







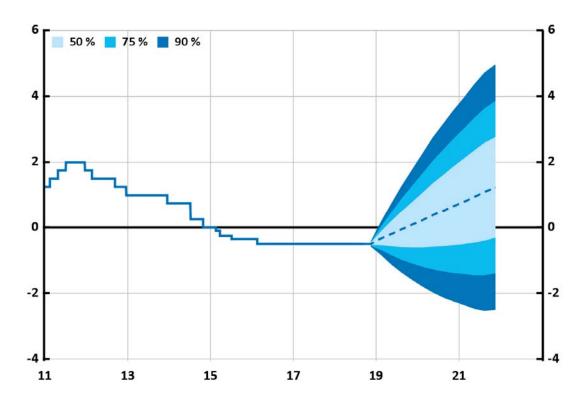






Figure 1.1. Repo rate with uncertainty bands

Per cent

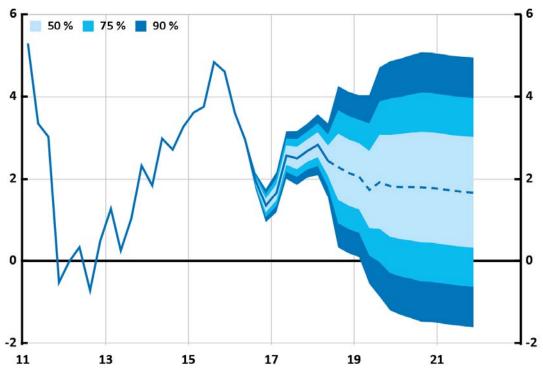


Note. The uncertainty bands for the repo rate are based on the Riksbank's historical forecasting errors and the ability of risk-premium adjusted forward rates to forecast the future repo rate for the period 1999 up to the point when the Riksbank started to publish forecasts for the repo rate during 2007.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

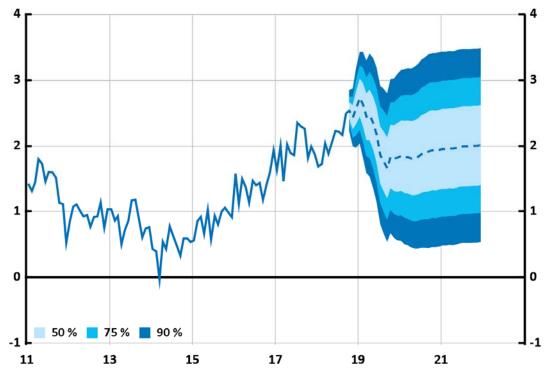


Note. The uncertainty bands are based on the Riksbank's historical forecasting errors. There is also uncertainty for the outcomes for GDP, as the figures in the National Accounts are revised several years after the preliminary publication.



Figure 1.3. CPIF with uncertainty bands

Annual percentage change

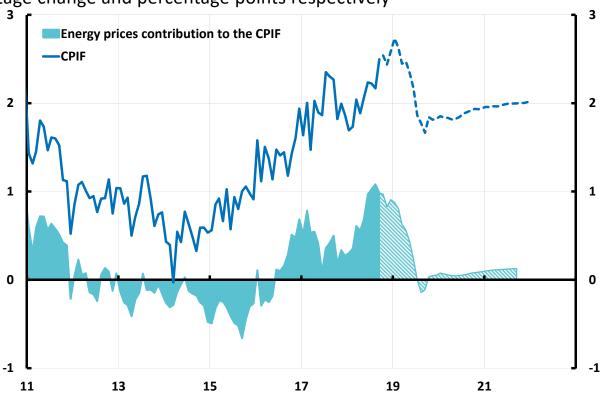


Note. The uncertainty bands are based on the Riksbank's historical forecasting errors.





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 multi-plied by their current weight in the CPIF.

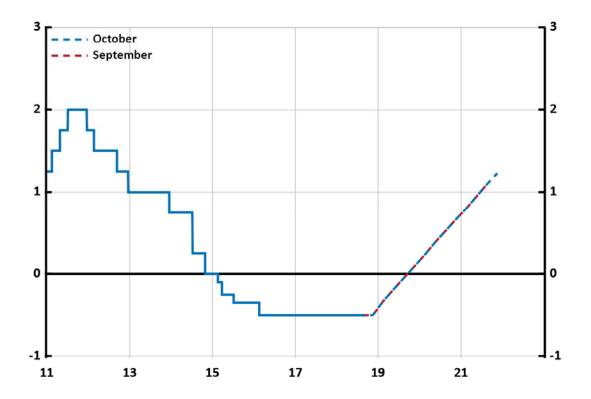


Figure 1.5. CPIF Annual percentage change





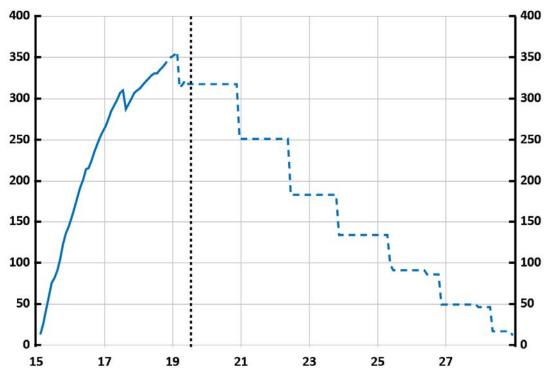
Figure 1.6. Repo rate Per cent



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

Figure 1.7. The Riksbank's holdings of government bonds

Nominal amounts, SEK billion



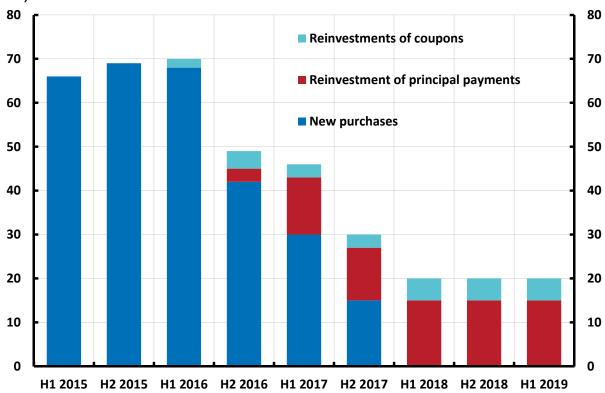
Note. Forecast up until June 2019, after that a technical projection under the assumption that no further reinvestments are made. Holdings are also affected to a certain extent by bonds market prices and by which bonds the Riksbank chooses to reinvest in. The vertical line marks the shift between the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







Nominal amounts, SEK billion

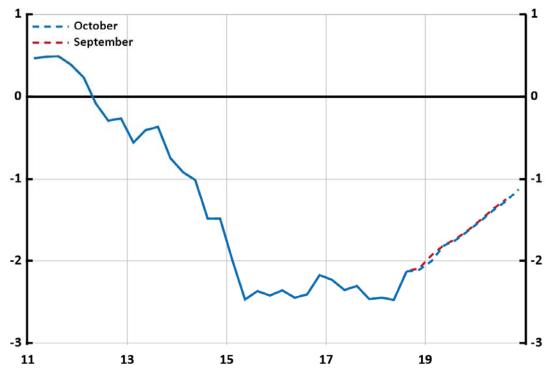


Note. The development for reinvestments from mid-2018 onwards is a forecast and refers to nominal amounts. The final amounts will depend on current market prices.



Figure 1.9. Real repo rate

Per cent, quarterly averages

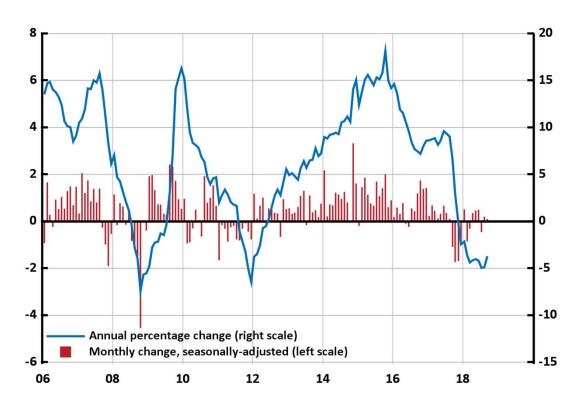


Note. The real repo rate is the Riksbank's expected real interest rate, calculated as a mean value of the Riksbank's repo rate forecast for the year ahead minus the inflation forecast (CPIF) for the corresponding period. Outcomes are based on the latest forecasts at that time.





