

Monetary Policy Report

February 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 12 February 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 two weeks after each monetary policy meeting, the Riksbank publishes minutes from the meeting, in which it is possible to follow the discussion that led to the current decision and to see the arguments put forward by the different Executive Board members.

PRESENTATION OF THE MONETARY POLICY DECISION

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

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CHAPTER 1 – Monetary policy considerations

Economic developments abroad, as in Sweden, have entered a phase of lower growth. Even if growth slows down, economic activity abroad will continue to be good over the next few years, with low unemployment in many countries. There is still substantial uncertainty about the strength of the international economy. Although indicators point to sentiment in the household and corporate sectors having dampened in Sweden, the picture of strong economic activity remains. Developments on the labour market have been slightly stronger than expected and the demand for labour remains substantial.

Inflation has developed in line with the forecast and the conditions for inflation to remain close to 2 per cent in the coming years have not changed to any great extent. The Executive Board has therefore decided to hold the repo rate unchanged at –0.25 per cent. As in December, the forecast for the repo rate indicates that the next increase will be during the second half of 2019, provided that the economic outlook and inflation prospects are as expected. The Executive Board's assessment is that the repo rate needs to be raised at a slow pace after this for inflation to remain close to 2 per cent. Reinvestments of principal payments and coupons in the government bond portfolio will continue until further notice. The expansionary monetary policy underlines the Riksbank's aim to safeguard the role of the inflation target as nominal anchor for pricesetting and wage formation.

Good global economic activity despite mixed signals about the outlook

Global economy in a calmer phase

After several years of recovery, with high GDP growth and rapidly falling unemployment, the global economy has entered a phase of more subdued GDP growth. This has been particularly apparent in the euro area in recent times, even though developments there are partly affected by temporary factors. Weaker global growth than in recent years is to be expected as the business cycle comes into a more mature phase and resource utilisation is relatively high. Even if growth slows down, economic activity abroad is expected to remain good over the next few years, with low unemployment in many countries. A continued strong labour market and rising wages in many countries are expected to lead to a gradual increase in core inflation abroad. There is still substantial uncertainty about the strength of the international economy, in particular the euro area. The coming withdrawal of the United Kingdom from the EU is a source of unease (see the box in Chapter 4).

Since the autumn, mixed signals regarding the outlook for the global economy have contributed to increased uncertainty on the financial markets. Central banks abroad are communicating that monetary policy will slowly become less expansionary going forward. Financial conditions in Sweden are still assessed as expansionary and are providing support to economic development.

Table 1.1.

Important factors for monetary policy
Economic developments abroad are in a phase of calmer growth rates. Cost pressures are rising and monetary policy is slowly moving in a less expansionary direction. There is still substantial uncertainty about developments in the international economy.
Resource utilisation in the Swedish economy is still high but growth is slowing down.
Inflation and inflation expectations have become established at around 2 per cent. Good conditions for inflation to remain close to 2 per cent.
Conclusion: The repo rate is held unchanged at –0.25 per cent. The forecast indicates that the next interest rate increase will be in the second half of 2019, if the economic outlook and inflation prospects are as expected. Reinvestments of principal payments and coupons in the Riksbank's bond portfolio will continue until further notice.

Table 1.2.

Important forecast revisions
Somewhat lower GDP growth in the euro area. Expectations of lower policy rates abroad.
Somewhat lower Swedish GDP growth in 2019.
Higher cost pressures, primarily as a result of the downward revision in productivity growth.
Somewhat weaker exchange rate than in the previous forecast.
Minor revisions to the inflation forecast overall.

Continued strong economic activity in Sweden

Domestic demand in Sweden has made a relatively large contribution to GDP growth in recent years, but is now growing more slowly. GDP growth will slow from around 2.5 per cent on average in recent years to just under 2 per cent on average per year in 2019–2021 (see Figure 1:2). An important explanation for this is developments on the housing market. Housing construction has increased rapidly in recent years but housing investment has started to fall over the past half-year. The slowdown in housing prices and lower equity prices may also have contributed to a decline in household confidence and lower growth in household consumption.

But despite slightly lower growth rates, the economic situation is still strong, which is reflected in the continued high demand for labour. Employment and labour force participation rates are historically high and unemployment has fallen to its lowest level for a decade. However, the unemployment pool consists largely of people who, on average, are less well educated and have a weaker connection to the labour market. Despite 6 per cent of the labour force not having a job, it has therefore become increasingly difficult for companies to find the staff they are looking for and labour shortages are at high levels. In addition, the inflow into the labour force still consists largely of people who, on average, are less well educated and have a weaker connection to the labour market. The overall picture of resource utilisation in the Swedish economy is that it will fall back but continue to be higher than normal.

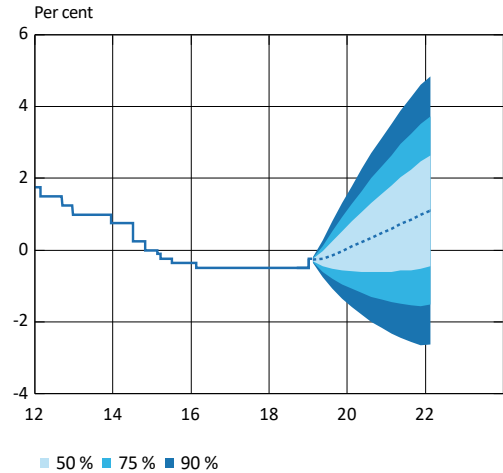
Inflation close to 2 per cent

High activity in the economy and strong development on the labour market normally also lead to higher inflation, albeit with a certain time lag. Inflation has now been close to the target of 2 per cent for over 2 years (see Figure 1:3). The strong economic activity and rapidly increasing energy prices have contributed to this.

However, the more permanent part of the measured rate of inflation, which can be studied by looking at different measures of core inflation, has been lower over the past year. In December, the median of the measures of inflation calculated by the Riksbank amounted to 1.6 per cent. Higher rent increases, a higher rate of increase in food prices and the effects of previous krona depreciations point to an upturn in core inflation in the near term. Wage growth has been moderate in recent years but productivity has also been surprisingly weak. The slow productivity growth has caused cost pressures, measured as unit labour costs, to rise unusually rapidly in recent years. This normally causes inflation to rise.

The strong economic activity and rising cost pressures, in combination with slightly higher global inflation pressures, are providing the conditions for inflation to remain close to target in the coming years, despite a slowdown in the rate of increase in energy prices and a slowly appreciating exchange rate having a dampening effect on inflation.

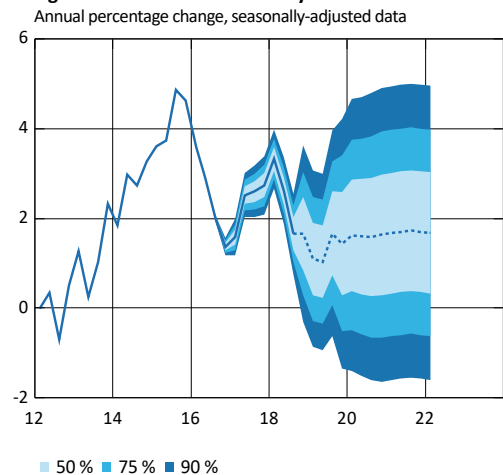
Figure 1:1. Repo rate with uncertainty bands



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

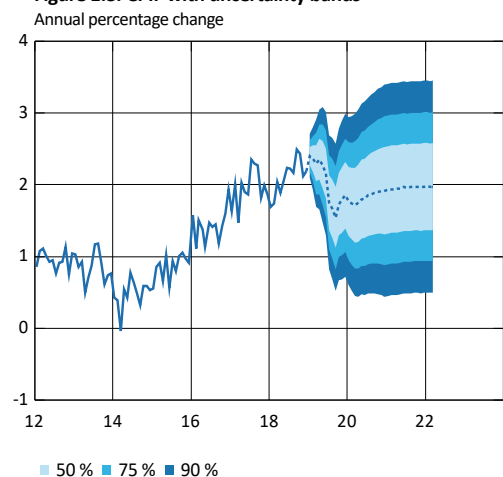
Figure 1:2. GDP with uncertainty bands



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



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

Sources: Statistics Sweden and the Riksbank

Current monetary policy

The Riksbank’s monetary policy with a negative policy rate and extensive purchases of government bonds has had a clear impact on short-term and long-term market rates and on the krona exchange rate.² Monetary policy has helped inflation and inflation expectations to become established at close to 2 per cent and contributed to strong economic activity with continued good development on the labour market.

Economic outlook and inflation prospects remain largely unchanged

The data received since the Monetary Policy Report in December has not led to any major revisions of the Swedish economic outlook and inflation prospects. The slowdown in both international and Swedish GDP growth has occurred approximately in line with the Riksbank’s forecast.

There is still substantial uncertainty about developments in the international economy, however. Signs of weakness have been visible in the euro area and the forecast for GDP growth and inflation has been revised down somewhat. Questions concerning the United Kingdom’s withdrawal from the EU have also increased uncertainty over international growth.

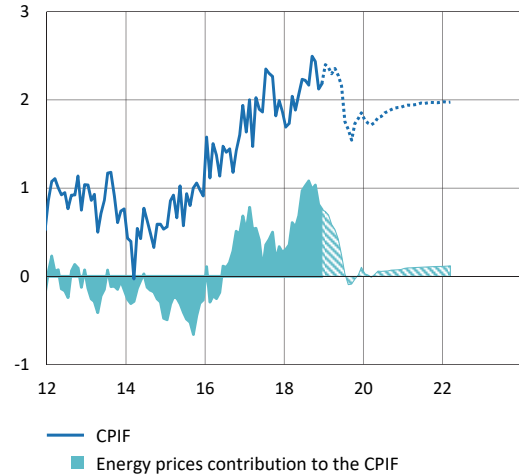
Starting in October, market participants have reassessed the valuation of various financial assets as a result of concern over the global economic slowdown possibly being more substantial than previously thought. Market pricing indicates that participants believe that policy rates abroad will be lower in the period ahead than what they expected at the end of last year. Softer communication from the Federal Reserve and the ECB has contributed to this.

Although indicators point to optimism in the household and corporate sectors having dampened in Sweden, the picture of strong Swedish economic activity remains. Developments on the labour market have, if anything, been slightly stronger than expected with somewhat higher employment growth in the fourth quarter. The outcomes for wage growth in the most recent months have also been somewhat higher than expected and indicators point to productivity continuing to develop weakly. This indicates that cost pressures will continue to rise.

In December, inflation developed in line with the forecast, and the conditions for inflation to remain close to 2 per cent in the coming years have not changed to any great extent. The krona exchange rate is expected to strengthen, but will be somewhat weaker during the forecast period compared with the assessment in December. Although the forecast for energy prices has been revised up slightly, they are, as before, predicted to increase at a significantly slower rate than in recent years. Both these factors, a strengthening of the exchange rate and a slower rate of increase in energy prices, will dampen inflation in the

² For an analysis of the effects on mortgage rates, see Erikson, H. and Vestin, D, “Pass-through at Mildly Negative Policy Rates: The Swedish Case”, staff memo January 2019, Sveriges Riksbank.

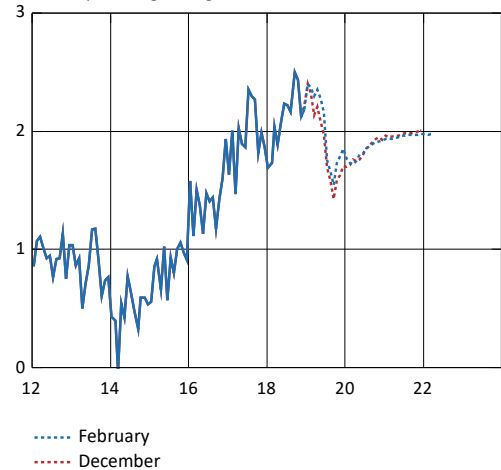
Figure 1:4. CPIF and contribution from energy prices
Annual percentage change and percentage points respectively



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.

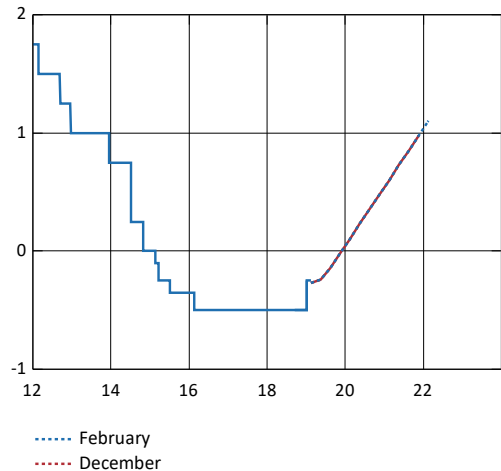
Sources: Statistics Sweden and the Riksbank

Figure 1:5. CPIF
Annual percentage change



Sources: Statistics Sweden and the Riksbank

Figure 1:6. Repo rate
Per cent



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

Source: The Riksbank

period ahead. (see Figure 1:4). However, GDP growth has been high for several years and this is expected to have a further impact on cost pressures, for instance in the form of a somewhat faster wage growth. The outlook for inflation, measured in terms of the CPIF excluding energy, is largely unchanged compared with the forecast in December. The forecast for CPIF inflation has been revised upwards somewhat for 2019 as a result of slightly higher energy prices than in the December forecast (see Figure 1:5).

Repo rate unchanged at -0.25 per cent

Getting inflation to rise and stabilise close to the target has required strong stimulation from monetary policy. After a long period with a policy rate of -0.50 per cent, the Riksbank increased the repo rate to -0.25 per cent in December (see Figure 1:6). The impact on market rates offered to households and companies has been similar to previous periods when the interest rate was raised in Sweden.³

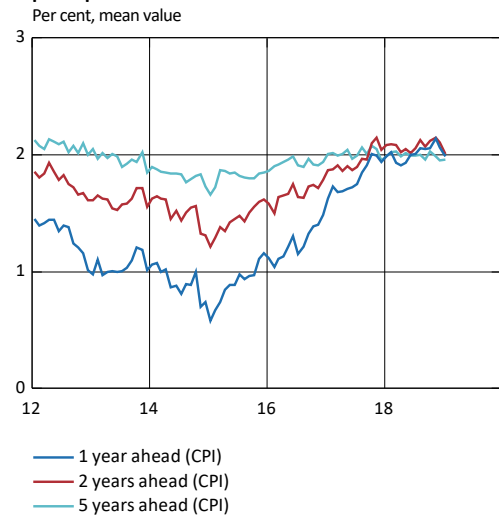
Swedish economic activity is strong, the employment rate is historically high and unemployment is at its lowest level in a decade. Both inflation and inflation expectations have become established around 2 per cent (see Figure 1:7). This means that the need for stimulation from monetary policy has declined and the Executive Board assesses that the repo rate will be raised in the coming years. These policy rate increases are compatible with maintaining inflation close to 2 per cent.

Several factors indicate that monetary policy needs to proceed cautiously, which is why it will take some time before the repo rate is increased again. The Executive Board has now decided to leave the repo rate unchanged at -0.25 per cent. Monetary policy will continue to be expansionary and provide support to economic activity.

As in December, the forecast for the repo rate indicates that the next increase will be during the second half of 2019, provided that the economic outlook and inflation prospects are as expected. After that, the repo rate is expected to be raised at a slow pace, approximately twice a year by 0.25 percentage points on each occasion. The real repo rate is expected to be negative over the entire forecast period (see Figure 1:8). However, there is uncertainty over developments abroad and the strength of domestic demand. It is the economic outlook and inflation prospects that will determine future monetary policy.

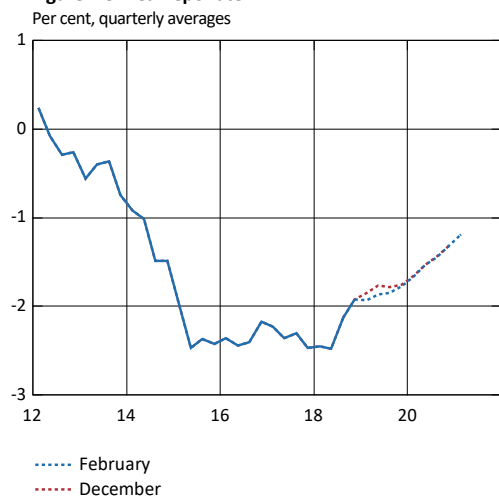
At the end of January, the Riksbank's government bond holdings amounted to close to SEK 355 billion, expressed as a nominal amount (see Figure 1:9). Net purchases were concluded in December 2017, but principal payments and coupons will be reinvested in the government bond portfolio until further notice. In December 2017, the Executive Board also decided that reinvestments of the large principal payments due in the first six months of 2019 shall be distributed evenly across the period from January 2018 to June 2019 (see Figure 1:10). This meant that the Riksbank's holdings of government bonds increased

Figure 1:7. Inflation expectations among money market participants



Source: Kantor Sifo Prospera

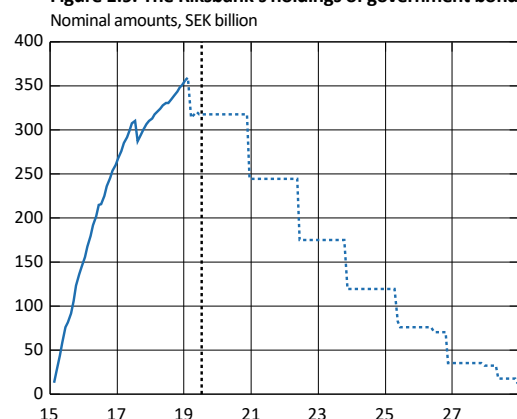
Figure 1:8. Real repo rate



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 holdings of government bonds



Note. Forecast up until June 2019, after that a technical projection with the assumption that no further reinvestments are made. The development of the holdings is also affected to a certain extent by the bonds' market prices and by which bonds the Riksbank chooses to reinvest in. The vertical line marks the shift between the forecast and technical projection.

