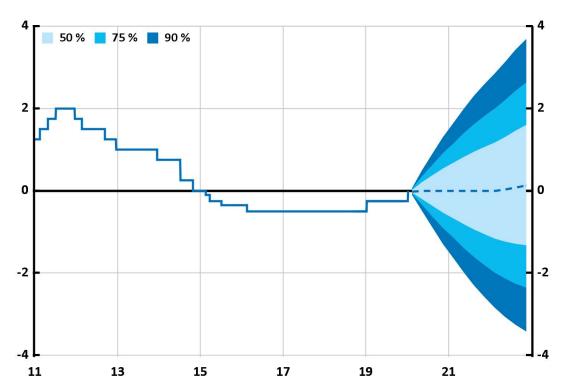






Figure 1.1. Repo rate with uncertainty bands

Per cent

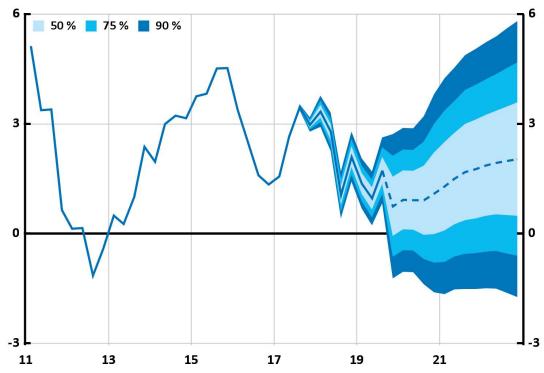


Note. The uncertainty bands for the repo rate are based on the Riksbank's historical forecasting errors and the ability of risk-premium adjusted forward rates to forecast the future repo rate for the period 1999 up to the point when the Riksbank started to publish forecasts for the repo rate during 2007. 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

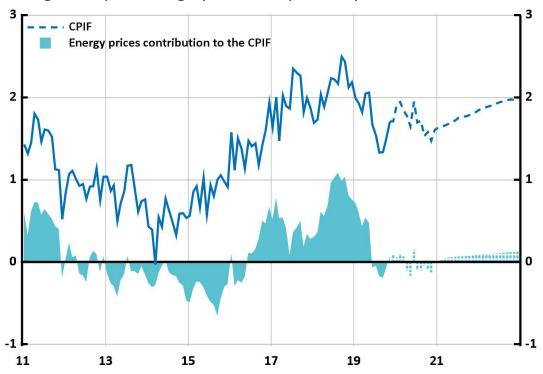


Note. The uncertainty bands are based on the Riksbank's historical forecasting errors.





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

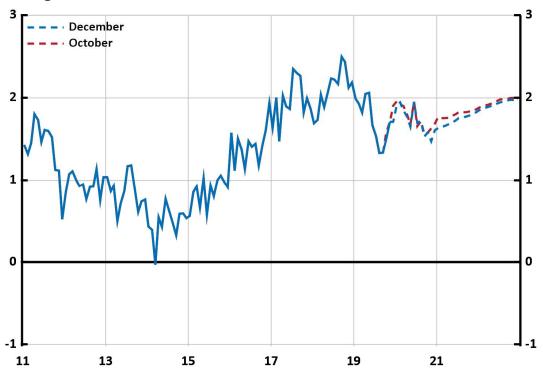




Figure 1.6. Long-term inflation expectations

Per cent, average and per cent respectively



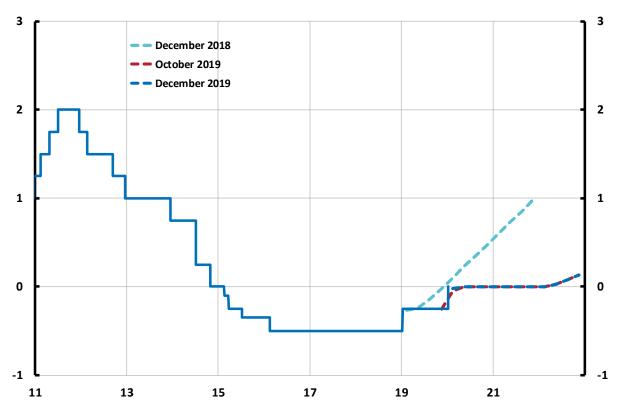
Note. Inflation compensation refers to a 5-year period starting in 5 years' time, calculated on the basis of bond yields, 15 days moving average.

Sources: Kantar Sifo Prospera and the Riksbank



Figure 1.7. Repo rate

Per cent

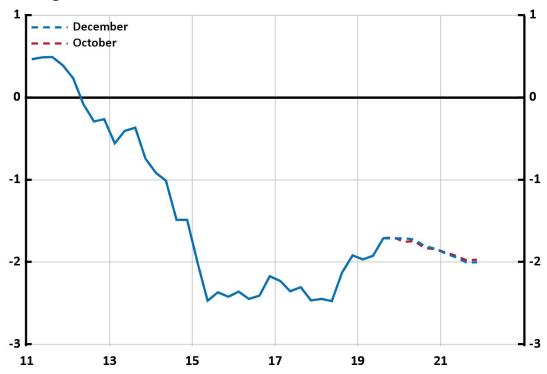


Note. Outcomes are daily data and the forecasts refer to quarterly averages.



Figure 1.8. Real repo rate

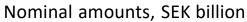
Per cent, quarterly averages



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.







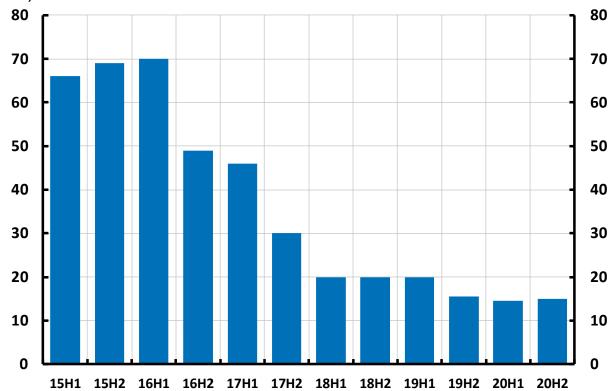
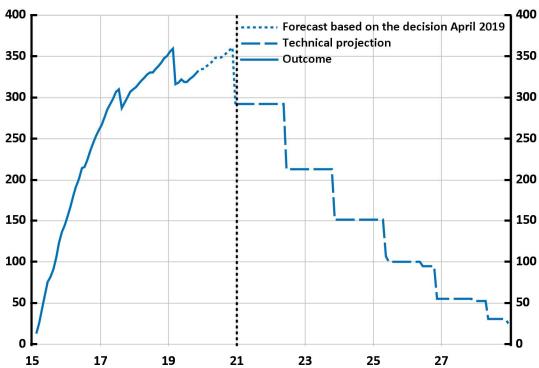


Figure 1.10. The Riksbank's holdings of government bonds

Nominal amounts, SEK billion



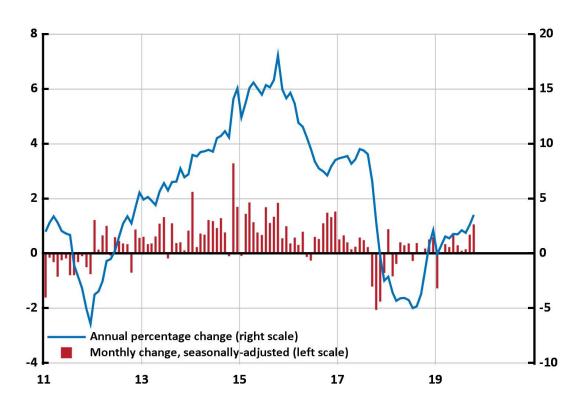
Note. Forecast up until December 2020, after that a technical projection with the assumption that no further purchases are made. The vertical line marks the shift between the forecast and technical projection.