Per cent

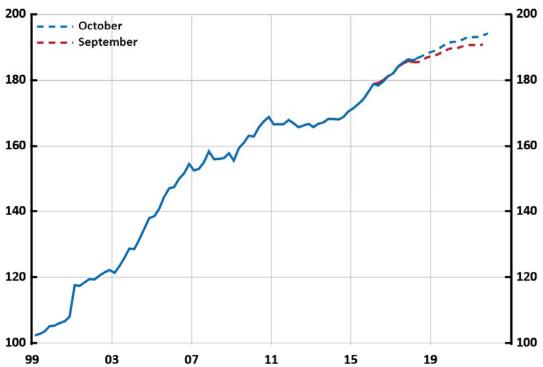


Sources: Valueguard and the Riksbank



Figure 1.11. 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 1.12. Measures of core inflation

Annual percentage change

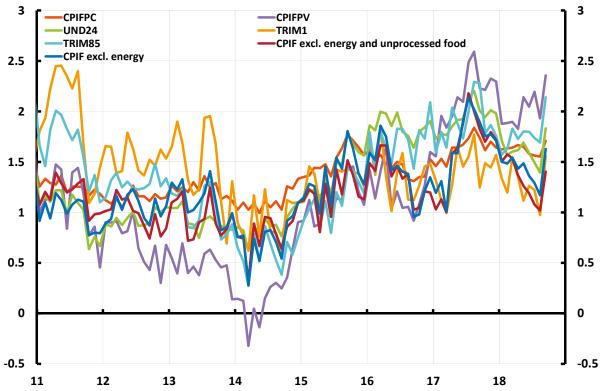
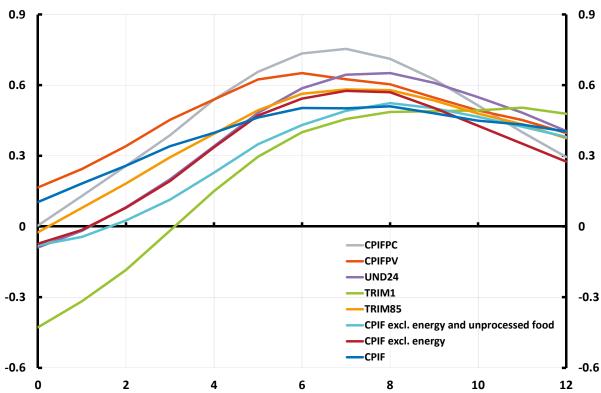


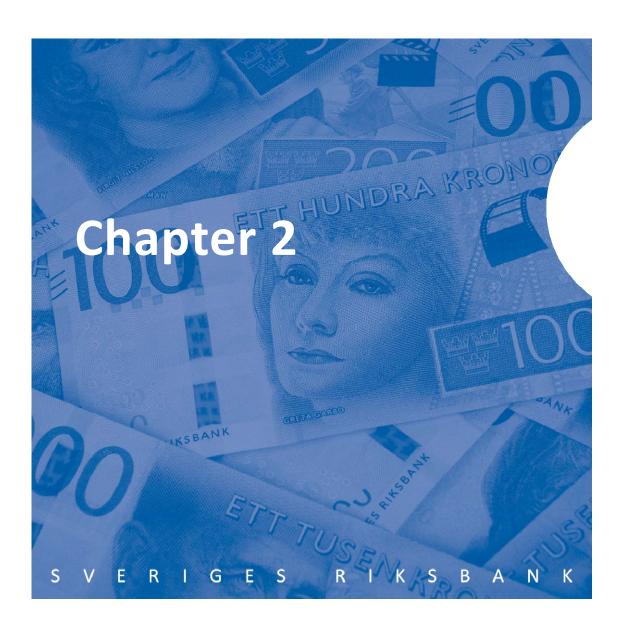
Figure 1.13. Correlation between various inflation measures and the RU indicator with delay of a varying number of quarters



Correlation coefficient



Note. The estimation period is Q1 1996 to Q2 2018. The figure shows the estimated correlation coefficient between respective inflation measures and the RU indicator with delays of a different number of quarters. The CPIFPC is revised every time a new observation is added. Measures of inflation calculated using real-time data are used in the estimations.



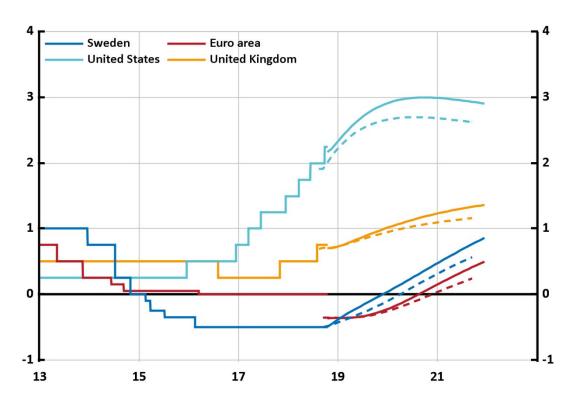








Per cent



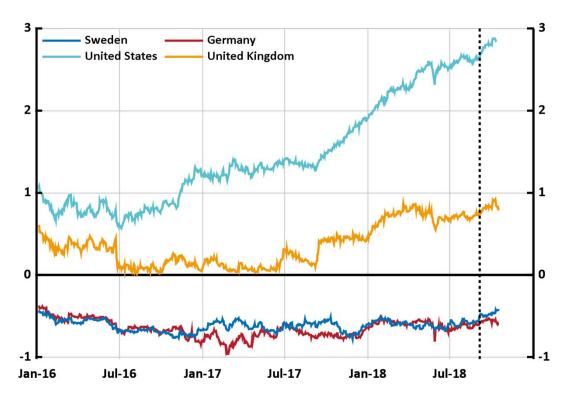
Note. Forward rates describe the expected overnight rate, which does not always correspond to the policy rate (the main refinancing rate for the euro area). Unbroken lines refers to 19 October 2018, broken lines refers to 3 September 2018.

Sources: The national central banks, Macrobond and the Riksbank



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Per cent



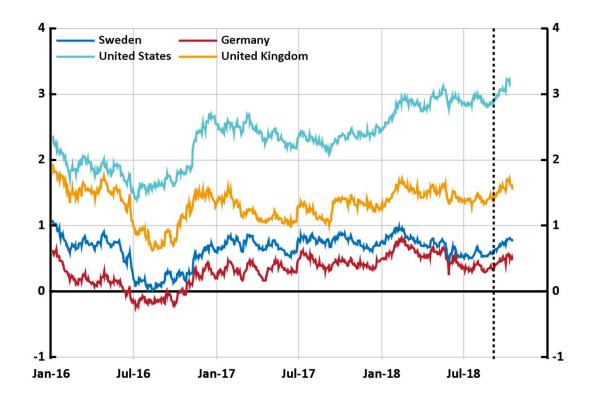
Note. Implied zero-coupon yields from government bonds. The vertical line indicates the Monetary Policy Meeting in September.

Sources: The national central banks and the Riksbank



Figure 2.3. Government bond yields with 10 years to maturity

Per cent



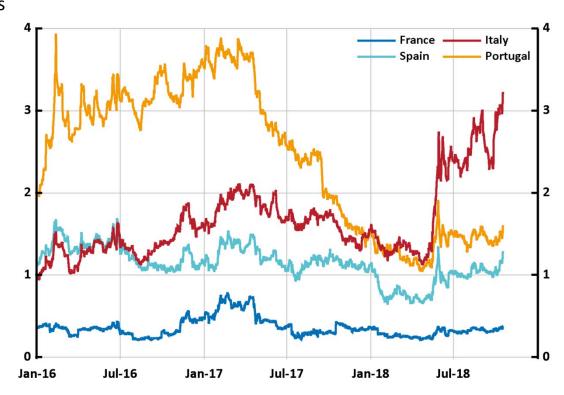
Note. Implied zero-coupon yields from government bonds. The vertical line indicates the Monetary Policy Meeting in September.

Sources: The national central banks and the Riksbank



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Percentage points



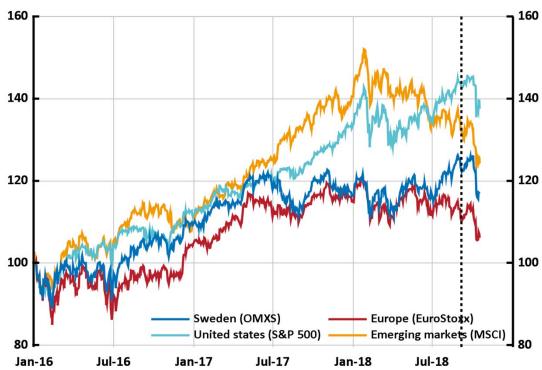
Note. Yield differentials refer to 10-year benchmark bonds.