Source: The Riksbank

³ See the article "What usually happens when the repo rate is raised?" in Monetary Policy Report October 2018.

temporarily in 2018 and is continuing to do so at the beginning of 2019. A large principal payment is due in March, which will reduce the Riksbank's holdings (see Figure 1:9). The Executive Board will return at its monetary policy meeting in April to the question of how to manage future principal payments.

In January 2016, the Executive Board adopted a mandate that facilitates rapid intervention on the foreign exchange market. This decision was made under entirely different circumstances from the current ones, in a situation where inflation and inflation expectations were far below 2 per cent. An overly rapid appreciation of the krona was then regarded as an acute threat to the possibility of maintaining confidence in the inflation target. The mandate has been extended several times since then, but the Executive Board chose not to extend the mandate further when it expired on 12 February this year.

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 are, in principle, 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.

Several uncertainty factors regarding economic developments abroad and in Sweden

Sweden is a small, open economy that is affected to a high degree by developments abroad. Economic activity in Europe has recently slowed down. Growth was weakened substantially in several of the largest economies in the euro area, including Germany, France and Italy. To a certain extent, the Riksbank deems this to be due to temporary factors, such as the effect on car production as a result of amended emission measurement regulations.⁴ But there is a risk that developments reflect a more lasting weakness in economic activity.

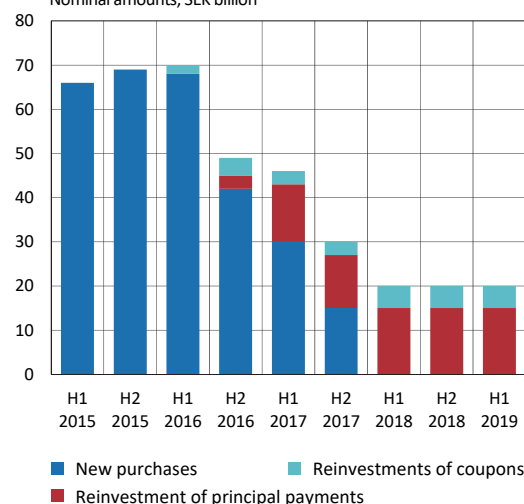
Moreover, many of the previous uncertainty factors remain, such as the trade conflict between the United States and China, economic developments in Italy and the effects of the United Kingdom's withdrawal from the EU. As regards the United Kingdom's withdrawal from the EU, the risk of a no-deal exit is assessed to have increased.⁵

In Sweden, developments on the housing market entail a substantial risk. After falling in the autumn of 2017, housing

⁴ See the box "New rules for measuring fuel consumption and exhaust emissions subduing car production in the EU" in Monetary Policy Report, December 2018.

⁵ See the article "The United Kingdom's withdrawal from the EU" in Chapter 4.

Figure 1:10. The Riksbank's purchases of government bonds
Nominal amounts, SEK billion



Note. The development for reinvestments from 2019 onwards is a forecast and refers to nominal amounts. The final amounts will depend on current market prices.

Source: The Riksbank

Side-effects of monetary policy

The Riksbank continuously analyses the effects on the economy of the negative repo rate and the extensive bond purchases.

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

The functioning of the financial markets may be affected by a negative repo rate and government bond purchases. So far, the markets have been able to manage negative interest rates relatively smoothly. The Riksbank's purchases of government bonds have meant that a relatively large proportion of the stock is not available for trade on the market. There are signs that it will take a slightly longer time to carry out transactions and, in the Riksbank's Financial Market Survey, most respondents state that the government bond market functions poorly. However, Swedish National Debt Office dealers are contributing positively to liquidity in the market.

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. Neither has the profitability of Swedish banks decreased as a result of the low and negative interest rates. On the contrary, their profitability has been high and stable in recent years and their financial results and lending capacity have not been affected significantly. In addition, any side-effects of the negative interest rate should become smaller now that the repo rate is starting to be raised.

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

prices have recovered somewhat over the past year (see Figure 1:11). According to the Riksbank's forecast, prices will continue to rise weakly and the fall in housing investment will slow down in the years to come, although future developments are still very uncertain.

The Riksbank assesses that disposable household income will continue to grow at a healthy pace in the coming years, despite interest rates rising slightly. Households' high level of saving is expected to fall somewhat, which will also contribute to relatively good growth in household consumption in the period ahead. However, consumer confidence in the National Institute of Economic Research's barometer has recently fallen below a historically normal level. This may have to do with the uncertainty over developments on the housing market. If consumer confidence continues to fall, there is a risk that saving will remain high and that consumption will grow more slowly than in the Riksbank's forecast.

Inflation may be both higher and lower than in the Riksbank's forecast

Different economic developments abroad and in Sweden than in the Riksbank's forecast would also affect the Swedish inflation forecast and could prompt a different monetary policy.

The development of the Swedish krona also has a bearing on inflation in Sweden, but it is difficult to forecast the exchange rate. The krona could be both stronger and weaker than the Riksbank is forecasting, but the effects on inflation of a stronger krona than forecast would be more problematic to manage with the prevailing interest rate levels.

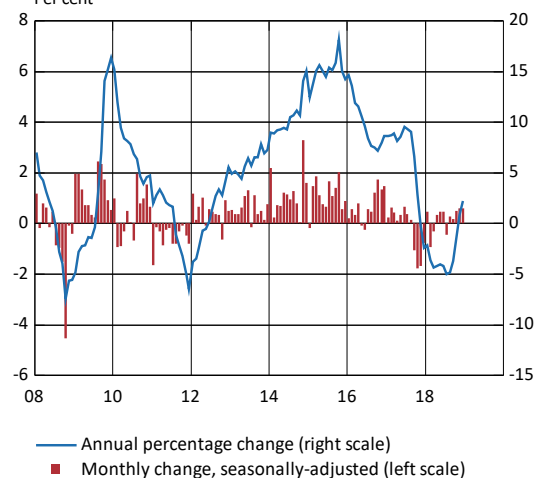
Another uncertainty factor concerns the development of domestic cost pressures. The unusually weak transmission between economic activity and wage growth in recent years entails an increased uncertainty regarding the wage forecasts.⁶ The low rate of increase in wages stems partly from the weak development in productivity, which has caused unit labour costs to rise at quite a high rate historically speaking over the past few years.⁷ Swedish productivity growth has been remarkably low recently, but the Riksbank's assessment is that it will increase somewhat in the years ahead. Persistently weak productivity growth means that domestic cost pressures could be higher than expected going forward.

All in all, there are a number of factors that could lead to both lower and higher inflation than is now being assumed, and the Riksbank is prepared to adapt monetary policy if inflation prospects were to change. The risks of lower inflation are still assessed to deserve particular attention.

Risks linked to household indebtedness must be managed

Despite the uncertain developments on the housing market, household debt has continued to rise, even though the rate of

Figure 1:11. House prices according to HOX Sweden
Per cent



Sources: Valueguard and the Riksbank

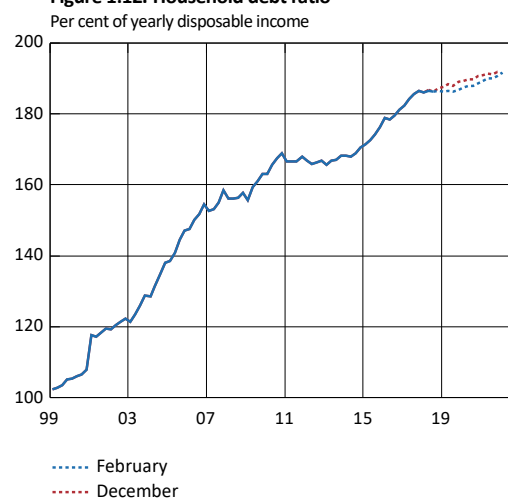
⁶ See the article "The Phillips curve and monetary policy" in Monetary Policy Report, July 2018.

⁷ See also the article "Development of Swedish labour costs in an international perspective".

increase is expected to slow somewhat in the coming years (see Figure 1:12). The most highly indebted households are not only sensitive to rising interest rates but also to several different types of changed economic conditions, such as falling housing prices and rising unemployment. Finansinspektionen's amortisation requirements, which aim to limit the number of households with high debt in relation to the value of their home and to their incomes, are a good example of a measure to reduce the risks linked to household indebtedness.

But addressing the structural problems on the Swedish housing market will, above all, require measures within housing and tax policy. Examples of feasible measures include reviewing the rent-setting system, the taxation of capital gains from housing property sales and also property tax and tax relief on interest expenditure.⁸

Figure 1:12. Household debt ratio



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

Sources: Statistics Sweden and the Riksbank

⁸ The draft political agreement between the Social Democrats, the Swedish Green Party, the Centre Party and the Liberal Party contains proposals for reforms to the Swedish housing market in the form of unrestricted rent-setting for newly built rented homes, the abolition of stamp duty/capital gains tax on property sales and simplifying and shortening the planning process to speed up construction and make it less expensive. The proposals constitute steps in the right direction, even though plenty of work remains to be done before concrete measures are in place.

CHAPTER 2 – Financial conditions

The signals regarding the prospects for the global economy are still mixed, which is contributing to uncertainty on the global financial markets. Compared with last autumn, equity prices are lower, risk premiums are higher and financial conditions abroad have become tighter. Economic developments in many parts of the world are still good, however, and central banks are communicating that monetary policy gradually needs to become less expansionary. Market participants are now expecting lower policy rates than they were predicting in December while equity prices have recovered somewhat and risk premiums have fallen back. Financial conditions in Sweden have tightened, but remain expansionary and are providing support to economic developments.

International developments

Continued fluctuations on the financial markets

Starting in October, market participants have reassessed their valuation of various financial assets. Equity prices in Sweden and abroad have fallen, risk premiums in the form of yield differentials between risky and safe assets have increased, and measures of expected volatility that can be calculated from financial instruments have risen. Yields on government bonds have fallen while expectations of future policy rates have been revised down.

The reassessment is due to increasing uncertainty about future economic developments and to concern over a more substantial economic slowdown than previously expected. Financial conditions abroad have become somewhat tighter since the autumn. Financial conditions in Sweden have also become slightly tighter than last year in light of a higher repo rate, higher yields on risky bonds, and lower equity prices. However, the financial conditions in Sweden remain more expansionary than usual and are providing support to economic developments.

Expectations of slower policy rate increases abroad

At the monetary policy meeting in December, the Federal Reserve raised its policy rate interval to 2.25–2.50 per cent, as market participants had expected. The median forecast for the policy rate among members of the Federal Reserve FOMC was adjusted downwards from three to two rate hikes in 2019 and, as before, the forecast contained a further hike during 2020.

Table 2:1.

Developments on the financial markets since the Monetary Policy Report in December
Market participants' expectations of the level of future policy rates have fallen in the United States and the euro area but are more or less unchanged in Sweden.
Government bond yields have fallen abroad and in Sweden.
The krona is slightly weaker than forecast in December.
Equity indices have risen somewhat since December, both in Sweden and abroad.
Shorter market rates and lending rates to households have increased.
Growth in bank lending to households has slowed somewhat while lending to non-financial corporations continues to grow at approximately the same rate as in the autumn.

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.



As market participants had expected, the Federal Reserve retained the interval for the policy rate unchanged at its monetary policy meeting in January. Although no new forecasts were published, the Federal Reserve communicated that monetary policy depends on economic developments and that it is continuously assessing its plan in the light of new information. Market participants interpreted the communication as the Federal Reserve perhaps reassessing the need for future rate hikes and the pace at which it would phase out its bond holdings should circumstances require it.

The expected policy rate level reflected in market prices has been revised down since the autumn. In October, pricing indicated rate-hike expectations roughly in line with the Federal Reserve’s median forecast. Since then, pricing has periodically varied but now indicates that participants see it as more probable that the next policy rate adjustment will be a rate cut rather than a rate rise.

The European Central Bank (ECB) has continued to communicate its intention to keep policy rates at their current levels at least until after the summer this year, and net bond purchases were concluded at the turn of the year. At its monetary policy meeting in January, the ECB stressed that the risks of poorer development for the euro area’s economy have increased. Pricing indicates that market participants are expecting the ECB to raise policy rates at a slower pace than was expected in the autumn and that an initial increase in the deposit rate of 10 points will occur during the first half of 2020 (see Figure 2:1).

The risk of the United Kingdom leaving the EU without a withdrawal agreement has increased and market participants are expecting the Bank of England to increase the policy rate at a slower rate than they expected in the autumn. The expected exchange rate volatility for the British pound has also risen since then.

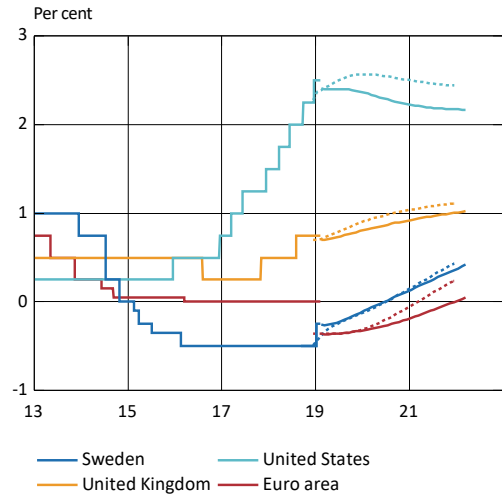
Lower government bond yields reflect concern over economic slowdown

Government bond yields in many countries have fallen compared with the autumn (see Figure 2:2). The downturn reflects concerns over lower economic growth and expectations of lower policy rate levels. During times of greater uncertainty, it is common for demand for safer assets to rise. This also seems to have contributed to the fall in government bond yields.

Yields on real bonds have not fallen as much as yields on nominal bonds. This indicates that inflation expectations have been revised down. This development is particularly evident in the United States but has also occurred in Europe. A contributory factor to the lower inflation expectations may be the recent fall in the oil price.

Within the euro area, yield differentials in relation to German bond yields have been relatively unchanged since last autumn. The exception is yield differentials between Italian and German government bonds, which have fallen since October (see Figure

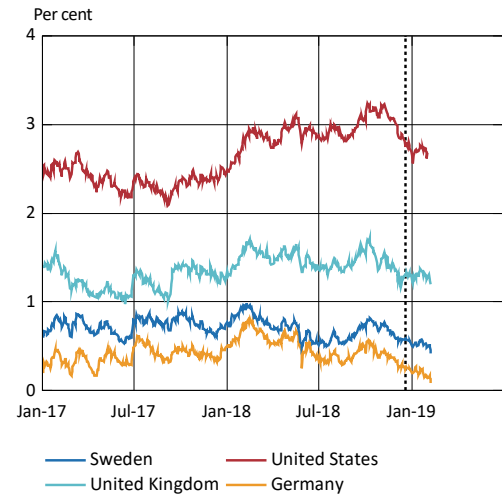
Figure 2:1. Policy rates and rate expectations according to forward rates



Note. Forward rates describe the expected overnight rate, which does not always correspond to the policy rate (the main refinancing rate for the euro area). Unbroken lines refer to 8 February 2019, broken lines refer to 19 December 2018.

Sources: The national central banks, Macrobond and the Riksbank

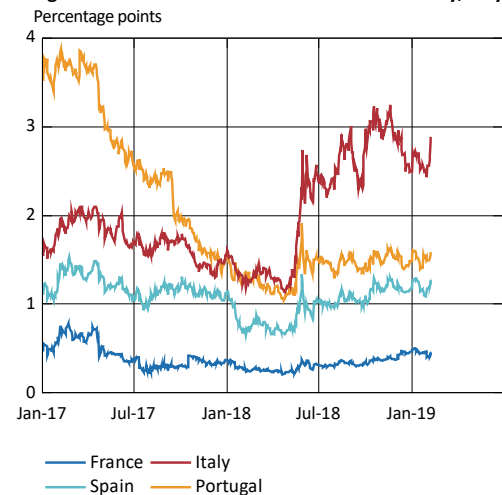
Figure 2:2. Government bond yields with 10 years to maturity



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

Sources: The national central banks and the Riksbank

Figure 2:3. Yield differential in relation to Germany, 10-year



Note. Yield differentials refer to 10-year benchmark bonds.

Source: Macrobond

2:3). Italian yields have fallen from a high level after the EU Commission approved the Italian budget.

Higher risk premiums and volatility on asset markets

In recent years the valuation of equity has been high. As uncertainty has grown regarding developments in the global economy, prices on equity markets fell at the end of last year (see Figure 2:4). Even after their recent recovery, equity prices are still lower than they were in the autumn. In the United States, equity prices in relation to expected profits are roughly in line with the historical averages.