Per cent

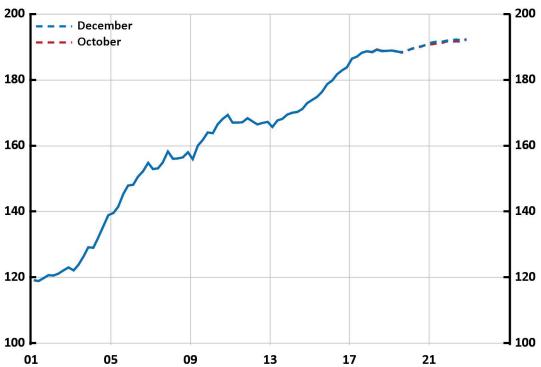


Sources: Valueguard and the Riksbank



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.

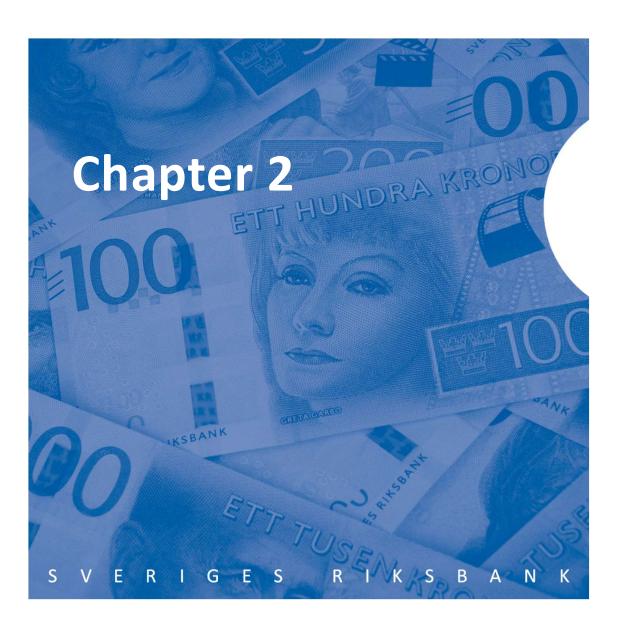
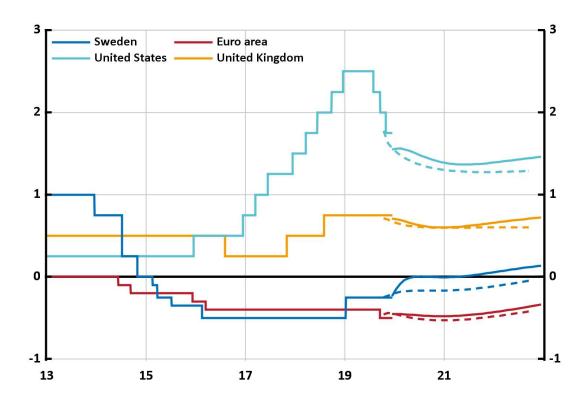






Figure 2.1. Policy rates and rate expectations according to forward rates

Per cent



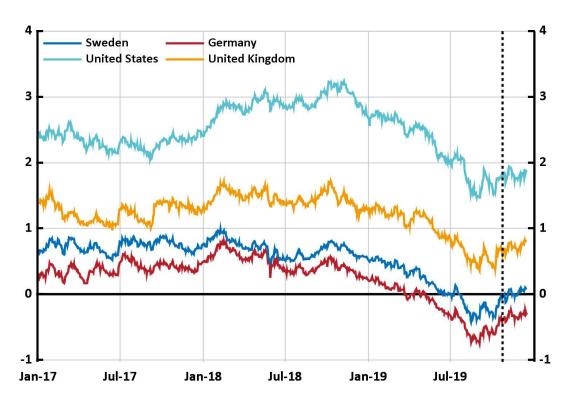
Note. Forward rates describe the expected overnight rate. Unbroken lines refer to 16 December 2019, broken lines refer to 21 October 2019.

Sources: The national central banks, Macrobond and the Riksbank





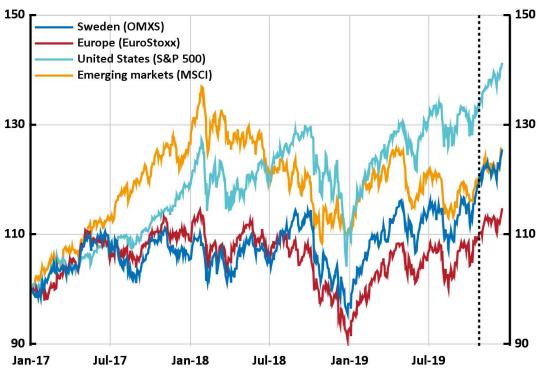
Per cent



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 October. Sources: The national central banks, US Treasury and the Riksbank



Index, 3 January 2017 = 100



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

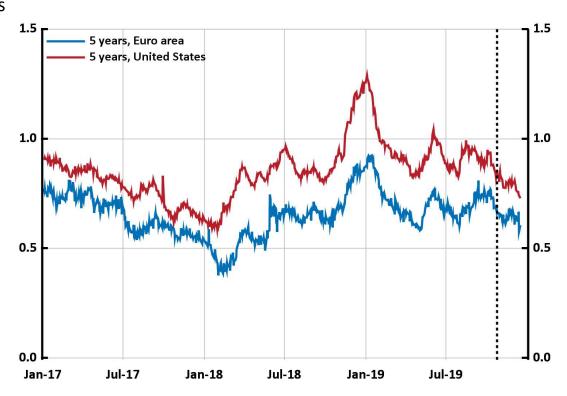


Source: Macrobond

Figure 2.4. Difference between yields on corporate bonds and government bonds in the United States and euro area



Percentage points



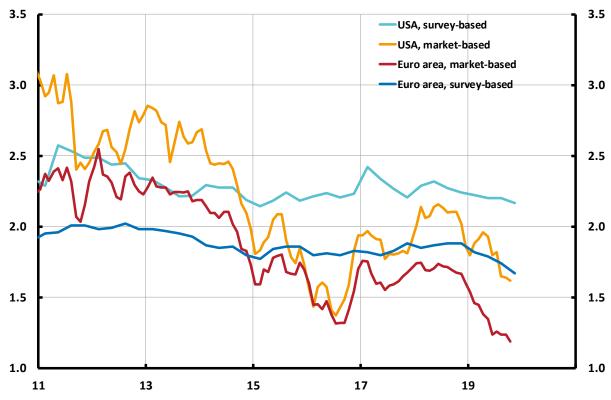
Note. Yield differentials refer to 5-year benchmark bonds. Refers to bonds for companies with good credit ratings. The vertical line indicates the Monetary Policy Meeting in October.