Source: Macrobond





Index, 4 January 2016 = 100

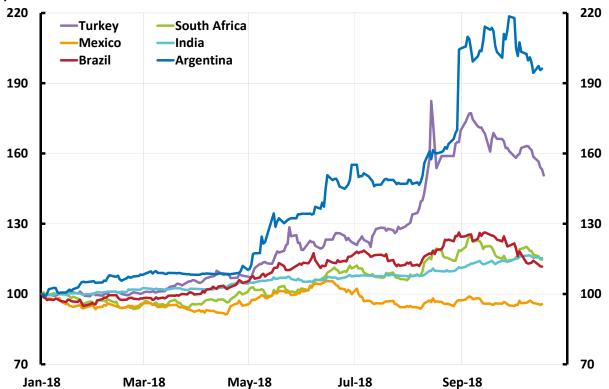


Note. The vertical line indicates the Monetary Policy Meeting in September.

Source: Macrobond



Index, 1 January 2018=100



Note. A higher value indicates a weaker exchange rate.

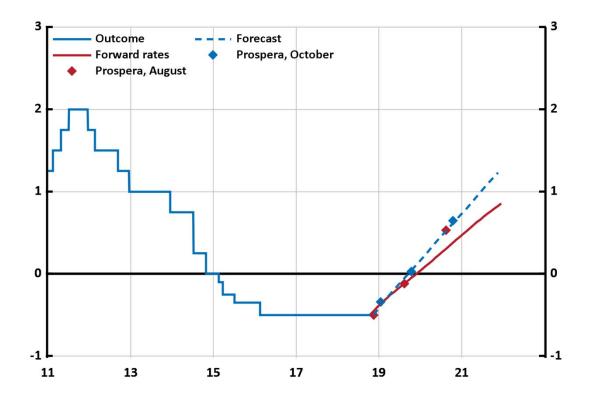


Source: Macrobond



Figure 2.7. Repo rate and market expectations

Per cent



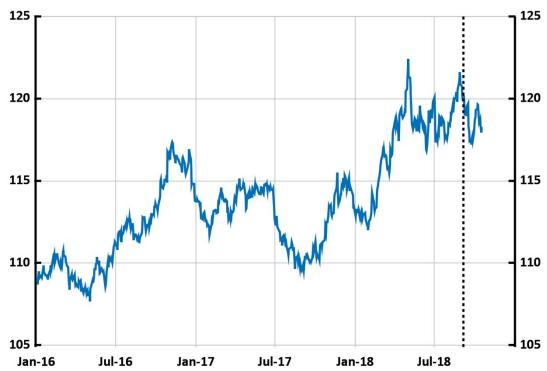
Note. The forward rate refers to 2018-10-19 and is a measure of the expected repo rate. The survey responses show the average for money market participants 2018-08-08 respectively 2018-10-10.

Sources: Macrobond, TNS Sifo Prospera and the Riksbank





Index, 1992-11-18 = 100

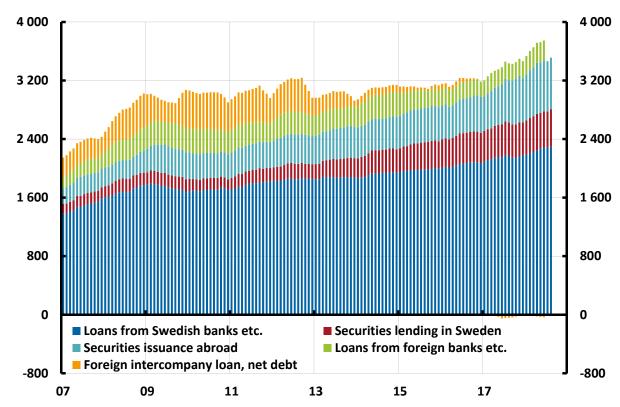


Note. KIX refers to an aggregate of countries that are important for Sweden's international transactions. The vertical line indicates the Monetary Policy Meeting in September.

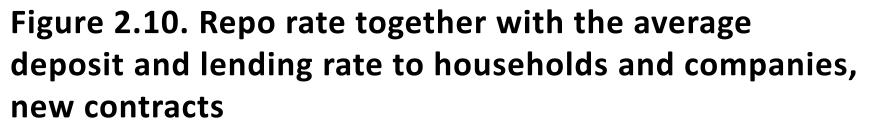


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SEK billion

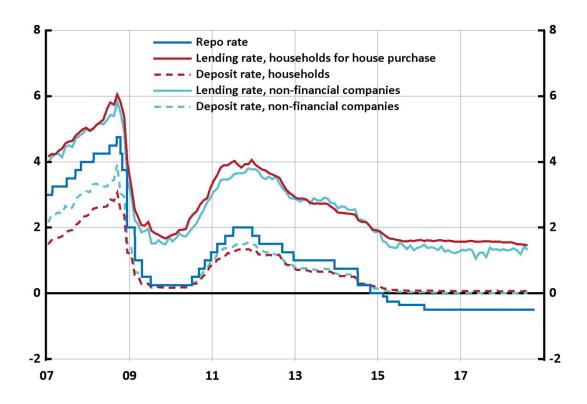


Note. Outcomes for loans from foreign banks and intercompany loans extend to June. Outcomes for the rest of the variables are until August.





Per cent



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



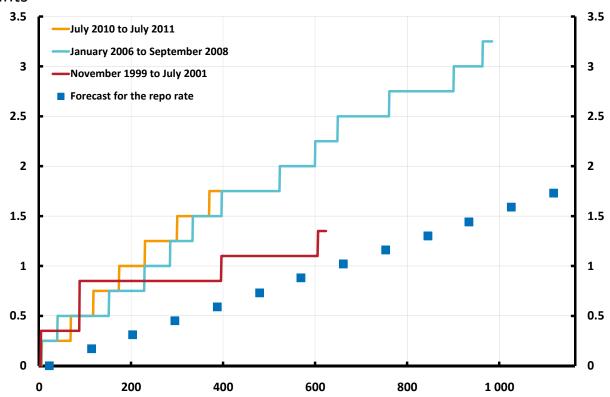








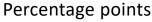
Percentage points

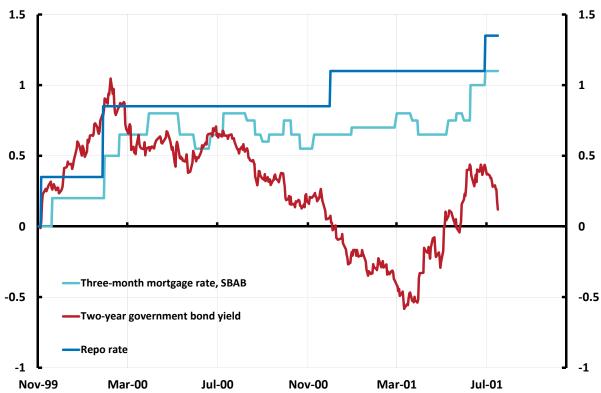


Note. The horizontal axis specifies the number of weekdays after the first rise of the repo rate. The repo rate forecast refers to quarterly averages and the points are placed in the middle of each quarter. The first point is placed after 22 days, corresponding to the middle of the fourth quarter of 2018.

