Percentage points

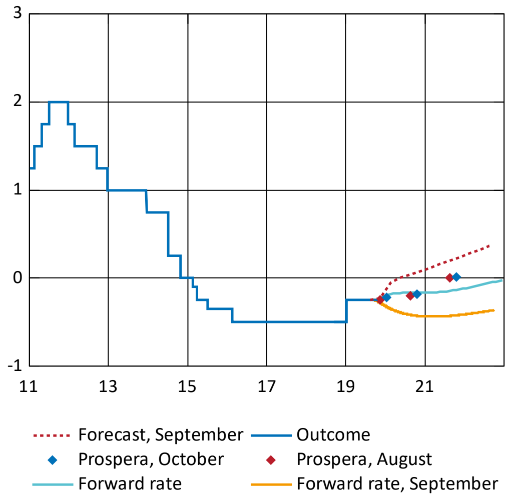



Note. Yield differentials refer to 10-year benchmark bonds. The vertical line indicates the Monetary Policy Meeting in September.

Source: Macrobond

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

Per cent




Note. The forward rate refers to 21 October 2019 and is a measure of the expected repo rate. The Prospera survey responses show the average for money market participants 7 August 2019 (Prospera, August) respectively 25 September 2019 (Prospera, October).

Sources: Kantar Sifo Prospera, Macrobond and the Riksbank were at about the same level as in the survey from August (see Figure 2:9). However, expectations according to both pricing on the market and Prospera's survey have fallen since the start of the year and indicate that rates will be at low levels for the next few years.

Long-term market rates, such as yields for government bonds with maturities of between 2 and 10 years, are at higher levels than at the Monetary Policy Meeting in September (see Figures 2:1 and 2:10). However, all government bonds with maturities of up to 10 years continue to have negative yields and bond yields are at much lower levels than at the start of the year.

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

Since September, interbank rates, such as Stibor with a maturity of 3 months, have fallen slightly, but they have been broadly unchanged since the start of the year (see Figure 2:10). In October, the Riksbank took the first step towards a new operational framework for the implementation of monetary policy. The changes that entered into effect were of a technical nature and were not intended to have any monetary policy consequences (see the box "The Riksbank has simplified the operational framework for monetary policy"). Shorter money market rates were affected to an extremely limited extent by the change and have fluctuated close to the levels that prevailed before the operational framework was changed.

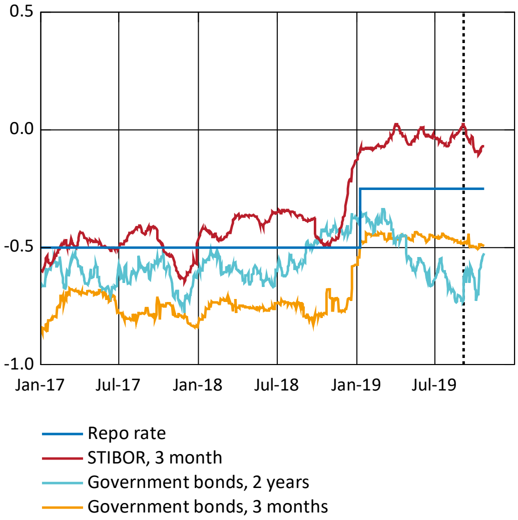
In recent years, the average lending rates offered to households and companies have followed the Riksbank's repo rate relatively well (see Figure 2:11). However, in the period ahead, it is possible that the differential between lending rates to households and the Riksbank's repo rate will decrease slightly. The reason for this is that competition for mortgage customers has increased and the new actors on the mortgage market have gained market share. Even if these new actors represent a small part of total lending to households, they are contributing to increased competition on the mortgage market, which could hold back a rise in mortgage rates.[11]

Over the year, banks' funding costs have been low. For example, covered bond yields have fallen. Low funding costs for banks are contributing to restraining lending rates to households. Rates for new mortgages with variable rates have fallen slightly since the start of the year.

Measured as an annual percentage change, housing prices fell over most of last year. This year, they have increased at a modest rate (see Figure 1:11). Various indicators suggest a cautious optimism among both households and estate agents over the future development of prices. Lending for housing

**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 September.

Sources: Macrobond and the Riksbank

**The Riksbank has simplified the operational framework for monetary policy**

The Riksbank's repo rate decisions are put into practice via the Riksbank's operational framework for the implementation of monetary policy. With the aid of the operational framework, the Riksbank ensures that the shortest market rates are stabilised close to the repo rate. In July, the Riksbank announced that changes needed to be made to the operational framework, among other reasons because developments on the payment market were making new demands for longer opening hours and access to the payment system.[9] On 30 September, after having considered comments from the Riksbank's monetary policy counterparties and others, the Riksbank decided to implement certain changes to make the operational framework simpler and more flexible. These changes are being made in two stages, starting 9 October 2019, and are aimed at providing the Riksbank with an operational framework with a narrow, symmetrical corridor. The agreed adjustments to the Riksbank's operational framework are of a technical nature and are not intended to have any monetary policy effects.[10]

The main changes are that, of 9 October, the Riksbank has ceased to make daily fine-tuning transactions and that the interest rate for the Riksbank's standing deposit facility – the deposit rate – has been set at 0.10 percentage points below the repo rate, which is to say the same level at which the fine-tuning deposit transactions were previously conducted. At the same time, the Riksbank is restricting the issue of Riksbank Certificates to leave more liquidity available for counterparties overnight. In this way, the Riksbank can ensure that the overnight rate remains close to the repo rate, even without daily fine-tuning operations.

In the next stage, when the technical conditions are in place, the Riksbank will cut the interest rate for the Riksbank's standing lending facility – the lending rate – so that it is 0.10 percentage points above the repo rate. At the same time, collateral requirements for utilising the lending facility will be tightened.

[9] See the article "The Riksbank's operational framework needs to be adjusted to new conditions" in the Monetary Policy Report for July 2019.
[10] For more information, see, for example, the background material and consultation on the Riksbank's website https://www.riksbank.se/sv/press-och-publicerat/nyheter-och-pressmeddelanden/pressmeddelanden/2019/riksbanken-forenklar-styrsystemet/
[11] New actors on the mortgage market include Stabelo AB, Svensk Hypotekspension AB and Hypoteket Bolån Sverige AB.

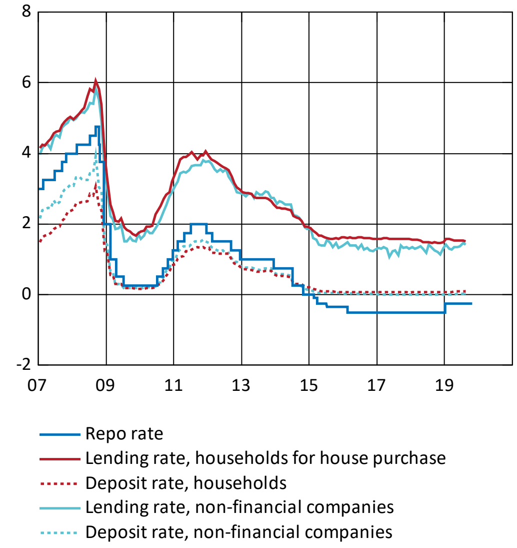
purposes is continuing to grow at a slightly slower rate than in recent years.

ALMI's survey indicates that Swedish companies are facing unchanged credit terms. However, bank lending to non-financial undertakings continues to grow at a more modest rate than last year (see Figure 2:12). Companies are also borrowing directly on the capital markets to an increasing extent. 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.

### Krona still at weak level

In KIX-weighted terms, the krona has depreciated over the autumn (see Figure 2:13). This weakening occurred partly in conjunction with the publication of domestic macro statistics. For example, the krona depreciated in conjunction with the outcomes for the LFS and inflation for August, as the market participants had expected stronger growth on the labour market and higher inflation. On the other hand, the krona appreciated in conjunction with the publication of inflation for September, which was higher than market participants had expected. The krona is also affected by global economic prospects and tends to weaken in times when uncertainty on the financial markets is rising.

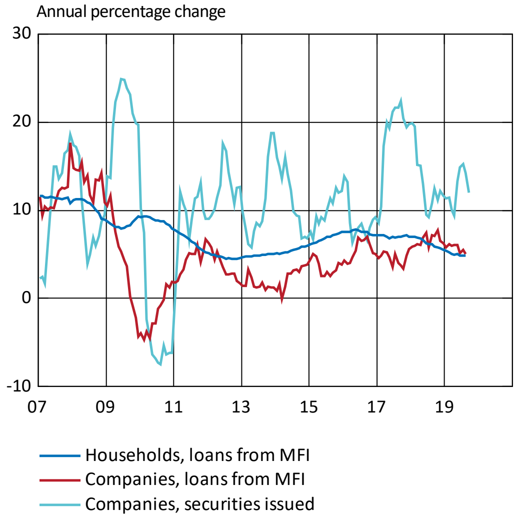
**Figure 2:11. Repo rate together with the average deposit and lending rate to households and companies, new contracts**
Per cent




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

**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 September.

Sources: National sources and the Riksbank

# CHAPTER 3 – The current economic situation

Since the summer, CPIF inflation has fallen in line with the Riksbank's forecast. It is now expected to rise again towards the end of the year, largely due to a diminishing effect of earlier low price increases on certain goods and services and to a declining negative contribution from energy prices. GDP growth among several of Sweden's most important trading partners slowed during the second quarter of the year. Indicators of business confidence have continued to fall, especially in the manufacturing industry, and growth is expected to continue to be modest in the second half of this year. A similar development can be seen in the Swedish economy, which, after several years of good growth and increasingly strained resource utilisation, has now entered a period of lower growth. Indicators also suggest that the labour market is slowing down. Resource utilisation in the Swedish economy is now deemed to be slightly above normal.

## Inflation in Sweden

**Expected decline in inflation**

As expected, CPIF inflation has declined in recent months, due primarily to falling energy prices. It was 1.3 per cent in September, which was in line with the forecast in the Monetary Policy Report in September. At the same time, the rate of increase in the CPIF excluding energy amounted to 1.6 per cent, which was also approximately in line with the Riksbank's most recent assessment.

The depreciation of the krona in recent years has contributed to the prices of many goods increasing more rapidly than normal. The main exceptions are prices of clothing and shoes and, to a certain extent, foreign travel, which have continued to rise unusually slowly given the krona development. At the same time, service prices have developed at a relatively normal rate seen from a historical perspective, and the rate of increase is expected to rise slightly over the months immediately ahead.[12] Food prices are also expected to continue to rise at a relatively rapid rate.

The measured rate of inflation is affected by both temporary and more persistent price variations. To estimate the level of the more persistent component, the Riksbank studies various measures of underlying inflation that exclude or reduce the significance of prices that have previously been shown to vary substantially. The Riksbank's various measures of underlying inflation indicate that more persistent inflation also has fallen slightly in recent months and is just below 2 per cent (see Figure 3:1).[13] The measures UND24 and CPIFPC, which, according to an

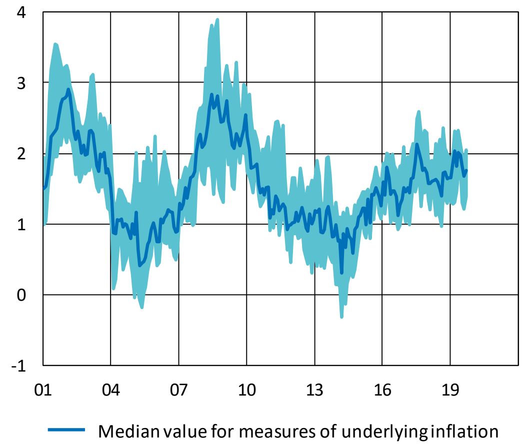
**Table 3:1. The economic situation compared with the assessment in the previous report**

| Expected development in MPR September | Actual development |
|---|---|
| CPIF inflation 1.3 per cent in September. | CPIF inflation was 1.3 per cent. |
| CPIF inflation excluding energy 1.7 per cent in September. | The CPIF excluding energy increased by 1.6 per cent. |
| Growth –0.3 per cent in the second quarter according to preliminary estimates by Statistics Sweden. | Growth 0.5 per cent in the second quarter according to final estimates by Statistics Sweden. |

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.

**Figure 3:1. Different measures of underlying inflation**

Annual percentage change




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

Sources: Statistics Sweden and the Riksbank

[12] The rate of increase has been temporarily held back by a new methodology for measuring dental care costs. This effect will soften in the autumn. For more information on how the change in methodology 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.