Source: Macrobond



Figure 2.5. Long-term inflation expectations in the euro area and United States

Per cent



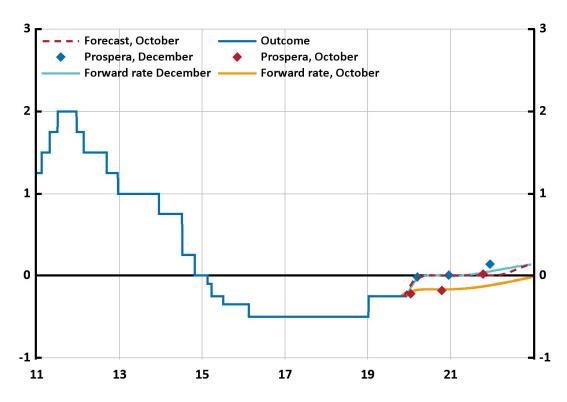
Note: Survey-based measures according to the ECB and the Survey of Professional Forecasters by the Federal Reserve Bank of Philadelphia (FRBP), 5 and 10 years ahead, respectively. Market-based measures refer to a 5-year period starting in 5 years' time. This measure has been calculated on the basis of inflation swaps for the euro area and on the basis of bond yields for the United States. Inflation refers to HICP and CPI respectively.

Sources: Bloomberg, ECB, FRBP, Macrobond and the Riksbank





Per cent



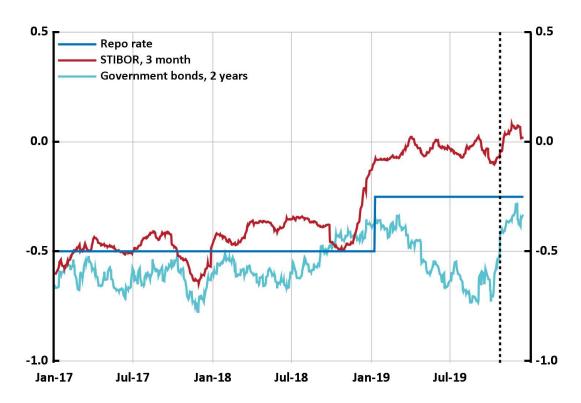
Note. The forward rate refers to 16 December 2019 and 21 October and is a measure of the expected repo rate. Survey responses from Prospera show the average for money market participants 27 November 2019 (Prospera, December) respectively 25 September 2019 (Prospera, October).

Sources: Kantar Sifo Prospera, Macrobond and the Riksbank



Figure 2.7. The repo rate and market rates

Per cent



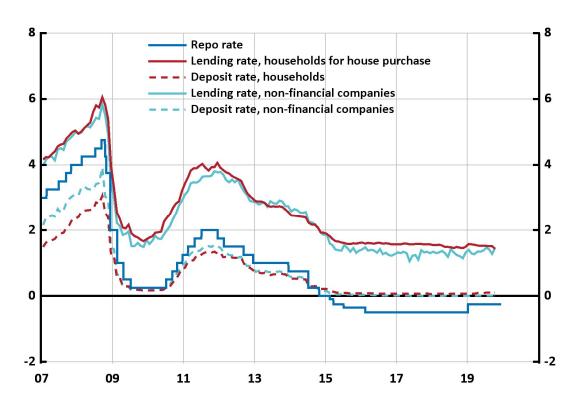
Note. Zero coupon rate with 2-year maturity calculated from government bonds. The vertical line indicates the Monetary Policy Meeting in October.

Sources: Macrobond and the Riksbank

Figure 2.8. Repo rate together with the average deposit and lending rate to households and companies, new contracts



Per cent

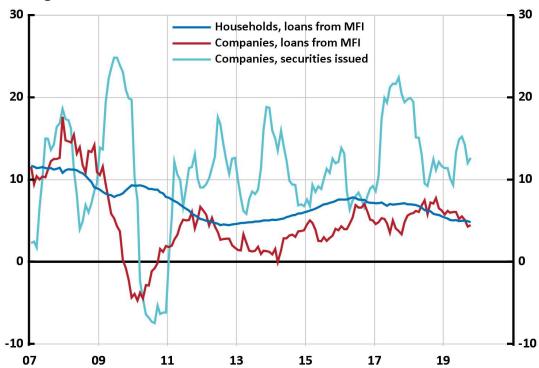


Note. MFIs' average deposit and lending rates are a weighted average of all interest rates for different maturities.





Annual percentage change



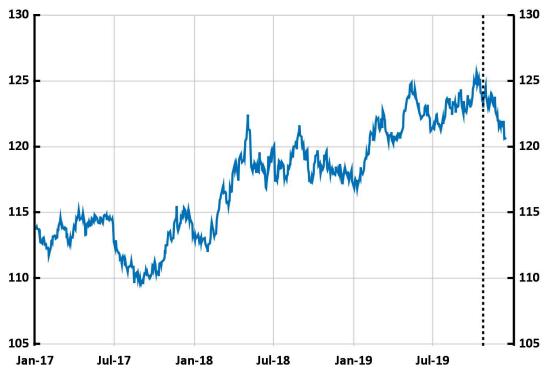
Note. Lending by Monetary financial institutions (MFI) to households and non-financial corporations adjusted for reclassifications and bought and sold loans, according to financial market statistics. Securities issued by non-financial corporations have been adjusted for currency impact.