Figure 2.12. Change of repo rate, two-year government bond yield and short mortgage rate over the rate-rise period 1999–2001





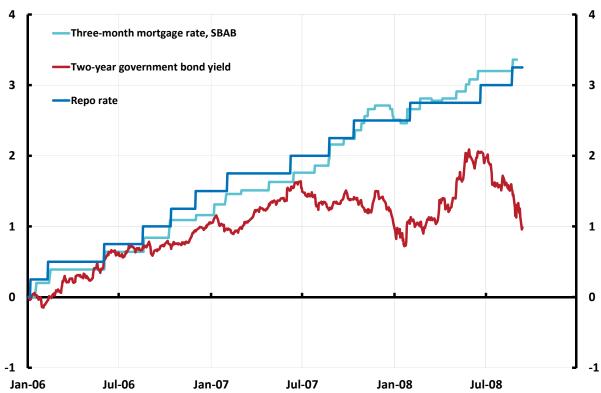


Sources: SBAB, Macrobond and the Riksbank

Figure 2.13. Change of repo rate, two-year government bond yield and short mortgage rate over the rate-rise period 2006–2008



Percentage points

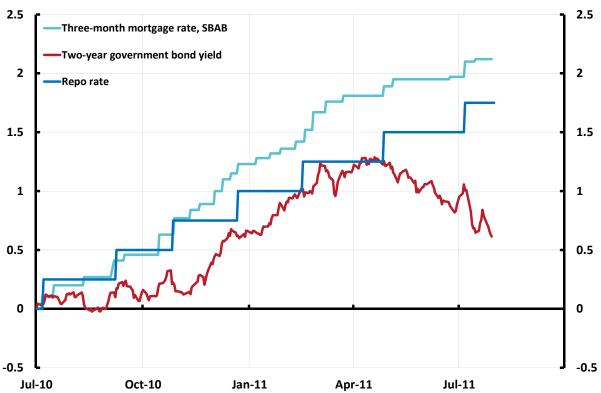


Sources: SBAB, Macrobond and the Riksbank

Figure 2.14. Change of repo rate, two-year government bond yield and short mortgage rate over the rate-rise period 2010–2011



Percentage points

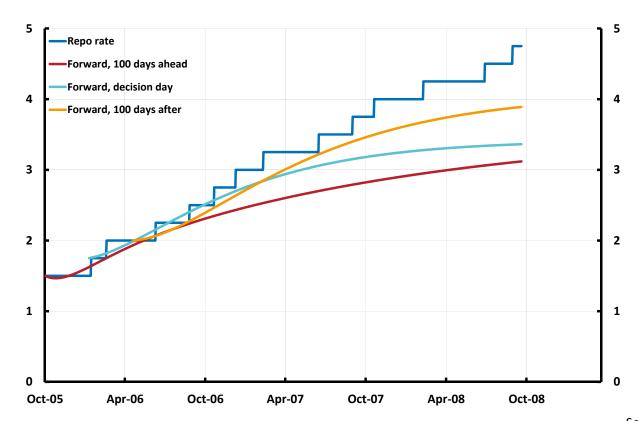


Sources: SBAB, Macrobond and the Riksbank

Figure 2.15. The repo rate and forward pricing during the rate-rise period from January 2006 to September 2008



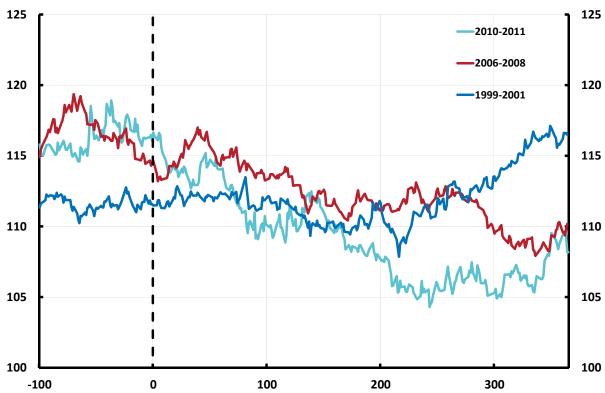
Per cent





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KIX, Index 18 November 1992 = 100

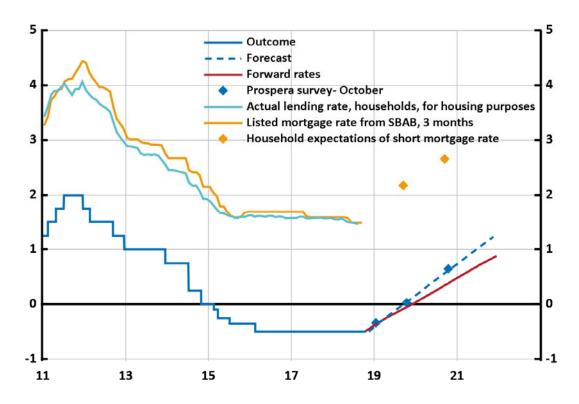


Note. The horizontal axis refers to the number of days from the first rate rise.



Figure 2.17. Repo rate, household and market expectations and lending rate to households

Per cent



Note. The forward rate refers to 19 October 2018 and is a measure of the expected reporate. Survey responses show the mean value for money market participants on 10 October 2018. MFI's average lending rate is a volume-weighted average of rates for all maturities. Household expectations of the short mortgage rate are according to the Economic Tendency Survey for September.

Sources: Macrobond, TNS Sifo Prospera, Statistics Sweden, National Institute of
Economic Research and the Riksbank

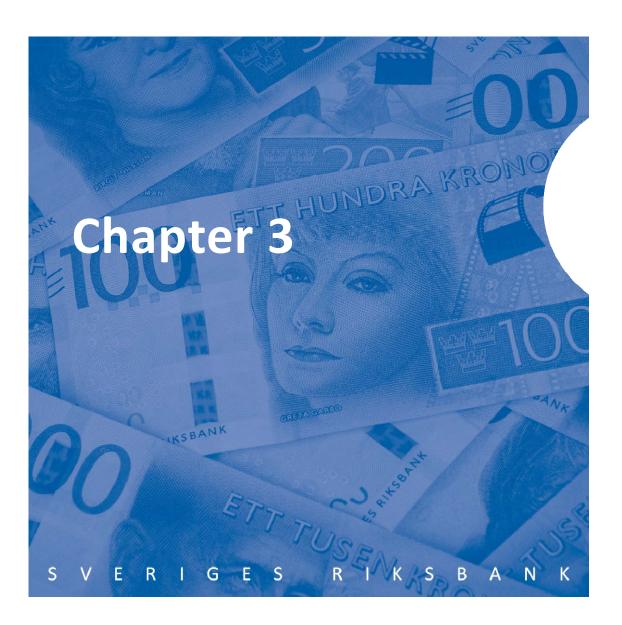








Figure 3.1. CPIF and variation band

Annual percentage change

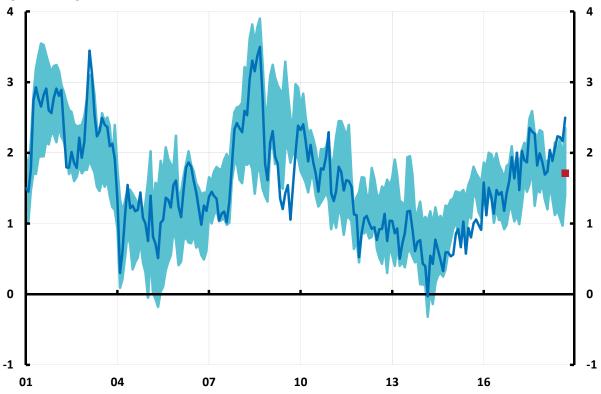


Note. The pink area shows the Riksbank's variation band and covers about three-quarters of the outcomes since January 1995. The variation band is a means of showing whether the deviation from the inflation target is unusually large. The broken line represents the forecast.





Annual percentage change

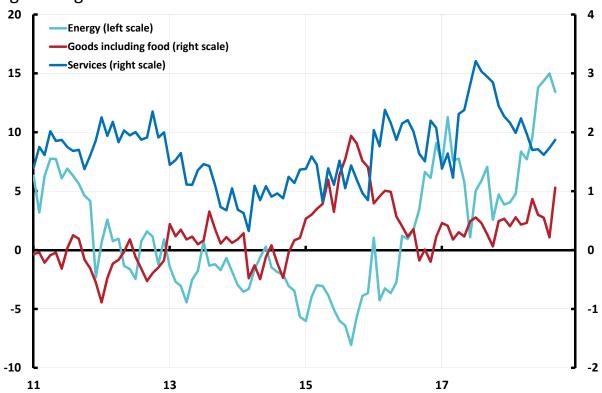


Note. The line represents the CPIF. The field shows the highest and lowest outcomes among different measures of underlying inflation. The measures included are the CPIF excluding energy, UND24, Trim85, CPIF excluding energy and unprocessed food, persistence-weighed inflation (CPIFPV), factor from principal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



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Annual percentage change

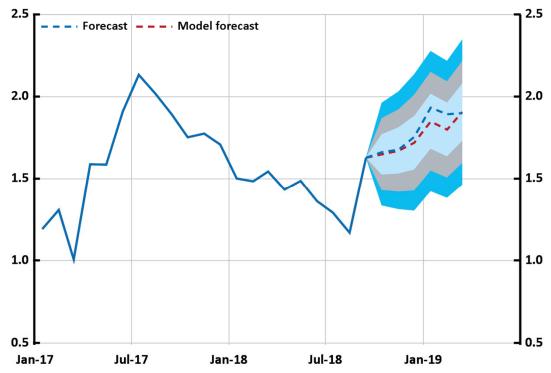


Note. Goods including food comprise together 45 per cent of the CPIF, services comprise 45 per cent and energy 7 per cent of the CPIF.