[13] The new methodology for measuring dental care costs will probably also contribute to dampening the measure of underlying inflation somewhat.

evaluation, best reflect underlying inflationary pressures, amounted to 1.8 and 2.0 per cent respectively in September.[14]

### Inflation rising towards the end of the year

The strong economic situation, together with the weaker krona and higher energy prices, has helped inflation to rise and remain close to 2 per cent in recent years.

The inflation rate is expected to rise relatively quickly towards the end of the year (see Figure 3:2). The upturn is partly explained by the effect from earlier low increases in prices of fruit and vegetables, foreign travel and other services now subsiding and affecting the inflation rate to a lessening extent. At the same time, the contribution from energy prices is expected to increase.

The Riksbank's model forecast, which summarise information from a large number of indicators, also suggests that the rate of increase in the CPIF excluding energy will rise in the coming months (see Figure 3:3). 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 3:4). According to the Economic Tendency Survey, also in the trade sector more companies than normal are planning to increase prices in the months ahead. Price plans seen across the entire business sector are more normal (see Figure 3:5). The Riksbank's forecast for the second half of this year is close to the model forecast.

### Inflation forecast unchanged in the short term

The forecast for the rate of increase in the CPIF excluding energy is in line with the forecast in September. The forecast for energy prices is slightly higher in the near term which has led to the forecast for CPIF inflation being marginally revised up in the short run (see Figure 1:5).

## Global and Swedish economic activity

### The economic situation abroad is normal but future prospects are uncertain

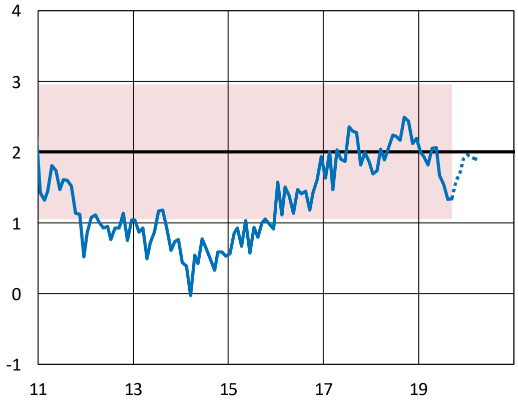
GDP growth among several of Sweden's most important trading partners slowed during the second quarter.

The effects of the trade conflict between the United States and China and of the United Kingdom's possible withdrawal from the EU are difficult to assess. As a result, uncertainty over the global economic outlook is higher than normal, which has probably contributed to the fall in confidence in the manufacturing industry to low levels. However, confidence in service sectors abroad is still higher than normal and consumer confidence is on relatively favourable levels in many countries. The latter can be partly explained by the healthy labour market situation and low interest rates in many countries.

[14] UND24 gives greater weight to less 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.

**Figure 3:2. CPIF and variation band**

Annual percentage change

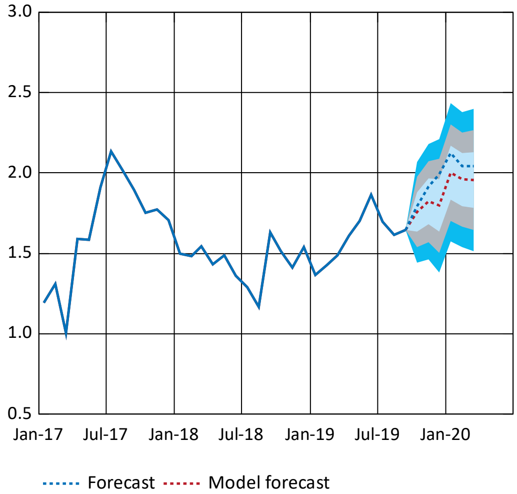



Note. The pink area shows the Riksbank's variation band and covers about three-quarters of the outcomes since January 1995. The variation band is a means of showing whether the deviation from the inflation target is unusually large. The broken line represents the forecast for the next 6 months.

Sources: Statistics Sweden and the Riksbank

**Figure 3:3. CPIF excluding energy, model forecast with uncertainty bands**

Annual percentage change




Note. The uncertainty bands 50, 75 and 90 per cent are based on the models' historical forecast errors.

Sources: Statistics Sweden and the Riksbank

**Figure 3:4. 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. Broken lines refer to average rate of increase since the year 2000.

Source: Statistics Sweden

### Lower growth in the euro area

GDP in the euro area increased by a modest 0.8 per cent in the second quarter of 2019 compared with the first quarter and calculated in annualised terms (see Figure 3:6). The largest contribution to GDP growth came from investment, which rose by 2.2 per cent and thus contributed 0.5 percentage points. Other components contributed only marginally to the growth in demand.

The euro area's economy continues to be divided according to the Purchasing Managers' Index. Confidence in the service sector is significantly higher than in the manufacturing industry, and retail trade has increased while industrial output has shown weak development in recent years. Euro area exports were weak in August and export orders deteriorated in September.

Confidence among households is still above the historical average, which indicates relatively good conditions for consumption growth (see Figure 3:7). In addition, households' scope for consumption has increased as wages have risen significantly faster than inflation.

Investment has so far benefited from loose credit conditions and low interest rates. Credit growth in non-financial corporations has increased gradually in the past year. However, in light of the uncertainty over global trade issues, the United Kingdom's plans to leave the EU and the downturn in German industry (see the box "Clear slowdown in the German economy"), investment is still expected to develop weakly in the coming quarters. GDP growth in the euro area is expected to be relatively subdued in the third and fourth quarters of 2019.

### Growth in the USA slowing down

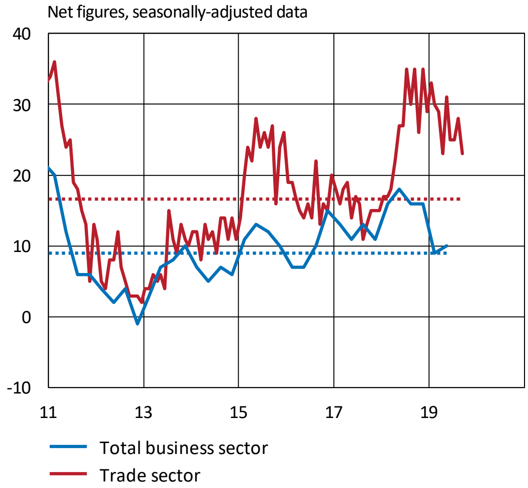
GDP in the United States increased by 2.0 per cent during the second quarter, compared with the first quarter and in annualised terms (see Figure 3:6). Domestic demand was strong, primarily due to good growth in household consumption, but also strong growth in public consumption. At the same time, investment, exports and inventory investment made negative contributions to growth.

Employment increased and unemployment fell to 3.5 per cent in September. Although wage growth fell somewhat in the second quarter, the strong labour market is expected to contribute to wage growth rising again in the coming quarters.

The overall assessment is that household confidence is still high; at its highest level for 20 years according to some indicators. Among industrial companies, however, confidence has fallen to below-normal levels. In the service sector, too, confidence was slightly below its historical average in September. At the same time, monthly data show that both the retail trade and industrial output grew slightly faster than their historical averages during the third quarter.

The overall assessment is that economic activity is slowing down and that GDP growth will decline somewhat in the second half of the year compared with the second quarter.

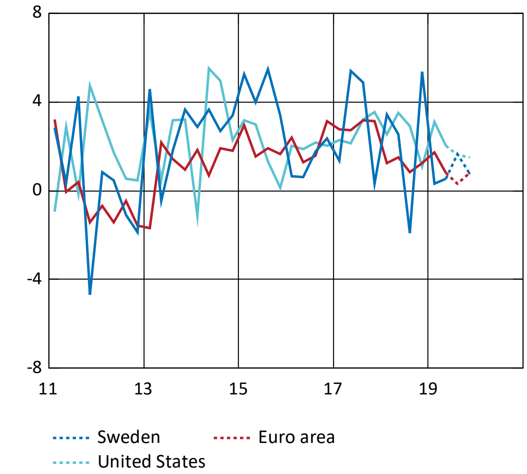
**Figure 3:5. Price plans in the business and trade sectors**
Net figures, seasonally-adjusted data




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.

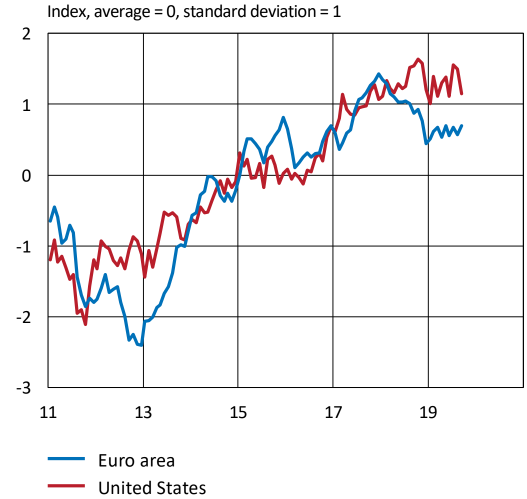
Source: National Institute of Economic Research

**Figure 3:6. 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

**Figure 3:7. Consumer confidence**
Index, average = 0, standard deviation = 1




Note. The series have been standardised by the Riksbank.

Sources: European Commission and Conference Board

**Low inflation in the euro area and rising inflation in the United States**

In September, the global market price of oil (Brent) rose from 60 dollars a barrel to almost 70 dollars a barrel in a short time. This was due to reduced oil production in Saudi Arabia after a drone attack on two of the country's largest oil companies. The oil price then fell back, but the development illustrates that the oil price is very sensitive to geopolitical disruptions. According to market pricing, the oil price is expected is be close to 60 dollars in the period ahead (see Figure 3:9).

In the euro area, inflation is low and expected to continue to be so for the rest of the year. It was recorded at 0.8 per cent in September, its lowest figure since 2016. Underlying inflation, excluding energy and food prices, rose slightly to 1.0 per cent in September (see Figure 3:10). The market's inflation expectations are also low seen from a historical perspective and expectations have fallen in recent quarters according to the ECB's survey.

In the United States, CPI inflation was 1.7 per cent in September, while CPI inflation excluding energy and food was 2.4 per cent, which is the same reading as in August and the highest rate of price growth since the financial crisis. The rate of increase in the deflator for private consumption excluding energy and food, which is the measure considered most important by the Federal Reserve, was recorded at 1.8 per cent in August.[15] Even the market's inflation expectations have been falling for some time. However, the strong labour market, with low unemployment and higher wage growth, is expected to contribute, together with the low interest rates and increased tariffs, to a slight rise in inflation towards the end of the year.

**Swedish economy slowing down**

After several years of good growth and increasingly strained resource utilisation, the Swedish economy has now entered a phase of lower growth. The first half of 2019 has been characterised by weak development primarily in domestic demand, which has been particularly burdened by the falling rate of housing construction.

According to the National Accounts, growth in Swedish GDP was lower in the first quarter and slightly higher in the second quarter this year than was indicated by the preliminary statistics that formed the basis of the Monetary Policy Report in September. Even after the upward adjustment, however, GDP growth in the second quarter was lower than normal, 0.5 per cent compared with the first quarter and calculated in annualised terms. It was primarily a matter of weak investment growth. Household consumption rose more rapidly after several quarters of weak growth and exports were unchanged compared with the first quarter.

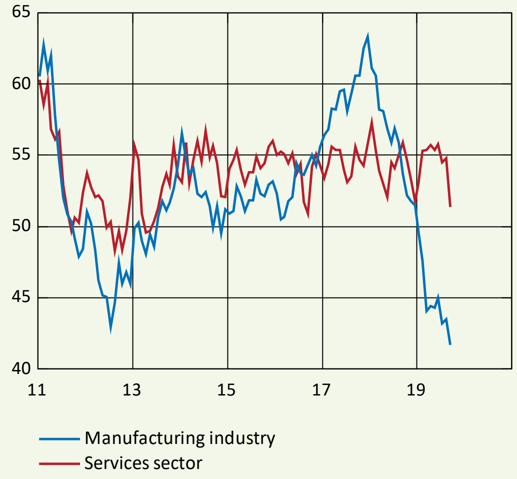
[15] The recent, relatively substantial difference between underlying inflation in terms of the CPI and PCE is largely due to the rate of price increase for healthcare, which has a lower weight in the CPI than in the PCE, having fallen, while the rate of price increase for housing, which has a higher weight in the CPI than in the PCE, having risen.

