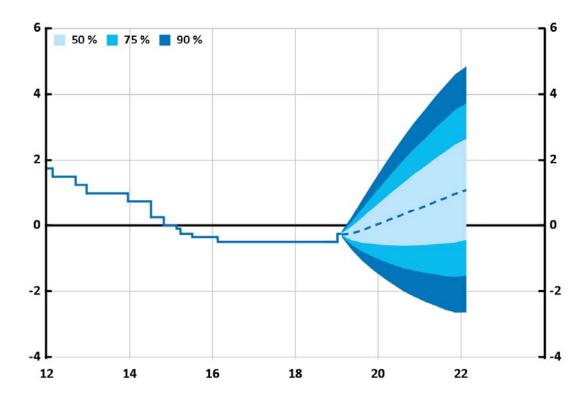






### Figure 1.1. Repo rate with uncertainty bands

Per cent

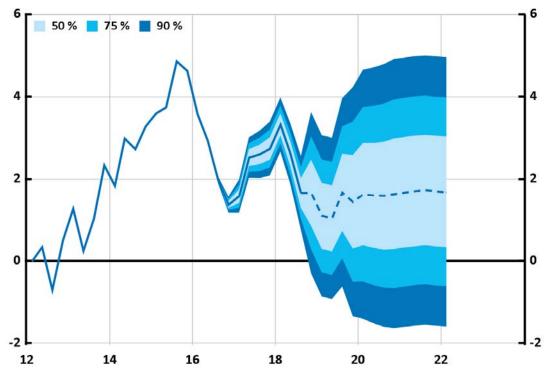


Note. The uncertainty bands for the repo rate are based on the Riksbank's historical forecasting errors and the ability of risk-premium adjusted forward rates to forecast the future repo rate for the period 1999 up to the point when the Riksbank started to publish forecasts for the repo rate during 2007.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



### Figure 1.2. GDP with uncertainty bands

Annual percentage change, seasonally-adjusted data

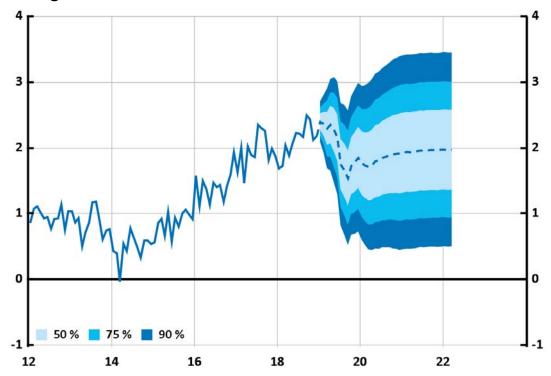


Note. The uncertainty bands are based on the Riksbank's historical forecasting errors. The reported outcomes for GDP are also uncertain, as the National Accounts figures are revised several years after the first publication.



### Figure 1.3. CPIF with uncertainty bands

Annual percentage change

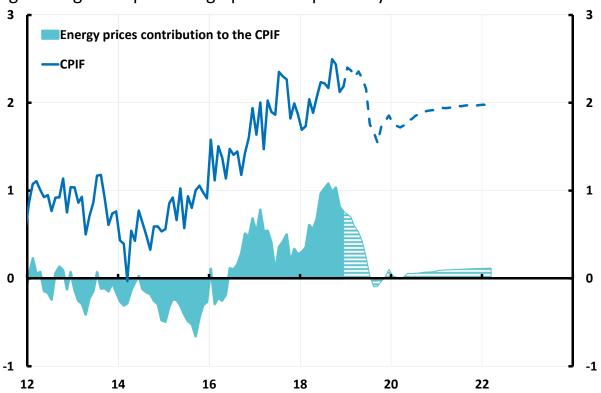


Note. The uncertainty bands are based on the Riksbank's historical forecasting errors.





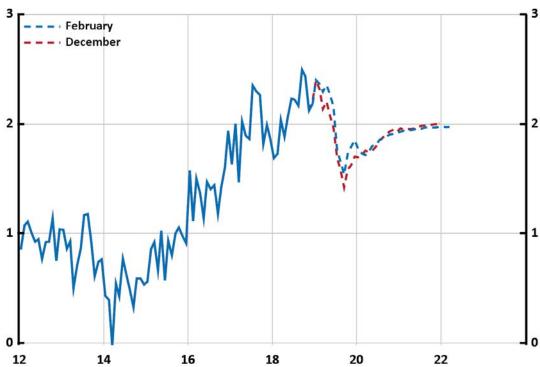
Annual percentage change and percentage points respectively



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.