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Annual percentage change

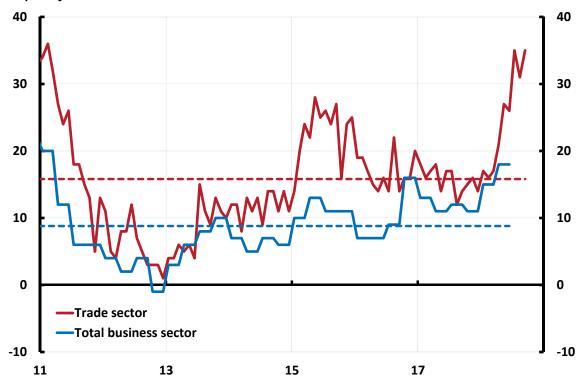


Note. The uncertainty bands 50, 75 and 90 per cent are based on the models' historical forecast errors.





Balances, seasonally-adjusted data



Note. Balances 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



Per cent, mean value



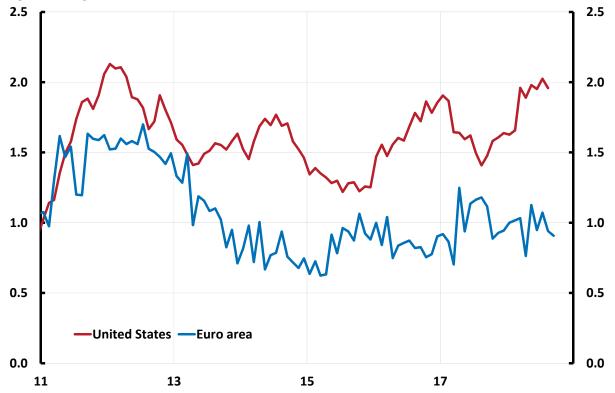
Source: TNS Sifo Prospera





Figure 3.7. Underlying inflation abroad

Annual percentage change



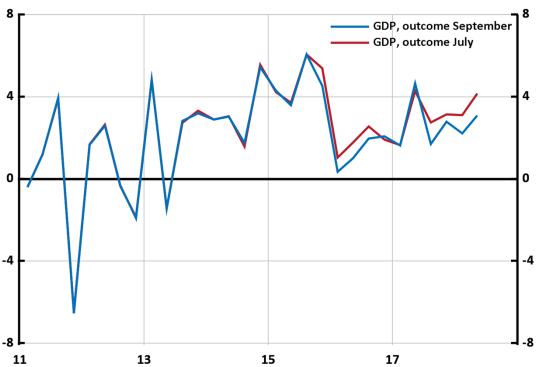
Note. The HICP excluding energy, food, alcohol and tobacco is shown for the euro area. The deflator for private consumption excluding energy and food is shown for the United States.

Sources: Bureau of Economic Analysis and Eurostat



Figure 3.8. Revision of GDP-growth

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

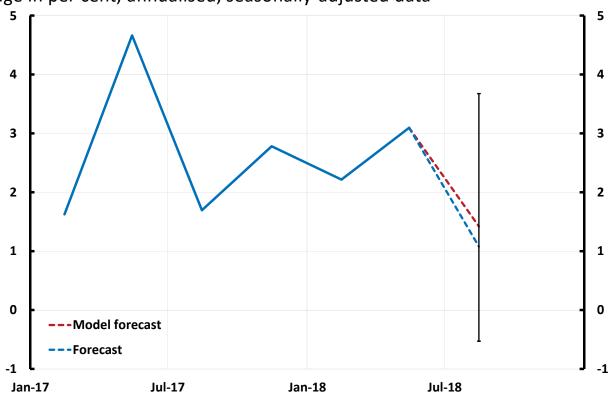


Source: Statistics Sweden



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

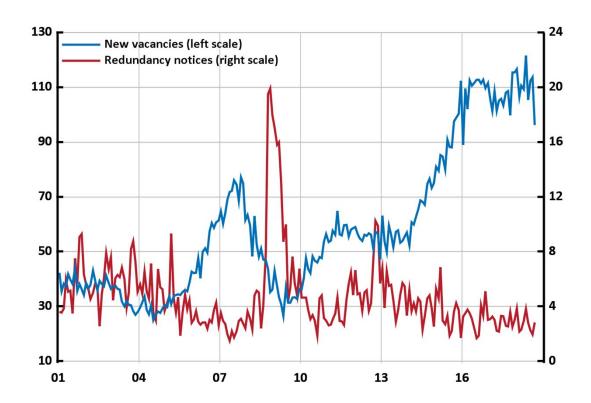


Note. The model forecast is a mean value of forecasts conducted using different statistical models. The vertical line represents a 50-percent uncertainty band based on the models' historical forecasting errors.



Figure 3.10. New vacancies and redundancy notices

Thousands



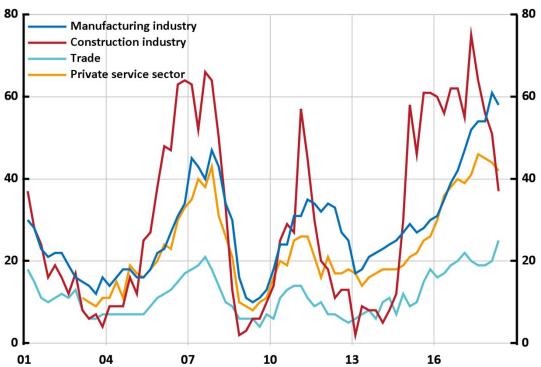
Note. Seasonally-adjusted data for new vacancies.

Sources: Employment Service and the Riksbank



Figure 3.11. Labour shortage

Yes-responses, per cent, seasonally-adjusted data



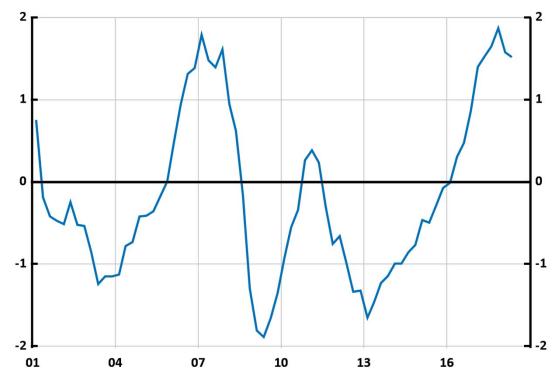
Note. Construction industry refers to the proportion of firms that have quoted a labour shortage as their main obstacle to increased construction. The other industries refers to the proportion of firms responding yes to the question of whether there is a labour shortage.

Source: National Institute of Economic Research



Figure 3.12. Resource utilisation indicator

Standard deviation



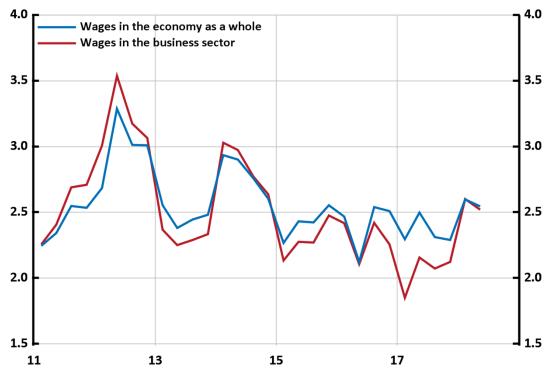
Note. The RU indicator is a statistical measure of resource utilisation. It is normalised so that the mean value is 0 and the standard deviation is 1.

Source: The Riksbank





Annual percentage change



Note. Wages according to short-term wage statistics. The National Mediation Office's forecast of final outcome 2017Q3–2018Q2.