**Clear slowdown in the German economy**

GDP growth in Germany has slowed in recent years. In the second quarter of this year, GDP fell by 0.3 per cent compared with the first quarter and calculated in annualised terms. The slowdown is greater than in most other countries in the euro area and is particularly evident in the manufacturing industry, where confidence is now lower than during the European sovereign debt crisis at the beginning of the 2010s. Confidence and output have fallen in the manufacturing industry since the start of 2018. There may be several explanations for the weak development. Global trade has slowed and uncertainty is considerable regarding global trade policy and the United Kingdom's plans to leave the EU. These factors probably have a particularly significant impact on the German economy as it is so dependent on foreign trade. There was better development in other parts of the German economy. The labour market is still strong and unemployment has fallen to a low level seen from a historical perspective. Wages have also risen at an increasingly rapid rate in recent years. Consumer confidence is strong as is confidence in the service sector, which indicates continued growth, even though it fell in September.

**Figure 3:8. Purchasing Managers' Index in Germany**

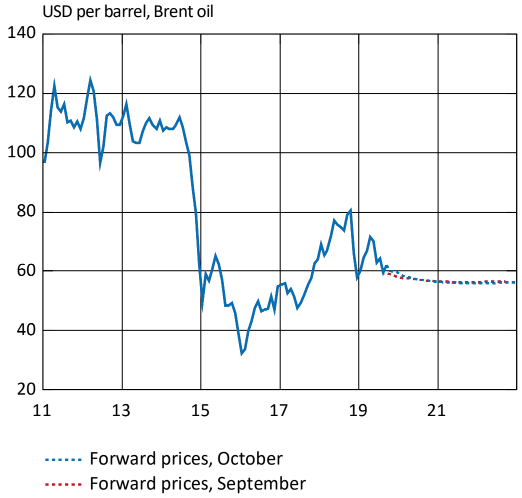
Index




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

Statistics Sweden's publication of the final National Accounts estimates also included a general review of the figures from 1993 onwards. The GDP level for the second quarter of 2019 is now estimated to be approximately 0.7 per cent higher than in previous estimates but overall, GDP growth was revised down somewhat during the first half of this year. This reinforces the picture of a slowing economy. In a longer perspective, the revisions do not imply any major change in the historical cyclical path, even though growth was redistributed somewhat between the years (see Figure 3:11).

Confidence among Swedish households and companies has declined over the past year, in particular for companies in the manufacturing industry, and is now lower than normal. The National Institute of Economic Research's Economic Sentiment Indicator fell in September for the fifth month in a row (see Figure 3:12). The Purchasing Managers' Index for the manufacturing industry also fell back in September and is now clearly lower than its historical average. Household confidence declined by just under three units in the same month and is now on its lowest level since 2012, which indicates modest consumption growth. In particular, it is households' view on how the Swedish economy will develop, rather than their view on their own finances, that is pessimistic.

At the same time, monthly statistics for demand and output have developed relatively strongly at the start of the third quarter. Statistics on both household consumption and foreign trade in goods paint a brighter picture of growth in the third quarter than the confidence indicators. The same is true of statistics for output in the business sector.

Overall, growth is expected to continue to be somewhat lower than normal in the second half of the year. Based on both the Economic Tendency Survey and the Purchasing Managers' Index indicating subdued export orders, growth in foreign demand for Swedish goods and services is predicted to continue to increase at a modest rate. At the same time, housing investment continues to develop weakly.

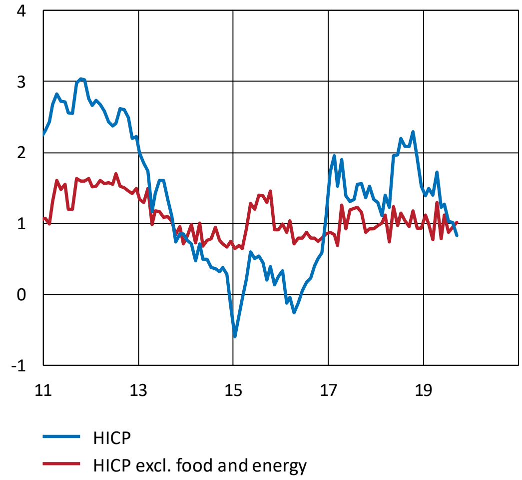
The assessment of GDP development in the third quarter is lower than the Riksbank's model forecast, which is deemed not to take the decline in housing investment fully into account (see Figure 3:13).[16] Calculated in annualised terms, GDP is expected to increase by 1.7 per cent in the third quarter and 0.8 per cent in the fourth quarter.

## Slowdown on the labour market

The labour market has developed very strongly for several years. Both labour force participation and the employment rate have reached historically high levels (see Figure 4:6). This year, however, the development is deemed to have weakened. Most recently, unemployment according to the Labour Force Surveys (LFS) has risen sharply (see Figure 3:14). Statistics from the Swedish Public Employment Service indicate a more modest

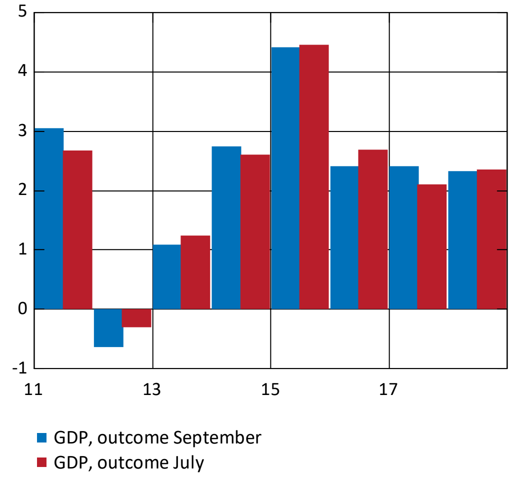
[16] The Riksbank's model forecast for GDP growth in the near term is based on confidence indicators and monthly statistics for output and demand.

**Figure 3:10. Inflation in the euro area**
Annual percentage change



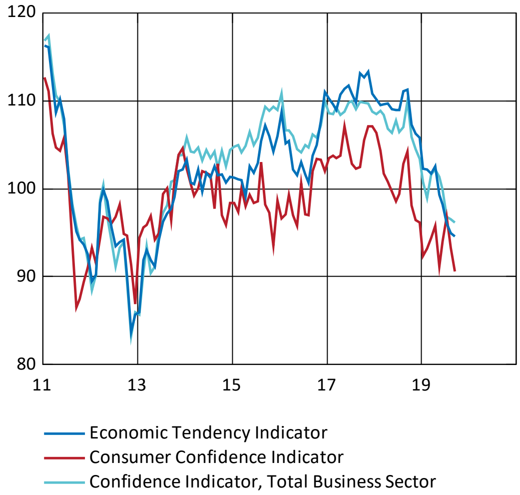

Source: Eurostat

**Figure 3:11. Revision of GDP-growth**
Annual percentage change




Source: Statistics Sweden

**Figure 3:12. Confidence indicators**
Index, average = 100, standard deviation = 10, seasonally-adjusted data




Source: National Institute of Economic Research increase during the year. Statistics Sweden has now announced that the LFS are misleading, as flaws have been discovered in the data collection (see the box "Incorrect labour market statistics a cause for concern"). The current level of unemployment is considered to be overestimated.

As the statistics according to the LFS are misleading, other sources have been considered to a higher extent. Employment has slowed slightly according to the short-term employment statistics, even though they so far only include outcomes up to and including the second quarter. According to the responses of companies in the Economic Tendency Survey, employment in the business sector has not decreased during the year. The Riksbank's overall assessment is that employment growth has slowed and unemployment has risen slightly this year.

The number of redundancy notices is small and does not indicate that unemployment is set to rise sharply in the short term. According to the Swedish Public Employment Service, the number of newly registered job openings has fallen in recent months, but is still on a high level (see Figure 3:15). In addition, there are still many job openings and vacancies in the business sector, according to Statistics Sweden. Recruitment plans have fallen back according to the Economic Tendency Survey, but still indicate unchanged employment in the coming months. The industrial sector's expectations according to the Purchasing Managers' Index also point to more or less unchanged employment while expectations in the service sector indicate some employment growth.

The overall picture suggests that the labour market has cooled and indicators point to demand for labour continuing to decline, even though there are signs indicating a sharp decrease in employment.

### Resource utilisation has fallen but is somewhat higher than normal

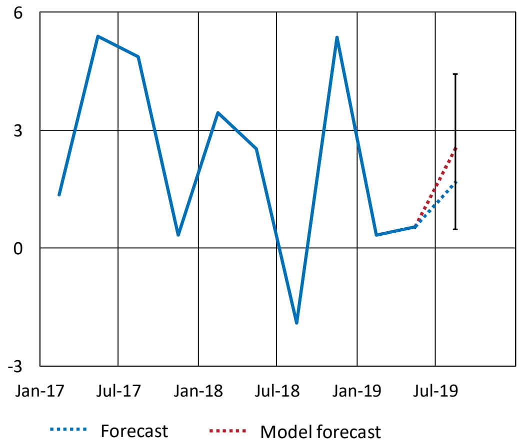
The amount of spare capacity in the economy affects the development of wages and prices with a certain time lag. However, resource utilisation cannot be measured exactly and the Riksbank therefore makes an assessment based on a number of different indicators.

According to several of these indicators, resource utilisation is still slightly higher than normal, even though it has fallen somewhat in the first half of this year. For example, according to the Economic Tendency Survey, fewer companies than before report a shortage of labour, but the proportion is still high. At the same time, capacity utilisation in the manufacturing industry is high in a historical perspective, according to both the National Institute of Economic Research and Statistics Sweden.

The overall picture is that resource utilisation in the economy has normalised in 2019, after having been high in recent years. Currently, it is assessed to still be higher than normal, which is

[17] See Statistics Sweden's press release https://www.scb.se/om-scb/nyheter-och-pressmeddelanden/kvalitetsbrister-i-datainsamlingen-paverkar-aku/

**Figure 3:13. 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

**Incorrect labour market statistics a cause for concern**

The Labour Force Surveys (LFS) are Sweden's official labour market statistics. Therefore it is an important basis for decision-makers.

In conjunction with the publication of the most recent outcome, Statistics Sweden announced that they had identified flaws in the data collection which have affected the quality of the statistics.[17] The flaws arose in connection with a change in data collection in June 2018 and are linked to the collection process.

The development on the labour market according to published figures from the LFS over the last 16 months are therefore misleading. According to Statistics Sweden, the number of persons employed has probably been overestimated last year and then underestimated up until the summer of 2019. They also state that the number of unemployed persons has been underestimated slightly at the beginning of the year, and overestimated after that. All the indications are that the statistics show too sharp a decline in employment and too steep an increase in unemployment in 2019. Statistics Sweden are working to rectify the flaws and will revise the statistics, but it is unclear how soon this can happen.

The Riksbank needs to have an idea of how the labour market, and hence economic activity, develops in order to determine a suitable monetary policy. Before Statistics Sweden publishes revised figures, there is no official picture of developments on the Swedish labour market, which is a cause for concern. In the absence of reliable statistics from the LFS, the Riksbank's assessment is based on other statistical sources and indicators, for example statistics from the Swedish Public Employment Service.

supported by the Riksbank's resource utilisation indicator (see Figure 4:12).

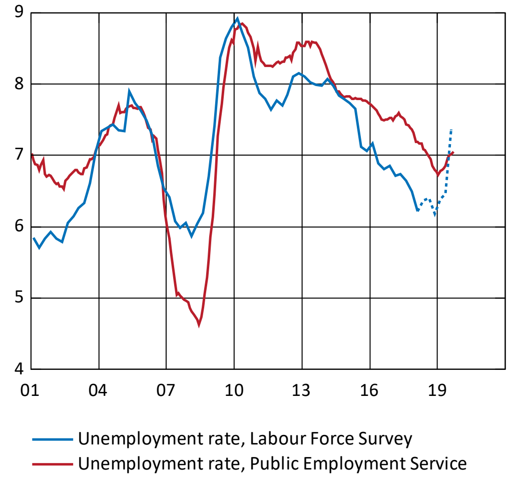
**Rising wage growth**

Wage growth has increased in recent months according to the short-term wage statistics. In July, wage growth amounted to 2.7 per cent in both the business sector and in the whole economy. Even according to the National Accounts, wage growth has risen this year and amounted to 2.4 per cent in the second quarter.[18] Wage growth is expected to continue to rise slightly in the coming quarters.

Cost pressures, measured as the annual percentage change in unit labour costs, amounted to 2.7 per cent in the second quarter. This is somewhat above the historical average of about 2 per cent. In recent years, the rate of increase in cost pressures has been relatively high as productivity growth has been low. However, growth in productivity is expected to increase in the quarters ahead, which will contribute to lower cost pressures measured in terms of unit labour costs.