Source: Statistics Sweden



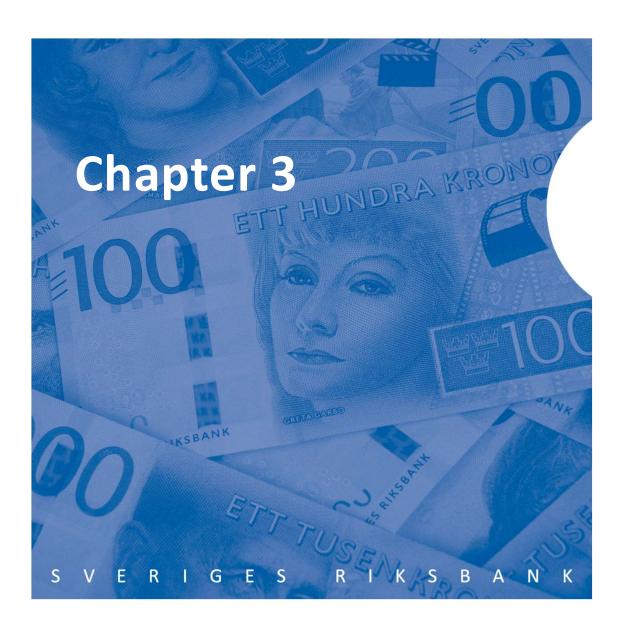
Figure 2.10. Nominal exchange rate, KIX

Index, 18 November 1992 = 100



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

Sources: National sources and the Riksbank

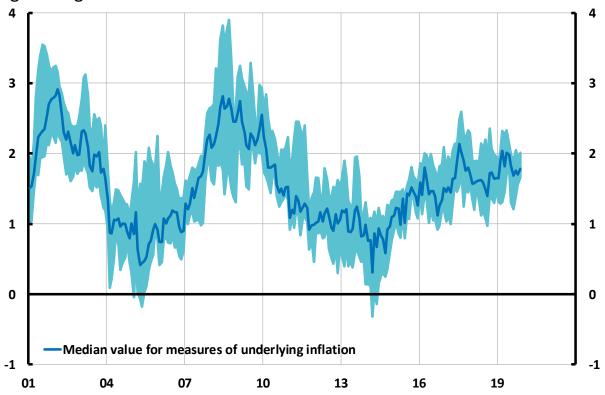








Annual percentage change



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



Figure 3.2. CPIF and variation band

Annual percentage change

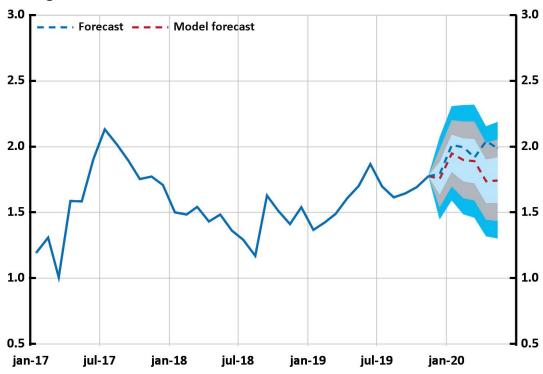


Note. The pink area shows the Riksbank's variation band and covers about three-quarters of the outcomes since January 1995. The variation band is a means of showing whether the deviation from the inflation target is unusually large. The broken line represents the forecast for the next 6 months.



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Annual percentage change

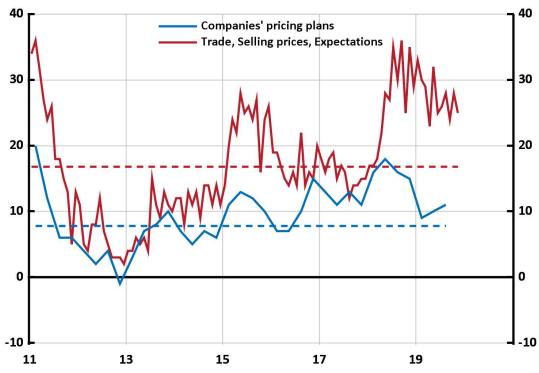


Note. The uncertainty bands 50, 75 and 90 per cent are based on the models' historical forecast errors.





Net figures, seasonally-adjusted data



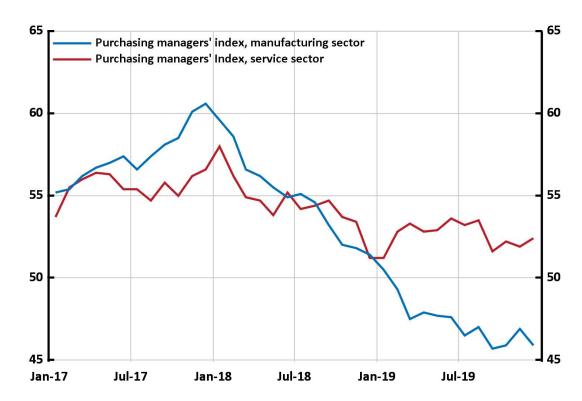
Note. The net figure is the difference between the proportion of companies stating that they expect higher sales prices and those expecting lower sales prices over the next three months. Broken lines represent mean values since May 2003.

Source: National Institute of Economic Research





Index



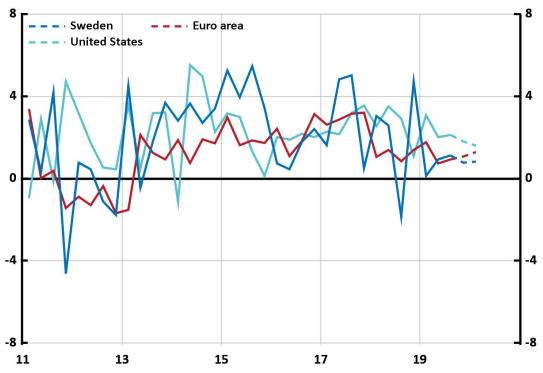
Note. Purchasing Managers' Index for the manufacturing industry and service sector published on 2 December 2019 and 4 December 2019 respectively.

Source: Markit Economics



Figure 3.6. GDP in Sweden and abroad

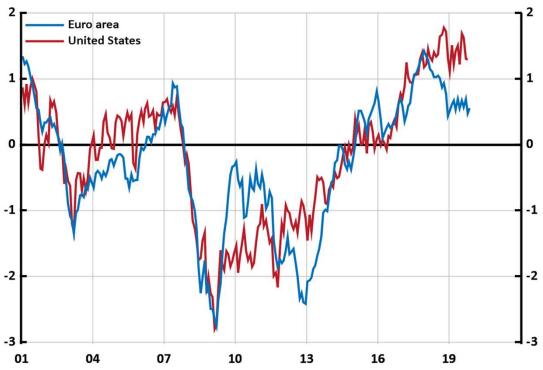
Quarterly change in per cent, annualised, seasonally-adjusted data



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



Figure 3.7. Consumer confidence Index, average = 0, standard deviation = 1



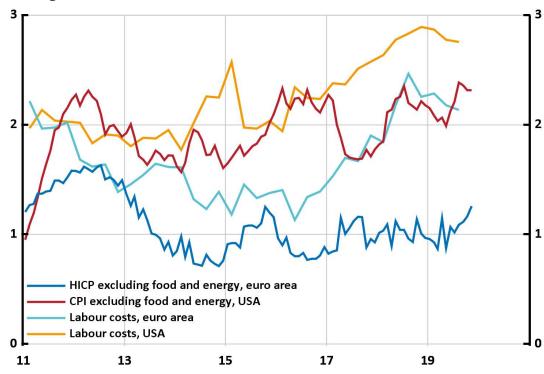
Note. The series have been standardised from 1986 by the Riksbank.

Sources: Conference Board, the European Commission and the Riksbank





Annual percentage change



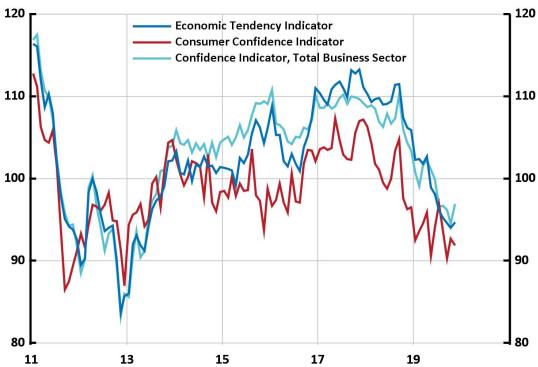
Note. Refers to labour costs per employee. Calendar-adjusted data.