Source: National Mediation Office



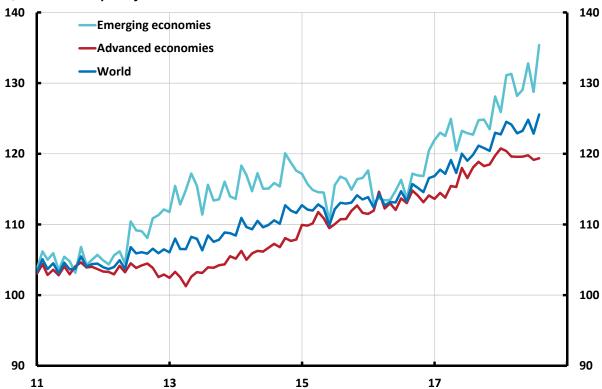






Figure 4.1. Global import of goods

Index, 2010=100, seasonally-adjusted data

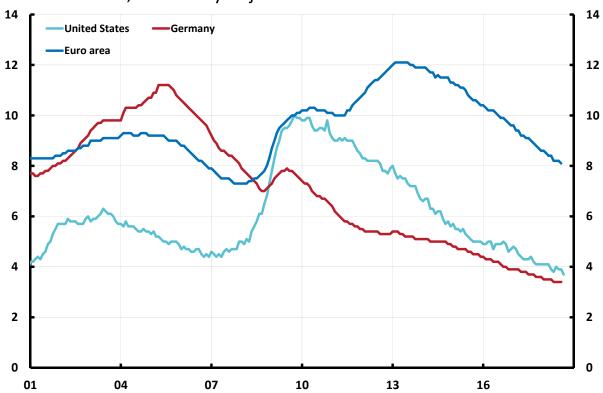


Source: CPB World Trade Monitor





Percentage of the labour force, seasonally-adjusted data

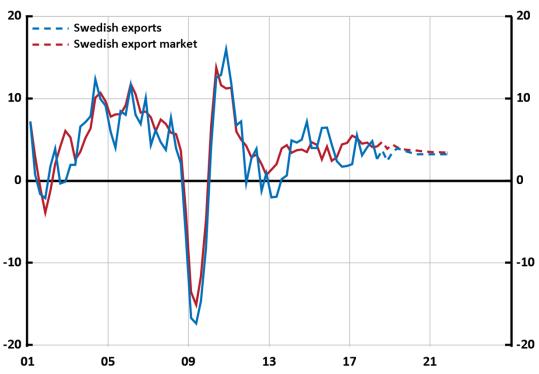


Source: OECD





Annual percentage change, seasonally-adjusted data

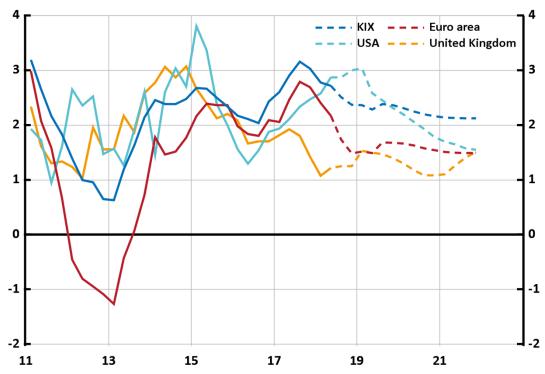


Note. The Swedish export market index measures import demand in the countries to which Sweden exports. This is calculated by aggregating imports in the countries included in KIX and covers around 85 per cent of the total Swedish export market.



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Annual percentage change



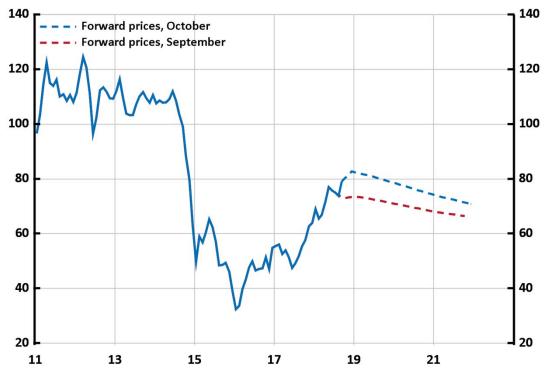
Note. KIX is an aggregate of countries that are important to Sweden's international transactions.

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



Figure 4.5. Price of crude oil

USD per barrel, Brent oil



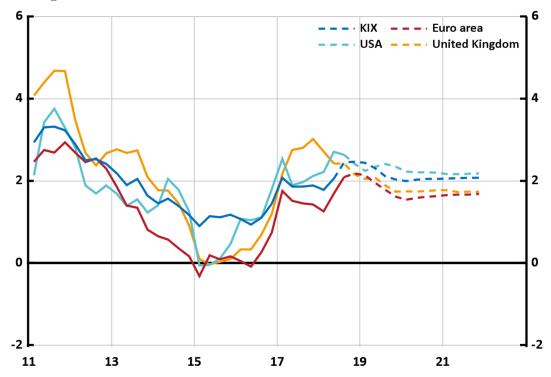
Note. Forward prices are calculated as a 15-day average. The outcomes refer to monthly averages of spot prices.

Sources: Macrobond and the Riksbank





Annual percentage change



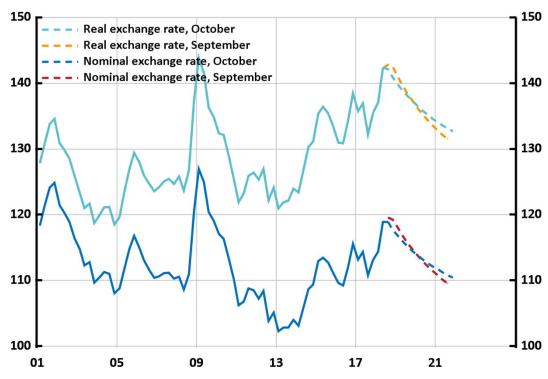
Note. KIX is an aggregate of the countries that are important to Sweden's international transactions.

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





Index, 18 November 1992 = 100



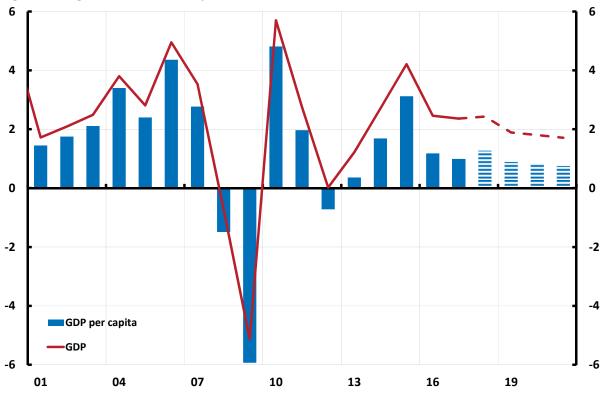
Note. The real exchange rate is calculated using the CPIF for Sweden and the CPI for the rest of the world. The KIX is an aggregate of 32 countries that are important for Sweden's international transactions.

Sources: National sources, Statistics Sweden and the Riksbank



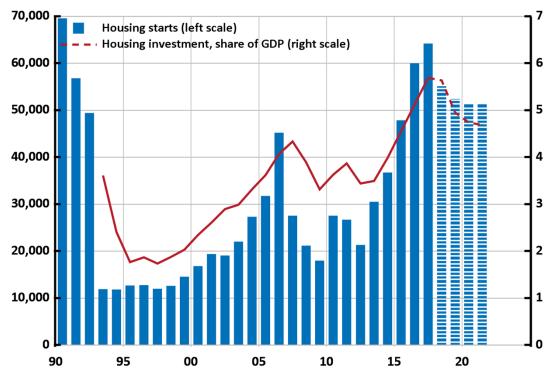
Figure 4.8. GDP and GDP per capita

Annual percentage change, calendar-adjusted data





Number and per cent, respectively

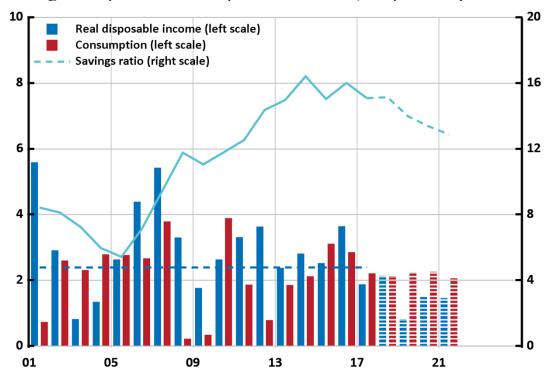






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Annual percentage change and per cent of disposable income, respectively

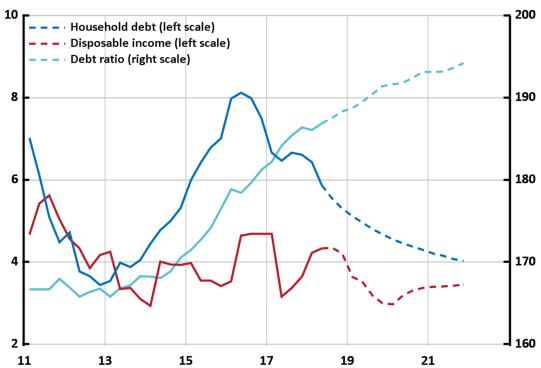


Note. Disposable income has been deflated using the household consumption deflator. Broken line is the average of consumption growth 1994–2017.