The development of labour costs covaries with domestic economic activity, as well as productivity and price developments. However, cost development abroad is also important, as it affects how Swedish companies perform in the face of global competition. Figure 3:16 shows the development in Swedish unit labour costs in relation to a weighted average of competitor countries.[19] In such a comparison, fluctuations in the exchange rate also contribute to major variations in relative costs, expressed in a common currency.[20] The recent depreciation of the krona has contributed to the relatively healthy Swedish competitive position.

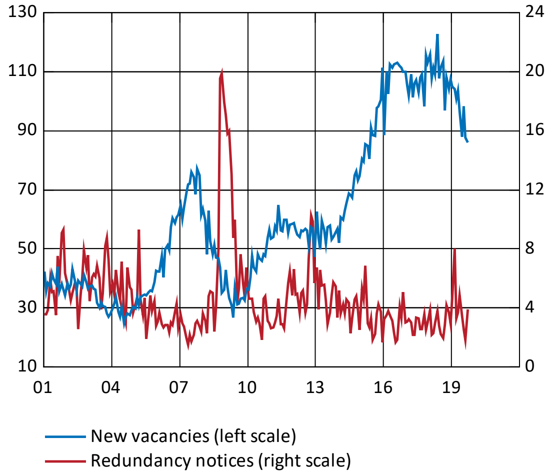
**Figure 3:14. Unemployment according to the LFS and Public Employment Service**
Per cent of the labour force, aged 15–74 and 16–64, respectively, seasonally-adjusted data




Note. Unemployed persons according to the PES include openly unemployed and participants in labour market programmes. Statistics Sweden has identified quality flaws in the LFS which mean that the statistics for 2018 Q2–2019 Q3 are misleading. The dotted line highlights this period.

Sources: the Swedish Public Employment Service and Statistics Sweden

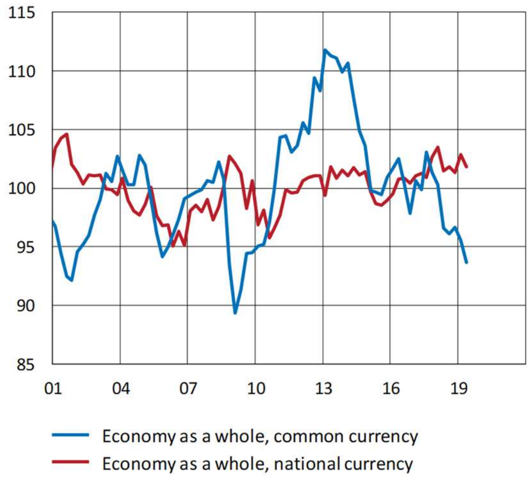
**Figure 3:15. New vacancies and redundancy notices**
Thousands




Note. Seasonally-adjusted data for new vacancies.

Sources: the Swedish Public Employment Service and Macrobond

**Figure 3:16. Relative unit labour costs**
Index, average 2000Q1–2019Q2 = 100




Note. National currency is calculated by dividing each measure in a common currency with a trade-weighted nominal exchange rate.

Sources: the European Commission and the Riksbank

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[18] Wage growth according to the National Accounts is more volatile and the short-term development should therefore be interpreted more cautiously.

[19] Here, one of the European Commission's measures is used, in which the competitor weights are based on 37 countries. 28 EU countries are included as well as nine OECD countries (Australia, Canada, the United States, Japan, Norway, New Zealand, Mexico, Switzerland and Turkey).

[20] The assessment of relative cost levels between countries can therefore be sensitive to the point of reference selected. To limit this problem, an average for the 2000s is used here as the point of reference. However, the comparison will always be affected by the time period studied.

# CHAPTER 4 – The economic outlook and inflation prospects

Since the end of 2017, growth abroad has slowed towards more normal levels. According to various indicators, the economic outlook in the euro area has deteriorated and the forecasts for both GDP growth and inflation have been revised down compared with the assessment in September. After several years of good growth and high resource utilisation, the Swedish economy has entered a calmer phase and is expected to grow more slowly as from this year. This year, the lower growth is primarily due to more subdued domestic demand with a continued decline in housing construction and weaker development in household consumption. It is primarily weaker exports that will pull down growth in the years ahead. Inflation has fallen back somewhat in recent months after having been close to the inflation target of 2 per cent since the beginning of 2017. The decline is mostly explained by lower energy price growth. Good demand growth and high resource utilisation in recent years, in combination with a weakening of the Swedish krona, are contributing to rising inflation and the expectation that it will be close to 2 per cent in the period ahead. Continued low interest rates will also contribute to this development. The outlook for inflation is relatively unchanged compared with September.

## International developments

**Growth abroad close to normal levels in the years ahead**

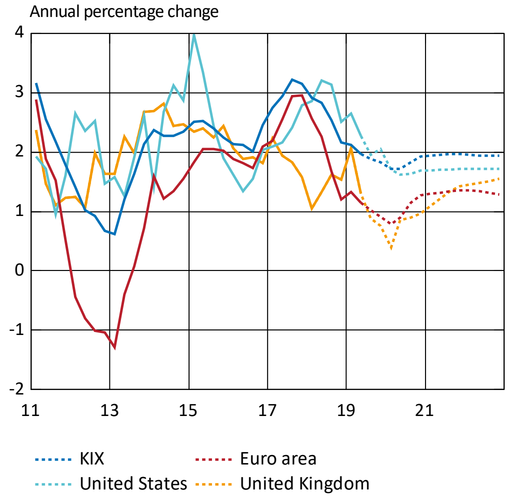
Growth in trade-weighted (KIX-weighted) GDP has fallen to more normal levels since the end of 2017. In the years to come, GDP is expected to grow slightly more slowly than the historical average of just over 2 per cent (see Figure 4:1).

Growth in global trade has slowed this year according to the CPB World Trade Monitor. Import demand on Sweden's export markets is expected to grow by 2.5 per cent this year and just over 3 per cent in the years ahead (see Figure 4:2). This entails a lower growth rate than the average of 4.6 per cent per year since the year 2000. The low import demand can be explained by continued subdued development in world trade as a result of the global slowdown in the manufacturing industry. Increased uncertainty due to the trade conflict between the United States and China is also subduing imports (see the article "World trade in constant change").

Overall, the economic outlook according to the Purchasing Managers' Index has deteriorated since the Monetary Policy Report in September. The risk of a continuation of the trade conflict between the United States and China, with new measures, remains and is substantial. Also the uncertainty surrounding the United Kingdom's plans to leave the EU is creating concern about growth prospects for Europe. The risk associated with the public finances situation in Italy has decreased slightly, at least in the short term.

Uncertainty surrounding the United Kingdom's possible withdrawal from the EU and trade tariffs mean that growth abroad will be slightly lower in the short term, especially in the euro area via lower investment growth. In the slightly longer term, uncertainty is expected to decrease as various solutions are

**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 put in place and agreements are concluded, which is positive for growth. Resource utilisation in the euro area and the United States is expected overall to be close to normal levels for the entire forecast period.

**Weak GDP growth and low inflation in the euro area**

Increased uncertainty abroad and a subdued development of world trade have contributed to a substantial fall in confidence in the manufacturing industry in the euro area. The spread to other parts of the economy seems so far to be limited and confidence in the service sector is still at levels that indicate approximately normal growth. Uncertainty about how world trade will develop constitutes a particular risk for the German economy. This, in combination with uncertainty surrounding the United Kingdom's possible withdrawal from the EU, is expected to subdue investment growth in the short term.

Despite a strong labour market and rising wages, inflation in the euro area is low and long-term inflation expectations, according to both the market and ECB surveys, have fallen to historically low levels. Monetary policy is expected to contribute to low interest rates over the entire forecast period. Together with continued favourable credit conditions, relatively high consumer confidence and a strong labour market, this indicates a certain increase in growth in the period ahead. However, the decline in unemployment is expected to level off over the next few years and wage growth is therefore predicted to slow slightly at the end of the forecast horizon.

GDP is expected to grow by around 1 per cent per year in 2019 and 2020, and by 1.3 per cent per year in 2021–2022 (see Figure 4:1).

**US growth slowing down from high levels**

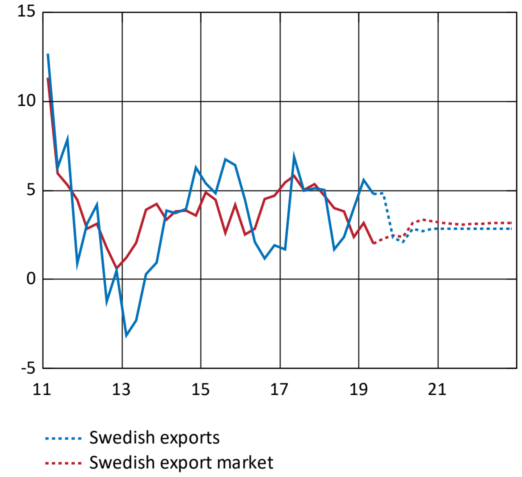
Economic activity in the United States is strong after several years of high growth and falling unemployment. The uncertainty associated with the trade conflict with China is making a negative contribution to growth via a dampened willingness to invest. GDP is expected to grow by 2.2 per cent this year and then growth will slow to 1.7 per cent in 2020–2022 (see Figure 4:1). Despite the slightly lower growth, the US labour market is expected to continue to be strong in the coming years. The high resource utilisation on the labour market is expected to contribute to wages continuing to rise at a healthy pace next year. In line with unemployment rising slightly later on, wage growth is expected to gradually abate, which will contribute to a slight slowdown in household consumption growth.

**The trade conflict expected to dampen Chinese growth**

The trade conflict with the United States is expected to dampen China's growth this year and next year. In order to counteract the economic effects of the conflict, the central bank has, among other measures, lowered the reserve requirements imposed on banks (see Figure 4:3). In addition, banks with a high share of lending to small and private firms have received greater relief.

**Figure 4:2. Exports and the Swedish export market**

Annual percentage change, calendar-adjusted data

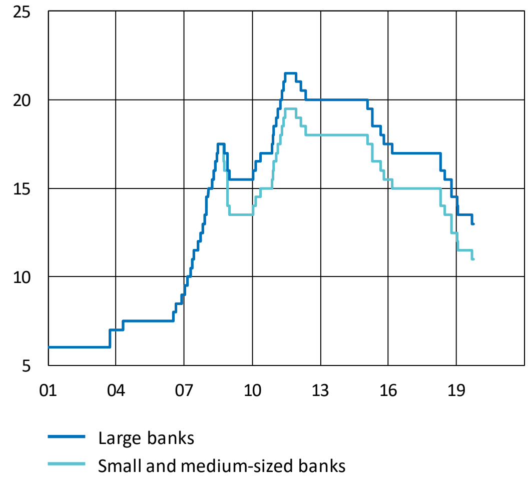



Note. The Swedish export market index aims to measure import demand in the countries to which Sweden exports. This is calculated by aggregating 32 countries and covers around 85 per cent of the total Swedish export market.

Sources: Statistics Sweden and the Riksbank

**Figure 4:3. Reserve requirements for small and medium-sized banks and large banks in China**

Per cent

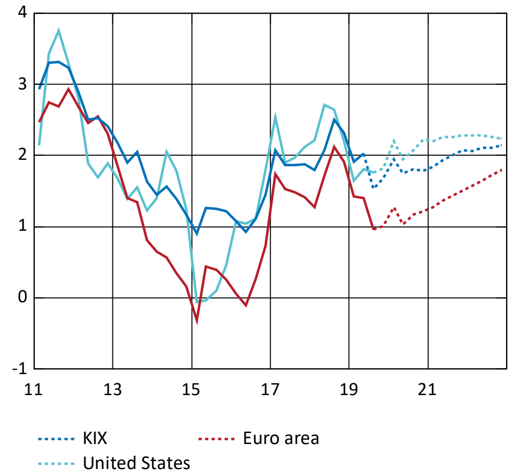



Note. The reserve requirement stipulates the proportion of banks' deposited funds that must be held as reserves.