Since December, expected volatility that can be calculated from financial instruments has fallen back but remained on higher levels than previously (see Figure 2:5). As uncertainty over the outlook for the global economy will probably remain for the foreseeable future, it is reasonable to expect volatility to stay around its current levels for some time to come. The pricing of financial instruments, which measures expected volatility in the longer term, also supports this picture.

Risk premiums, which are reflected in the yield differentials between bonds with different degrees of risk, have risen compared to last year. In the United States, however, yield differences are still lower than historical averages and have moreover fallen back since December (see Figure 2:6).

Less expansionary financial conditions abroad

Developments on financial markets in recent years have been characterised by low risk premiums and low volatility. A contributory factor to these developments has been the very expansionary monetary policy pursued by central banks around the world. As central banks are now making monetary policy less expansionary, albeit at a varying pace, it is natural for risk premiums and volatility to normalise in the way that has occurred in recent months.

The Federal Reserve raised its policy rate in December and continues to reduce its bond holdings. Market participants are also expecting most central banks to pursue less expansionary monetary policy going forward. Compared with the autumn, equity prices are lower and volatility and risk premiums are higher. Even though government bond yields have fallen, financial conditions abroad are assessed to have become somewhat tighter in recent months.

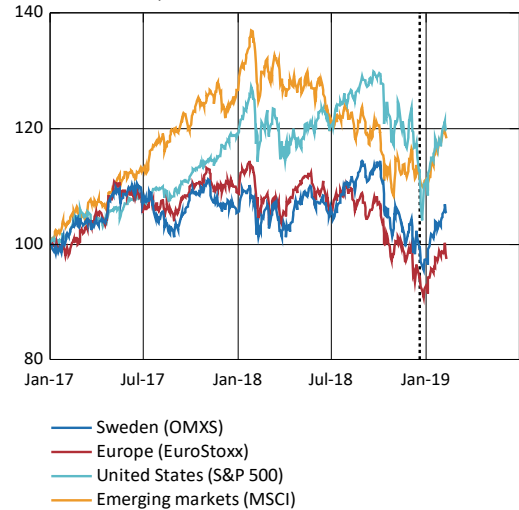
Financial conditions in Sweden

Expected impact of monetary policy

In conjunction with the repo rate rise in December, the impact on market rates offered to households and companies has been well in line with the impact in previous rate-hike periods in Sweden.⁹ Since December, rates have increased around the same amount

⁹ See the article “What usually happens when the repo rate is raised?” in Monetary Policy Report October 2018.

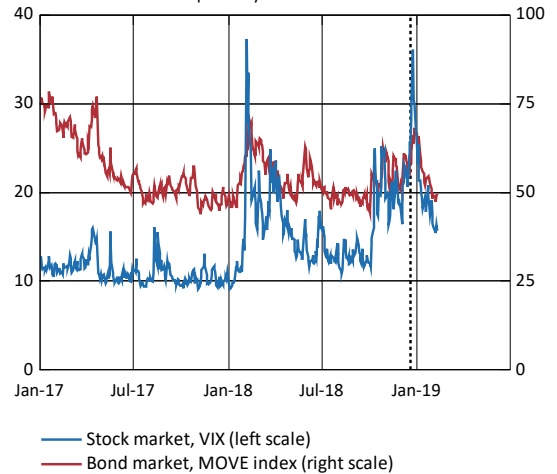
Figure 2:4. Stock market movements in domestic currency
Index, 3 January 2017 = 100



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

Source: Macrobond

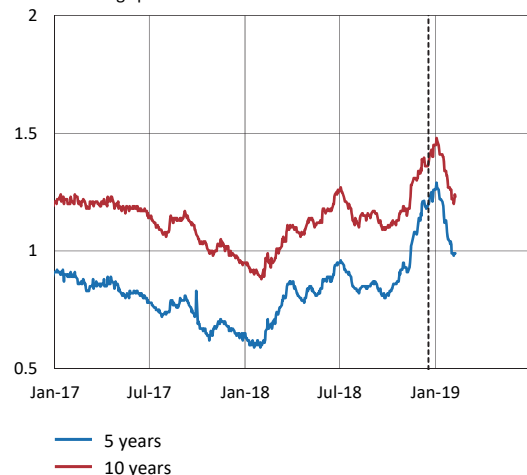
Figure 2:5. Volatility index for US equity and bond markets
Per cent and index respectively



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

Sources: Chicago Board Options Exchange and Merrill Lynch

Figure 2:6. Yield differential between corporate bonds with a good credit rating and government bonds for the US
Percentage points



Note. Yield differentials refer to 5-year and 10-year benchmark bonds. The vertical line indicates the Monetary Policy Meeting in December.

Source: Macrobond

as the repo rate was increased (see Figure 2:7) and listed mortgage rates have also risen (see Figure 2:8).

In contrast with developments abroad, market participants' expectations of the future repo rate have been relatively unchanged since December (see Figure 2:1). As before, there is a difference between the Riksbank's repo rate path and expectations according to market pricing (see Figure 2:9). Pricing suggests that market participants are expecting the repo rate to be raised gradually, but at a slightly slower rate than in the Riksbank's forecast. However, market participants responding to Prospera's survey are expecting the repo rate to be raised roughly as predicted in the Riksbank's forecast (see Figure 2:9).

Since December, the yields on government bonds in Sweden have fallen somewhat (see Figure 2:2). In contrast to the United States and in the euro area, the yield differential between Swedish corporate bonds and government bonds has been more or less unchanged.

Financial conditions in Sweden have been tightened somewhat since December, primarily as a consequence of the Riksbank raising the repo rate in December. However, the assessment is that conditions are still expansionary and are providing support to economic developments.

The Riksbank carefully monitors the functioning of the bond market

The markets for Swedish government bonds and interest rate derivatives are important for the transmission of monetary policy to the rest of the economy. The Riksbank therefore carefully monitors how the government bond market and adjacent markets are functioning, by performing surveys, analysing data and having regular contact with market participants.

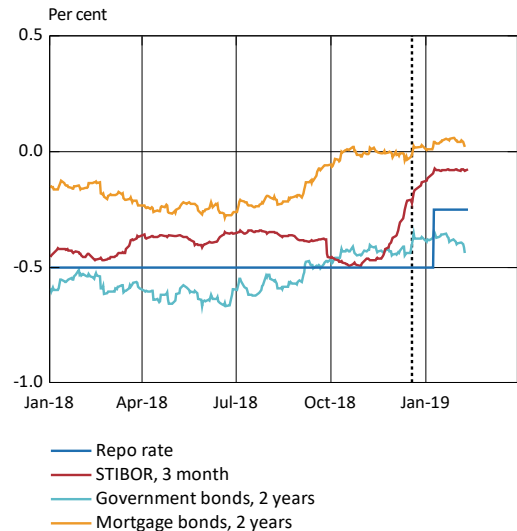
In recent years, turnover on the Swedish government bond market has decreased. This is due in part to financial regulations but also to a reduction in the amount of bonds that market participants can actively trade as a result of the Riksbank's bond purchases.

According to the Financial Market Survey published by the Riksbank in December, about two-thirds of respondents active on the Swedish fixed-income market considered that the government bond market is functioning poorly but other markets where participants can manage interest rate risk were considered to be working well. The Riksbank's weekly reverse auctions for Swedish government bonds are functioning well.

Krona slightly weaker than forecast in December

In competition-weighted terms, the krona exchange rate was relatively stable during the autumn but the krona has depreciated since the turn of the year (See Figure 2:10). The krona has been somewhat weaker than the Riksbank had forecast in December. This weakening came in conjunction with the publication of macro-statistics that have been worse than the market expected.

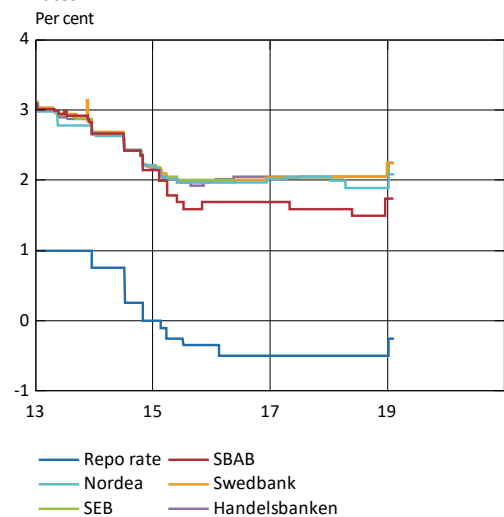
Figure 2:7. The repo rate, interbank rates and market rates



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

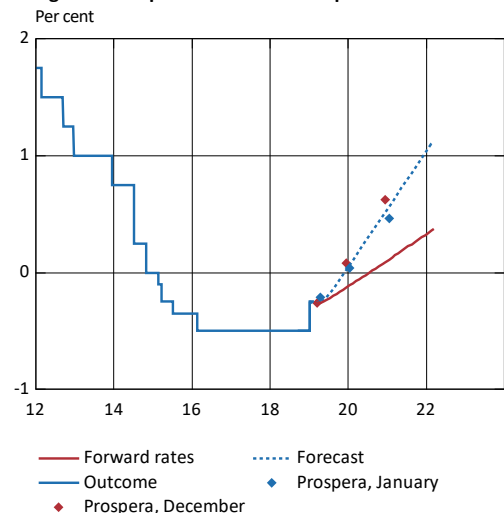
Sources: Macrobond and the Riksbank

Figure 2:8. The repo rate and listed three-month mortgage rates



Sources: Macrobond and the Riksbank

Figure 2:9. Repo rate and market expectations



Note. The forward rate refers to 8 February 2019 and is a measure of the expected repo rate. The Prospera survey responses show the average for money market participants 13 December 2018 respectively 23 January 2019.

Sources: Macrobond, Kantar Sifo Prospera and the Riksbank

Mortgage institutions announcing lending rate increases

Since the repo rate increase in December, most mortgage institutions have raised their listed mortgage rates (see Figure 2:8). The actual lending rates to households and corporations tend to follow the repo rate closely. The increase in the repo rate is not yet visible in the most recently published statistics, but the rising list rates indicate that actual interest rates will follow the repo rate on this occasion, too (see Figure 2:11). The proportion of new mortgages taken out with fixation periods of up to three months has fallen from about 80 to 70 per cent recently.

Rates on the longer-term bonds used by banks and mortgage institutions to obtain funding have not increased by much since the repo rate rise. Banks are still enjoying good terms for funding of their lending to households. But short-term market rates have increased causing banks' funding costs also to rise. The slowdown of the housing market and expectations of rising loan costs mean that the growth rate for lending to households will continue to slow (see Figure 2:12).

Lending to non financial corporations is continuing to grow at approximately the same rate as in the autumn (see Figure 2:12). In addition, companies are borrowing to an increasing extent directly on the capital markets, for example by issuing corporate bonds. This borrowing component now makes up more than a third of total corporate debt. A contributory cause is that interest rates for this form of borrowing are still relatively low.

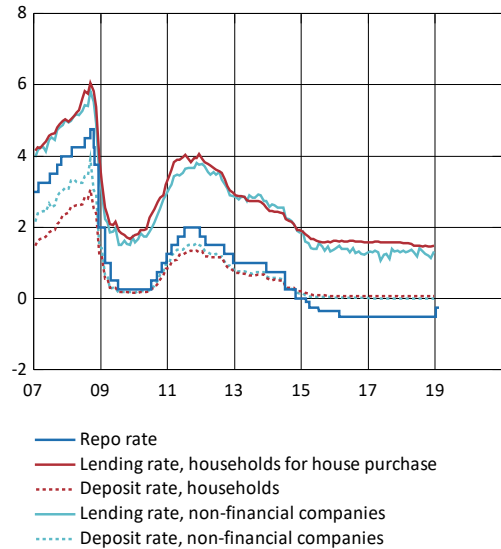
Figure 2:10. Competition-weighted nominal exchange rate, KIX Index, 18 November 1992 = 100



Note. KIX refers to an aggregate of countries that are important for Sweden's international transactions. The vertical line indicates the Monetary Policy Meeting in December. A higher value indicates a weaker exchange rate.

Sources: National sources and the Riksbank

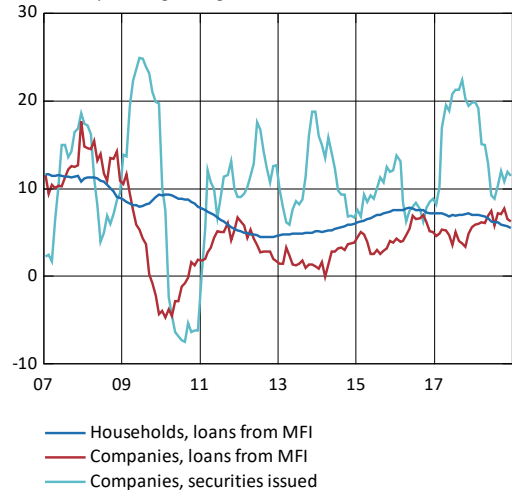
Figure 2:11. Repo rate together with the average deposit and lending rate to households and companies, new contracts
Per cent



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

Sources: Statistics Sweden and the Riksbank

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



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

Source: Statistics Sweden

CHAPTER 3 – The current economic situation

After several years of recovery, with high GDP growth and rapidly falling unemployment, the global economy has entered a phase of slower GDP growth. In Sweden, GDP fell during the third quarter but is expected to have increased again at a healthy rate during the fourth quarter of 2018. Overall, GDP growth in recent and the next few quarters is expected to be somewhat below its historical average. Many companies are continuing to report labour shortages and resource utilisation in the economy is higher than normal. In December, inflation was 2.2 per cent, in line with the Riksbank’s forecast. Inflation has now been close to the target of 2 per cent for over 2 years. Most measures of underlying inflation were still somewhat below 2 per cent in December, but price development indicators point to an upturn in the near term. In the coming months, CPIF inflation is expected to be just over 2 per cent.

Inflation in Sweden

Inflation 2.2 per cent in December

In December, CPIF inflation rose to 2.2 per cent (see Figure 3:1). This was in line with the Riksbank’s forecast in the Monetary Policy Report in December. CPIF inflation excluding energy prices also increased, to 1.5 per cent, which was also in line with the forecast from December. A higher rate of increase in prices for both goods and services contributed to the upturn.

The strong economic situation in Sweden has contributed to inflation rising gradually since 2014 and now being over 2 per cent. At the same time, cost pressures, measured as unit labour costs, have increased at a faster pace in recent years. Rapidly rising energy prices and a weaker krona have also contributed to the upturn in inflation.

However, part of the inflation trend is deemed to be due to temporary price variations. To estimate the level of the more lasting component in the measured rate of inflation, one can study various measures of core inflation that exclude or reduce the significance of prices that vary substantially.¹⁰ The Riksbank’s different measures of core inflation indicate that the permanent component of the inflation rate is lower than the measured rate of CPIF inflation. The median of all the measures calculated and published by the Riksbank on a regular basis amounted to 1.6 per cent in December (see Figure 3.2). Two of the measures that appear the most useful in an evaluation are UND24 and CPIFPC. UND24, which gives greater weight to the components in the CPIF that have less volatile rates of price change, amounted to 1.7 per cent in December. The CPIFPC, which is based on common trends in the components, was 1.6 per cent.

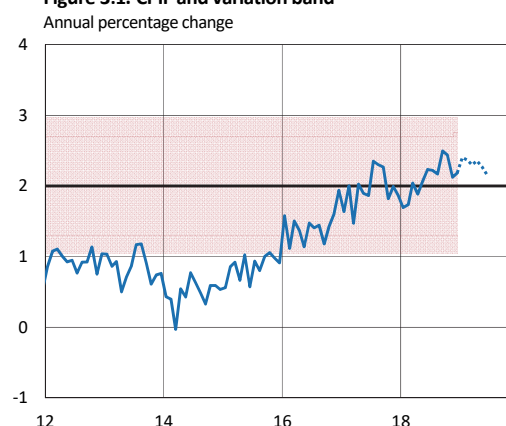
¹⁰ See the article “Why measures of core inflation?” in Monetary Policy Report, October 2018. Some of the measures included have a mean value that has deviated from the CPIF since 1995. This deviation has not been stable over time, however, and won’t necessarily remain going forward.

Table 3:1.

Expected development in MPR December	Actual development
CPIF inflation 2.2 per cent and CPIF excluding energy 1.5 per cent in December.	CPIF inflation was 2.2 per cent and CPIF excluding energy was 1.5 per cent.
GDP growth 1.6 per cent in fourth quarter.	Indicators suggest a development that is stronger than the forecast.
Unemployment 6.1 per cent and employment growth 2.8 per cent in the fourth quarter.	Unemployment was 6.2 per cent and employment growth was 3.0 per cent

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

Figure 3:1. CPIF and variation band



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

Sources: Statistics Sweden and the Riksbank

Inflation still above 2 per cent at the start of 2019

The strong economic activity is expected to continue and make a positive contribution to inflation in the period ahead. In the coming months, the rate of increase in prices for services, goods and food is expected to rise somewhat. Higher rent increases, effects of previous krona depreciations and rising food prices as a result of the summer drought seem to be contributing to the rise in CPIF inflation excluding energy from 1.5 per cent to almost 2 per cent (see Figure 3:3). At the same time, the rate of increase in energy prices is expected to decrease which means that CPIF inflation will remain just above 2 per cent during the period (see Figure 3:1).