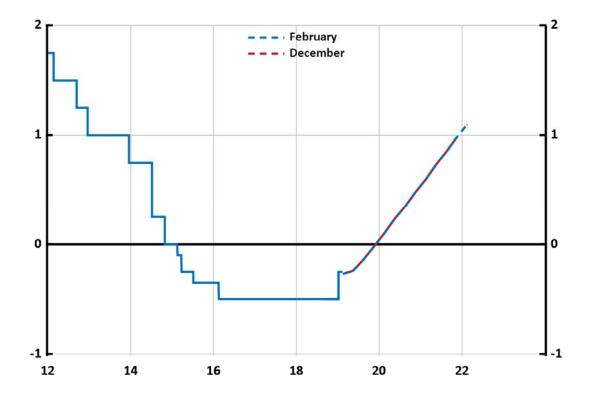


### Figure 1.5. CPIF Annual percentage change





### Figure 1.6. Repo rate Per cent



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



Per cent, mean value



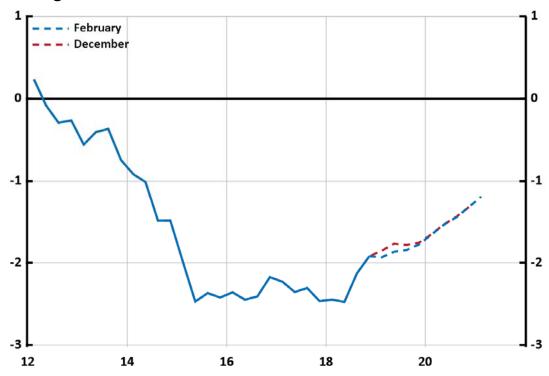
Source: Kantar Sifo Prospera





#### Figure 1.8. Real repo rate

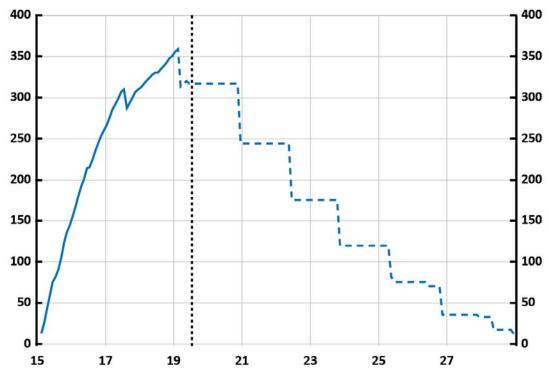
Per cent, quarterly averages



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

## Figure 1.9. The Riksbank's holdings of government bonds

Nominal amounts, SEK billion



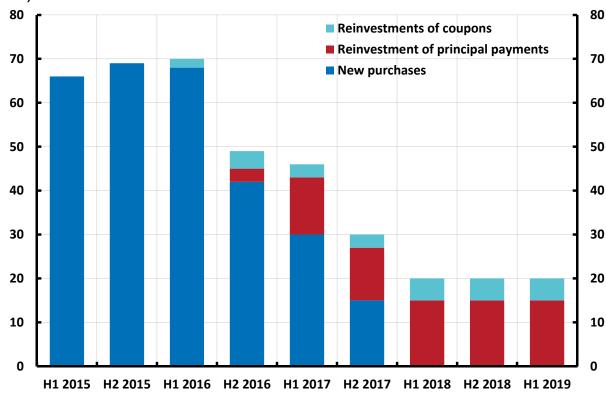
Note. Forecast up until June 2019, after that a technical projection with the assumption that no further reinvestments are made. The development of the holdings is also affected to a certain extent by the bonds' market prices and by which bonds the Riksbank chooses to reinvest in. The vertical line marks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







Nominal amounts, SEK billion

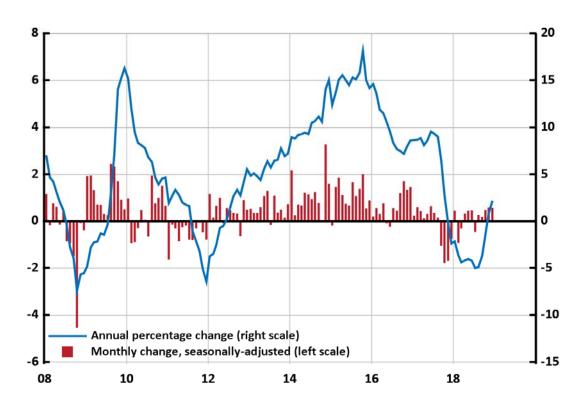


Note. The development for reinvestments from 2019 onwards is a forecast and refers to nominal amounts. The final amounts will depend on current market prices.





Per cent

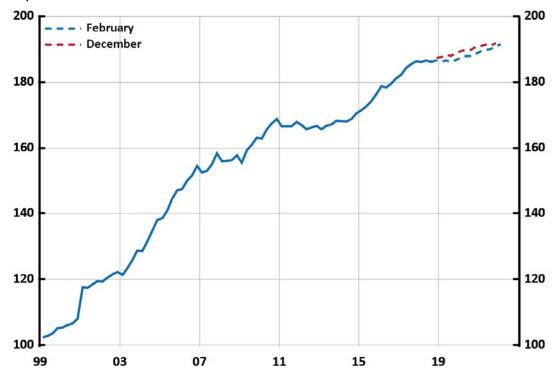


Sources: Valueguard and the Riksbank



### Figure 1.12. Household debt ratio

Per cent of yearly disposable income



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

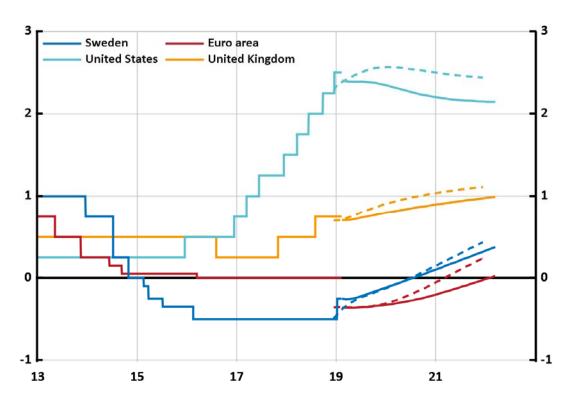








Per cent



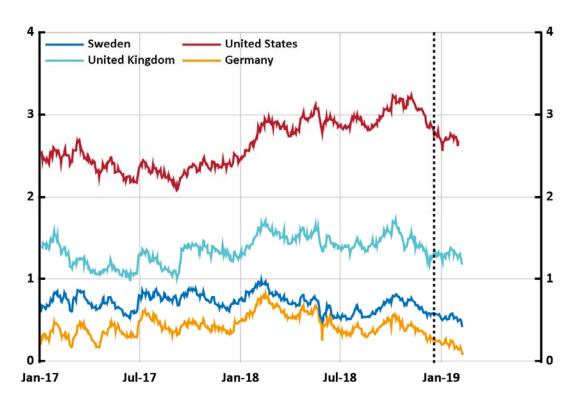
Note. Forward rates describe the expected overnight rate, which does not always correspond to the policy rate (the main refinancing rate for the euro area). Unbroken lines refer to 8 February 2019, broken lines refer to 19 December 2018.

Sources: The national central banks, Macrobond and the Riksbank





Per cent



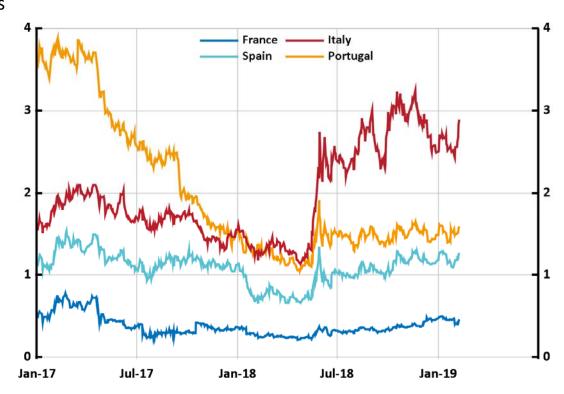
Note. Implied zero-coupon yields from government bonds for Sweden, Germany and United Kingdom. 10-year benchmark bonds for the United States. The vertical line indicates the Monetary Policy Meeting in December.