Source: People's Bank of China

**Figure 4:4. 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

This is not the first time the reserve requirements for Chinese banks have been lowered; for instance, three reductions were implemented in 2018. As a result, the reserve requirements are now at their lowest level for ten years and more stimuli are expected. This will boost expectations that China will achieve the lower limit of its official growth target of 6–6.5 per cent in 2019.[21]

Chinese growth is expected to continue to decline to just above 6 per cent over the coming years. This is due to the country consciously rebalancing large parts of the economy in the aftermath of the financial crisis. The aim is that growth in the future shall be based on consumption instead of on high investment growth. Investment levels are high and investment's share of GDP amounted to just over 44 per cent in 2017. The high investment levels have led to low utilisation of infrastructure capacity. This means that there are assets, such as public transport, airports and hospitals, that are larger than the demand for them. Investment in China is therefore expected to have a slower growth rate in the longer term.

### Cost pressures abroad are expected to rise slowly

KIX-weighted inflation abroad is expected to be slightly below 2 per cent this year. In the coming years, the effects of the earlier increase in resource utilisation are expected to contribute to a slow rise in inflation abroad to around 2 per cent (see Figure 4:4).

Inflation in the euro area is still low. Both HICP inflation and underlying HICP inflation adjusted for energy and food remained around 1 per cent in September. Underlying inflation has been around 1 per cent in recent years. Inflation expectations have also fallen, in terms of both market pricing and surveys. The increasingly strong labour market, stimulated by very low interest rates, is predicted to lead to increased cost pressures that will cause inflation to rise gradually to just below 2 per cent at the end of the forecast period, measured both with the HICP and with the HICP excluding energy and food.

In the United States as well, the strong labour market continues to contribute to higher inflation as a result of wages, and thus companies' labour costs, increasing slightly faster. Elevated tariffs will also contribute to slightly higher inflation in the short term due to an increase in the price of imported goods. However, inflation pressures will be dampened in the longer term by a slowdown in growth and a fall in resource utilisation. Overall, CPI inflation in the United States is expected to be just above 2 per cent in the coming years (see Figure 4:4).

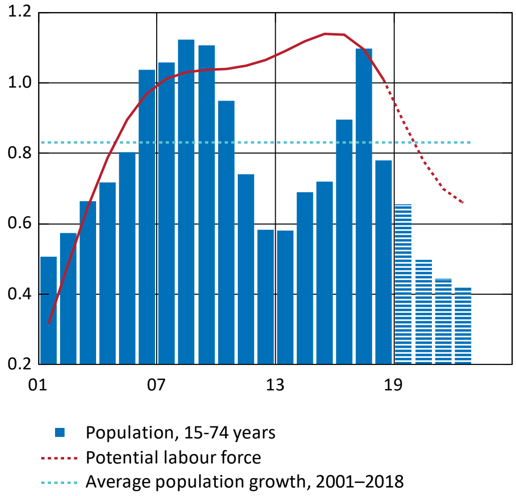
## Sweden

### Slower increase in labour supply

Long-term growth in the economy is affected by how labour supply and productivity develop over time. In this context, demographic developments are important. As a result of high

[21] China's growth target was announced at the National People's Congress in March this year.

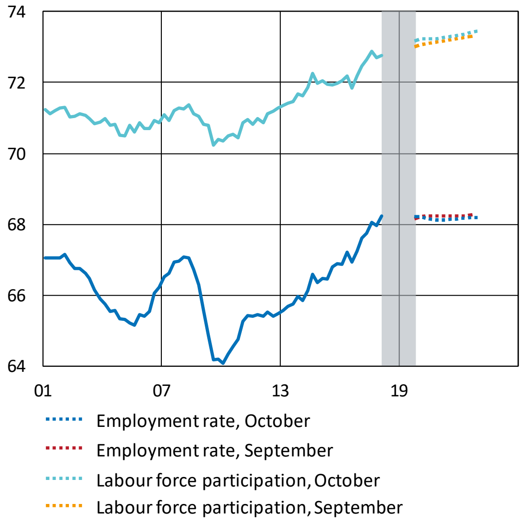
**Figure 4:5. Population and potential labour force, 15–74 years**
Annual percentage change




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

Sources: Statistics Sweden and the Riksbank

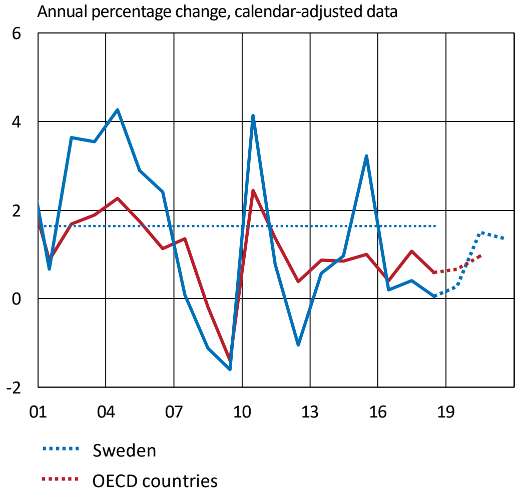
**Figure 4:6. Employment rate and labour force participation**
Percentage of the population, aged 15–74, seasonally-adjusted data




Note. Statistics Sweden has identified quality flaws in the LFS which mean that the statistics for 2018 Q2–2019 Q3 are misleading. Data is therefore not shown in the figure and the period is highlighted in grey.

Sources: Statistics Sweden and the Riksbank

**Figure 4:7. 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 line represent the average Swedish productivity growth 1995–2018.

Sources: OECD, Statistics Sweden and the Riksbank immigration, the working-age population in Sweden has grown relatively quickly in recent years. This has contributed to an unusually sharp increase in the supply of labour (see Figure 4:5).

Also 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 4:6). The upturn has occurred among both Swedish-born and foreign-born persons.

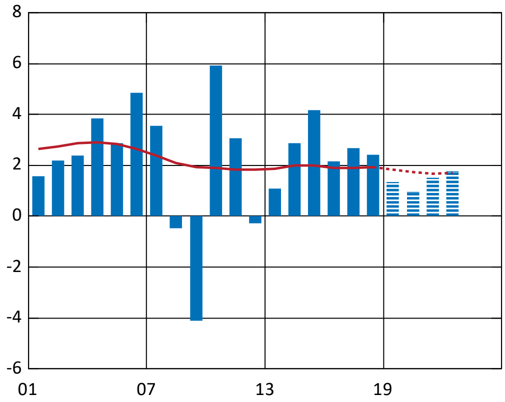
In the coming years, growth in the working-age population will slow as the Swedish-born population gets older on average and immigration is assumed to fall. The number of older persons participating in the labour force is expected to continue to increase, however, due in part to increased age limits in the pension system, to the fact that we are enjoying better health until a more advanced age and are living longer. The number of foreign-born persons in the labour force is also expected to continue to increase. Overall, this means that labour supply is not expected to decline as quickly as population growth (see Figure 4:6).

After the financial crisis, productivity growth both in Sweden and abroad has been low, apart from a few individual years (see Figure 4:7).[22] Productivity growth is now expected to increase slowly going forward and approach a historical average.

Overall, the increase in labour supply and productivity will lead to growth in potential GDP of between 1.5 and 2 per cent a year in 2019–2021 (see Figure 4:8).

**Figure 4:8. GDP**

Annual percentage change, calendar-adjusted data

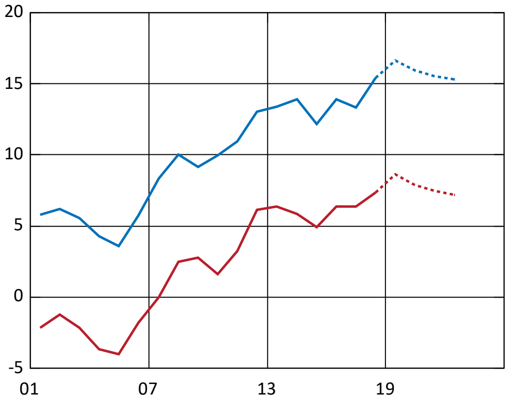



Note. Potential GDP refers to the long-term sustainable level according to the Riksbank's assessment.

Sources: Statistics Sweden and the Riksbank

**Figure 4:9. Household savings**

Per cent of disposable income




Note. Collective insurance savings consist of savings households do not control themselves, e.g. premium pension and collective agreements insurances.

Sources: Statistics Sweden and the Riksbank

## Continued slowdown in the Swedish economy

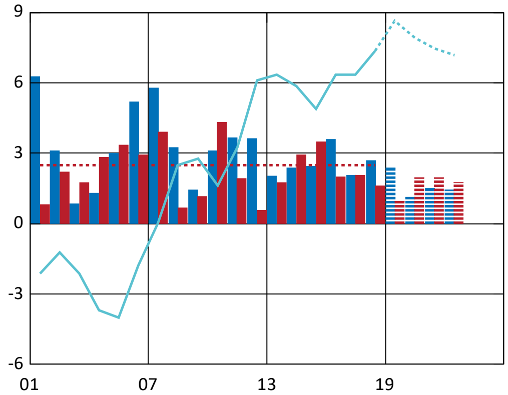
After several years of good growth and rising resource utilisation, Swedish GDP has now entered a calmer phase and is expected to grow more slowly in the coming years (see Figure 4:8). The lower growth means that economic activity will continue to slow, and that resource utilisation in the economy will be close to normal – although the assessment is not that the economy is heading for recession. The slowdown is due in part to weak growth on Swedish export markets and to a continued reduction in housing construction.

## Weak investment growth

The demand for housing did not fully meet the rapidly growing supply of new homes in the autumn of 2017. This contributed to a decline in housing prices, that, measured by the HOX housing price index, was at most 5 per cent as an annual rate (see Figure 1:11). The price fall has in turn meant that builders have had to adjust supply, which has contributed to a sharp decline in the number of housing starts. This development will continue to burden growth in housing investment and GDP particularly this year and in 2020. Even though housing investment has decreased significantly, construction is still high in a historical perspective.

**Figure 4:10. Households' real disposable income, consumption and savings ratio**

Annual percentage change and per cent of disposable income, respectively




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, e.g. premium pensions and collective agreements insurances.

Sources: Statistics Sweden and the Riksbank

[22] 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.

In addition to the continued weak development in housing investment, lower growth in other investment by the business sector has also contributed to a weaker development in companies' total gross investment than in recent years and to a slight reduction in investment's share of GDP in the years ahead.

**Households save less when their income rises more slowly**

Household consumption is expected to grow at a modest pace in the period ahead. This is due in part to weaker development in household income when the number of persons employed increases more slowly over the next few years. The Riksbank's assessment is that households are initially saving a large share of their income (see Figure 4:9).[23] The high savings ratio means that households retain some scope for consumption despite weaker development in their income and will contribute to more even consumption growth in the coming years (see Figure 4:10).

**Housing prices are rising but debt is increasing more slowly**

Optimism on the housing market has increased. Measured by the HOX housing price index, housing prices rose by 2.5 per cent in September compared with the same month last year. Prices were therefore just over 2 per cent lower than prior to the decline in the autumn of 2017. However, the supply of housing continues to be substantial given the extensive new construction. Introduced amortisation requirements are dampening demand and overall, these factors will contribute to housing prices continuing to rise at a modest rate in the coming years, approximately in line with the development of household income.

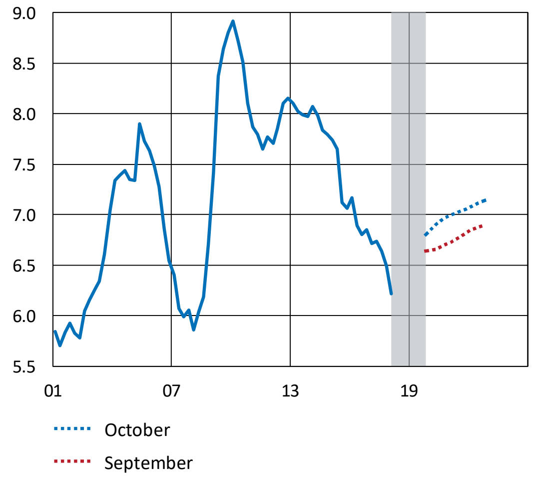
Household debt, which is dominated by mortgages, has been increasing more slowly for some time. However, despite housing prices now being lower than what they were in the summer of 2017, debt is growing by approximately 5 per cent, measured as annual percentage change. This is largely due to a person buying a home on the secondary market today is on average paying a significantly higher price than the seller once did. Furthermore, the addition of new homes is still high, which means that more people are taking out mortgages.

Debt growth is expected to slow down further, in part as the amortisation requirements cover an increasingly larger proportion of borrowers. However, debt is still growing slightly faster than disposable household income, and the debt-to-income ratio will increase to just over 190 per cent at the end of 2022 (see Figure 1:13).