Source: Bureau of Labor Statistics, ECB, Eurostat and Macrobond



Figure 3.9. Confidence indicators in Sweden

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

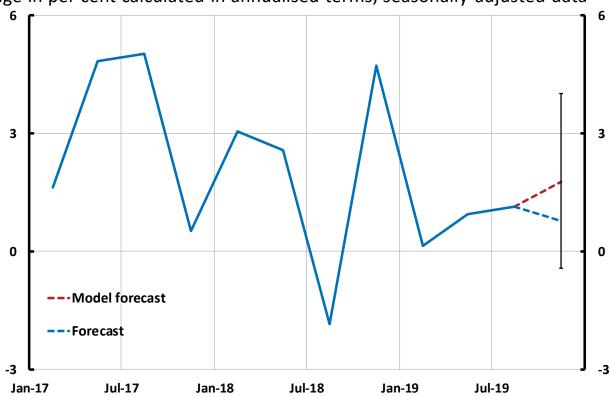


Source: National Institute of Economic Research





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

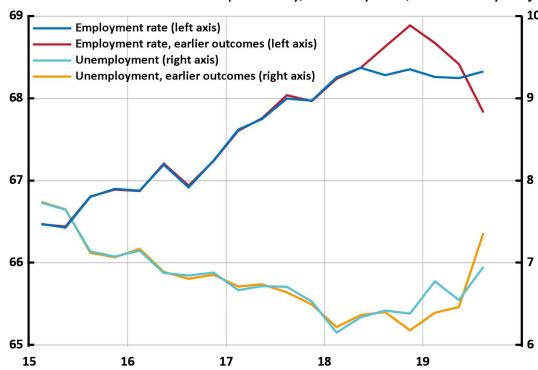


Note. The model forecast is a mean value of forecasts conducted using different statistical models. The vertical line represents a 50-per cent uncertainty band based on the models' historical forecasting errors.





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



Note. The series refer to quarterly data

Source: SCB





Annual percentage change and net figures respectively, seasonally adjusted data



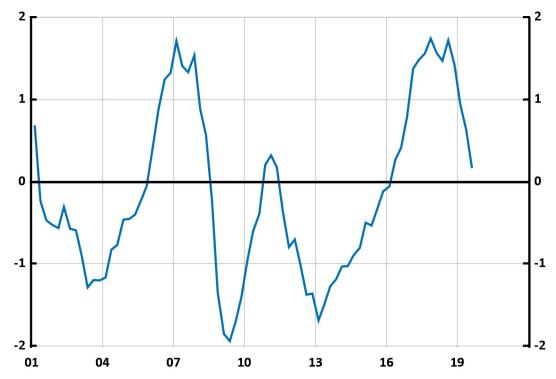
Note. Recruitment plans refer to expectations of the number of employed person in the business sector three months ahead, moved forward one quarter. Recruitment plans for 2019Q4 refer to the monthly outcome for November.

Sources: National Institute of Economic Research, Statistics Sweden and the Riksbank



Figure 3.13. Resource utilisation indicator

Standard deviations

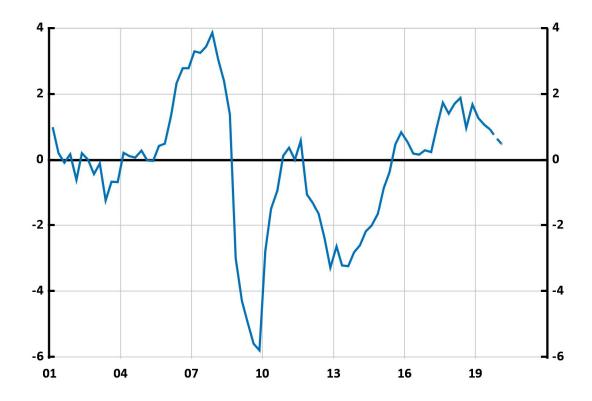


Note. The RU indicator is a statistical measure of resource utilisation. It is normalised so that the mean value is 0 and the standard deviation is

Source: The Riksbank

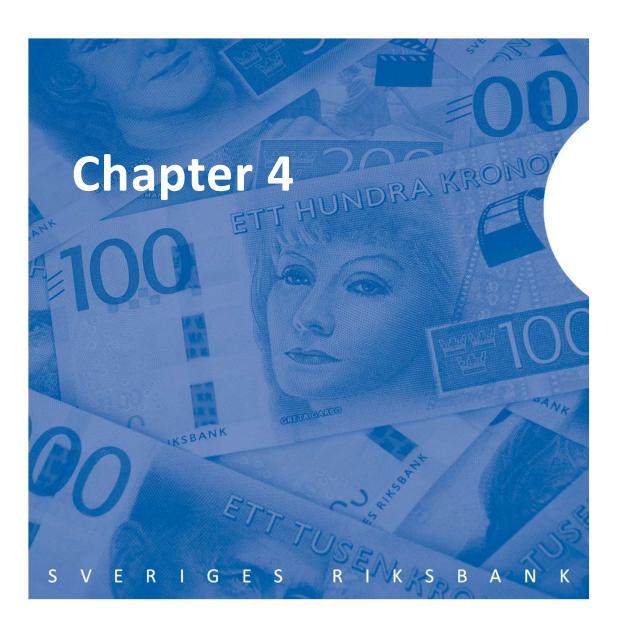


Figure 3.14. GDP gap



Note. The gap refers to the percentage deviation of GDP from the Riksbank's assessed trend.

Statistics Sweden and the Riksbank

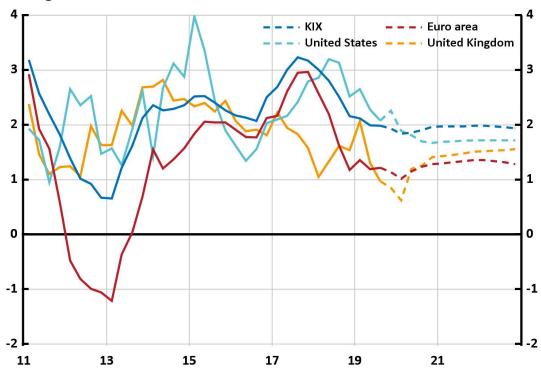






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Annual percentage change



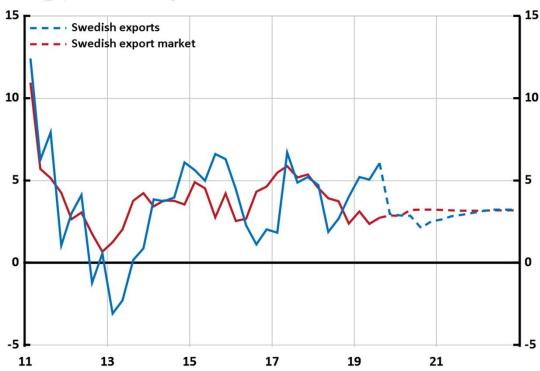
Note. KIX is an aggregate of countries that are important to Sweden's international trade.

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





Annual percentage change, calendar-adjusted data

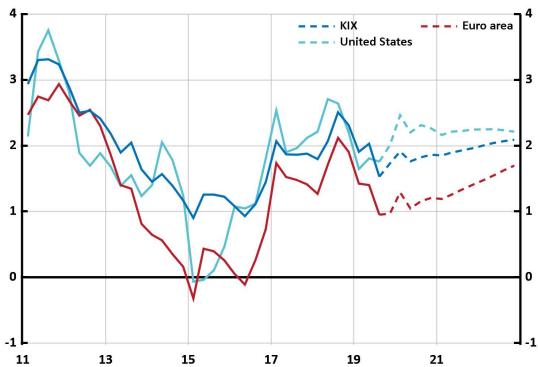


Note. The Swedish export market index aims to measure import demand in the countries to which Sweden exports. This is calculated by aggregating 32 countries and covers around 85 per cent of the total Swedish export market.