Sources: The national central banks and the Riksbank



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Percentage points



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

Source: Macrobond



Index, 3 January 2017 = 100



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

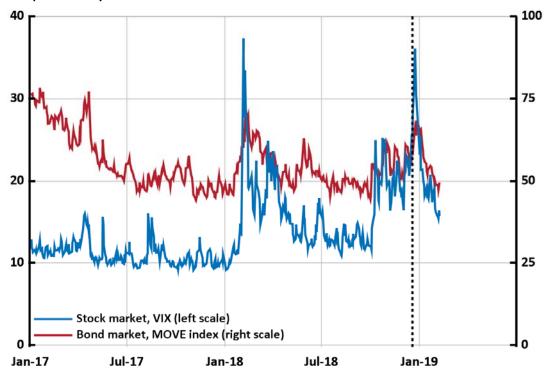


Source: Macrobond





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 Operations Exchange and Merrill Lynch

## Figure 2.6. Yield differential between corporate bonds with a good credit rating and government bonds for the US

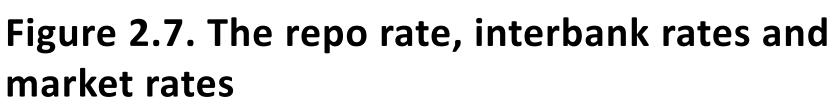


Percentage points



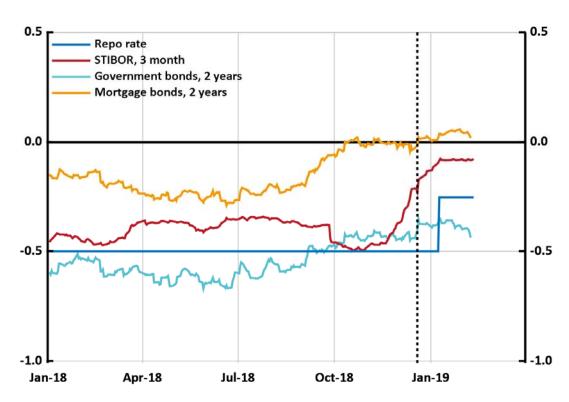
Note. Yield differentials refer to 5-year and 10-year benchmark bonds. The vertical line indicates the Monetary Policy Meeting in December.

Source: Macrobond





Per cent



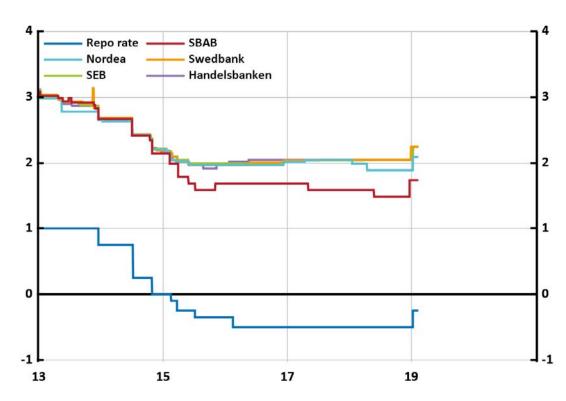
Note. Zero coupon yields are calculated on government bonds and mortgage bonds. The vertical line indicates the Monetary Policy Meeting in December.

Sources: Macrobond and the Riksbank



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Per cent

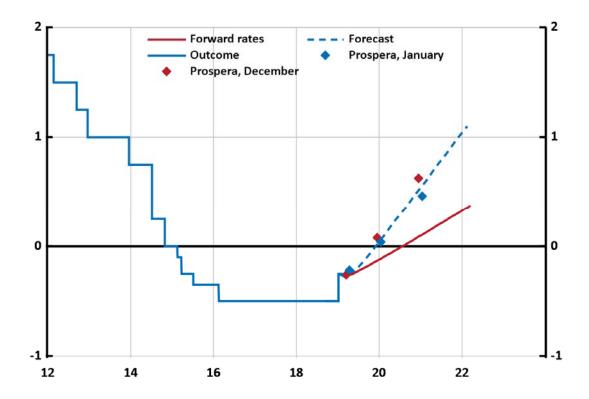


Sources: Macrobond and the Riksbank



### Figure 2.9. Repo rate and market expectations

Per cent



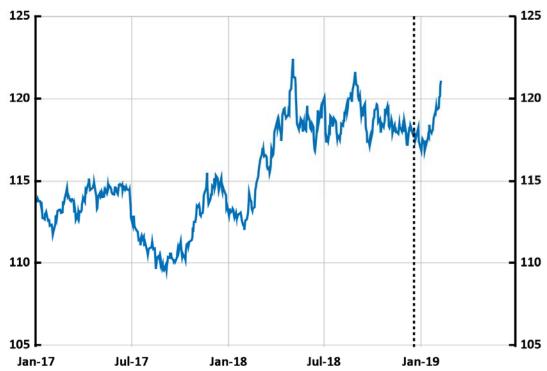
Note. The forward rate refers to 8 February 2019 and is a measure of the expected repo rate. The Prospera survey responses show the average for money market participants 13 December 2018 respectively 23 January 2019.

Sources: Macrobond, Kantar Sifo Prospera and the Riksbank





Index, 18 November 1992 = 100



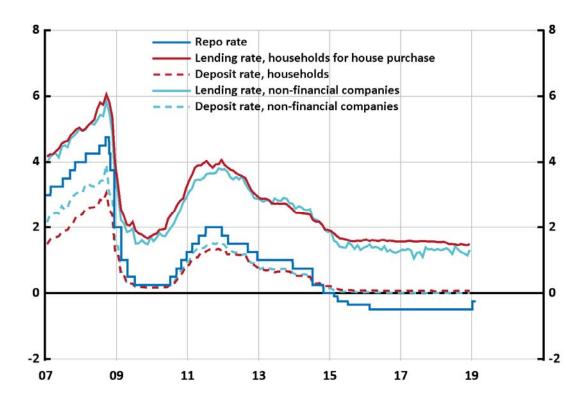
Note. KIX refers to an aggregate of countries that are important for Sweden's international transactions. The vertical line indicates the Monetary Policy Meeting in December. A higher value indicates a weaker exchange rate.

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

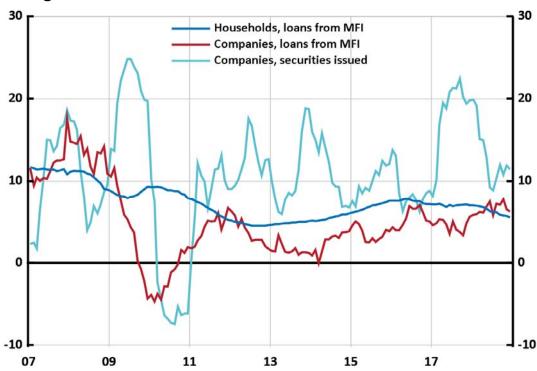


Note. MFIs' average deposit and lending rates are a weighted average of all interest rates for different maturities.