[23] Statistics Sweden's review of the National Accounts contributed to the downward revision of the historical time series for the savings ratio. As a result, the difference in relation to the savings ratio according to the Financial Accounts, which are based on households' financial assets and debts, is smaller. The savings ratio according to the Financial Accounts is still lower, however.

**Figure 4:11. Unemployment**

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

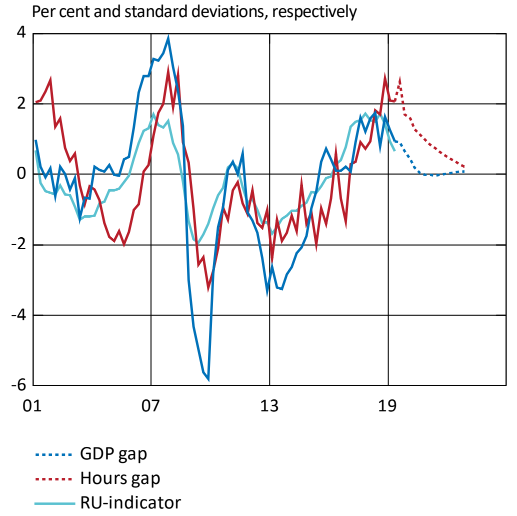



Note. Statistics Sweden has identified quality flaws in the LFS which mean that the statistics for 2018 Q2–2019 Q3 are misleading. Data is therefore not shown in the figure and the period is highlighted in grey.

Sources: Statistics Sweden and the Riksbank

**Figure 4:12. GDP gap, hours gap and the resource utilisation indicator**

Per cent and standard deviations, respectively

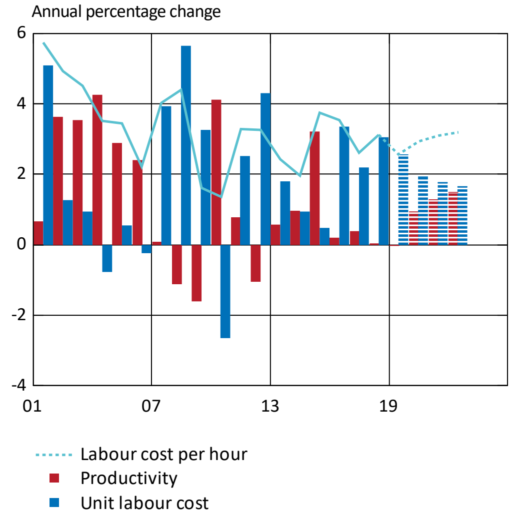



Note. The gaps refer to the deviation of GDP and the number of hours worked from the Riksbank's assessed trends. The RU indicator is a statistical measure of resource utilisation. It is normalised so that the mean value is 0 and the standard deviation is 1.

Sources: Statistics Sweden and the Riksbank

**Figure 4:13. Labour costs in the whole economy**

Annual percentage change




Sources: Statistics Sweden and the Riksbank

## Swedish labour market continues to weaken

The high activity in the Swedish economy in recent years has resulted in the employment rate and labour force participation rate rising to historically high levels (see Figure 4:6).

As economic activity has entered a phase of lower growth in 2019, employment has also slowed and the employment rate is deemed to have fallen back. Demand for labour has slowed down, which can be seen in companies experiencing less labour shortage and less of a need to recruit. For several years, unemployment has fallen more than has been forecast by the Riksbank but has now started to rise. However, Statistics Sweden have discovered flaws in the data collection by the Labour Force Surveys (LFS). They make the assessment that the recent sharp increase in unemployment is misleading and that the current level of unemployment is overestimated (see the box "Incorrect labour market statistics a cause for concern" in Chapter 3). That unemployment has risen slightly during the year is supported by other sources. Demand for labour is expected to cool further over the forecast period, which means that unemployment will continue to rise slightly (see Figure 4:11).

The rise in unemployment is mainly explained by the slowdown in GDP growth, although there are also more structural driving forces. For example, there has been a major inflow to the labour force of groups with a weak connection to the labour market, particularly persons without upper-secondary education or work experience from the Swedish labour market. At the same time, the scope for active labour market policy was significantly reduced in the budget for 2019, for example recruitment incentive volumes were substantially cut. In the budget bill for 2020, the Government has now announced labour market policy initiatives to mitigate the previous cutbacks.

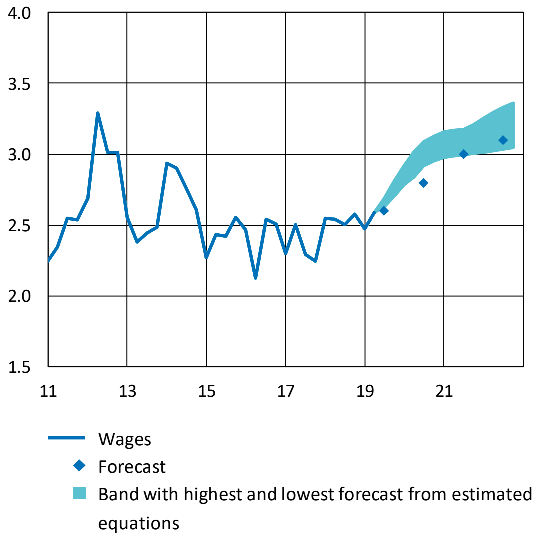
Overall, resource utilisation in the economy as a whole is expected to decrease over the next few years and be close to normal levels throughout the forecast period (see Figure 4:12).

## Wages expected to increase more rapidly

Wage growth has been weak in recent years, in relation to both economic activity and its historic average. One likely reason for this is that productivity growth has been relatively low. Despite modest wage increases, cost pressures, measured as unit labour costs, have thus been higher than their historical average of about 2 per cent (see Figure 4:13).

Wage growth has picked up slightly this year, especially in the business sector, and amounted to 2.7 per cent in July according to the short-term wage statistics. Several factors indicate that wage growth will rise slightly in the period ahead. The labour market has been strong for several years and resource utilisation has been high. Wage growth abroad has increased and inflation has been close to target for a long period. In addition, productivity growth is expected to increase. Simple estimated equations, in which wage growth is explained in part by the historical covariation with, for example, resource utilisation, productivity, profit share in the economy and international wage

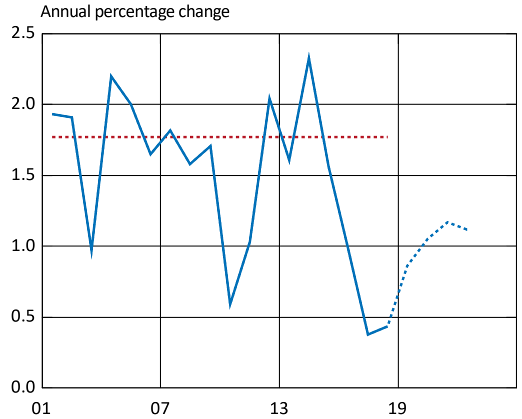
**Figure 4:14. Wages**
Annual percentage change




Note. Wages according to the short-term wage statistics. The squares illustrate the Riksbank's forecasts for wage growth for 2019–2022. The band illustrates the difference between the highest and lowest forecast from simple estimated equations in which wage growth is explained by the GDP gap, productivity, international wages (KIX-weighted) and profit share in the entire economy.

Sources: National Mediation Office and the Riksbank

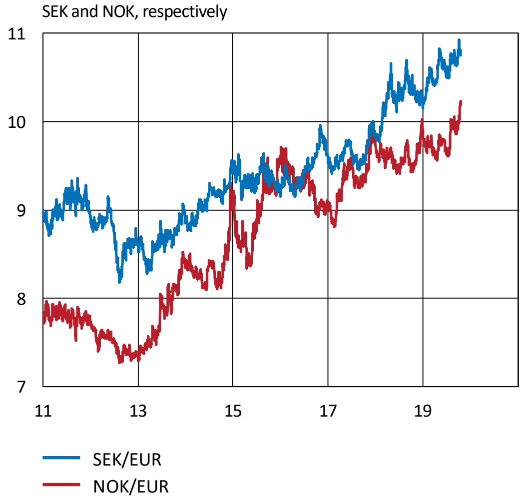
**Figure 4:15. Real wages**
Annual percentage change




Note. Wages according to the short-term wage statistics deflated by the CPIF. The broken red line represents the mean value 1995–2018.

Sources: National Mediation Office, Statistics Sweden and the Riksbank

**Figure 4:16. Swedish and Norwegian krona exchange rate against the euro**
SEK and NOK, respectively




Source: Bloomberg

growth, forecast rising wage growth in the years immediately ahead, which is in line with or slightly above the Riksbank's forecast (see Figure 4:14). However, the prospects for the labour market going forward are expected to be a little more subdued than in the previous assessment. The forecast for wage growth has therefore been revised down somewhat.

Unit labour costs are expected to increase at a pace just below its historical average during the forecast period (see Figure 4:13). Real wages have grown slowly in recent years, but as a result of rising nominal wage increases, the rate of increase in real wages is expected to rise during the forecast period (see Figure 4:15).

**Krona to appreciate gradually in the period ahead**

The Swedish krona has weakened during the autumn, partly in conjunction with the publication of domestic macro-statistics that have been weaker than market expectations. The Riksbank's assessment is still that the krona will strengthen in the longer term, as it is currently weaker than is justified by long-term determinants.[24]

Uncertainty about macroeconomic developments in both Sweden and abroad forms part of the explanation for the weak krona exchange rate. Currencies in other small, open economies, such as Norway, have also weakened in recent years (see Figure 4:16). It is unclear how long these conditions will persist and hence how soon the krona will start to appreciate. The current forecast is based on a new assessment according to which the krona appreciation will start slightly later than in the previous forecast. Thereafter, a gradual strengthening of the exchange rate is expected similar to the assessment in the Monetary Policy Report in September. However, the krona will be weaker during the entire forecast period compared with the forecast in September (see Figure 4:17).

**Inflation rising to 2 per cent towards the end of the year**

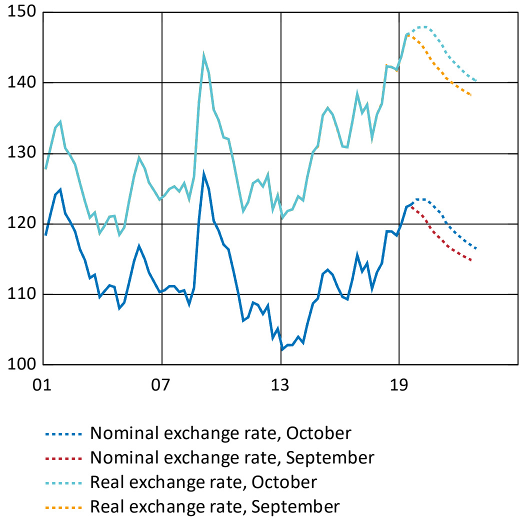
CPIF inflation has fallen back somewhat in recent months after having been close to the Riksbank's target of 2 per cent since the beginning of 2017 (see Figure 4:18). The downturn is primarily explained by the fall in energy prices compared with last year. This has led to CPIF inflation now being lower than CPIF inflation excluding energy prices. Since the monetary policy meeting in September, inflation has developed as expected. In September, CPIF inflation amounted to 1.3 per cent. If the volatile energy prices are excluded, it amounted to 1.6 per cent. Overall, different measures of underlying inflation regularly analysed by the Riksbank are just below 2 per cent.

Towards the end of the year, inflation in terms of the CPIF and the CPIF excluding energy is expected to rise towards 2 per cent. The depreciation of the krona and the fact that energy prices have stopped falling will contribute to the increase. The rise is also explained by the effect of previous low price growth in

[24] See the article "Trend development of the Swedish krona" in the Monetary Policy Report in July 2019.