Figure 4.3. Consumer prices

Annual percentage change



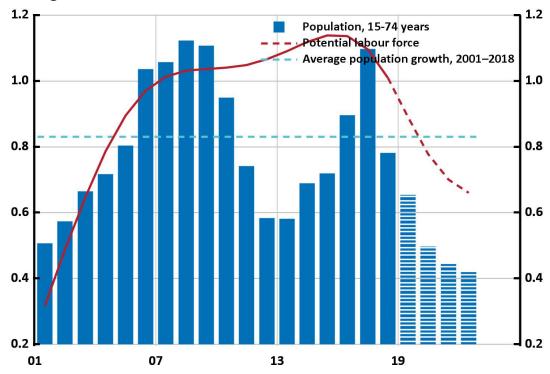
Note. KIX is an aggregate of the countries that are important to Sweden's international trade. Euro area refers to HICP.

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





Annual percentage change

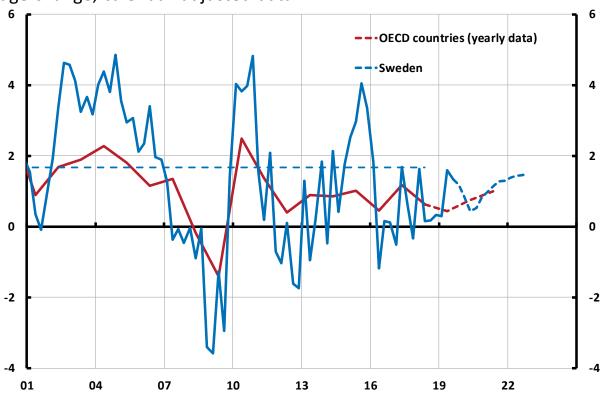


Note. Potential labour force refers to the long-term sustainable level according to the Riksbank's assessment.



Figure 4.5. Productivity

Annual percentage change, calendar-adjusted data

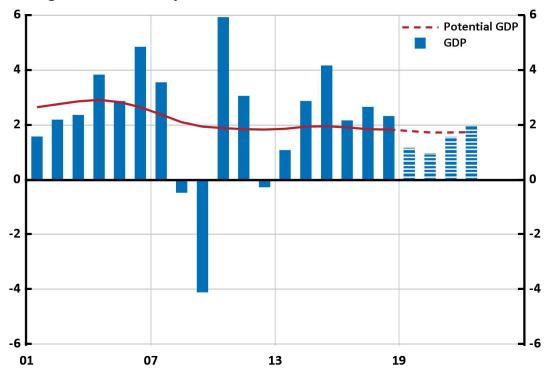


Note. The forecast for the OECD is taken from Economic Outlook, November 2019. Productivity for the OECD refers to GDP per employee. For Sweden, it refers to GDP per hour worked. The broken line represent the average Swedish productivity growth 1995-2018.



Figure 4.6. GDP

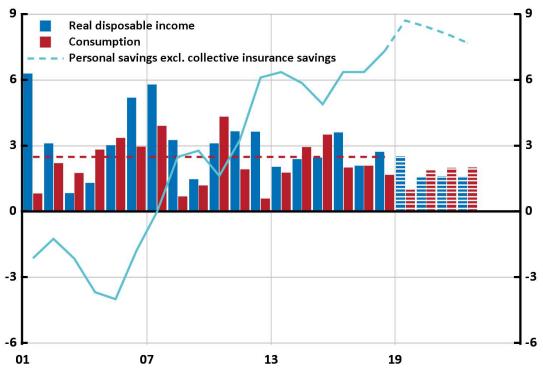
Annual percentage change, calendar-adjusted data



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

Figure 4.7. Households' real disposable income, consumption and savings ratio

Annual percentage change and per cent of disposable income, respectively

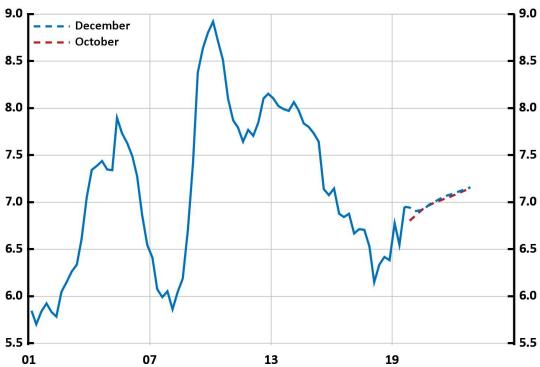


Note. Disposable income has been deflated using the household consumption deflator. Broken line is the average of consumption growth 1994–2018. Collective insurance savings consist of savings that households do not control themselves, e.g. premium pensions and collective agreements insurances.





Figure 4.8. Unemployment Per cent of the labour force, aged 15–74, seasonally-adjusted data







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

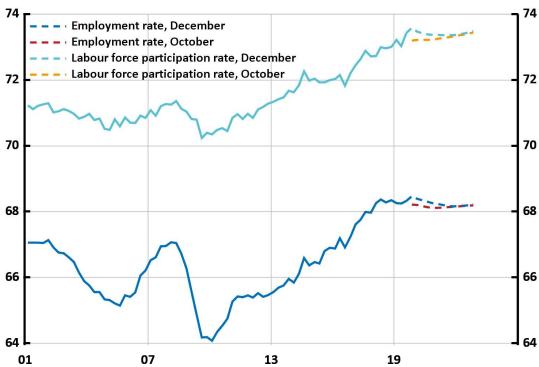
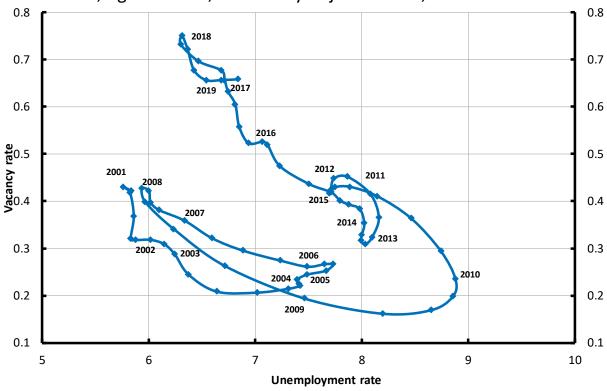


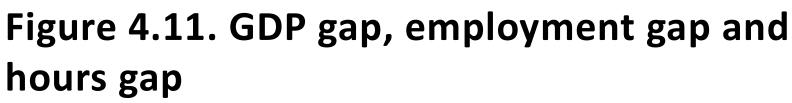


Figure 4.10. The Beveridge curve

Percent of the labour force, aged 15–74, seasonally adjusted data, trend values

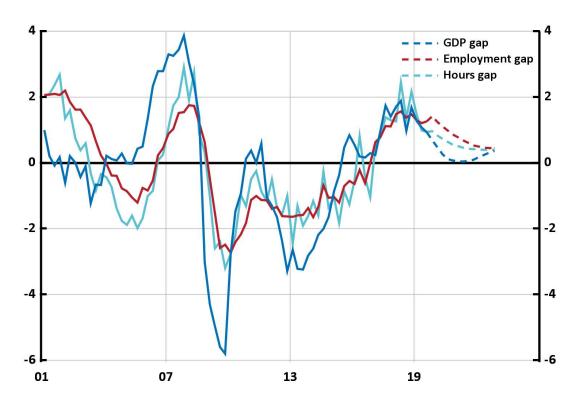


Note. Dates denote first quarter of each year respectively. Vacancies in the business sector.