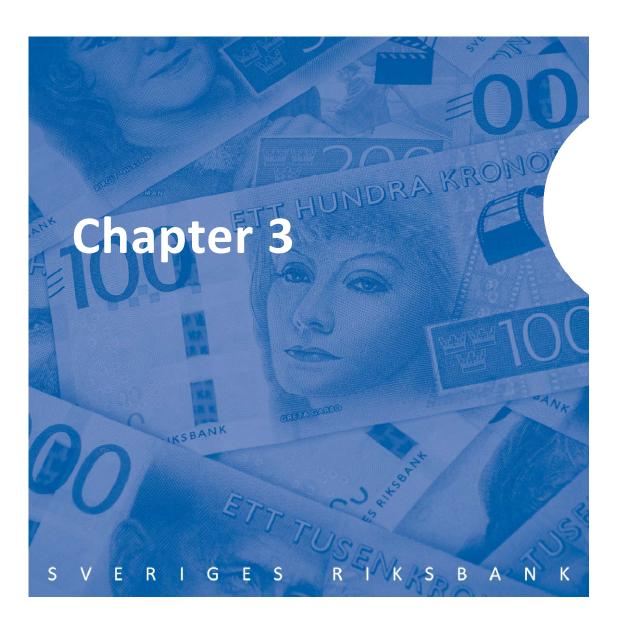


Annual percentage change



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

Source: Statistics Sweden

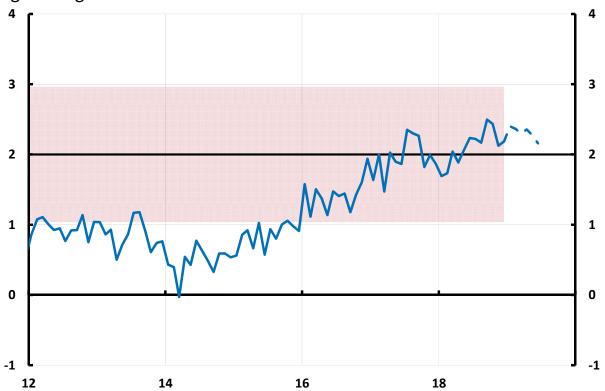






### Figure 3.1. CPIF and variation band

Annual percentage change

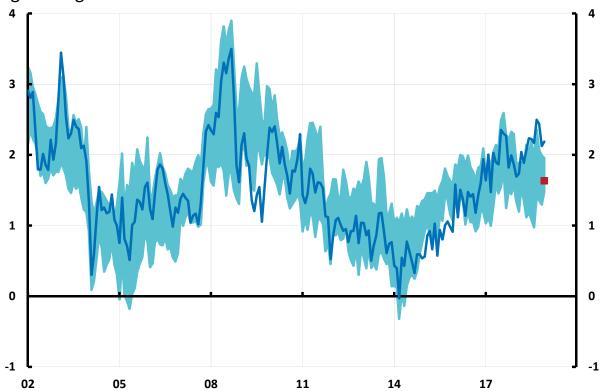


Note. The pink area shows the Riksbank's variation band and covers about three-quarters of the outcomes since January 1995. The variation band is a way of showing whether the deviation from the inflation target is unusually large. The broken line represents the forecast.





Annual percentage change

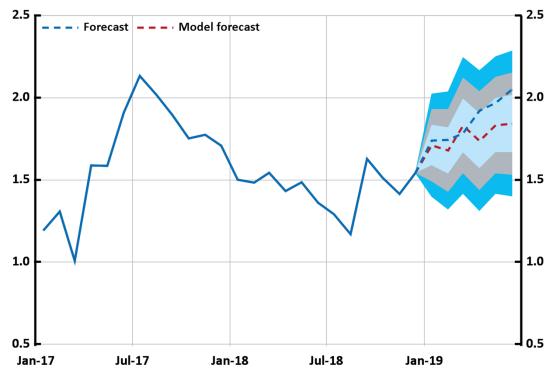


Note. The line represents CPIF. The field shows the highest and lowest outcomes among different measures of underlying inflation. The measures included are CPIF excluding energy, UND24, Trim85, CPIF excluding energy and unprocessed food, persistence-weighed inflation (CPIFPV), factors from principal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



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Annual percentage change

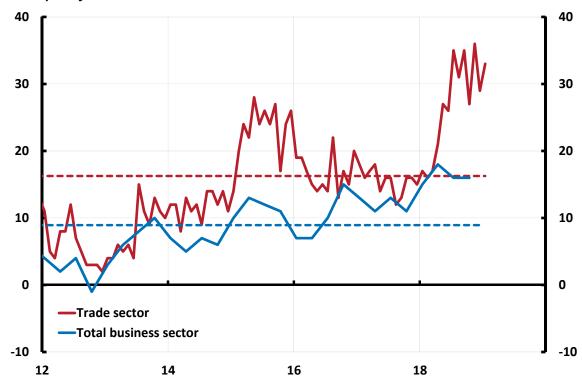


Note. The uncertainty bands 50, 75 and 90 per cent are based on the models' historical forecast errors.





Net figures, seasonally-adjusted data



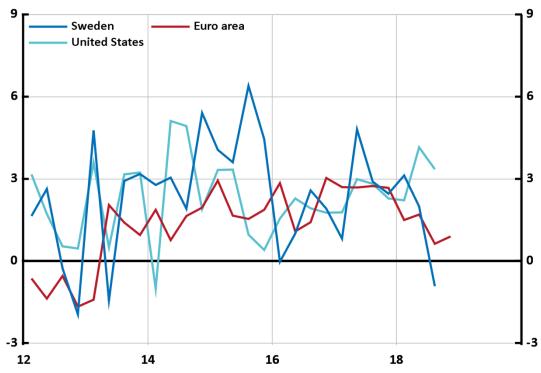
Note. The net figure is the difference between the proportion of companies stating that they expect higher sales prices and those expecting lower sales prices over the next three months. Broken lines represent the averages since May 2003.

Source: National Institute of Economic Research



### Figure 3.5. GDP in Sweden and abroad

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

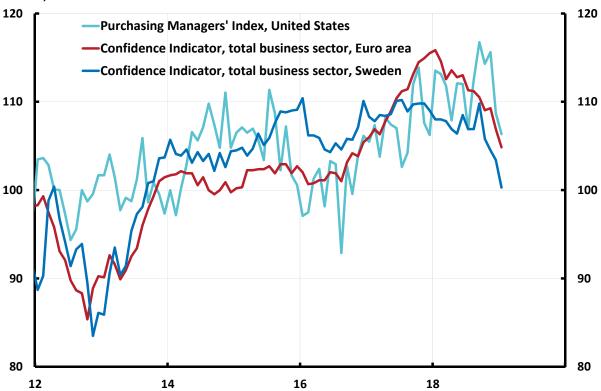


Sources: Bureau of Economic Analysis, Eurostat and Statistics Sweden





Index, average = 100, standard deviation = 10



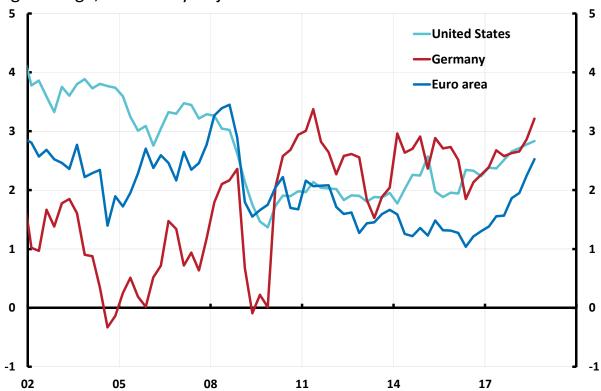
Note. The Purchasing Managers' Index from the United States and the confidence indicator from the euro area are normalised from January 1998. Purchasing Managers' Index, United States refers to the Riksbank's aggregation of the manufacturing and services sectors.