The rate of increase in prices for imported goods in the producer channel has risen as the krona has depreciated, but the rate of increase in domestic market prices has also risen somewhat in recent months. According to the Economic Tendency Survey, significantly more companies than normal, particularly within the trade sector, expect prices to increase over the next three months (see Figure 3:4).

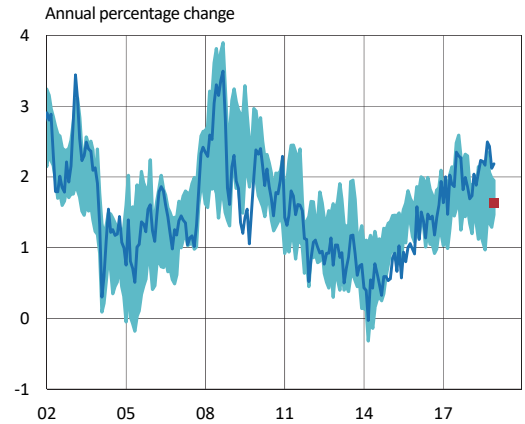
The Riksbank’s model forecast, which summarises the information from a large number of models and indicators, suggests that the CPIF excluding energy will rise somewhat during the first half of 2019 (see Figure 3:3). Higher rent increases next year, a higher rate of increase in food prices as a result of the summer drought, which is not fully captured by the models, and a new method of measuring dental care costs in the CPI as from 2019 (see the box “New method for measuring dental costs will affect inflation in 2019”) are factors contributing to the Riksbank’s forecast being somewhat higher than the model forecast.

The forecast for the CPIF excluding energy in early 2019 is largely unchanged compared with the forecast in December. CPIF inflation has, on the other hand, been adjusted upwards somewhat compared with the December forecast. This is due to electricity prices now being expected to be somewhat higher than in the forecast from December. CPIF inflation is expected to stay above 2 per cent in early 2019 (see Figure 3:1).

Inflation expectations close to 2 per cent

Inflation expectations, according to survey responses, have been close to 2 per cent on all horizons for more than a year (see Figure 1:7). Although expectations 1 and 2 years ahead among money market participants fell marginally in January, according to Prospera’s monthly survey, expectations five years ahead were unchanged. Five years ahead, CPI inflation is expected to be 2.0 per cent. Long-term inflation expectations for the CPIF are slightly lower and amounted to 1.9 per cent among money market participants. According to financial instrument pricing, long-term inflation expectations have fallen slightly in recent months, in line with international developments, and are now just under 2 per cent.

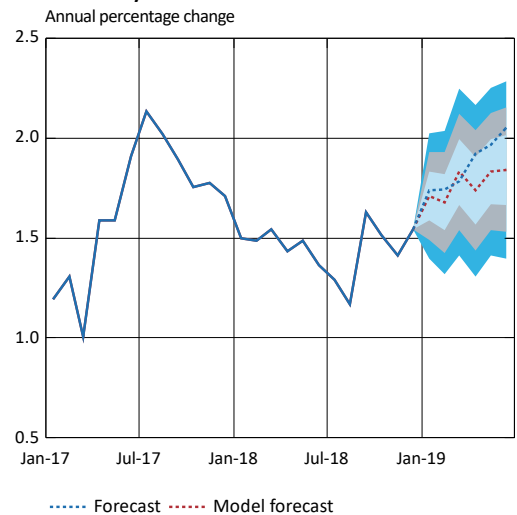
Figure 3:2. CPIF and different measures of underlying inflation



Note. The line represents CPIF. The field shows the highest and lowest outcomes among different measures of underlying inflation. The measures included are CPIF excluding energy, UND24, Trim85, CPIF excluding energy and unprocessed food, persistence-weighted inflation (CPIFPV), factors from principal component analysis (CPIFPC) and weighted median inflation (Trim1). The red dot represents the median value in December 2018 for all measures of underlying inflation.

Sources: Statistics Sweden and the Riksbank

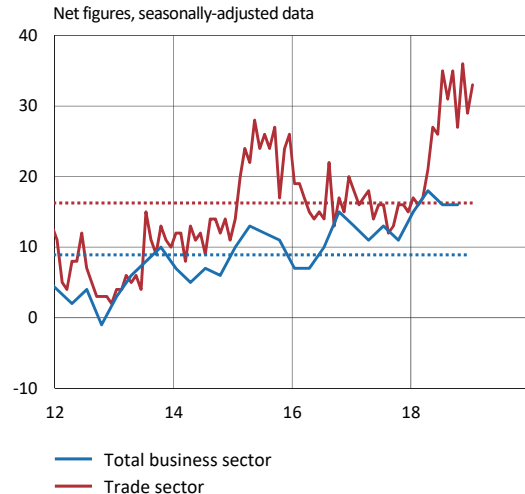
Figure 3:3. CPIF excluding energy, model forecast with uncertainty bands



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. Price plans in the business and trade sector



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 the averages since May 2003.

Source: National Institute of Economic Research

Global and Swedish economic activity

High demand in the United States, but greater uncertainty about the global economy

There is still considerable uncertainty about where the global economy is heading. Global trade developed relatively weakly in 2018 and in November it rose by only 0.7 per cent compared with the corresponding month the year before. At the same time, new export orders have declined. Confidence in terms of the Purchasing Managers' Index and consumer confidence have fallen somewhat and volatility on the financial markets has increased. GDP growth in the euro area has been more subdued since the summer, while GDP growth in the United States remains good.

GDP in the euro area increased by 0.9 per cent in the fourth quarter, compared with the third quarter and in annualised terms (see Figure 3:5). As during the third quarter, growth was probably affected negatively by temporary factors. For example, new rules on how exhaust emissions and fuel consumption are to be measured have given rise to adjustment problems among certain car producers. Car production is lower and new registrations fewer than is suggested by order flows and demand indicators. A gradual recovery in production to meet demand is expected in the next few months, however. Confidence among companies and households has decreased significantly compared with a year ago, but still indicates positive growth (see Figure 3:6). However, disposable household income has recently increased. This is due partly to inflation having fallen in the wake of lower energy prices, and partly to the clear signs of the stronger labour market leading to higher wage growth (see Figure 3:7). In light of this, and of the fact that the problems in the motor industry are decreasing, GDP growth in the euro area is expected to rise during the first quarter of 2019.

GDP in the United States has risen by 2.5 per cent during the fourth quarter compared with the third quarter and in annualised terms (see Figure 3:5). This is a slowdown in GDP growth compared with the third quarter. Households are expected to have continued to consume at a healthy rate and make a substantial contribution to GDP growth. The labour market is strong and employment is rising quickly while wages are increasing at a faster rate (see Figure 3:7). Confidence among both households and companies has declined somewhat, but remains on a high level. Growth is expected to slow slightly during the first quarter, due in part to the extended shutdown of the federal government.

Slowly rising inflationary pressures abroad

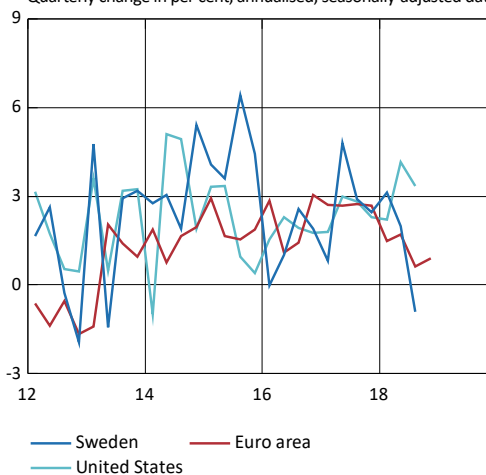
The decline in the oil price at the end of last year is now contributing to slightly lower inflation rates abroad. On the other hand, core inflation, which in most countries is measured in terms of the inflation rate excluding energy and food prices, is expected to rise somewhat abroad in the coming quarters but will remain relatively moderate.

New method of measuring dental care costs to affect inflation rate in 2019

Each year, Statistics Sweden makes certain changes to the CPI calculations, and this is also the case prior to 2019. Most of the changes are expected to have only minor effects on the measured rate of inflation in 2019. The change in the calculation of dental care costs will, however, affect the inflation rate during the year. The change means that instead of basing the calculation on care provider prices, Statistics Sweden will record the actual price paid by patients. This will give the measurement a clear seasonal pattern, which has not been the case previously. The reason for this is the public dental care subsidy, which is replenished in July every year. All those visiting the dentist in July therefore have access to this subsidy, but later in the year and at the beginning of next year, some will have already used their subsidy and the price they have to pay themselves will then be higher. This will lead to the measured price falling sharply in July and then rising gradually during the remaining months of the year. The change will affect the inflation rate during the whole of 2019, but mainly during July-September when the inflation rate is expected to be slightly more than 0.1 percentage points lower than what it would otherwise have been. From 2020 onwards, the method change will no longer affect the inflation rate.

Figure 3:5. GDP in Sweden and abroad

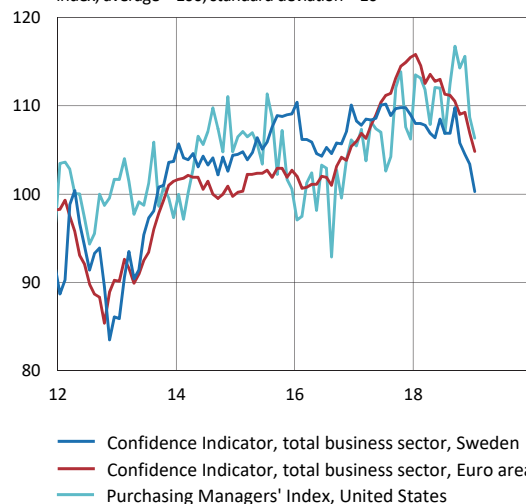
Quarterly change in per cent, annualised, seasonally-adjusted data



Sources: Bureau of Economic Analysis, Eurostat and Statistics Sweden

Figure 3:6. Confidence indicators in Sweden and abroad

Index, average = 100, standard deviation = 10



Note. The Purchasing Managers' Index from the United States and the confidence indicator from the euro area are normalised from January 1998. Purchasing Managers' Index, United States refers to the Riksbank's aggregation of the manufacturing and services sectors.

Sources: Institute for Supply Management (ISM), European Commission, National Institute of Economic Research and the Riksbank

In the euro area, inflation fell in January according to preliminary figures to 1.4 per cent as both energy and food prices were subdued. Core inflation, which is adjusted for these components, rose slightly to 1.1 per cent. Consequently, core inflation is still low but is expected to rise gradually in the period ahead in light of falling unemployment and rising wage growth.

In the United States, inflation fell slightly in December to 1.9 per cent. Core inflation, measured in terms of the CPI excluding energy and food, amounted in December to 2.2 per cent. Inflation is expected to remain close to 2 per cent at the beginning of the year.

Subdued Swedish growth

After a temporary downturn in Swedish GDP during the third quarter, GDP is again expected to have increased at a healthy rate during the fourth quarter of 2018. Overall, GDP growth in recent and the next few quarters is expected to be below its historical average. It is primarily domestic demand, in the form of housing investment and household consumption, that will dampen growth in this period.

Monthly statistics for demand and output, which are central to Statistics Sweden’s GDP growth calculation, are available for the entire third fourth quarter. They indicate relatively rapid growth after very weak development during the third quarter. At the same time, prospects are burdened by the continued downturn in housing investment, which is expected to have dampened growth significantly towards the end of 2018 and at the beginning of 2019.

Purchases of passenger cars and light goods vehicles have increased again after regulatory amendments in Sweden and Europe contributed to weak consumption growth during the autumn. As a result of this, household consumption is expected to have increased more or less at a normal rate in the fourth quarter, despite weak development in retail sales. Overall, consumption growth is deemed to have developed relatively weakly during the second half of 2018.

Despite a deterioration during the autumn, confidence is still relatively good among companies while households are more pessimistic than normal. The National Institute of Economic Research’s Economic Sentiment Indicator, which considers confidence among households and companies, was stronger than normal during the fourth quarter but fell in January and is now close to its historical average (see Figure 3:8). Confidence in industry according to the Purchasing Managers’ Index, which was somewhat lower than normal during the fourth quarter after a clear downturn in December, remained largely unchanged in January.

The Riksbank’s model forecast for GDP growth in the near term is based on combined data from both confidence indicators and monthly statistics for output and demand. The model forecast indicates that GDP grew by just over 3 per cent in the fourth quarter compared with the immediately preceding quarter, calculated in annualised terms (see Figure 3:9). The

Figure 3:7. Compensation per employee

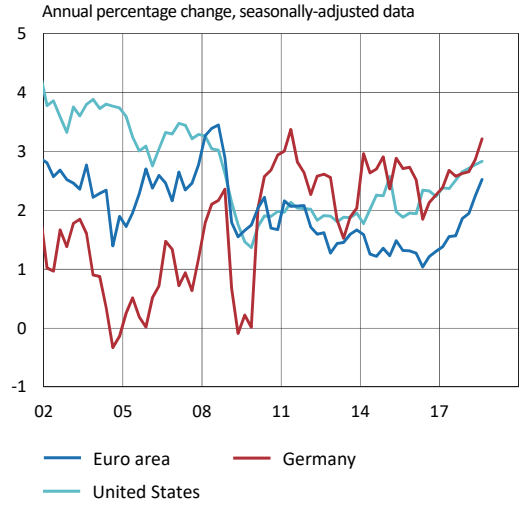


Figure 3:8. Confidence indicators

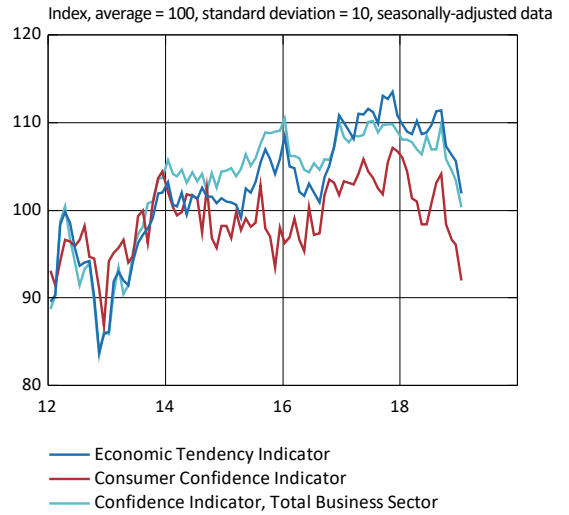
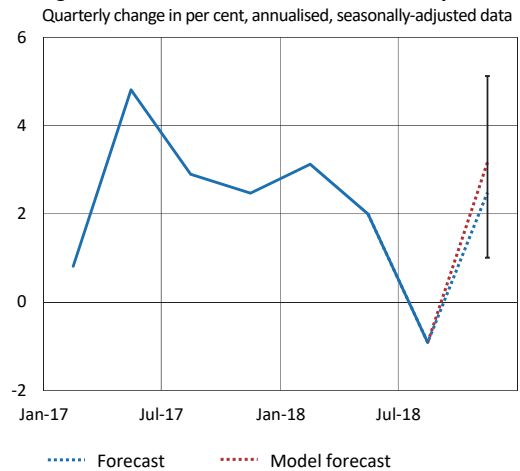


Figure 3:9. GDP, model forecast with uncertainty bands



Riksbank also weighs in other factors in the near term forecasts, but the overall assessment is that GDP will grow approximately in line with the model forecast. To a certain extent, this is due to the weak third quarter, and the growth rate will again decline in the first quarter of 2019 to just over 1 per cent, due in part to the weak development in housing investment.

Continued favourable developments on the labour market

Continued high demand for labour led to a tangible increase in the number of persons employed in 2018 and the employment rate is now on a very high level historically speaking. The labour force also grew in size, although not as rapidly as employment, which caused unemployment to fall to its lowest level in ten years. In the fourth quarter, unemployment was 6.2 per cent.

The Swedish labour market is divided in two, however. Certain “vulnerable” groups, for example persons born outside Europe and those without upper secondary school education, have a much weaker connection to the labour market. However, the strong developments on the labour market in recent years have led to a fall in the number of unemployed persons registered at the Swedish Public Employment Service who belong to these groups (see Figure 3:10). Vulnerable groups still constitute 75 per cent of unemployed persons, however. The fact that these groups on average find it more difficult than others to obtain work is hindering a further reduction in unemployment.

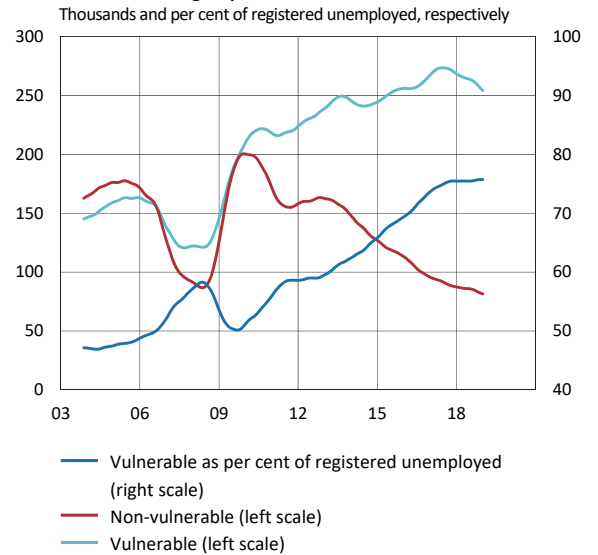
In the near-term perspective, indicators suggest that the demand for labour is still high (see Figure 3:11). Employment and the labour force are therefore expected to continue to increase at a relatively good rate at the beginning of 2019 and unemployment is expected to remain more or less unchanged.