Per cent

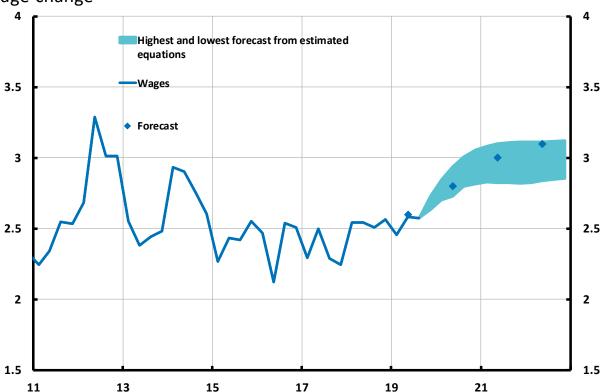


Note. The gaps refer to the deviation of GDP and the number of hours worked from the Riksbank's assessed trends.



Figure 4.12. Wages

Annual percentage change



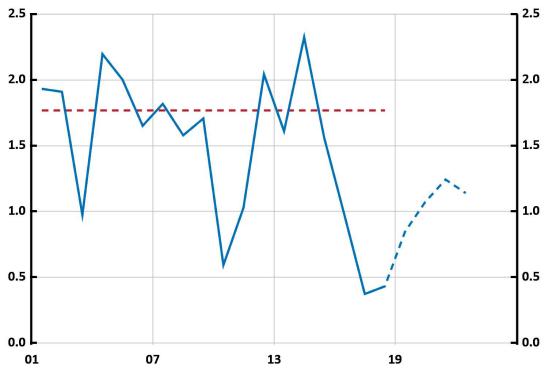
11 13 15 17 Note. Wages according to the short-term wage statistics. The squares illustrate the Riksbank's forecasts for wage growth for 2019-2022. The band illustrates the difference between the highest and lowest forecast from simple estimated equations in which wage growth is explained by the GDP gap, productivity, international wages (KIX-weighted) and profit share in the entire economy.

Sources: National Mediation Office and the Riksbank



Figure 4.13. Real wages

Annual percentage change



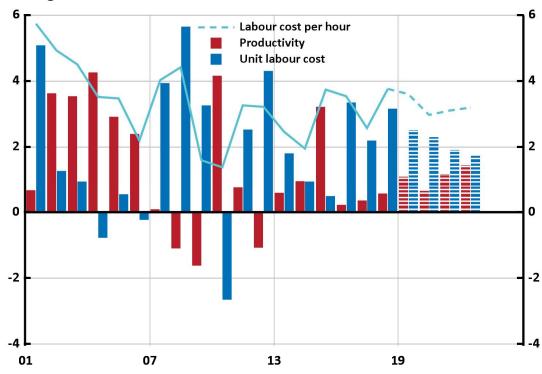
Note. Short-term wages are deflated by the CPIF. The broken red line represent the mean value 1995-2018.

Sources: National Mediation Office, Statistics Sweden and the Riksbank



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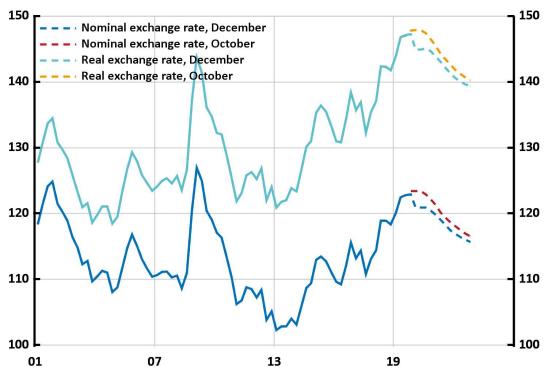
Annual percentage change







Index, 18 November 1992 = 100



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

Sources: National sources, Statistics Sweden and the Riksbank





Annual percentage change

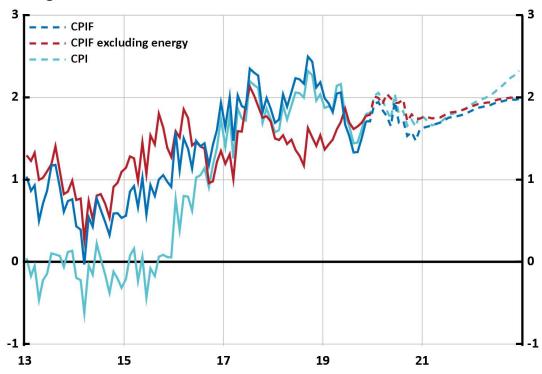
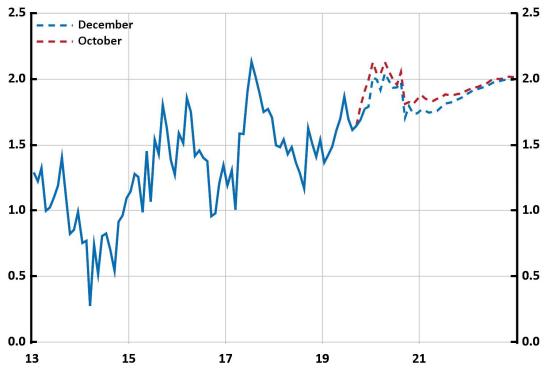




Figure 4.17. CPIF excluding energy

Annual percentage change



Tables

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

Table 1. Repo rate forecast

Per cent, quarterly averages

	Q3 2019	Q4 2019	Q1 2020	Q4 2020	Q4 2021	Q4 2022
Repo rate	-0.25 (-0.25)	-0.25 (-0.25)	-0.02 (-0.05)	0.00 (0.00)	0.00 (0.00)	0.13 (0.13)

Source: The Riksbank

Table 2. Inflation

Annual percentage change, annual average

	2018	2019	2020	2021	2022
CPIF	2.1 (2.1)	1.7 (1.7)	1.7 (1.8)	1.7 (1.8)	1.9 (2.0)
CPIF excl. energy	1.4 (1.4)	1.6 (1.7)	1.9 (2.0)	1.8 (1.9)	2.0 (2.0)
CPI	2.0 (2.0)	1.8 (1.8)	1.8 (1.9)	1.8 (1.8)	2.1 (2.1)
HICP	2.0 (2.0)	1.7 (1.7)	1.8 (1.7)	1.7 (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

	2018	2019	2020	2021	2022
Repo rate	-0.5 (-0.5)	-0.3 (-0.3)	0.0 (0.0)	0.0 (0.0)	0.1 (0.1)
10-year rate	0.7 (0.7)	0.1 (0.1)	0.3 (0.1)	0.7 (0.5)	1.1 (0.9)
Exchange rate, KIX, 18 November 1992 = 100	117.6 (117.6)	122.1 (122.2)	120.8 (123.0)	118.6 (119.9)	116.3 (117.3)
General government net lending*	0.8 (0.8)	0.3 (0.3)	0.0 (-0.1)	-0.1 (0.0)	-0.1 (0.1)

^{*} Per cent of GDP.