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



### Figure 3.7. Compensation per employee

Annual percentage change, seasonally-adjusted data

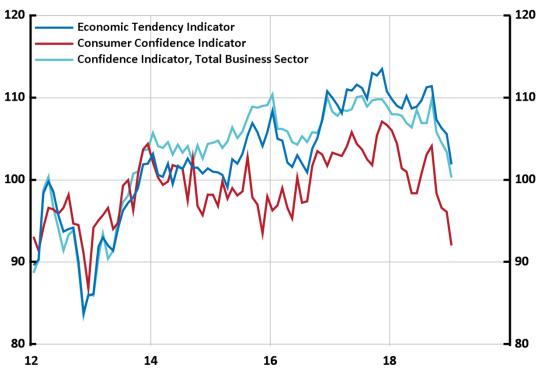


Sources: Bureau of Labor Statistics and ECB



#### Figure 3.8. Confidence indicators

Index, average = 100, standard deviation = 10, seasonally-adjusted data

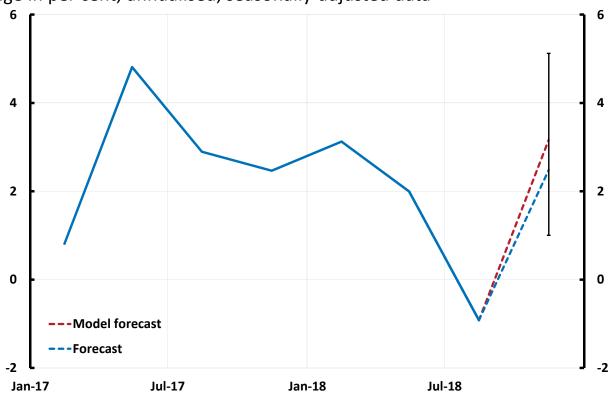


Source: National Institute of Economic Research



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

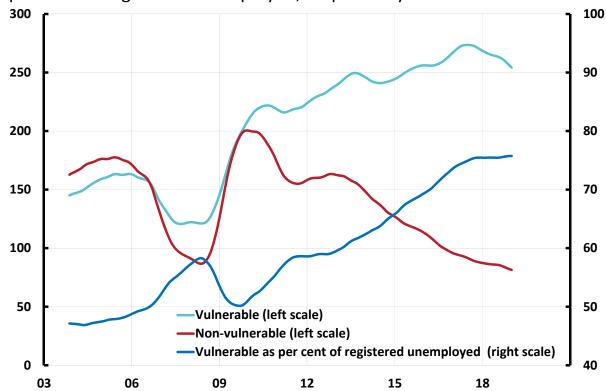


Note. The model forecast is an average of forecasts from different statistical models. The vertical line refers to a 50 per cent uncertainty band based on the models' historical forecast errors.



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Thousands and per cent of registered unemployed, respectively



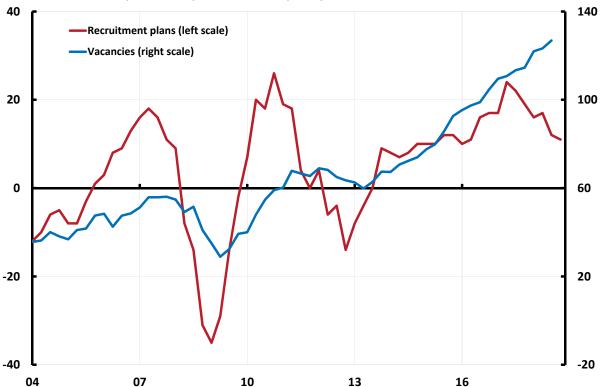
Note. Vulnerable groups refer to unemployed without upper-secondary education and/or people born outside of Europe and/or people aged 55–64 and/or persons with disabilities.

Source: Swedish Public Employment Service



### Figure 3.11. Recruitment plans and vacancies

Net figures and thousands, respectively, seasonally-adjusted data



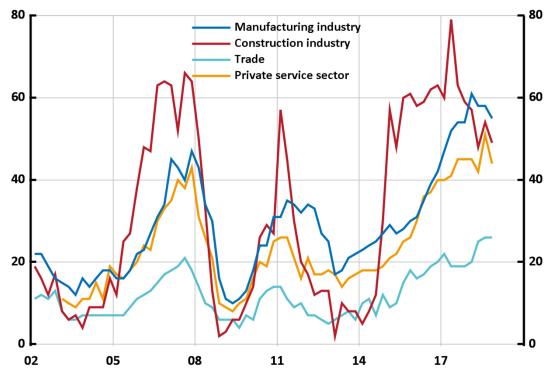
Note. Recruitment plans refer to expectations of the number of employed in the business sector three months ahead.

Sources: National Institute of Economic Research and Statistics
Sweden



#### Figure 3.12. Labour shortage

Yes-responses, per cent, seasonally-adjusted data



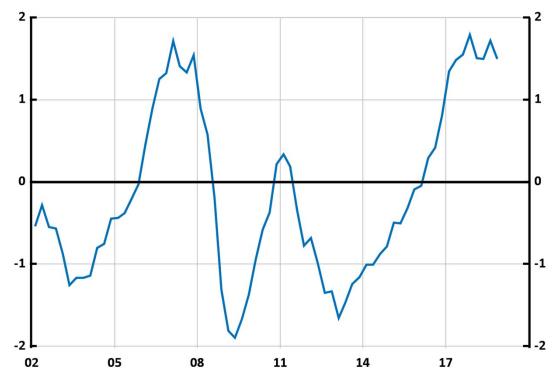
Note. Construction industry refers to the proportion of firms that have quoted a labour shortage as their main obstacle to increased construction. The other industries refers to the proportion of firms responding yes to the question of whether there is a labour shortage.