High resource utilisation in the economy

The amount of spare capacity in the economy is affecting the development of wages and prices with a certain time lag. Resource utilisation in the economy is not directly observable, however. The Riksbank therefore follows a number of different indicators to be able to make an assessment.

Capacity utilisation within the manufacturing industry is currently high from a historical perspective, according to both the National Institute of Economic Research and Statistics Sweden. At the same time, many companies report that they have a shortage of labour. Labour shortages are high in all industries within the business sector (see Figure 3:12). To a certain extent, the high level of shortages is a consequence of employment increasing rapidly, but other indicators that suggest that the amount of spare capacity on the labour market is small. Among other things, the vacancy rate, which measures the number of unstaffed positions that need to be filled immediately, is at a high level, at the same time as the average recruitment time in the business sector is long. Overall, the Riksbank assesses resource utilisation in the economy to be higher than normal, which is supported by the Riksbank’s resource utilisation indicator (see Figure 3:13).

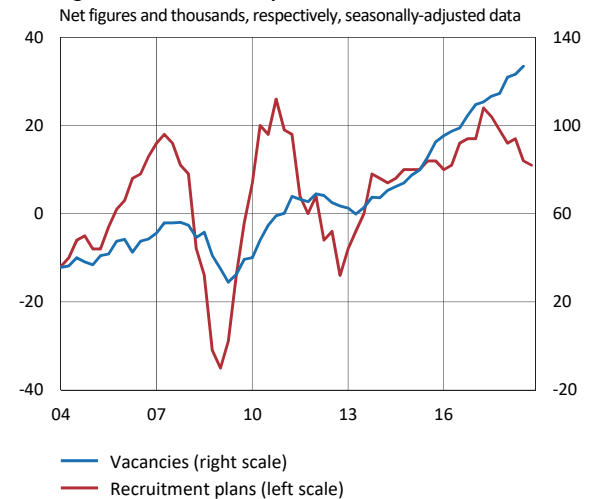
Figure 3:10. Registered unemployed by vulnerable and non-vulnerable groups



Note. Vulnerable groups refer to unemployed without upper-secondary education and/or people born outside of Europe and/or people aged 55–64 and/or persons with disabilities.

Source: Swedish Public Employment Service

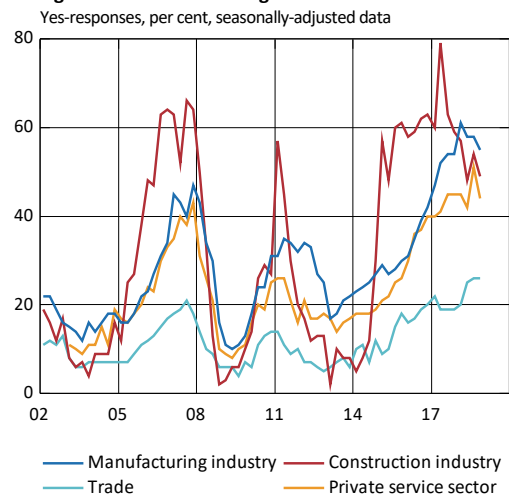
Figure 3:11. Recruitment plans and vacancies



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

Sources: National Institute of Economic Research and Statistics Sweden

Figure 3:12. Labour shortage



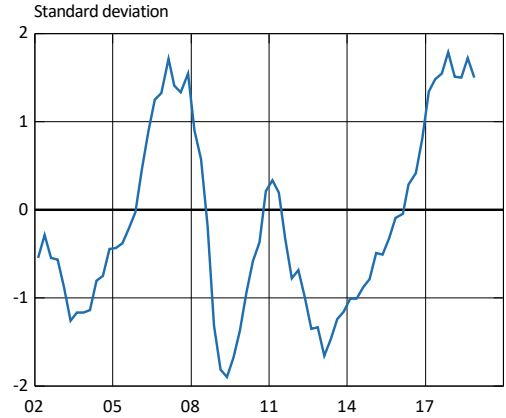
Note. Construction industry refers to the proportion of firms that have quoted a labour shortage as their main obstacle to increased construction. The other industries refers to the proportion of firms responding yes to the question of whether there is a labour shortage.

Source: National Institute of Economic Research

Slowly rising wage growth

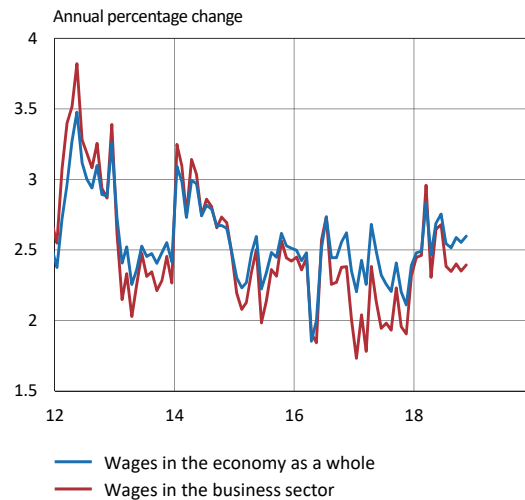
Wage growth rose last year. According to preliminary short-term wage statistics, wages rose in the entire economy by an average of 2.6 per cent as an annual rate up to November 2018, which is an increase from 2.3 per cent for the same period the year before. It is also somewhat higher than the assessment in the Monetary Policy Report in December, resulting in the preliminary figures for 2018 having been revised up somewhat due to the latest outcome. The upturn was particularly visible in the business sector (see Figure 3:14). Wage outcomes according to the National Accounts are usually more volatile. But these also indicate that wage growth was faster in the first three quarters of last year than what it was on average in 2017. Wage growth is expected to continue to rise further in the quarters ahead as the strong labour market situation continues to have an impact on wage growth.

Figure 3:13. Resource utilisation indicator



Note. The RU indicator is a statistical measure of resource utilisation. It is normalised so that the average is 0 and the standard deviation is 1.
Source: The Riksbank

Figure 3:14. Wages in the business sector and the economy as a whole



Note. The National Mediation Office's forecast of final outcome December 2017–November 2018.
Source: National Mediation Office

CHAPTER 4 – The economic outlook and inflation prospects

The global recovery and lower interest rates have contributed to an increasingly strong Swedish economic situation in recent years. As more and more economies reach full resource utilisation and monetary policy slowly becomes less expansionary, the global economy enters a phase of lower growth. Inflation abroad will slow down this year as a result of a decline in the oil price but at the same time a high demand for labour and rising wages will contribute to higher inflation in the longer term. The situation on the Swedish labour market is strong and wage growth is expected to rise in the period ahead. In the coming years, gradual repo rate rises will contribute to a normalisation of the economic situation in Sweden and to cost pressures rising at a rate compatible with the inflation target. CPI inflation is expected to be around 2 per cent during the forecast period. This is basically the same assessment as in the Monetary Policy Report in December.

International developments

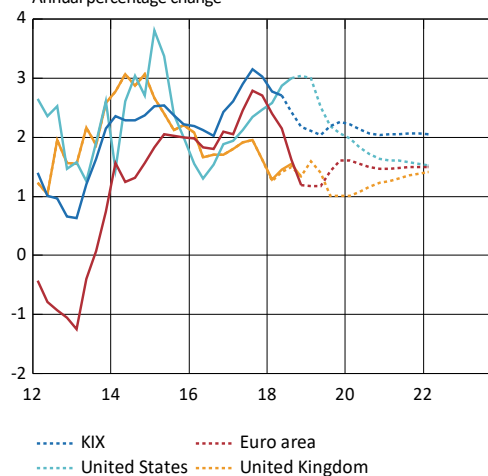
Lower growth abroad

Trade-weighted growth abroad has slowed down over recent quarters after a period of high growth. The trend of more normal growth rates is expected to continue and in 2020 and 2021, KIX-weighted GDP will grow by just over 2 per cent a year (see Figure 4:1). Growth in imports among the world's developed economies has slowed down during 2018. Furthermore, a clear decline in companies' export orders indicates that no rapid recovery for global trade will occur over the next half-year. But this slowdown is taking place after relatively strong economic activity in recent years, as demand in many countries has grown at a healthy pace and resource utilisation has consequently risen. Last year, the Swedish export market is deemed to have grown by just under 4 per cent. In the period ahead, the growth rate will fall towards 3.5 per cent, which is in line with the average growth rate over the last ten years.

The forms of the United Kingdom's withdrawal from the EU constitute an uncertainty factor for international growth. The difficulties in gaining support in the UK parliament for the government's agreement with the EU means that the risk of the United Kingdom leaving the EU in March this year without a deal has increased (see the box "The United Kingdom's withdrawal from the EU").

The ongoing trade conflict between the United States and several other countries constitutes another uncertainty factor for the international economic outlook. The increases in tariffs on Chinese imports announced earlier from the turn of the year have been postponed until March by the US government. Negotiations between both countries' governments on future trade relations have continued since then. The tariff increases implemented so far, however, are only expected to have marginal effects on global growth. On the other hand, changes in

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

trading patterns are already visible in both China and the United States.

Strong economic activity in the United States

Economic activity in the United States remains strong. GDP growth is high, partly as a result of the increases in public spending and tax cuts previously adopted by Congress. Recently, however, confidence among both households and companies has softened somewhat although is still at levels above historical averages. For households, this decline can to some extent be explained by the partial shut-down of the US federal government. The difficulties for the parties to agree also indicate that the negotiations on raising the debt ceiling that are expected later in the spring may be prolonged. There is also some uncertainty about developments on the housing market, where sales have declined in 2018.

GDP is expected to have increased by almost 3 per cent in 2018, but difficulties for companies to find staff, coupled with less expansionary fiscal and monetary policy in the years to come, are fuelling expectations that growth will be lower in the period ahead (see Figure 4:1). GDP growth is expected to be 2.4 per cent this year and then gradually slow to 1.6 per cent in 2021.

The labour market is strong and unemployment is less than 4 per cent (see Figure 4:2). The high level of resource utilisation is contributing towards continued wage growth. Companies' labour costs per employee are now increasing by almost 3 per cent in annualised terms (see Figure 3:7).

Temporary slowdown in the euro area

As GDP growth was somewhat weaker than expected in the fourth quarter and the adjustment problems in the motor industry have continued slightly longer than expected, the forecast for GDP growth in 2019 has been revised down. These adjustment problems are expected to be solved soon and GDP growth is projected to increase in the quarters ahead and then return to a normal rate over the next few years (see Figure 4:1). Monetary policy is expansionary and credit terms have generally improved. Although the growth rate in consumption and investment is set to slow somewhat in the years ahead as unmet needs are satisfied, GDP is still expected to grow at a relatively healthy rate, by approximately 1.5 per cent in 2019–2021. Growth is expected to be high enough for unemployment to continue to decrease slightly. This will help to hold up wage growth during the forecast period.

Expansionary economic policy in China

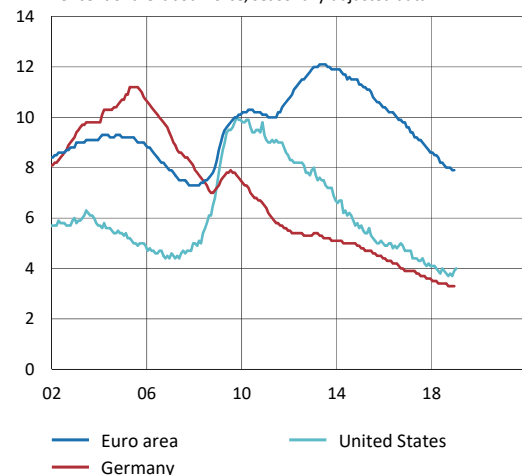
Growth in China for all of 2018 slowed to 6.6 per cent from 6.9 per cent the year before, which was in line with the Chinese government's growth target of around 6.5 per cent. The lower growth is due to dampened domestic demand as growth in both investment and consumption has declined over the past year. A

The United Kingdom's withdrawal from the EU

In December last year, the UK Government and EU representatives agreed on the terms of the United Kingdom's withdrawal from the European Union. Under the agreement, the UK would remain in the single market and the EU's customs union during a transition period up until 31 December 2020. On 15 January, however, a majority of UK members of parliament voted to reject the proposed agreement. On 29 January, a majority in the parliament voted for an orderly withdrawal from the EU. Parliament also voted to tear up the agreement with the EU. It wishes to renegotiate the agreement in order to ensure that any customs union with the EU is only a temporary solution. The UK Government has previously tried to gain support for these demands but without success.

If the United Kingdom does not gain support for its demands, there will be considerable uncertainty as regards the country's withdrawal from the EU as members of the UK parliament are divided in their view. As there are clearly divided opinions on what is the best alternative to a no-deal withdrawal, it will probably be difficult to agree on a proposal. This is deemed to have increased the risk for a no-deal withdrawal. In a scenario where withdrawal takes place without a deal, growth would be negatively affected, primarily in the United Kingdom. A no-deal withdrawal would probably have a negative effect on trade, foreign direct investment and productivity. In all likelihood, it would also affect the financial markets. The EU has therefore announced that in the event of a no-deal withdrawal it will take measures to ensure continuity in financial trading between the EU and the United Kingdom. According to the Bank of England, the British pound would probably depreciate in the event of a no-deal withdrawal and interest rates for house-holds and companies would rise.¹¹ Lower growth, rising unemployment and higher inflation would probably be the result in the short term. This could lead to both Sweden and several other countries in the euro area, particularly those with close trade links to the United Kingdom, also being negatively affected.

Figure 4:2. Unemployment in various countries and regions
Per cent of the labour force, seasonally-adjusted data



Source: OECD

¹¹ Bank of England, "EU withdrawal scenarios and monetary and financial stability", A response to the House of Commons Treasury Committee, November 2018.

contributory factor to the lower growth is that the Chinese authorities have pursued a tighter policy since 2017 focusing on more sustainable economic development and financial stability.

Since 2018, a number of external factors have also contributed to the increased risks in the Chinese economy. Above all, the trade conflict with the United States has created problems even though the negative effects so far have been partially counteracted by the depreciation in the Chinese currency in relation to the US dollar. There is also a risk of the conflict intensifying further if negotiations between China and the United States prove fruitless before 1 March, the deadline set by the United States for not increasing tariffs further.

To compensate for the increased risks, the Chinese authorities have indicated that they will pursue a more expansionary economic policy, including further tax cuts, to stimulate domestic demand. Monetary policy has also been redirected in a more expansionary direction with the lowering of reserve requirements for the banks in several stages over the past year. Despite this stimulation, dampened credit growth and weak consumer confidence will contribute to lower growth this year. Growth is expected to be around 6 per cent in 2019–2021.

Recovery in the price of crude oil

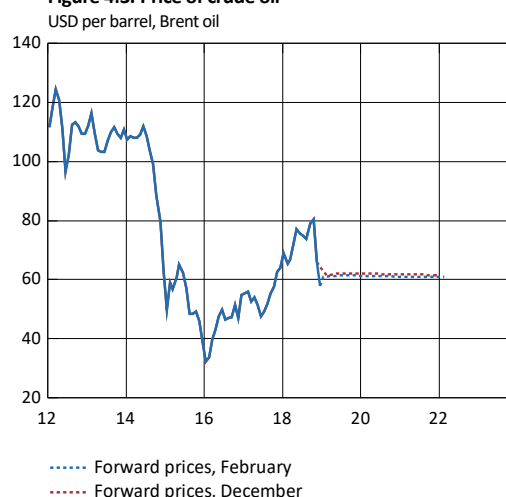
The global market price of crude oil has risen slightly in recent months to about 60 US dollars a barrel after having fallen sharply during the autumn. The recovery is due in part to OPEC and Russia planning to reduce oil production after several important oil-producing countries, primarily the United States, increased production towards the end of 2018. Alongside this, a milder tone in the trade conflict between the United States and China may have also prompted a higher oil price. Sanctions imposed on Venezuelan oil exports may lead to higher oil prices in the short term. On the other hand, concern over the global economy and in particular developments in China are also weighing on the oil price. Forward prices for oil indicate that the oil price is expected to remain around 60 dollars a barrel in the period ahead (see Figure 4:3).

Slowly rising cost pressures abroad

Despite the upturn this year, the oil price is lower than it was at the beginning of 2018, which will contribute to lower inflation abroad in the short term (see Figure 4:3 and 4:4). This year, CPI inflation in the United States is expected to be lower than last year, but in 2020 and 2021, consumer prices are expected to rise once again by just over 2 per cent per year (see Figure 4:4). The strong US labour market in recent years is contributing to faster wage growth and more rapidly rising corporate labour costs. According to the forecast, cost pressures will continue to be relatively high, which will help keep up inflation. Core inflation is close to 2 per cent and the forecast is for it to remain so over the coming years.