Annual percentage change and per cent of disposable income, respectively

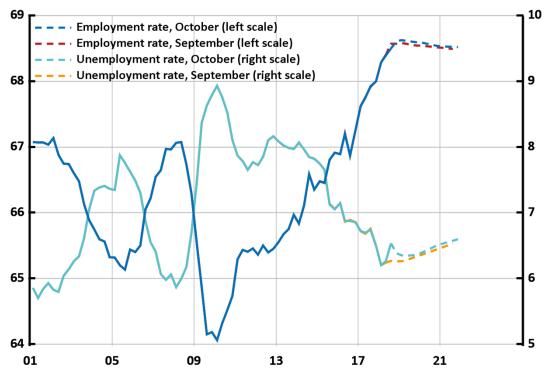


Note. Households' total debts as a share of their disposable incomes totalled over the past four quarters.





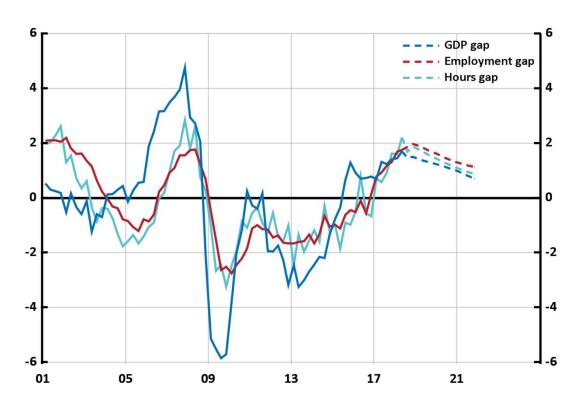
Per cent of population and labour force, respectively, 15-74 years, seasonally-adjusted data







Per cent

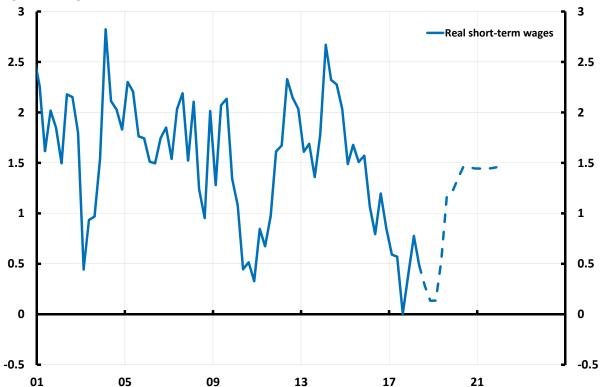


Note. The gaps refer to the deviation in GDP, the number of those employed and the number of hours worked from the Riksbank's assessed trends.



Figure 4.14. Real short-term wages

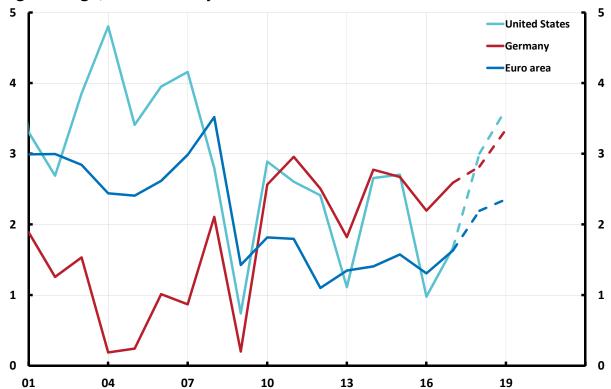
Annual percentage change



Note. Refers to short-term wages in the economy as a whole, deflated by the CPIF. Sources: National Mediation Office, Statistics Sweden and the Riksbank



Figure 4.15. Wages abroad Annual percentage change, calendar-adjusted data



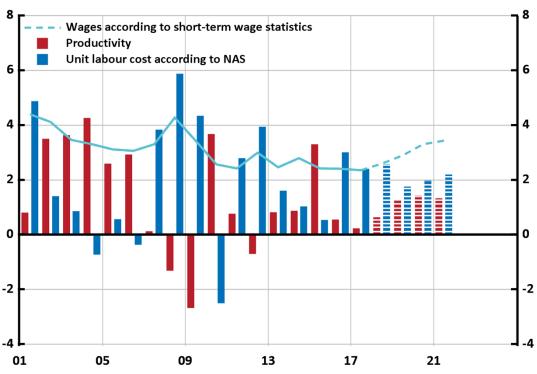
Note. Refers to the OECD's forecasts for payroll expenses per employee in the business sector from May 2018.

Source: OECD





Annual percentage change



Note. The National Mediation Office's forecast of final outcome 2017Q3–2018Q2.

Sources: National Mediation Office, Statistics Sweden and the Riksbank





Annual percentage change

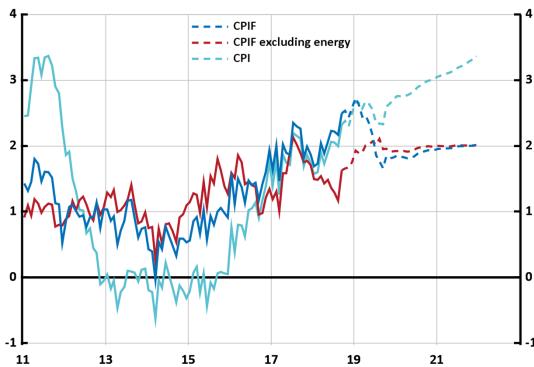
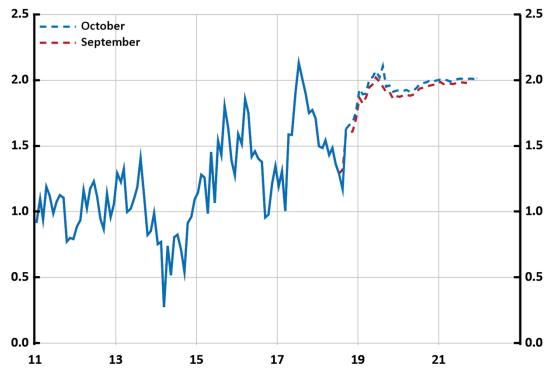




Figure 4.18. CPIF excluding energy

Annual percentage change





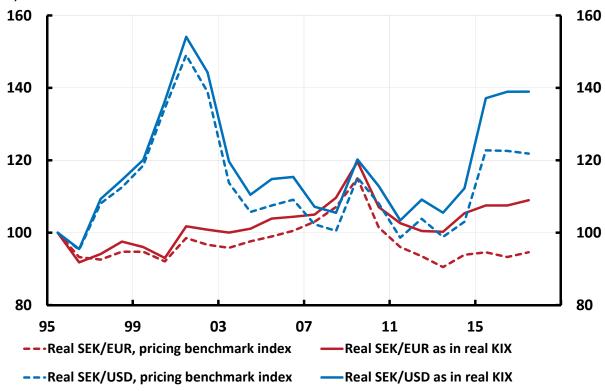








Index, 1995=100, annual mean value

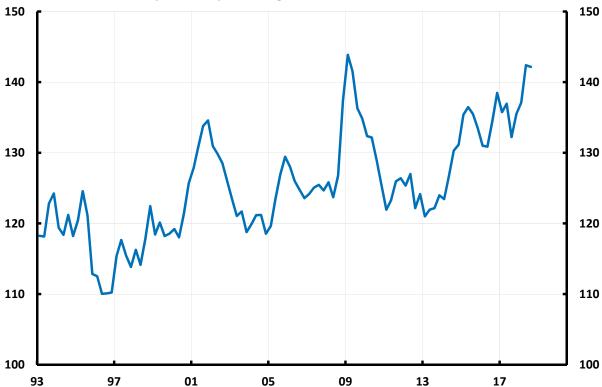


Sources: Eurostat, OECD and the Riksbank



Figure 4.20. Real exchange rate, KIX

Index, 18 November 1992 = 100, quarterly averages



Sources: National sources, Statistics Sweden and the Riksbank





Index, 1993=100, annual mean value



Sources: The IMF and the Riksbank



Figure 4.22. Sweden's terms of trade

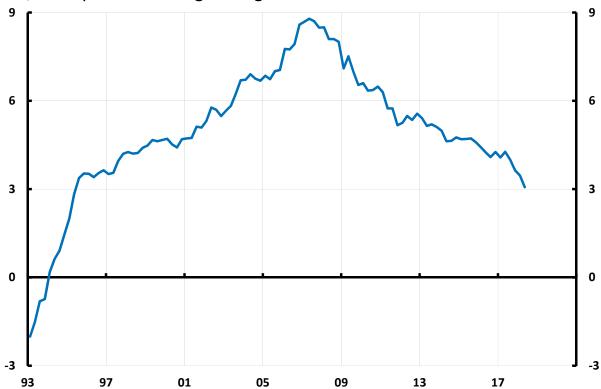
Index, 1993=100, quarterly averages



Source: Statistics Sweden



Figure 4.23. Current account balance Percentage of GDP, four quarter moving average