Source: National Institute of Economic Research



## Figure 3.13. Resource utilisation indicator

Standard deviation



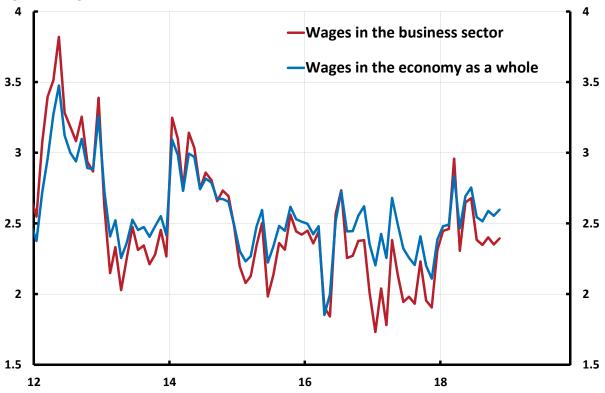
Note. The RU indicator is a statistical measure of resource utilisation. It is normalised so that the average is 0 and the standard deviation is 1.

Source: The Riksbank



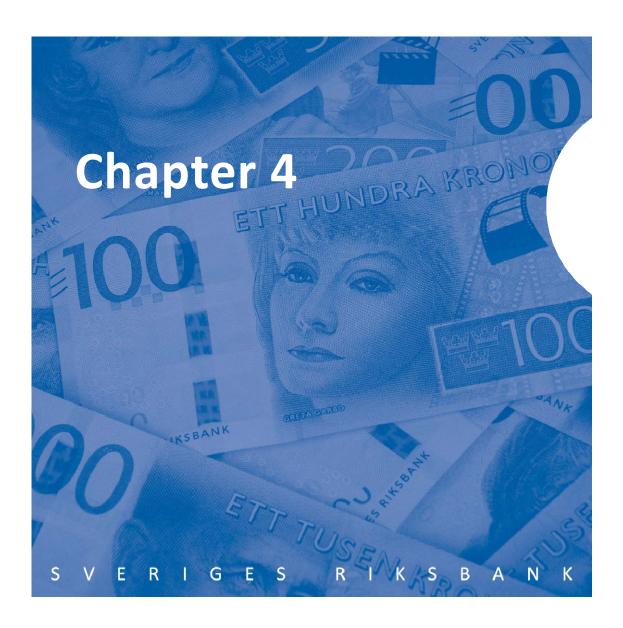


Annual percentage change



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

Source: National Mediation Office

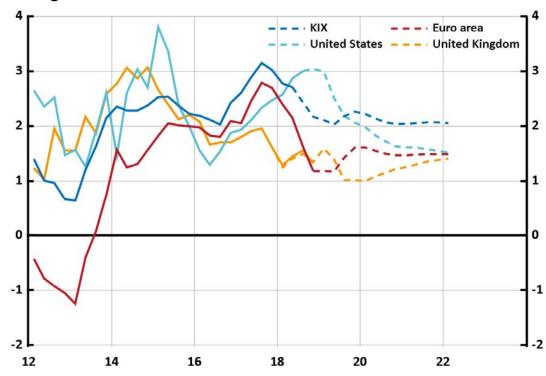






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Annual percentage change



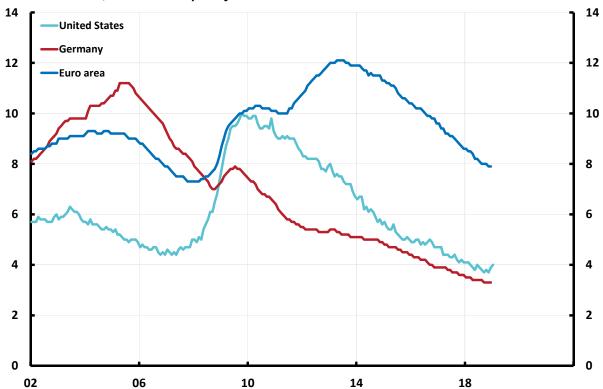
Note. KIX is an aggregate of countries that are important to Sweden's international transactions.

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





Per cent of the labour force, seasonally-adjusted data



Source: OECD



#### Figure 4.3. Price of crude oil

USD per barrel, Brent oil



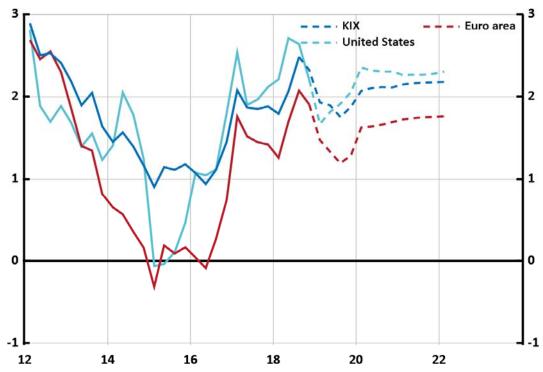
Note. Forward prices are calculated as a 15-day average. The outcomes refer to monthly averages of spot prices.

Sources: Macrobond and the Riksbank



#### Figure 4.4. CPI in various countries and regions

Annual percentage change



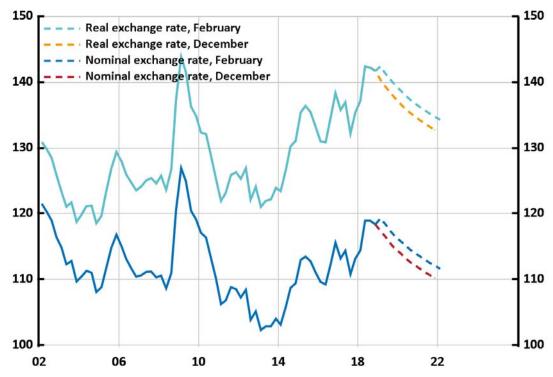
Note. KIX is an aggregate of the countries that are important to Sweden's international transactions.

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





Index, 18 November 1992 = 100



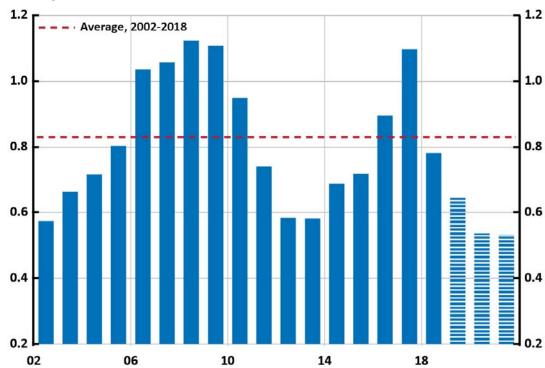
Note. The real exchange rate is calculated using the CPIF for Sweden and the CPI for the rest of the world. The KIX is an aggregate of countries that are important for Sweden's international transactions.