The lower oil price means that inflation in the euro area will also fall this year, but higher cost pressures thereafter will once

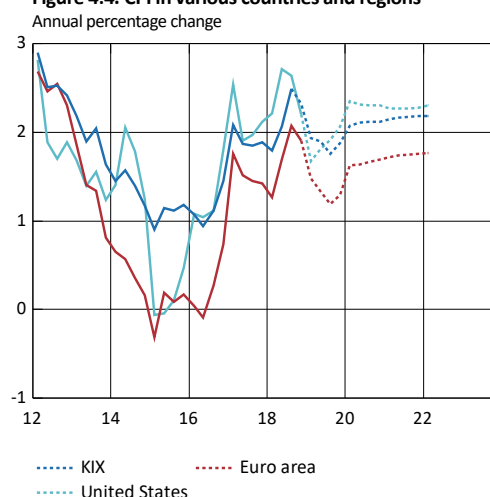
Figure 4:3. Price of crude oil



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

Sources: Macrobond and the Riksbank

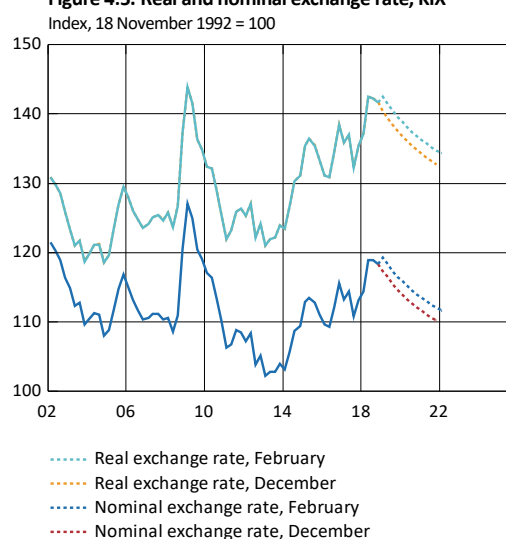
Figure 4:4. CPI in various countries and regions



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

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

Figure 4:5. Real and nominal exchange rate, KIX



Note. The real exchange rate is calculated using the CPI for Sweden and the CPI for the rest of the world. The KIX is an aggregate of countries that are important for Sweden's international transactions.

Sources: National sources, Statistics Sweden and the Riksbank

again contribute to higher inflation (see Figure 4:4). A stronger labour market with more rapidly rising wages is expected to lead to a gradual increase in core inflation, measured as the HICP excluding energy and food prices, from its current level of around 1 per cent to just under 2 per cent at the end of the forecast period.

Krona to strengthen in the years ahead

The Swedish krona has weakened somewhat during the start of the year and is expected to remain somewhat weaker than in the forecast from December, even in the longer run. However, the Riksbank still assesses the krona’s current real exchange rate to be weaker than is justified by long-term factors such as productivity growth in Sweden compared with other countries.¹² Uncertainty surrounding trade policy and economic developments abroad, along with low Swedish interest rates, are possible contributory causes. As the real exchange rate is weak compared with levels justified by long-term factors, this indicates that the krona is set to strengthen going forward (see Figure 4:5).

Sweden

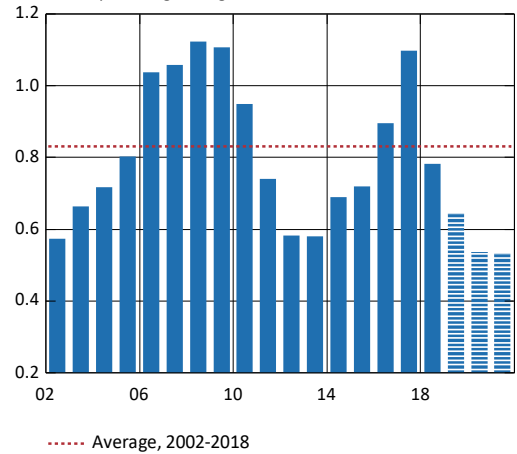
Slower growth in labour supply

The long-term development of productivity and labour supply are important to consider in order to form an idea of growth potential in the economy. In recent years, the working-age population has grown more rapidly than normal (see Figure 4:6). This is a factor behind the sharp increase in labour supply. 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 be lower. This, in turn, will lead to slower growth in labour supply (see Figure 4:6).

In recent years, the labour force participation rate has also shown a rising trend (see Figure 4:13). The upturn has occurred among both Swedish-born and foreign-born persons. Among Swedish-born persons, the increase is primarily due to older people choosing to remain in the labour force for longer. The increased labour force participation among foreign-born and older people means that the growth trend in labour supply is not expected to decline as rapidly as the growth in population.

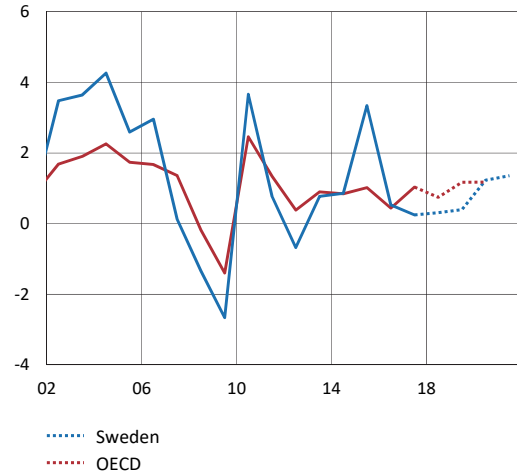
Similarly to many other parts of the world, productivity growth has been comparatively low since the financial crisis with the exception of 2010 and 2015 (see Figure 4:7). There is no consensus as to why productivity growth has been weak, however, and the likelihood is that several factors have contributed. According to the forecast, productivity growth is expected to increase but remain lower than before the financial crisis.

Figure 4:6. Working-age population, 15–74 years
Annual percentage change



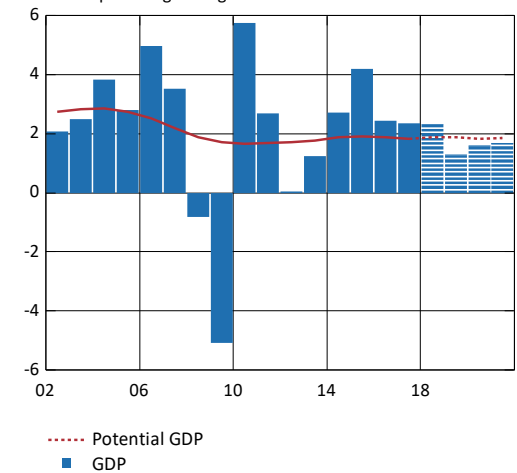
Source: Statistics Sweden

Figure 4:7. Productivity
Annual percentage change, calendar-adjusted data



Note. Productivity refers to GDP per hours worked.
Sources: OECD Economic Outlook (November 2018), Statistics Sweden and the Riksbank

Figure 4:8. GDP
Annual percentage change



Note. Potential GDP refers to the long-term sustainable level according to the Riksbank’s assessment.
Sources: Statistics Sweden and the Riksbank

¹² See the article “Development of the Swedish krona in the longer term” in the Monetary Policy Report from October 2018.

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

After a few years of actual growth just below 2.5 per cent, GDP growth is expected to slow to under 2 per cent in the coming years (see Figure 4:9). As growth is expected to be lower than the trend in the period ahead, the currently high resource utilisation in the economy will soften somewhat in the next few years.

Continued strong economic activity, but lower growth rates going forward

An important explanation for the slowdown in demand growth is developments on the housing market. Housing construction has increased rapidly for several years and housing investment made a significant contribution to growth in 2014–2017 (see Figure 4:10). As the demand for newly built homes seems to have reached saturation point, housing prices have also fallen, which in turn has caused housing companies to build fewer homes. The greatest decline is in the number of newly built tenant-owned apartments while relatively speaking, the new construction of rented apartments has seen less of a decline. In a historical perspective, housing construction will remain high in the coming years, but the decline in housing investment is still expected to dampen GDP growth by almost 1 percentage point this year and a few tenths of a percentage point next year.

As the economic outlook is now somewhat weaker, business sector investment excluding housing investment will also rise slightly more slowly in the coming years. Overall, this means that total gross investment will decrease this year and then increase again, albeit at a moderate pace, in the years thereafter.

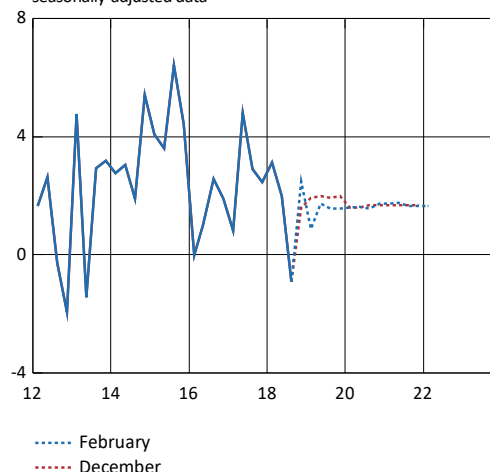
Stable consumption growth

Despite good income development, partly due to low interest rates and reduced taxes, households have become increasingly less optimistic about economic developments. This may be one reason why households have continued to save a large share of their income. The more subdued sentiment among households probably stems from the unease on the housing market, but also from the increased uncertainty on the financial markets these last few months. However, in light of the continued strong labour market, and that housing prices have stopped falling, the conditions are considered to be good for household confidence to rise in the period ahead.

When mortgage rates rise, households' interest expenses increase, which in turn will contribute to reducing their disposable income growth going forward. Households' interest rate expectations according to the National Institute of Economic Research's household barometer largely coincide with the Riksbank's repo rate path, and households are therefore expected to allow for the interest rate increase by saving more of their income. By then reducing their saving when income increases more slowly, households are able to even out their

Figure 4:9. GDP in Sweden

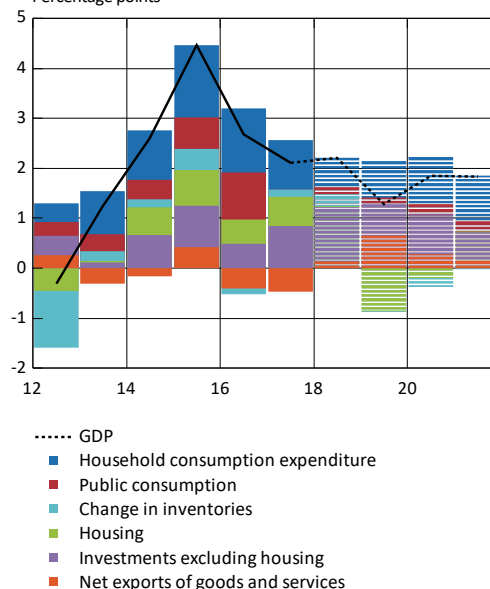
Quarterly change in per cent, calculated as an annual percentage change, seasonally-adjusted data



Sources: Statistics Sweden and the Riksbank

Figure 4:10. Contribution to GDP growth

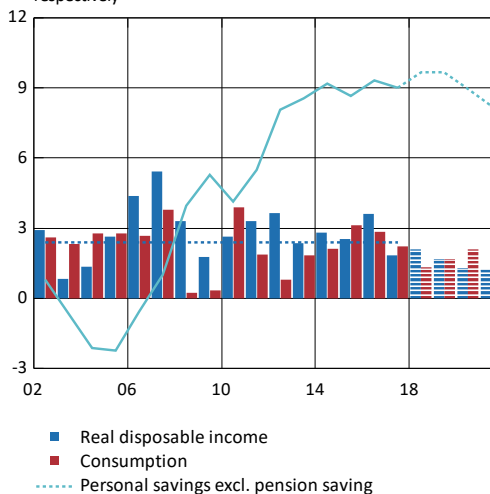
Percentage points



Source: Statistics Sweden and the Riksbank

Figure 4:11. 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 1994–2017. Collective insurance savings consist of savings that households do not control themselves, such as premium pensions and group insurance policies.

Sources: Statistics Sweden and the Riksbank

consumption over time (see Figure 4:11). In the years ahead, household consumption is expected to rise by about 2 per cent per year, which is just under its historically normal growth rate.

Foreign demand increasingly important for GDP growth

Domestic demand has contributed relatively substantially to GDP growth in recent years, but it will increase more slowly in the years ahead. Instead, foreign demand will become relatively more important. Exports of Swedish goods and services are expected to rise by about 3.5 per cent a year in the years ahead.

Household debt increasing more slowly

In wake of the decline in housing prices which began in the autumn of 2017, growth in household debt has also slowed although it is still growing more rapidly than household income. An important explanation for this is that the current home-buyer is paying a higher price for the home than the seller once did and therefore needs to borrow a higher amount. At the same time, lower housing construction means that fewer households are increasing their indebtedness in order to fund new homes. Rising mortgage rates and the introduced amortisation requirements will also contribute to the expectation that the demand for loans among households is set to increase more slowly in the period ahead. Overall, household debt is still expected to grow somewhat more rapidly than household income and the debt-to-income ratio is expected to amount to just over 190 per cent at the beginning of 2022 (see Figure 4:12).

Strong labour market

The situation on the labour market has been continuously improving for several years and the employment rate has reached a historically high level (see Figure 4:13). The favourable economic situation means that demand for labour remains high and employment is expected to increase by a good 1 per cent this year.

The labour force has also developed strongly and is expected to continue to increase. However, the inflow into the labour force consists largely of people born outside Europe, a group that has historically had a weaker attachment to the labour market. However, there are signs that this group is establishing itself in the labour market slightly faster than before. The good economic situation has probably contributed to this and the level of economic activity is expected to continue to facilitate entry into the labour market in the coming years.

As the employment rate has risen and unemployment has fallen, it has become increasingly difficult for companies to find the staff they are looking for. For example, the percentage of companies reporting labour shortages in the Economic Tendency Survey is on a very high level, despite unemployment continuing

¹³ See "Utkast till sakpolitisk överenskommelse mellan Socialdemokraterna, Centerpartiet, Liberalerna och Miljöpartiet de gröna" (Draft political agreement between the Social Democratic Party, the Centre Party, the Liberal Party and the Green Party) in Swedish only: <https://www.socialdemokraterna.se/globalassets/aktuellt/utkast-till-sakpolitisk-overenskommelse.pdf>

New government – too early to assess the effects on the economy

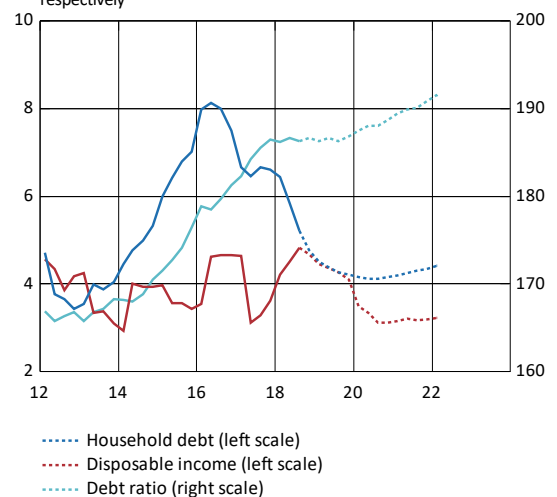
After four months of negotiations, a new government was formed in Sweden in January. The Social Democratic Party has formed a government with the Green Party after a political agreement was struck with the Centre Party and the Liberal Party. The parties have agreed on budget cooperation and cooperation on a number of political issues.¹³

The agreement contains measures that may influence economic developments in both the short and the long term. The proposals concern, for example, the labour market, the housing market, migration and integration. The extent to which economic developments may be influenced is currently unclear, as the scope of the proposed measures has yet to be specified.

A few changes have been taken into consideration in the Riksbank's inflation forecast. Under the political agreement, the aviation tax which was planned to be abolished as part of the 2019 budget will remain. It is also assumed that the previously planned indexation of fuel tax will not be changed. Overall, these measures will contribute to marginally higher inflation in the coming years.

Figure 4:12. Household debts and disposable income

Annual percentage change and per cent of disposable income, respectively

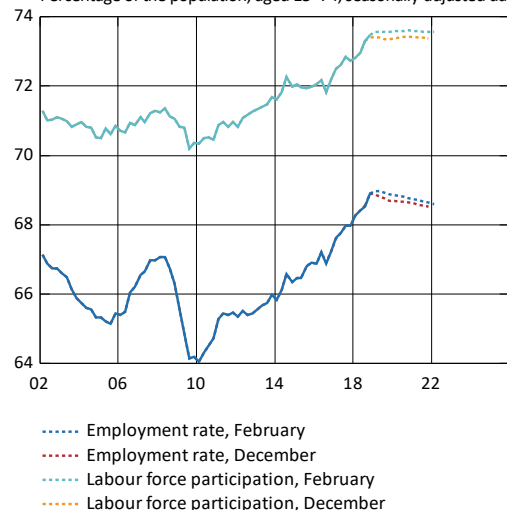


Note. Households' total debts as a share of their disposable incomes summed over the past four quarters.

Sources: Statistics Sweden and the Riksbank

Figure 4:13. Employment rate and labour force participation

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



Sources: Statistics Sweden and the Riksbank

to be relatively high (see Figure 3:12). However, the composition of the unemployed pool presents a challenge, as it consists to a very large degree of people who have historically found it difficult to find work, for instance, those who lack upper-secondary school education and were born outside Europe (see Figure 3:10). The Riksbank’s assessment is that unemployment will increase slightly in the coming years as more and more people who normally find it difficult to obtain work enter the labour force (see Figure 4:14).