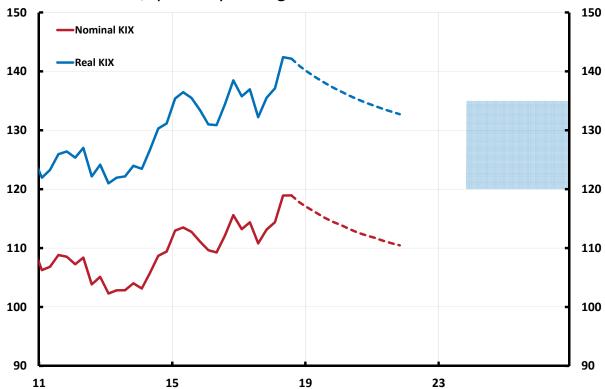


Source: Statistics Sweden





Index, 18 November 1992 = 100, quarterly averages



Note. The blue field shows the Riksbank's assessed interval for the real exchange rate 5-10 years ahead.

Sources: National sources, Statistics Sweden and the Riksbank







Tables

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

Table 1. Repo rate forecast

Per cent, quarterly averages

	Q3 2018	Q4 2018	Q1 2019	Q4 2019	Q4 2020	Q4 2021
Repo rate	-0.50	-0.50 (-0.50)	-0.33 (-0.33)	0.09 (0.09)	0.66 (0.66)	1.23

Source: The Riksbank

Table 2. Inflation

Annual percentage change, annual average

	2017	2018	2019	2020	2021
CPIF	2.0 (2.0)	2.2 (2.2)	2.1 (2.1)	1.9 (1.9)	2.0
CPIF excl. energy	1.7 (1.7)	1.5 (1.5)	2.0 (1.9)	2.0 (1.9)	2.0
СРІ	1.8 (1.8)	2.0 (2.0)	2.6 (2.7)	2.9 (2.9)	3.2
HICP	1.9 (1.9)	2.1 (2.1)	2.1 (2.1)	1.8 (1.8)	1.9

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

Sources: Statistics Sweden and the Riksbank

Table 3. Summary of financial forecasts

Per cent, unless otherwise stated, annual average

	2017	2018	2019	2020	2021
Repo rate	-0.5 (-0.5)	-0.5 (-0.5)	-0.1 (-0.1)	0.4 (0.4)	1.0
10-year rate	0.7 (0.7)	0.7 (0.7)	1.4 (1.4)	2.1 (2.1)	2.7
Exchange rate, KIX, 18 November 1992 = 100	112.9 (112.9)	117.5 (118.0)	115.6 (116.3)	112.9 (112.6)	111.1
General government net lending*	1.6 (1.3)	0.9 (1.0)	0.9 (0.9)	0.7 (0.7)	0.7

^{*} 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	0.48	2.5 (2.5)	1.9 (2.0)	1.6 (1.7)	1.6 (1.6)	1.5
USA	0.15	0.09	2.2 (2.2)	2.8 (2.8)	2.6 (2.6)	2.0 (2.0)	1.6
Japan	0.04	0.02	1.7 (1.7)	1.1 (0.9)	1.1 (1.0)	0.4 (0.4)	0.9
China	0.19	0.09	6.9 (6.9)	6.6 (6.6)	6.0 (6.1)	6.1 (6.1)	6.0
KIX-weighted	0.75	1.00	2.9 (2.9)	2.6 (2.6)	2.3 (2.4)	2.2 (2.2)	2.1
World (PPP-weighted)	1.00	-	3.7 (3.7)	3.8 (3.8)	3.6 (3.8)	3.7 (3.7)	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 2018. 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	2017	2018	2019	2020	2021
Euro area (HICP)	1.5 (1.5)	1.8 (1.8)	1.9 (1.6)	1.6 (1.6)	1.7
USA	2.1 (2.1)	2.5 (2.5)	2.3 (2.3)	2.2 (2.2)	2.2
Japan	0.5 (0.5)	1.1 (0.9)	1.4 (1.2)	1.8 (1.8)	1.5
KIX-weighted	1.9 (1.9)	2.2 (2.1)	2.2 (2.1)	2.0 (2.0)	2.1
	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)	0.5 (0.5)	0.8
Crude oil price, USD/barrel Brent	54.8 (54.8)	74.9 (72.3)	80.7 (72.4)	76.4 (69.6)	72.4
Swedish export market	5.0 (4.9)	42(41)	40(41)	3 6 (3 6)	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)	2.1 (2.7)	2.2 (2.5)	2.3 (2.3)	2.1
Public consumption	0.0 (0.4)	0.9 (0.7)	1.0 (1.0)	1.1 (1.2)	1.0
Gross fixed capital formation	6.1 (5.9)	2.8 (3.7)	0.1 (0.5)	2.8 (2.8)	2.8
Inventory investment*	0.1 (0.1)	0.4 (0.3)	0.1 (0.2)	-0.2 (-0.1)	0.0
Exports	3.2 (3.6)	3.2 (3.2)	3.6 (3.8)	3.7 (3.7)	3.5
Imports	4.8 (4.8)	3.4 (2.7)	2.7 (3.3)	3.5 (3.5)	3.8
GDP	2.1 (2.3)	2.3 (2.9)	1.9 (2.0)	2.0 (2.1)	1.8
GDP, calendar-adjusted	2.4 (2.5)	2.4 (3.0)	1.9 (2.0)	1.8 (1.8)	1.7
Final domestic demand*	2.4 (2.5)	1.9 (2.3)	1.2 (1.5)	2.0 (2.0)	1.9
Net exports*	-0.5 (-0.3)	0.1 (0.3)	0.5 (0.4)	0.2 (0.2)	0.0
Current account (NA), per cent of GDP	3.6 (4.2)	3.0 (3.9)	3.2 (3.8)	3.3 (3.9)	3.1

^{*}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
Potential hours worked	0.9 (0.8)	0.9 (0.8)	0.8 (0.8)	0.8 (0.8)	0.7
Potential GDP	2.0 (2.2)	2.1 (2.2)	2.1 (2.2)	2.0 (2.1)	2.0
GDP, calendar-adjusted	2.4 (2.5)	2.4 (3.0)	1.9 (2.0)	1.8 (1.8)	1.7
Number of hours worked, calendar-adjusted	2.1 (1.8)	1.8 (1.7)	0.6 (0.7)	0.4 (0.4)	0.4
Employed, aged 15–74	2.3 (2.3)	1.7 (1.7)	0.8 (0.8)	0.5 (0.5)	0.5
Labour force, aged 15–74	2.0 (2.0)	1.4 (1.3)	0.8 (0.8)	0.6 (0.6)	0.6
Unemployment, aged 15–74 *	6.7 (6.7)	6.3 (6.2)	6.4 (6.3)	6.5 (6.4)	6.6
GDP gap**	1.2 (1.1)	1.5 (1.9)	1.3 (1.7)	1.1 (1.4)	0.8
Hours gap**	1.0 (1.0)	1.8 (2.0)	1.6 (1.9)	1.3 (1.5)	1.0

^{*} Per cent of 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.

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 (2.4)	2.6 (2.6)	2.9 (2.9)	3.3 (3.4)	3.4
Hourly wage, NA	2.5 (2.7)	2.8 (2.8)	2.9 (3.0)	3.3 (3.4)	3.5
Employers' contribution*	0.0 (-0.1)	0.3 (0.1)	0.1 (0.1)	0.1 (0.1)	0.1
Hourly labour cost, NA	2.5 (2.6)	3.1 (2.9)	3.0 (3.1)	3.4 (3.5)	3.5
Productivity	0.2 (0.7)	0.6 (1.2)	1.2 (1.3)	1.4 (1.4)	1.3
Unit labour cost	2.4 (2.1)	2.6 (1.8)	1.8 (1.7)	2.0 (2.0)	2.2

^{*} Contribution to the increase in labour costs, 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