Sources: Statistics Sweden and the Riksbank

Table 4. International conditions

Annual percentage change, unless otherwise stated

GDP	PPP-weights	KIX-weights	2018	2019	2020	2021	2022
Euro area	0.11	0.49	1.9 (1.9)	1.2 (1.1)	1.2 (1.0)	1.3 (1.3)	1.3 (1.3)
USA	0.15	0.08	2.9 (2.9)	2.3 (2.2)	1.8 (1.7)	1.7 (1.7)	1.7 (1.7)
Japan	0.04	0.02	0.3 (0.8)	1.0 (1.0)	0.3 (0.2)	0.5 (0.5)	0.6 (0.5)
China	0.19	0.08	6.7 (6.7)	6.1 (6.1)	5.9 (5.9)	5.8 (5.8)	5.8 (5.7)
KIX-weighted	0.75	1.00	2.6 (2.6)	2.0 (1.9)	1.9 (1.8)	2.0 (2.0)	2.0 (1.9)
World (PPP-weighted)	1.00	_	3.6 (3.6)	3.0 (3.0)	3.3 (3.3)	3.5 (3.5)	3.6 (3.6)

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

СРІ	2018	2019	2020	2021	2022
Euro area (HICP)	1.8 (1.8)	1.2 (1.2)	1.2 (1.2)	1.3 (1.4)	1.6 (1.7)
USA	2.4 (2.4)	1.8 (1.8)	2.3 (2.1)	2.2 (2.3)	2.2 (2.3)
Japan	1.0 (1.0)	0.6 (0.7)	0.8 (0.9)	0.9 (1.0)	1.0 (1.2)
KIX-weighted	2.2 (2.2)	1.8 (1.8)	1.8 (1.8)	1.9 (2.0)	2.1 (2.1)
	2018	2019	2020	2021	2022
Policy rates in the rest of the world, per cent	0.1 (0.1)	0.1 (0.1)	0.0 (0.0)	0.0 (0.0)	0.0 (0.1)
Crude oil price, USD/barrel Brent	71.5 (71.5)	63.9 (63.5)	60.3 (57.5)	57.8 (56.1)	56.9 (56.1)
Swedish export market	3.6 (3.7)	2.8 (2.5)	3.1 (3.0)	3.2 (3.1)	3.2 (3.2)

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

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

Table 5. GDP by expenditure

Annual percentage change, unless otherwise stated

	2018	2019	2020	2021	2022
Private consumption	1.7 (1.6)	1.0 (1.0)	1.9 (2.0)	2.0 (2.0)	2.0 (1.8)
Public consumption	0.4 (0.4)	0.4 (0.8)	0.7 (0.7)	1.0 (0.8)	0.9 (0.8)
Gross fixed capital formation	4.2 (4.6)	-1.2 (-1.2)	0.3 (-0.1)	1.7 (1.6)	2.2 (2.2)
Inventory investment*	0.4 (0.5)	-0.3 (-0.2)	-0.3 (-0.1)	0.0 (0.0)	0.0 (0.0)
Exports	3.2 (3.1)	4.7 (4.3)	3.0 (3.0)	3.1 (3.0)	3.2 (2.8)
Imports	3.6 (3.6)	2.2 (1.9)	2.4 (2.6)	3.1 (3.0)	2.9 (2.6)
GDP	2.2 (2.3)	1.1 (1.3)	1.2 (1.2)	1.7 (1.6)	1.9 (1.8)
GDP, calendar-adjusted	2.3 (2.4)	1.2 (1.3)	1.0 (1.0)	1.6 (1.5)	2.0 (1.8)
Final domestic demand*	1.9 (2.0)	0.2 (0.3)	1.1 (1.0)	1.6 (1.5)	1.7 (1.5)
Net exports*	-0.1 (-0.1)	1.2 (1.2)	0.4 (0.3)	0.1 (0.1)	0.2 (0.2)
Current account (NA), per cent of GDP	2.7 (2.3)	4.2 (3.8)	4.4 (3.9)	4.3 (3.9)	4.4 (4.0)

^{*}Contribution to GDP growth, percentage points

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

Sources: Statistics Sweden and the Riksbank

Table 6. Production and employment

Annual percentage change, unless otherwise stated

	2018	2019	2020	2021	2022
Population, aged 15–74	0.8 (0.8)	0.7 (0.7)	0.5 (0.5)	0.4 (0.4)	0.4 (0.4)
Potential hours worked	0.9 (1.1)	0.8 (1.0)	0.7 (0.9)	0.6 (0.7)	0.6 (0.6)
Potential GDP	1.8 (1.9)	1.8 (1.8)	1.7 (1.7)	1.7 (1.7)	1.7 (1.7)
GDP, calendar-adjusted	2.3 (2.4)	1.2 (1.3)	1.0 (1.0)	1.6 (1.5)	2.0 (1.8)
Number of hours worked, calendar-adjusted	1.8 [2.4]	0.0 [1.3]	0.3 (0.0)	0.4 (0.2)	0.5 (0.3)
Employed, aged 15–74	1.5 [1.8]	0.7 [0.3]	0.5 (0.3)	0.3 (0.4)	0.4 (0.5)
Labour force, aged 15–74	1.1 [1.4]	1.2 [0.8]	0.6 (0.5)	0.4 (0.5)	0.5 (0.6)
Unemployment, aged 15–74 *	6.3 [6.3]	6.8 <i>[6.8]</i>	6.9 (6.9)	7.0 (7.0)	7.1 (7.1)
GDP gap**	1.6 (1.4)	1.0 (0.9)	0.2 (0.2)	0.1 (0.0)	0.3 (0.1)
Hours gap**	1.8 (1.8)	1.1 (2.1)	0.7 (1.2)	0.5 (0.7)	0.4 (0.3)

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

Note. Potential hours worked and potential GDP refer to the long-term sustainable level according to the Riksbank's assessment. Having identified quality flaws, Statistics Sweden have published revised labour market statistics. The figures that are based wholly or partly on statistics published earlier are shown in italics in square brackets.

Sources: Statistics Sweden and the Riksbank

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

Annual percentage change, calendar-adjusted data unless otherwise stated

	2018	2019	2020	2021	2022
Hourly wage, NMO	2.5 (2.5)	2.6 (2.6)	2.8 (2.8)	3.0 (3.0)	3.1 (3.1)
Hourly wage, NA	2.8 [2.2]	3.8 [2.6]	2.9 (2.8)	3.0 (3.0)	3.1 (3.1)
Employers' contribution*	0.7 (0.7)	-0.1 (0.0)	0.1 (0.1)	0.1 (0.1)	0.1 (0.1)
Hourly labour cost, NA	3.5 [2.9]	3.7 [2.6]	3.0 (2.9)	3.1 (3.1)	3.2 (3.2)
Productivity	0.5 [0.0]	1.2 [0.1]	0.7 (0.9)	1.2 (1.3)	1.4 (1.5)
Unit labour cost	3.2 (3.1)	2.5 (2.6)	2.3 (2.0)	1.9 (1.8)	1.7 (1.7)

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

Note. NMO is the National Mediation Office's short-term wage statistics and NA is the National Accounts. Labour cost per hour is defined as the sum of actual wages, social-security charges and wage taxes (labour cost sum) divided by the number of hours worked by employees. Unit labour cost is defined as labour cost sum divided by GDP in fixed prices. Having identified quality flaws, Statistics Sweden have published revised labour market statistics. Previous misleading figures are in italics inside square brackets.

Sources: National Mediation Office, Statistics Sweden and the Riksbank $\,$