Overall, however, resource utilisation on the labour market, and in the economy as a whole, is expected to be higher than normal. As GDP growth, employment and hours worked decrease and fall lower than their respective growth trends, however, resource utilisation will also normalise in the following years (see Figure 4:15).

Wage growth on the up

Wage growth has been moderate in recent years, in relation to both a historical average and the economic situation. This can in part be explained by the weak productivity growth over the last ten years, which has restricted the scope for wage increases while wage growth abroad has also been low. The slow productivity growth has caused unit labour costs to rise at an unusually fast rate in recent years, despite slow wage growth (see Figure 4:16 and the article “Development of Swedish labour costs and profits in an international perspective”).

Wages are expected to gradually increase more rapidly in the period ahead, leading to higher unit labour costs (See Figure 4:16). There are a number of factors indicating this: the labour market situation is strong, inflation has risen and inflation expectations seem well anchored at the inflation target of two per cent. There are also clear signs of rising wage growth abroad (see Figure 3:7). Furthermore, productivity growth is expected to rise gradually during the forecast period. Unit labour costs are expected to increase by around 2 per cent a year during the forecast period, which is a relatively normal rate of increase (see Figure 4:16).

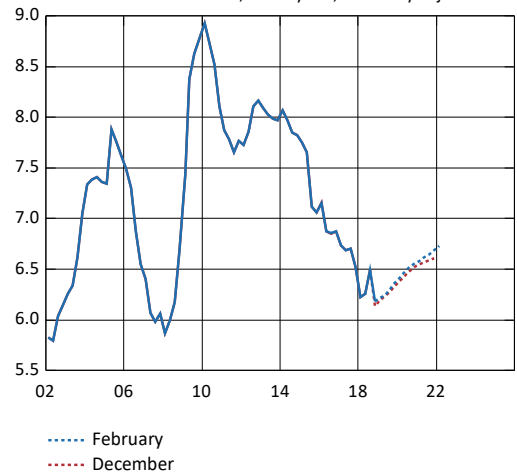
Inflation forecast largely unchanged

Inflation has now been close to the Riksbank’s inflation target of 2 per cent for a little over two years (see Figure 4:17). Different factors have contributed to prices rising to this level. Among other factors, the economic situation in Sweden has strengthened and the krona has depreciated, leading to higher prices for imported goods and food. More recently, rising energy prices have also helped push up inflation.

In December, CPIF inflation amounted to 2.2 per cent. Different measures of core inflation are lower, however, and the median value of the measures calculated by the Riksbank was 1.6 per cent in December. CPIF inflation excluding energy amounted to 1.5 per cent in December, which was approximately in line with the forecast in the Monetary Policy Report from December. Continued strong economic activity is expected to help keep

Figure 4:14. Unemployment

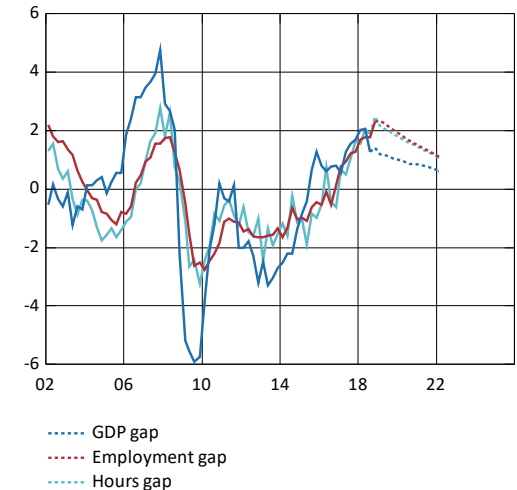
Per cent of the labour force, 15–74 years, seasonally-adjusted data



Sources: Statistics Sweden and the Riksbank

Figure 4:15. GDP gap, employment gap and hours gap

Per cent

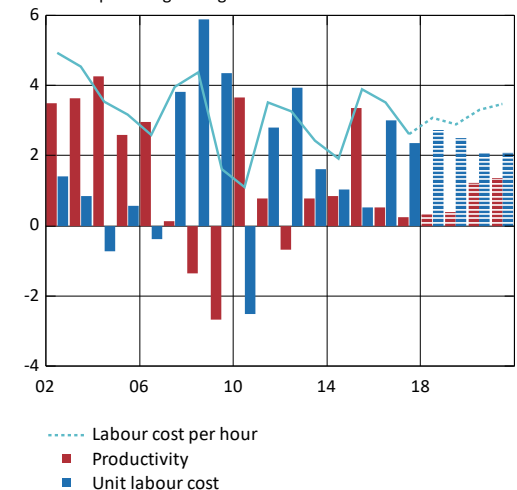


Note. The gaps refer to the deviation of GDP, the number of those employed and the number of hours worked from the Riksbank’s assessed trends.

Sources: Statistics Sweden and the Riksbank

Figure 4:16. Labour costs in the whole economy

Annual percentage change



Sources: Statistics Sweden and the Riksbank

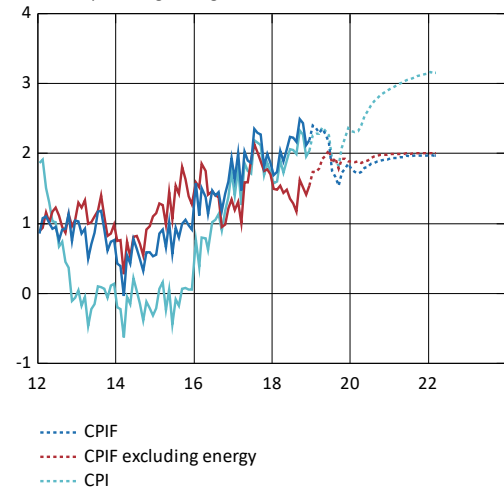
inflation close to the inflation target in the years to come. During the first half of 2019, core inflation is expected to rise somewhat also as a result of higher rent increases and the effects on consumer prices of the previous krona depreciation. Moreover, the summer drought means that food prices are expected to rise faster in the coming months.

The conditions for inflation to remain close to 2 per cent during the forecast period remain good. In the years ahead, the exchange rate is expected to appreciate at the same time as energy prices are expected to increase at a much slower rate, compared with developments in recent years. Both these factors will dampen inflation. But the economic situation is strong and in the forecast, resource utilisation remains high in the years ahead. The high resource utilisation is also expected to continue to have an impact on cost pressures. Unit labour costs have risen relatively rapidly in recent times but are expected to rise at a roughly normal rate during the forecast period. At the same time, some of the indirect taxes removed in the autumn budget will not be retained as a result of the economic agreement upon which the new government is based. This will make a marginally positive contribution to the inflation rate, especially in 2019 and 2020.

Overall, this means that inflation measured in terms of the CPIF excluding energy will rise and CPIF inflation will remain close to 2 per cent during the forecast period (see Figure 4:17). When the repo rate and mortgage rates rise, household interest expenditure will increase faster, causing CPI inflation to be significantly higher than CPIF inflation. In 2021, the CPI is expected to increase by around 3 per cent.

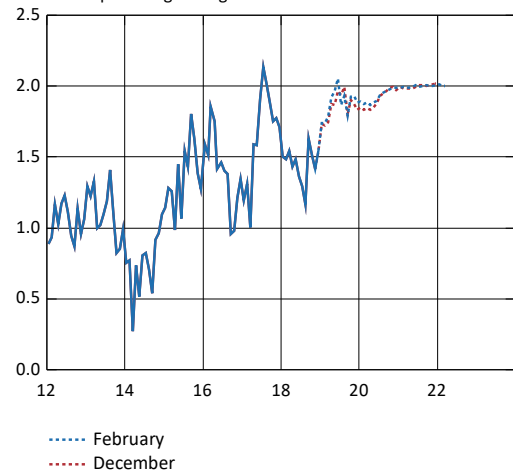
The forecast for inflation has been adjusted as a result of the new method of measuring dental care costs in the CPI as from 2019 (see the box in Chapter 3 “New method of measuring dental care costs to affect inflation rate in 2019”). Disregarding this method change, the forecast for inflation, measured in terms of the CPIF excluding energy, is largely unchanged compared with the forecast in December. At the same time, the forecast for CPIF inflation has been revised upwards somewhat for 2019 as a result of slightly higher electricity prices than in the December forecast. For the years after that, the forecast is unchanged (see Figure 1:5 and Figure 4:18).

Figure 4:17. CPIF, CPIF excluding energy and CPI
Annual percentage change



Sources: Statistics Sweden and the Riksbank

Figure 4:18. CPIF excluding energy
Annual percentage change



Sources: Statistics Sweden and the Riksbank

ARTICLE – Development of Swedish labour costs in an international perspective

The development of labour costs covaries with domestic economic activity, productivity and price developments. Labour cost development in other countries is also of significance, as it affects how Swedish companies perform in the face of global competition. If Swedish labour costs rise relative to those abroad, our competitiveness will normally be undermined unless productivity also increases more rapidly or the nominal exchange rate depreciates to the same degree. Competitiveness in turn affects the conditions for output and employment. The weak krona means that unit labour costs in the Swedish manufacturing industry are currently unusually low in relation to other countries. According to the Riksbank's forecast, Swedish unit labour costs will increase at approximately the same rate as in competitor countries in the coming years. The expected krona appreciation is thus compatible with a normal competitiveness level for the Swedish manufacturing industry and with continued good economic development. However, there is no uniform measure of competitiveness and the assessment is uncertain as it is based on a number of different forecasts.

Swedish wages are affected by economic developments in Sweden and abroad

Activity in the Swedish economy is currently good, the employment rate has risen to a historically high level and an unusually large number of companies are reporting labour shortages. When employees have a better negotiating position, this usually leads to wages rising at a faster pace. Higher demand is at the same time contributing to higher prices and when prices rise, the demand and scope for wage increases are greater.

In a small, open economy, however, wage formation also needs to consider international competition, which sets the framework for the prices of many of the goods and services produced in Sweden. The manufacturing industry is the sector most exposed to competition from abroad and it has therefore also set the norms for wage formation in Sweden. In time, however, more and more sectors have been affected by global competition. If production costs in Sweden are too high compared with other countries, the conditions for profitable and competitive production will deteriorate. For the public sector and parts of the business sector that are only exposed to international competition to a small extent, the comparison with other countries is less relevant. Developments abroad can, however, be informative as a reference point for these sectors, too.¹⁴

Productivity and the exchange rate are also important for the assessment of competitiveness

As higher output per hour worked gives scope for higher wages, it is important to take into account the relative productivity between the countries. One measure that takes into account both labour costs and productivity is unit labour costs. To obtain a broader view of how cost developments affect competitiveness, one can supplement measures of unit labour costs with, for instance, measures of profitability, which are contingent on not only cost developments but also price developments.

As Sweden has a floating exchange rate, the exchange rate is an important component in the assessment of competitiveness. It is relative prices and costs converted into a common currency that are relevant. Put very simply, a floating exchange rate tends, in the long run, to help even out differences in relative prices and costs converted into a common currency. If unit labour costs in Sweden increase more rapidly than in other countries, Swedish competitiveness can be maintained if the value of the krona falls against other currencies. But the exchange rate is affected by a number of different factors and the process of evening out differences in relative prices and production costs can be protracted. Swedish companies are thus not able to set wages and prices under an assumption that the exchange rate will always even out potential differences in

¹⁴ In this article, the discussion focuses on a comparison of the manufacturing industry, although comments are also made about the economy as a whole. Interpretations of the comparison in terms of competitiveness are mostly based on developments within the manufacturing industry. For further analysis of Sweden's

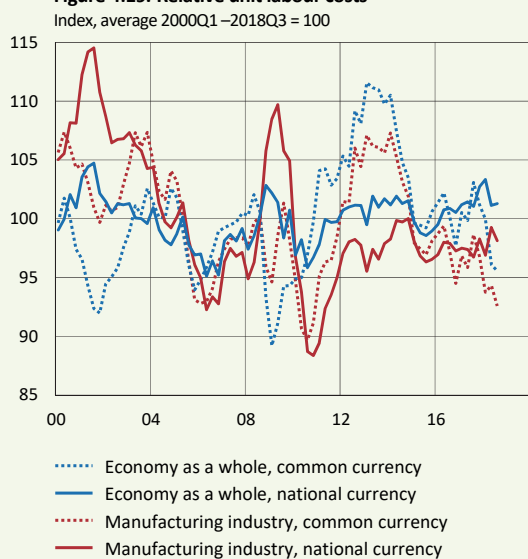
competitiveness, see for instance the Confederation of Swedish Enterprise's report series "Lönens inverkan på Sveriges internationella konkurrenskraft" (2018) (The impact of wages on Sweden's international competitiveness), in Swedish only.

relation to competitor countries. On the other hand, the nominal exchange rate cannot be ignored in an assessment of which cost increases are compatible with a certain trend in competitiveness.

Weak krona implies lower Swedish unit labour costs relative to other countries

There is no single measure that provides a complete comparison of cost levels between different countries. It is common to analyse competitiveness on the basis of developments in production costs over time. Differences in productivity growth contributed to volatility in relative cost developments around the years 2009–2010, when developments were coloured by the global financial crisis. Fluctuations in the exchange rate have also contributed to major variations in relative costs in a common currency. The assessment of relative cost levels between countries can therefore be sensitive to the point of reference selected. To limit this problem, we use here an average for the 2000s as the point of reference. However, the comparison will always be affected by the time period studied.

Figure 4:19. Relative unit labour costs



Note. National currency is calculated by dividing each measure in a common currency with a trade-weighted nominal exchange rate. For the manufacturing industry, wage costs are used when calculating unit labour costs. The series for the manufacturing industry are projected from 2018Q1 to 2018Q3 based on unit labour costs in 24 EU countries plus Norway and the United States.

Sources: European Commission, OECD and the Riksbank

A common indicator of competitiveness is a country's unit labour costs in relation to a weighted average of competitor countries expressed in a common currency.¹⁵ According to this measure, unit labour costs in the manufacturing

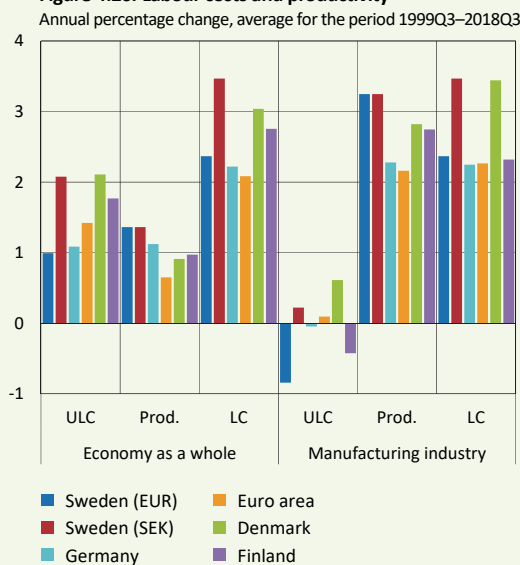
¹⁵ This article uses one of the European Commission's measure, where the competitiveness weights are based on 37 countries consisting of the EU-28 plus nine other OECD countries (Australia, Canada, the United States, Japan, Norway, New Zealand, Mexico, Switzerland and Turkey).

industry in Sweden fell in relation to competitor countries at the beginning of the 2000s and at present the level is low in relation to the average during the 2000s (see Figure 4:19). The recent weakening of the krona is an important explanation for the current unusually low level. The Swedish relative unit labour costs in the economy as a whole are also somewhat lower than the average for the 2000s measured in a common currency.

In Sweden, both labour costs and productivity have increased relatively quickly during the 21st century

Indicators such as unit labour costs in relation to a weighted average of most competitor countries provide an overall picture of a country's relative cost development. But there is also reason to compare development in Sweden with countries in our immediate vicinity. Countries such as Germany, Finland and Denmark are important trading partners and wage developments in these countries comprise a condition for Swedish wage formation. Countries in our vicinity can also be assumed to be natural alternatives if companies with production in Sweden choose to extend or move their operations.

Figure 4:20. Labour costs and productivity



Note. ULC refers to unit labour costs, Prod. refers to production per hour and LC refers to labour costs per hour. The change is expressed in both SEK and EUR for Sweden. For the other countries there is no difference if the change is expressed in national currency or in EUR.

Sources: Eurostat and the Riksbank

Broadly speaking, the comparison with countries in our vicinity provides a similar picture to the comparison above based on competitiveness-weighted countries.¹⁶ Unit labour costs within the manufacturing industry in Sweden and

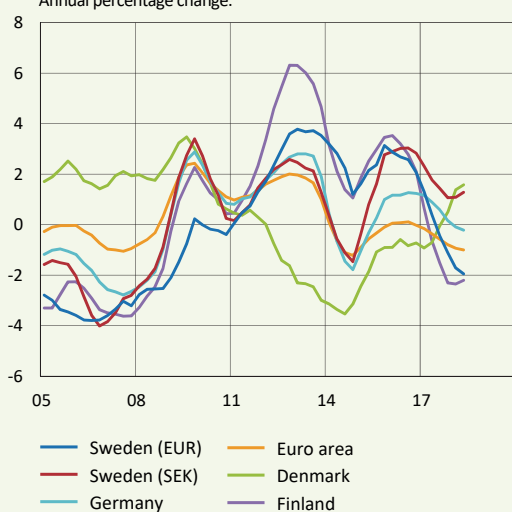
¹⁶ In the measure used for competitiveness-weighted countries, Germany has a weight of around 14 per cent, Finland has around 6 per cent, Denmark approximately 5.5 per cent and the euro area a weight of around 46 per cent.