Sources: National sources, Statistics Sweden and the Riksbank



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Annual percentage change

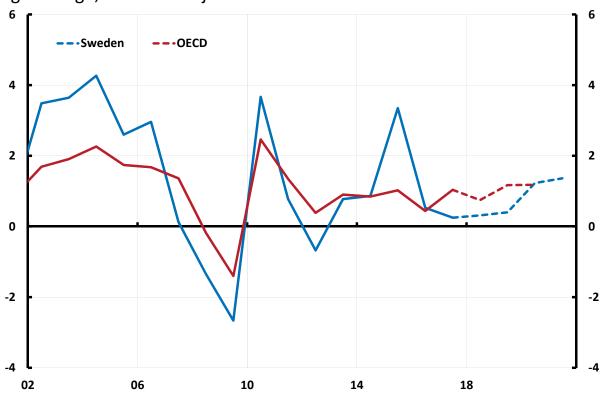


Source: Statistics Sweden



#### Figure 4.7. Productivity

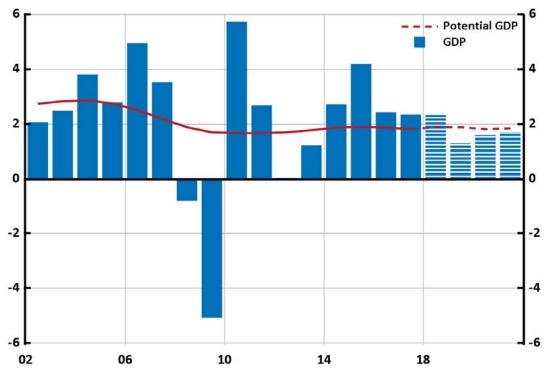
Annual percentage change, calendar-adjusted data



Note. Productivity refers to GDP per hours worked. Forecast for OECD from Economic Outlook, November 2018.



# Figure 4.8.GDP Annual percentage change, calendar-adjusted data

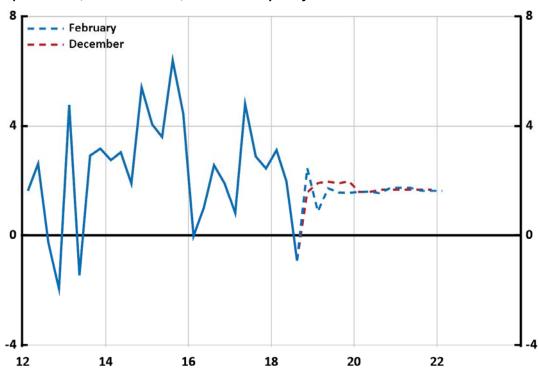


Note. Potential GDP refers to the long-term sustainable level according to the Riksbank's assessment.



#### Figure 4.9. GDP in Sweden

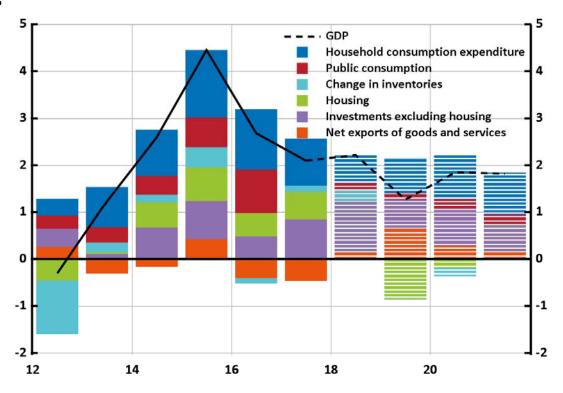
Quarterly change in per cent, annualised, seasonally-adjusted data





#### Figure 4.10. Contribution to GDP growth

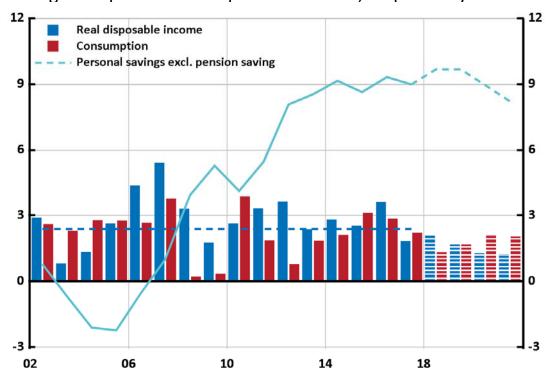
Percentage points





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Annual percentage change and per cent of disposable income, respectively

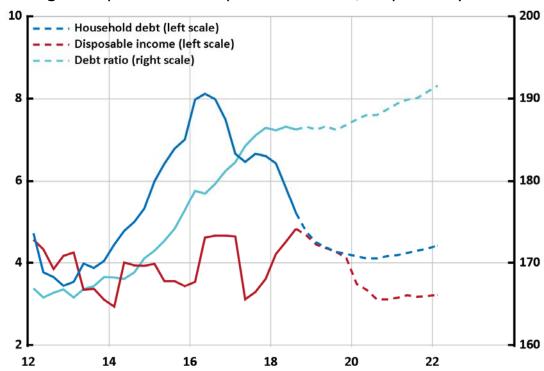


Note. Disposable income has been deflated using the household consumption deflator. Broken line is the average of consumption growth 1994–2017. Collective insurance savings consist of savings that households do not control themselves, such as premium pensions and group insurance policies.





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.





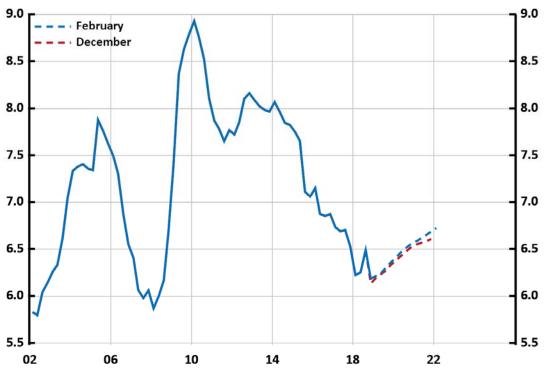
Percentage of the population, aged 15–74, seasonally-adjusted data





#### Figure 4.14. Unemployment

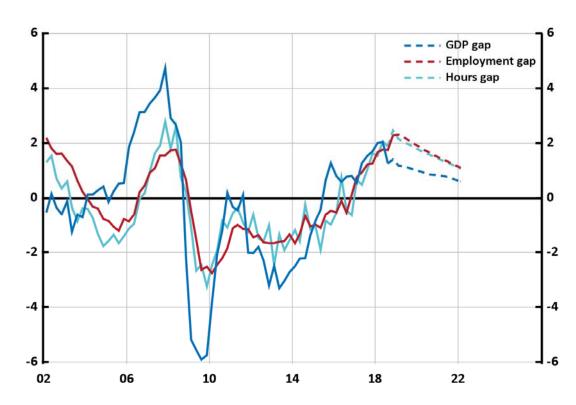
Per cent of the labour force, aged 15–74, seasonally-adjusted data







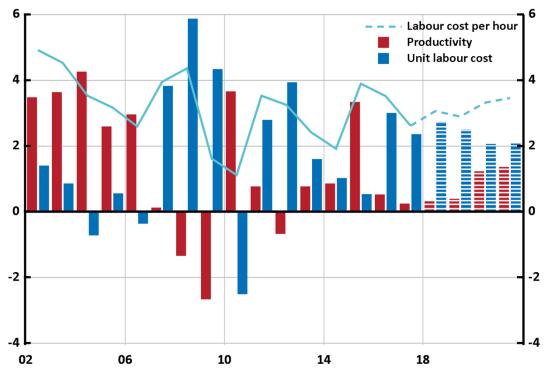
Per cent



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.