**Figure 4:17. Nominal and real exchange rate, KIX**

Index, 18 November 1992 = 100

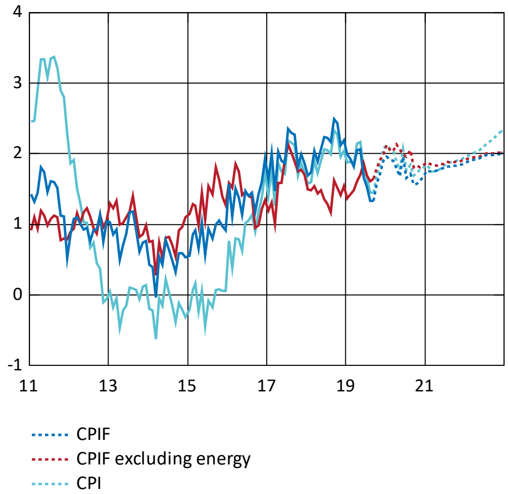



Note. The KIX (krona index) is a weighted average of the krona exchange rate against currencies in 32 countries that are important for Sweden's international transactions. A higher value indicates a weaker exchange rate. The real exchange rate is calculated using the CPIF for Sweden and the CPI for other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

Sources: National sources, Statistics Sweden and the Riksbank

**Figure 4:18. CPIF, CPIF excluding energy and CPI**

Annual percentage change



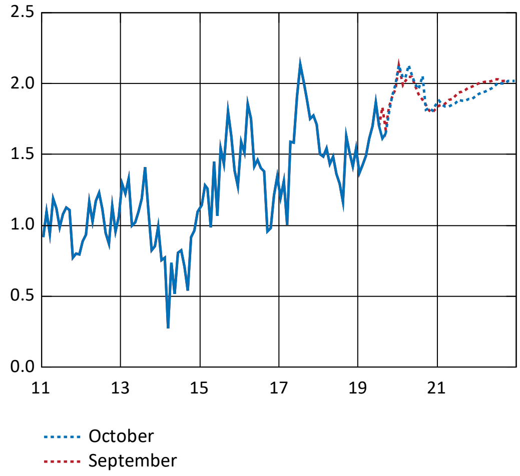

Sources: Statistics Sweden and the Riksbank

certain goods and services now abating and affecting the rate of inflation to a lessening extent.

The effects of the krona on inflation will drop off over the course of next year, at the same time as energy prices will have a dampening effect on inflation. Inflation will therefore be somewhat lower in 2020. However, the conditions for inflation to be close to the inflation target are expected to remain good. Monetary policy has contributed to strong demand for several years. Resource utilisation is currently still slightly higher than normal, even though it is expected to fall to more normal levels during the forecast period. At the same time, wage growth is expected to increase slightly and companies' costs, measured in terms of unit labour costs, will rise by approximately 2 per cent a year. Energy prices are expected to rise relatively slowly in 2020 but the rate of increase will then gradually increase. Overall this means that inflation is expected to be close to target towards the end of the forecast period (See Figure 4:18).

The outlook for inflation is largely the same as in September. However, after 2020, it will take slightly longer for inflation to approach the target of 2 per cent (see Figures 1:5 and 4:19). This is due to the expectation of a weaker labour market and wage growth is therefore expected to be slightly lower in the coming years compared with the assessment in September. Resource utilisation is also expected to be lower. The effect on inflation of a faster slowdown in the Swedish economy is partly being counteracted by a weaker development of the krona.

**Figure 4:19. CPIF excluding energy**
Annual percentage change




Sources: Statistics Sweden and the Riksbank

# ARTICLE – World trade in constant change

The freer world trade seen over the last thirty years has had positive effects on the global economy and has also benefited Sweden. Since the World Trade Organization (WTO) was founded in 1995, average tariff rates have shown a downward trend, which has resulted in increased productivity and higher real incomes in many countries. Decreased protectionist elements have also resulted in changed trade patterns and in increasing numbers of companies participating in complex global value chains. However, since the financial crisis, these protectionist elements have increased, which can partly explain the lower growth in world trade. The ongoing trade conflict between the United States and China is thereby a continuation of a trend towards increased protectionism over the last decade. Recent years' favourable global economic growth has instead been driven by domestic demand, which, in turn, has been supported by a substantially expansionary monetary policy. If protectionist elements dominate in the future, global growth will be restrained and become lower than in the Riksbank's current assessment. Demand for Swedish exports would then also decrease.

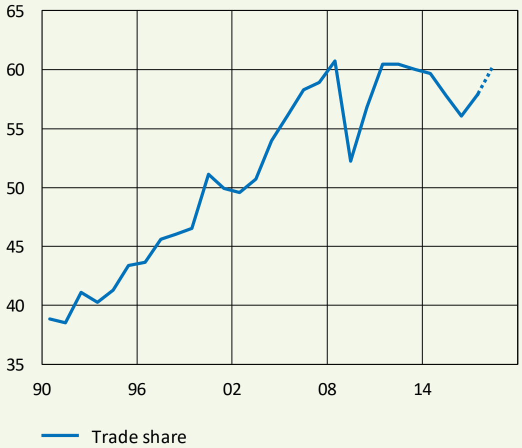
**Freer world trade over the last thirty years**

Over the last thirty years, world trade has been of growing significance for the global economy. Global exports and imports have grown as a proportion of global GDP, from just below 40 per cent in 1990 to just over 60 per cent in 2018 (see Figure 4:20). The trend towards more multilateral and regional trade agreements have played a major role for this favourable development.

In 1995, when the General Agreement of Tariffs and Trade (GATT) changed into the World Trade Organization (WTO), support for multilateral trade agreements and reduced trade barriers increased. At about the same time, 1993, the European Union (EU) was set up as a replacement for the European Community (EC), forming the world's largest free trade area. At present, the Union is made up of 28 member states.[25]

**Figure 4:20. World trade**

Exports and imports of goods and services as a share of global GDP, per cent




Note. The value for 2018 (dotted line) is based on data from the IMF.

Sources: World Bank, OECD, IMF and the Riksbank

Other important free trade agreements in recent years include the agreement between the EU and Canada and the agreement between the EU and Japan. The common characteristic of these two free trade agreements – which, together, give European companies access to a market of over 150 million people – is that they involve the removal of tariffs for most goods.[26] Outside Europe, it is worth mentioning the Trans-Pacific Partnership (TPP) free trade agreement, which was adopted in 2016 and which changed into the Comprehensive and Progressive Agreement for Trans-Pacific Partnership (CPTPP) after the United States withdrew in 2017. Eleven countries in the Pacific region are included in the free trade agreement, which aims to lower tariffs between the countries and also reduce other trade-restrictive measures.

These multilateral and regional trade agreements have led to a decrease in the global average tariff rate, from about 14 per cent in 1990 to an estimated level of just over 5 per cent today (see Figure 4:21). However, in recent years, tariffs have risen due to the increases planned and implemented by the United States and China in 2018–2019. Despite the ongoing trade conflict between the two countries, the average global tariff rate is currently low from a historical perspective.

[25] Including the United Kingdom.

[26] In addition, companies gain better access to the countries' markets for public procurement and it will also become easier to trade in services.

**Figure 4:21. Average tariff rate**

Per cent


Note. Import-weighted average of applied tariff rates. The tariff rate for 2018 and 2019 has been calculated by including implemented and planned tariff increases in the United States and China for 2018–2019. In the calculations, all other tariffs are assumed to be unchanged.

Sources: WITS (UN statistics division, UNCTAD, WTO and the World Bank) and the Riksbank

Among economists, there is strong agreement over the positive aggregate effects of free trade, due to increased productivity,higher real incomes and access to a greater supply of products and services.[27] However, even if the long-term effects are generally positive, there are distribution effects among various groups in the shorter term.[28] Some – often low-skilled workers – can be disadvantaged when companies move production abroad or when companies enter bankruptcy due to import competition, with lower incomes or increased unemployment as a result. Less free trade also has distribution effects as people with lower incomes have been able to purchase products more cheaply and have benefited from the greater supply. When there is less free trade, products instead become more expensive and supply decreases. The allocation of the gains and losses of changed trade between different groups becomes an economic policy issue.

### Changed trade patterns and the emergence of global value chains

As trade-restrictive measures decreased, transportation costs became lower and communication technology became more advanced, trade patterns also changed. Many companies now participate in global value chains. The significance of global value chains is often measured as the sum of foreign value-added in a country's gross exports and the export of input goods used for exports to third countries.[29] The same input goods and services thus cross international borders more than once, meaning that, when gross exports are calculated, the number of transactions with the rest of the world is 'counted double'. International studies point to several positive effects of global value chains, such as higher productivity, increased investments and strengthened human capital.[30]

Global value chains are particularly important for European countries, while they have a less prominent role in the United States, for example (see Figure 4:22). [31]

### Trade in global value chains has levelled off since the financial crisis

Trade in global value chains has levelled off in recent years and may partly explain the relatively weak growth in trade. Several factors have probably contributed to this, for example that trade has become more restricted due to increased protectionist elements or that companies have restructured their value chains due to increased uncertainty.[32] Another explanation may be that technology has developed towards more automated production and digitalisation, which reduces companies' incentives to outsource parts of their operations to countries with lower labour costs. Instead, it is possible for the production of input goods to take place in the companies' home markets to a greater extent. Working tasks and production are therefore returned to the country of origin. This means that the extent and length of global value chains is decreasing, and so, therefore, is also participation in value chains measured as a proportion of exports. [33]

[27] See Melitz, M. (2003), "The Impact of Trade on Intra-Industry Reallocations and Aggregate Industry Productivity", *Econometrica*, vol. 71, no. 6 , pp. 1695-1725 and Melitz, M. and Ottaviano, G. (2008), "Market Size, Trade, and Productivity", *Review of Economic Studies*, vol. 75, pp. 295-316.

[28] See, for example, Goldberg, P.K. and Pavcnik, N. (2007), "Distributional Effects of Globalisation in Developing Countries", *Journal of Economic Literature*, vol. 45, no. 1, pp. 39-82 and Ebenstein, A., Harrison, A., McMillan, M., and Phillips, S. (2014),"Estimating the Impact of Trade and Offshoring on American Workers Using the Current Population Surveys", *Review of Economics and Statistics*, vol. 96, no. 3, pp. 581-595.

[29] Value-added is the value of a company's output minus the value of the input goods used, which is to say the company's contribution to GDP.

[30] See IMF (2019), "Trade Tensions, Global Value Chains, and Spillovers: Insights for Europe", Department Paper No. 19/10.

[31] About 70 per cent of Europe's exports can be related to global value chains. The corresponding figures for America and Asia are 40 and 45 per cent, respectively. See IMF (2019), "Trade Tensions, Global Value Chains, and Spillovers: Insights for Europe", Department Paper No. 19/10. It is uncertain exactly how much trade lies in global value chains, and different sources give different figures. However, what the sources have in common is that comparisons of countries tend to give the same qualitative image.

[32] ECB (2016) "Understanding the Weakness in Global Trade – What Is the New Normal?", ECB Occasional paper series, no. 178, and IMF (2017), "Global Trade: What's Behind the Slowdown?", chapter 2 of World Economic Outlook provide a number of explanations for why trade in value chains may have declined after the crisis. One of these is that logistics chains have become shorter due to increased uncertainty and a need for control by companies. Other factors are connected with the localisation of production close to end markets, partly due to increased regulation and demand for local content.

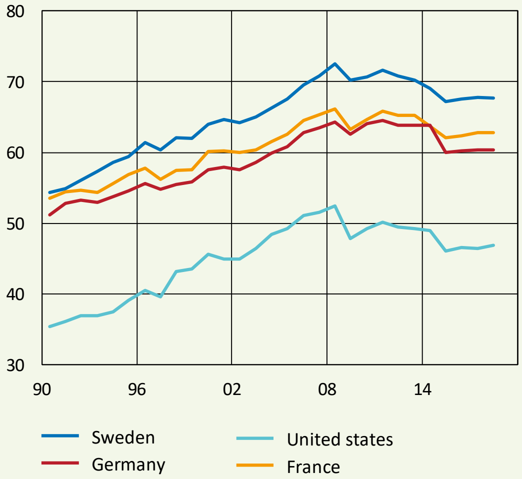
[33] See IMF (2019), "Trade Tensions, Global Value Chains, and Spillovers: Insights for Europe", Department Paper No. 19/10.

### The service sector is a part of global value chains

In several countries, the service sector has become increasingly important for total output, above all in developed economies. These days, the service sector is also included in global value chains and a majority of jobs within the export sector can be linked to the service sector. Sectors such as transportation, telecommunications and distribution, for example, support the manufacturing sector with various types of service.[34]

In most OECD countries, but also in emerging market economies such as China, India and Indonesia, the export sector has also shifted from low-skill working tasks towards more medium and highly-qualified working tasks. Global value chains also mean that employment in these countries has shifted from the manufacturing sector alone to areas such as research and development, logistics and marketing, which are activities located at the start and end, respectively, of the value chain. Activities at the two ends of the value chain mostly have a high proportion of value-added, while activities in the middle typically have a lower proportion of value-added. Activities in the middle of the value chain are often performed in emerging market economies with low costs, while activities at the start and end of the value chain are more common for OECD countries.[35]

**Figure 4:22. Proportion of exports linked to global value chains**
Per cent of exports of goods and services




Note. Global value chains are measured as the sum of foreign value-added in the country's exports and the export of input goods used for exports to third countries.