Germany have remained more or less unchanged since 2000, while they have increased slightly in Denmark and fallen slightly in Finland (see Figure 4:20). Relatively high increases in Swedish labour costs compared with the other countries have corresponded with a relatively high growth in productivity. When expressed in euros, unit labour costs in the manufacturing industry have been lowest in Sweden.

Swedish unit labour costs in the economy as a whole have increased roughly as in Denmark and more than in the other countries, regarded over the entire 2000s. Although productivity has increased more in Sweden than in the other countries, Swedish labour costs have increased even more in relative terms. When expressed in euros, the increase in Sweden has thus been roughly as in Germany and lower than in the other countries.

The accumulated development since the turn of the century conceals variations during different periods. Figure 4:21 shows a five-year moving average of the growth in unit labour costs within the manufacturing industry.

Figure 4:21. Unit labour costs in the manufacturing industry
Annual percentage change.



Note. Five-year moving average.

Sources: Eurostat and the Riksbank

There is a high degree of covariation in the development of unit labour costs between the countries, with the exception of Denmark. In Sweden, Germany and Finland, unit labour costs fell during the period prior to the financial crisis and since then they have increased. Various trends in productivity and labour costs are hidden behind this covariation, however. One example is the relative development in Sweden and Germany. In national currencies, developments in Sweden were in line with Germany up to 2015. At the beginning of the period, however, both labour costs and productivity

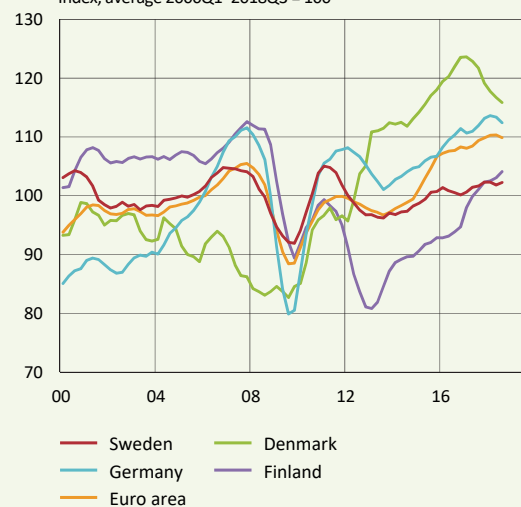
¹⁷. Profit share differs significantly between different sectors, partly dependent on how labour-intensive the production is. A sector that is labour-intensive has by definition a lower profit share than a sector that is capital-intensive. A comparison of the profit share levels between countries therefore needs to take into account the

increased much faster in Sweden than in Germany. During the past five-year period Swedish unit labour costs in national currency have increased somewhat faster than in Germany. During this period labour costs have increased at roughly the same pace while productivity growth in Sweden has been lower. At the same time, the weaker krona means that unit labour costs in the Swedish manufacturing industry have increased relatively slowly in a common currency during the past five-year period.

Minor variations in profit share within Swedish manufacturing industry in the 2000s

As far as companies are concerned, it is profitability, rather than labour costs, that affect the conditions for production and employment. A measure of profitability is what is known as profit share, i.e. that share of value added that does not go to labour costs. Profit share thus does not measure actual profits, but is a rough measure that includes costs for capital used in production.¹⁷ Developments in the profit share consist of developments in unit labour costs in relation to prices of what is produced.

Figure 4:22. Profit share manufacturing industry
Index, average 2000Q1–2018Q3 = 100



Note. Four-quarter moving average.

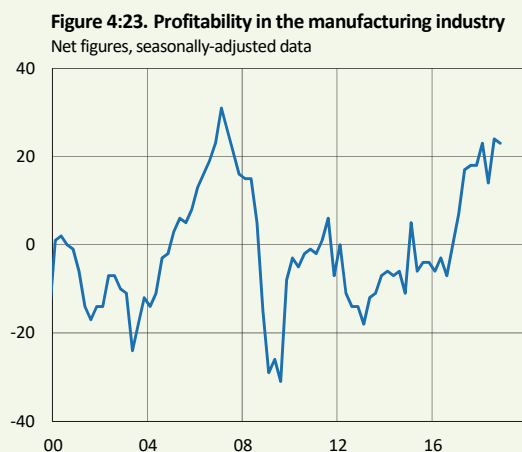
Sources: Eurostat and the Riksbank

The profit share for the Swedish manufacturing industry has been stable since 2000 and is currently slightly higher than the average since the turn of the century (see Figure 4:22). In Sweden and Finland value added prices in the manufacturing industry fell at roughly the same pace as unit labour costs during the period 2000–2008 and the profit share therefore remained more or less unchanged. In Germany, value added prices remained roughly the same

composition in the manufacturing sector. Changes in the composition of industrial output can also affect the development of profit shares.

during the same period and the profit share increased. The fact that the Swedish profit share has not risen in line with developments in Germany and Finland in recent years is connected with the higher increase in unit labour costs in Sweden. In Denmark, low increases in unit labour costs during the five-year period following the financial crisis, combined with rapidly rising prices in recent years, have contributed to the profit share rising.

The profit share is calculated on both prices and costs in national currency. Nevertheless, the exchange rate may still be significant when interpreting the profit share level, as prices in national currencies can be affected by the exchange rate. During the last ten-year period, for example, the manufacturing industry's value-added prices have basically been a mirror image of the krona exchange rate. This has to do with the prices for exported Swedish goods and services being set in euro or US dollars and a weakening of the krona thus pushes up the price in krona. The weak krona can thus currently contribute to raising the profit share level in the Swedish manufacturing industry.



Note. Profitability, current assessment.

Source: National Institute of Economic Research

Indicators point to high profitability within the Swedish manufacturing industry

In addition to the profit share, there are also indicators showing how manufacturing companies themselves view their profitability and competitiveness. For example, the European Commission publishes an indicator of how companies view their competitiveness situation within the EU.¹⁸ This indicator points to the competitiveness situation for Swedish companies in the EU being somewhat better now than the average since 2000 and unusually good compared with Germany and Finland. There is a clear covariation between the countries, which probably reflects that the

perceived level of competition is linked to the business cycle. But the exchange rate also appears to affect the perceived level of competition. When the krona is weak in relation to the euro, Swedish manufacturing companies tend to have a more positive view of their competitiveness in relation to German and Finnish companies.

The National Institute of Economic Research publishes an indicator of Swedish companies' own assessments of profitability. Companies in the manufacturing industry report that their profitability is high in a historical perspective (see Figure 4:23).

Swedish labour costs increasing in line with other countries

Developments in unit labour costs and profit shares in Sweden in the 2000s do not deviate substantially from developments in comparable countries. During the period as a whole, a relatively rapid rise in Swedish labour costs has corresponded to a relatively high growth in productivity in the manufacturing industry and the profit share level has been stable.

Both in Sweden and abroad the economic situation is expected to contribute to a gradually faster increase in labour costs going forward. The European Commission assesses that unit labour costs will increase by around 2 per cent in 2020 in Germany and around 1.5 per cent in the euro area as a whole. The OECD's forecast for the aggregate of all OECD countries entails an increase of around 2.5 per cent in the same year. The Riksbank's forecast for labour costs and productivity in Sweden implies unit labour costs in the national currency increasing by 2.0 per cent in 2020 and 2.1 per cent in 2021.

The krona exchange rate (KIX) is expected to appreciate by around 5 per cent in the coming three years. This will contribute to relative Swedish unit labour costs in a common currency increasing faster than in our competitor countries. At the same time, the level for relative unit labour costs in the Swedish manufacturing industry is currently lower than the average since 2000 and profitability is unusually high according to the companies' own assessments. All in all, this means that the competitive situation in Sweden will, according to these measures, be in line with the level that has been normal during the 2000s when the krona appreciates. This in turn is expected to be compatible with continued good economic development. However, the assessment of future relative cost developments in a common currency is based on a number of different forecasts and conditions that can quickly change.

¹⁸ Industrial Confidence Indicator, Total Sector, Quarterly, Competitive Position Inside EU, Balance, SA.

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

	Q4 2018	Q1 2019	Q2 2019	Q1 2020	Q1 2021	Q1 2022
Repo rate	-0.50	-0.27 (-0.27)	-0.24 (-0.24)	0.10 (0.10)	0.60 (0.60)	1.10

Source: The Riksbank

Table 2. Inflation

Annual percentage change, annual average

	2017	2018	2019	2020	2021
CPIF	2.0 (2.0)	2.1 (2.1)	2.0 (1.9)	1.8 (1.8)	2.0 (2.0)
CPIF excl. energy	1.7 (1.7)	1.4 (1.4)	1.9 (1.9)	1.9 (1.9)	2.0 (2.0)
CPI	1.8 (1.8)	2.0 (2.0)	2.2 (2.1)	2.6 (2.6)	3.0 (3.1)
HICP	1.9 (1.9)	2.0 (2.0)	2.0 (1.8)	1.8 (1.8)	1.9 (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

	2017	2018	2019	2020	2021
Repo rate	-0.5 (-0.5)	-0.5 (-0.5)	-0.2 (-0.2)	0.3 (0.3)	0.8 (0.8)
10-year rate	0.7 (0.7)	0.7 (0.7)	0.9 (1.1)	1.7 (1.9)	2.4 (2.5)
Exchange rate, KIX, 18 November 1992 = 100	112.9 (112.9)	117.6 (117.6)	117.9 (116.0)	114.9 (113.0)	112.7 (110.9)
General government net lending*	1.5 (1.5)	0.9 (0.9)	0.6 (0.7)	0.5 (0.6)	0.5 (0.5)

* Per cent of GDP

Sources: Statistics Sweden and the Riksbank

Table 4. International conditions

Annual percentage change, unless otherwise stated

GDP	PPP-weights	KIX-weights	2017	2018	2019	2020	2021
Euro area	0.11	0.49	2.5 (2.5)	1.8 (1.9)	1.4 (1.5)	1.5 (1.6)	1.5 (1.5)
USA	0.15	0.08	2.2 (2.2)	2.9 (2.9)	2.4 (2.6)	1.8 (2.0)	1.6 (1.6)
Japan	0.04	0.02	1.9 (1.9)	0.8 (0.7)	0.8 (0.8)	0.5 (0.5)	0.9 (0.9)
China	0.19	0.08	6.9 (6.9)	6.6 (6.6)	6.1 (6.0)	6.0 (6.0)	6.0 (6.0)
KIX-weighted	0.75	1.00	2.9 (2.9)	2.5 (2.5)	2.1 (2.3)	2.1 (2.2)	2.1 (2.1)
World (PPP-weighted)	1.00	—	3.7 (3.7)	3.7 (3.7)	3.6 (3.6)	3.6 (3.7)	3.6 (3.6)

Note. Calendar-adjusted growth rates. The PPP weights refer to the global purchasing-power adjusted GDP weights for 2018, according to the IMF. KIX weights refer to weights in the Riksbank's krona index (KIX) for 2019. The forecast for GDP in the world is based on the IMF's forecasts for PPP weights. The forecast for KIX-weighted GDP is based on an assumption that the KIX weights will develop in line with the trend during the previous five years.

CPI	2017	2018	2019	2020	2021
Euro area (HICP)	1.5 (1.5)	1.7 (1.8)	1.3 (1.4)	1.7 (1.6)	1.7 (1.7)
USA	2.1 (2.1)	2.4 (2.5)	1.9 (1.8)	2.3 (2.3)	2.3 (2.3)
Japan	0.5 (0.5)	1.0 (1.0)	1.1 (1.2)	1.9 (1.9)	1.5 (1.5)
KIX-weighted	1.9 (1.9)	2.2 (2.2)	1.9 (1.9)	2.1 (2.1)	2.2 (2.2)

	2017	2018	2019	2020	2021
Policy rates in the rest of the world, per cent	-0.1 (-0.1)	0.1 (0.1)	0.2 (0.2)	0.3 (0.4)	0.6 (0.7)
Crude oil price. USD/barrel Brent	54.8 (54.8)	71.5 (72.1)	61.3 (62.1)	61.2 (61.9)	61.0 (61.7)
Swedish export market	5.0 (4.9)	3.7 (4.2)	3.5 (4.0)	3.6 (3.6)	3.5 (3.5)

Note. Policy rates in the rest of the world refer to a weighted average of USA, the euro area, Norway and the United Kingdom.

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

Table 5. GDP by expenditure

Annual percentage change, unless otherwise stated

	2017	2018	2019	2020	2021
Private consumption	2.2 (2.2)	1.3 (1.4)	1.7 (2.0)	2.1 (2.1)	2.0 (2.0)
Public consumption	0.0 (0.0)	0.6 (0.6)	0.5 (0.5)	0.8 (0.8)	0.8 (0.8)
Gross fixed capital formation	6.0 (6.0)	4.4 (4.3)	-0.9 (0.0)	2.4 (2.8)	2.3 (2.8)
Inventory investment*	0.1 (0.1)	0.2 (0.2)	0.0 (-0.1)	-0.2 (-0.2)	0.0 (0.0)
Exports	3.2 (3.2)	2.5 (2.4)	3.5 (3.3)	3.4 (3.7)	3.4 (3.5)
Imports	4.8 (4.8)	2.4 (2.4)	2.3 (2.2)	3.1 (3.3)	3.4 (3.8)
GDP	2.1 (2.1)	2.2 (2.2)	1.3 (1.5)	1.9 (2.0)	1.8 (1.8)
GDP, calendar-adjusted	2.4 (2.4)	2.3 (2.3)	1.3 (1.5)	1.6 (1.8)	1.7 (1.7)
Final domestic demand*	2.4 (2.4)	1.8 (1.8)	0.6 (1.0)	1.7 (1.8)	1.7 (1.8)
Net exports*	-0.5 (-0.5)	0.1 (0.1)	0.7 (0.6)	0.3 (0.3)	0.1 (0.0)
Current account (NA), per cent of GDP	3.7 (3.7)	3.2 (3.2)	3.6 (3.5)	3.7 (3.6)	3.7 (3.5)

*Contribution to GDP growth, percentage points

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

Sources: Statistics Sweden and the Riksbank

Table 6. Production and employment

Annual percentage change, unless otherwise stated

	2017	2018	2019	2020	2021
Population, aged 15–74	1.1 (1.1)	0.8 (0.8)	0.6 (0.6)	0.5 (0.5)	0.5 (0.5)
Potential hours worked	0.9 (0.9)	0.9 (0.9)	0.9 (0.8)	0.8 (0.8)	0.7 (0.7)
Potential GDP	1.8 (1.9)	1.9 (1.9)	1.9 (2.0)	1.8 (1.9)	1.8 (1.9)
GDP, calendar-adjusted	2.4 (2.4)	2.3 (2.3)	1.3 (1.5)	1.6 (1.8)	1.7 (1.7)
Number of hours worked, calendar-adjusted	2.1 (2.1)	2.0 (1.8)	0.9 (0.7)	0.4 (0.4)	0.3 (0.3)
Employed, aged 15–74	2.3 (2.3)	1.8 (1.8)	1.2 (1.0)	0.4 (0.4)	0.4 (0.4)
Labour force, aged 15–74	2.0 (2.0)	1.4 (1.4)	1.2 (1.0)	0.6 (0.6)	0.5 (0.5)
Unemployment, aged 15–74*	6.7 (6.7)	6.3 (6.3)	6.3 (6.3)	6.5 (6.5)	6.6 (6.6)
GDP gap**	1.3 (1.2)	1.7 (1.5)	1.1 (1.1)	0.9 (0.9)	0.8 (0.7)
Hours gap**	1.0 (1.0)	2.0 (1.9)	2.0 (1.8)	1.6 (1.4)	1.3 (1.0)

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

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

Sources: Statistics Sweden and the Riksbank

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

Annual percentage change, calendar-adjusted data unless otherwise stated

	2017	2018	2019	2020	2021
Hourly wage, NMO	2.3 (2.3)	2.6 (2.5)	2.8 (2.8)	3.2 (3.2)	3.3 (3.4)
Hourly wage, NA	2.5 (2.5)	2.6 (2.7)	2.8 (2.8)	3.2 (3.3)	3.4 (3.5)
Employers' contribution*	0.0 (0.0)	0.2 (0.2)	0.1 (0.1)	0.1 (0.1)	0.1 (0.1)
Hourly labour cost, NA	2.5 (2.5)	2.9 (2.9)	2.9 (2.9)	3.3 (3.4)	3.5 (3.5)
Productivity	0.2 (0.2)	0.4 (0.4)	0.4 (0.8)	1.2 (1.4)	1.4 (1.4)
Unit labour cost	2.4 (2.4)	2.7 (2.7)	2.5 (2.1)	2.1 (2.0)	2.1 (2.1)

* 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



SVERIGES RIKSBANK
103 37 Stockholm
(Brunkebergstorg 11)
Tel 08 - 787 00 00
Fax 08 - 21 05 31
registratorn@riksbank.se
www.riksbank.se

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