Annual percentage change

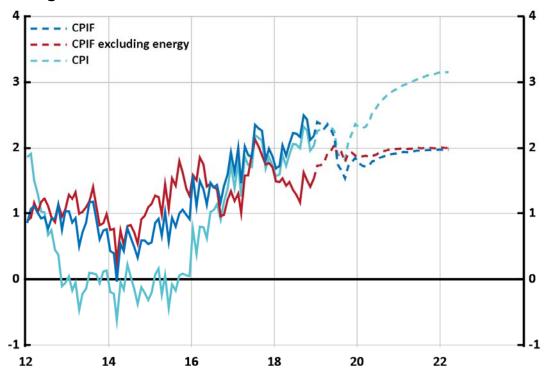








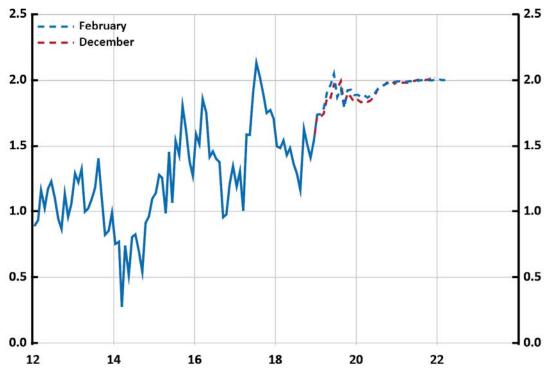
Annual percentage change





### Figure 4.18. CPIF excluding energy

Annual percentage change



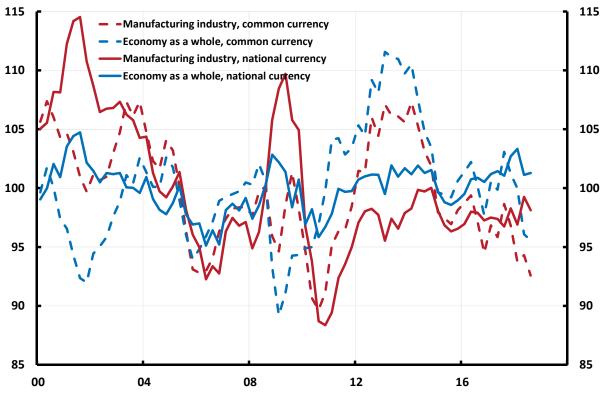






#### Figure 4.19. Relative unit labour costs

Index, average 2000Q1-2018Q3 = 100



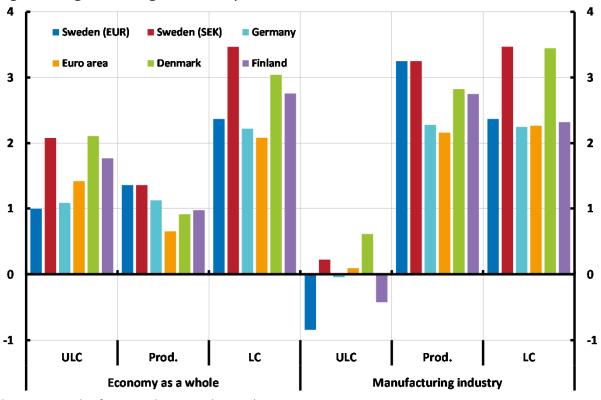
Note. National currency is calculated by dividing each measure in a common currency with a trade-weighted nominal exchange rate. For the manufacturing industry, wage costs are used when calculating unit labour costs. The series for the manufacturing industry are projected from 2018Q1 to 2018Q3 based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

Sources: European Commission and the Riksbank



#### Figure 4.20. Labour costs and productivity

Annual percentage change, average for the period 1999Q3-2018Q3

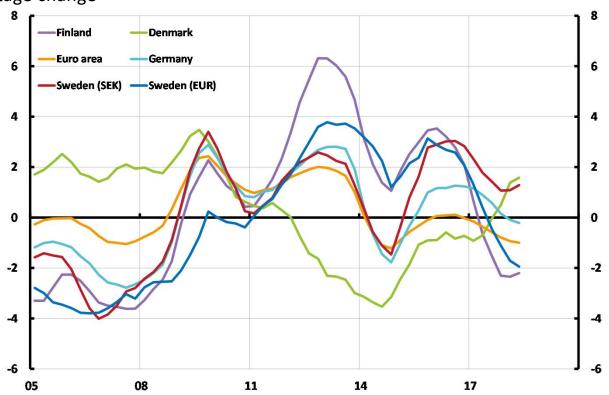


Note. ULC refers to unit labour costs, Prod. refers to production per hour and LC refers to labour costs per hour. The change is expressed in both SEK and EUR for Sweden. For the other countries there is no difference if the change is expressed in national currency or in EUR.

Sources: Eurostat and the Riksbank



Annual percentage change



Note. Five-year moving average.

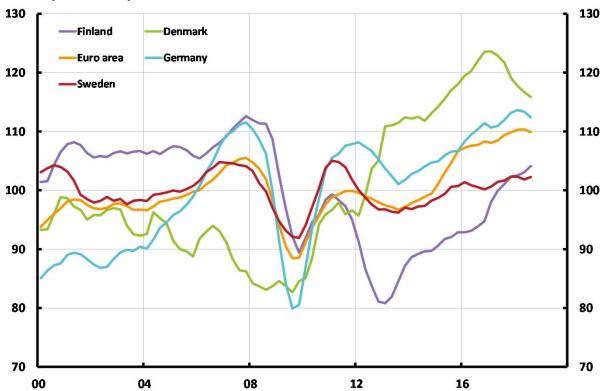
Sources: Eurostat and the Riksbank





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Index, average 2000Q1–2018Q3 = 100



Note. Four-quarter moving average.

Sources: Eurostat and the Riksbank





Net figures, seasonally-adjusted data



Note. Profitability, current assessment.

Source: National Institute of Economic Research





#### **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. The CPIF is the CPI with a fixed mortgage rate. 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)

<sup>\*</sup> 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)

<sup>\*</sup>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)

st Per cent of the labour force st 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)

 $<sup>\</sup>hbox{* Difference in rate of increase between labour cost per hour, NA and hourly wages, NA, percentage points}$ 

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