Source: UNCTAD-Eora GVC Database - Eora MRIO

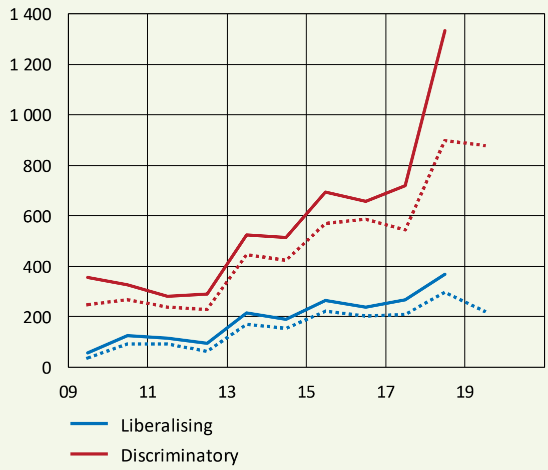
### Protectionist elements have increased since the financial crisis

Growth in global trade slowed down after the financial crisis of 2008, in which world trade fell heavily.[36] Instead, growth in many countries has been supported by strong domestic demand and expansionary monetary policies. One cause of the downturn in world trade is that protectionist elements have increased. While tariffs are certainly at historically low levels today, other trade barriers have increased instead (see Figure 4:23).[37]

In addition to these trade barriers, increased uncertainty over future trade policy may have negative effects on growth. For example, the trade war between the United States and China has led to increased uncertainty, which has presumably affected economic activity negatively, even if it is difficult to assess by how much. A recently published study examines how investments among US companies have been affected by higher uncertainty over future trade policy. The authors of the study consider that the increase in uncertainty measured between 2017 and 2018 may have restrained investment in the US business sector by about one per cent.[38]

A substantial increase of protectionist elements in the period ahead would lead, overall, to lower productivity and reduced specialisation. Global growth would be restrained and would become lower than the Riksbank's current

**Figure 4:23. Trade-influencing measures by G20 countries**
Number




Note. Discriminatory (liberalising) measures are measures that, according to Global Trade Alert's assessment, increase (reduce) discrimination for the benefit of domestic producers. The broken lines refer to measures for each single year until and including October 16.

Source: Global Trade Alert

[34] See OECD (2016), "Global Value Chains and Trade in Value-Added: An Initial Assessment of the Impact on Jobs and Productivity", OECD Trade Policy Papers, no. 190.
[35] Ibid.
[36] However, world trade increased relatively rapidly in some years after the financial crisis, such as 2010 and 2017.
[37] Examples of such measures include rules for public procurement rules that are distorted, state support and obstructions to international transactions.
[38] The estimated effect refers to the level of investments in the private business sector, excluding housing investment, one year after uncertainty over future trade policy had increased. See Caldara, D., Iacoviello, M., Moligo, P., Prestipino, A., and Raffo, A. (2019), "The Economic Effects of Trade Policy Uncertainty", *International Finance Discussion Papers,* no. 1256.

assessment.[39] Demand for Swedish exports would decrease. The existence of global value chains means that more countries than those introducing the trade-influencing measures would probably be affected. Inflation – at least in the short term – would probably increase in those countries introducing measures to make imports more expensive.[40] Lower growth and higher inflation make monetary policy considerations more difficult.

[39] Some countries would be able to benefit from increased protectionism by moving production facilities across borders with the aim of avoiding tariffs. Nevertheless, however, the overall effect on the global economy is expected to be negative.

[40] For the effects of the worldwide spread of protectionism and the effects of bilateral trade wars, see the article "Economic consequences of increased protectionism" in the Monetary Policy Report, April 2017.

# 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

| | Q3 2019 | Q4 2019 | Q1 2020 | Q4 2020 | Q4 2021 | Q4 2022 |
|---|---|---|---|---|---|---|
| Repo rate | −0.25 (−0.25) | −0.25 (−0.23) | −0.05 (−0.05) | 0.00 (0.08) | 0.00 (0.24) | 0.13 |

Source: The Riksbank

**Table 2. Inflation**

Annual percentage change, annual average

| | 2018 | 2019 | 2020 | 2021 | 2022 |
|---|---|---|---|---|---|
| CPIF | 2.1 (2.1) | 1.7 (1.7) | 1.8 (1.7) | 1.8 (1.8) | 2.0 |
| CPIF excl. energy | 1.4 (1.4) | 1.7 (1.7) | 2.0 (1.9) | 1.9 (1.9) | 2.0 |
| CPI | 2.0 (2.0) | 1.8 (1.8) | 1.9 (1.9) | 1.8 (2.1) | 2.1 |
| HICP | 2.0 (2.0) | 1.7 (1.7) | 1.7 (1.7) | 1.8 (1.8) | 1.9 |

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

| | 2018 | 2019 | 2020 | 2021 | 2022 |
|---|---|---|---|---|---|
| Repo rate | −0.5 (−0.5) | −0.3 (−0.3) | 0.0 (0.0) | 0.0 (0.2) | 0.1 |
| 10-year rate | 0.7 (0.7) | 0.1 (0.1) | 0.1 (0.1) | 0.5 (0.6) | 0.9 |
| Exchange rate, KIX, 18 November 1992 = 100 | 117.6 (117.6) | 122.2 (121.7) | 123.0 (119.9) | 119.9 (116.8) | 117.3 |
| General government net lending* | 0.8 (0.9) | 0.3 (0.1) | −0.1 (0.0) | 0.0 (0.1) | 0.1 |

* 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 | 2018 | 2019 | 2020 | 2021 | 2022 |
|---|---|---|---|---|---|---|---|
| Euro area | 0.11 | 0.49 | 1.9 (1.9) | 1.1 (1.1) | 1.0 (1.3) | 1.3 (1.4) | 1.3 |
| USA | 0.15 | 0.08 | 2.9 (2.9) | 2.2 (2.3) | 1.7 (1.7) | 1.7 (1.7) | 1.7 |
| Japan | 0.04 | 0.02 | 0.8 (0.8) | 1.0 (1.1) | 0.2 (0.4) | 0.5 (0.9) | 0.5 |
| China | 0.19 | 0.08 | 6.7 (6.7) | 6.1 (6.1) | 5.9 (5.9) | 5.8 (5.9) | 5.7 |
| KIX-weighted | 0.75 | 1.00 | 2.6 (2.6) | 1.9 (2.0) | 1.8 (2.0) | 2.0 (2.0) | 1.9 |
| World (PPP-weighted) | 1.00 | — | 3.6 (3.6) | 3.0 (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 | 2018 | 2019 | 2020 | 2021 | 2022 |
|---|---|---|---|---|---|
| Euro area (HICP) | 1.8 (1.8) | 1.2 (1.2) | 1.2 (1.3) | 1.4 (1.6) | 1.7 |
| USA | 2.4 (2.4) | 1.8 (1.8) | 2.1 (2.3) | 2.3 (2.3) | 2.3 |
| Japan | 1.0 (1.0) | 0.7 (0.7) | 0.9 (1.3) | 1.0 (1.1) | 1.2 |
| KIX-weighted | 2.2 (2.2) | 1.8 (1.8) | 1.8 (1.9) | 2.0 (2.0) | 2.1 |

| | 2018 | 2019 | 2020 | 2021 | 2022 |
|---|---|---|---|---|---|
| Policy rates in the rest of the world, per cent | 0.1 (0.1) | 0.1 (0.1) | 0.0 (0.0) | 0.0 (0.0) | 0.1 |
| Crude oil price, USD/barrel Brent | 71.5 (71.5) | 63.5 (62.9) | 57.5 (57.2) | 56.1 (56.4) | 56.1 |
| Swedish export market | 3.7 (3.4) | 2.5 (3.2) | 3.0 (3.5) | 3.1 (3.4) | 3.2 |

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

| | 2018 | 2019 | 2020 | 2021 | 2022 |
|---|---|---|---|---|---|
| Private consumption | 1.6 (1.2) | 1.0 (0.8) | 2.0 (1.8) | 2.0 (2.0) | 1.8 |
| Public consumption | 0.4 (0.9) | 0.8 (0.5) | 0.7 (0.7) | 0.8 (0.8) | 0.8 |
| Gross fixed capital formation | 4.6 (4.0) | −1.2 (−1.1) | −0.1 (1.0) | 1.6 (2.1) | 2.2 |
| Inventory investment* | 0.5 (0.4) | −0.2 (−0.2) | −0.1 (−0.2) | 0.0 (0.0) | 0.0 |
| Exports | 3.1 (3.9) | 4.3 (3.8) | 3.0 (3.7) | 3.0 (3.6) | 2.8 |
| Imports | 3.6 (3.8) | 1.9 (0.6) | 2.6 (2.8) | 3.0 (3.4) | 2.6 |
| GDP | 2.3 (2.4) | 1.3 (1.5) | 1.2 (1.5) | 1.6 (1.9) | 1.8 |
| GDP, calendar-adjusted | 2.4 (2.5) | 1.3 (1.5) | 1.0 (1.3) | 1.5 (1.7) | 1.8 |
| Final domestic demand* | 2.0 (1.8) | 0.3 (0.2) | 1.0 (1.2) | 1.5 (1.6) | 1.5 |
| Net exports* | −0.1 (0.2) | 1.2 (1.5) | 0.3 (0.5) | 0.1 (0.3) | 0.2 |
| Current account (NA), per cent of GDP | 2.3 (3.1) | 3.8 (4.7) | 3.9 (5.1) | 3.9 (5.2) | 4.0 |

*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

| | 2018 | 2019 | 2020 | 2021 | 2022 |
|---|---|---|---|---|---|
| Population, aged 15–74 | 0.8 (0.8) | 0.7 (0.7) | 0.5 (0.5) | 0.4 (0.4) | 0.4 |
| Potential hours worked | 1.1 (1.1) | 1.0 (1.0) | 0.9 (0.9) | 0.7 (0.7) | 0.6 |
| Potential GDP | 1.9 (2.0) | 1.8 (1.9) | 1.7 (1.8) | 1.7 (1.8) | 1.7 |
| GDP, calendar-adjusted | 2.4 (2.5) | 1.3 (1.5) | 1.0 (1.3) | 1.5 (1.7) | 1.8 |
| Number of hours worked, calendar-adjusted | 2.4 (2.4) | 1.3 (0.9) | 0.0 (0.1) | 0.2 (0.3) | 0.3 |
| Employed, aged 15–74 | *[1.8 (1.8)]* | *[0.3 (0.4)]* | 0.3 (0.3) | 0.4 (0.5) | 0.5 |
| Labour force, aged 15–74 | *[1.4 (1.4)]* | *[0.8 (0.7)]* | 0.5 (0.4) | 0.5 (0.6) | 0.6 |
| Unemployment, aged 15–74* | *[6.3 (6.3)]* | *[6.8 (6.6)]* | 6.9 (6.7) | 7.0 (6.8) | 7.1 |
| GDP gap** | 1.4 (1.3) | 0.9 (1.0) | 0.2 (0.4) | 0.0 (0.3) | 0.1 |
| Hours gap** | 1.8 (1.8) | 2.1 (1.7) | 1.2 (1.0) | 0.7 (0.6) | 0.3 |

* 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. Statistics Sweden has identified quality flaws in the LFS which mean that the statistics for 2018 Q2–2019 Q3 are misleading. The figures directly affected by this are italicised and enclosed in square brackets.

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

| | 2018 | 2019 | 2020 | 2021 | 2022 |
|---|---|---|---|---|---|
| Hourly wage, NMO | 2.5 (2.5) | 2.6 (2.6) | 2.8 (2.9) | 3.0 (3.2) | 3.1 |
| Hourly wage, NA | 2.2 (2.2) | 2.6 (2.7) | 2.8 (2.9) | 3.0 (3.2) | 3.1 |
| Employers' contribution* | 0.7 (0.5) | 0.0 (0.0) | 0.1 (0.1) | 0.1 (0.1) | 0.1 |
| Hourly labour cost, NA | 2.9 (2.7) | 2.6 (2.7) | 2.9 (3.0) | 3.1 (3.3) | 3.2 |
| Productivity | 0.0 (0.1) | 0.1 (0.6) | 0.9 (1.2) | 1.3 (1.4) | 1.5 |
| Unit labour cost | 3.1 (2.9) | 2.6 (2.1) | 2.0 (1.8) | 1.8 (1.9) | 1.7 |

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

Note. NMO is the National Mediation Office's short-term wage statistics and NA is the National Accounts. Labour 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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