



Monetary Policy Report September 2018

S V E R I G E S R I K S B A N K



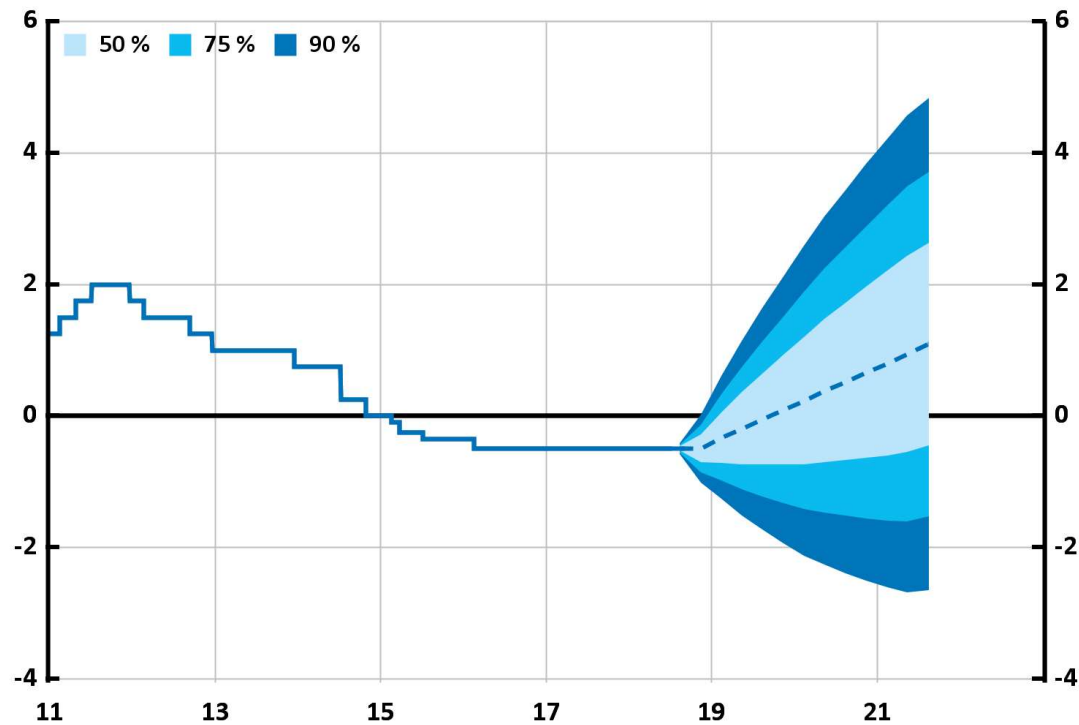
Chapter 1

S V E R I G E S R I K S B A N K



Figure 1.1. Repo rate with uncertainty bands

Per cent

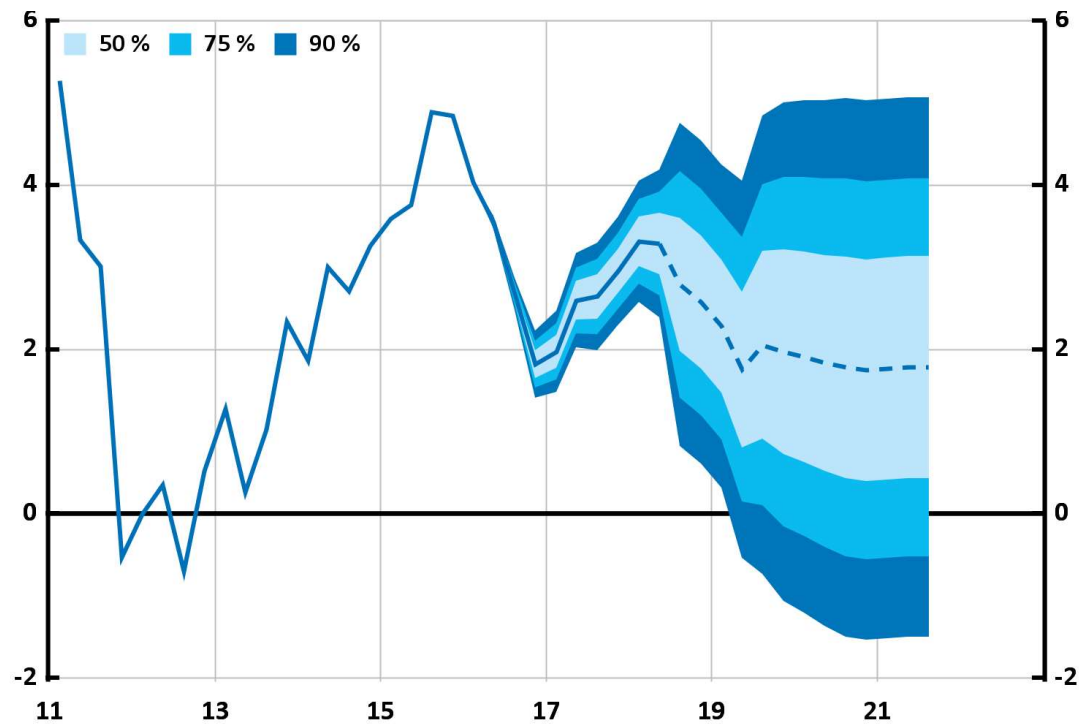


Note. The uncertainty bands for the repo rate are based on the Riksbank's historical forecasting errors and the ability of risk-premium adjusted forward rates to forecast the future repo rate for the period 1999 up to the point when the Riksbank started to publish forecasts for the repo rate during 2007.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

Source: The Riksbank

Figure 1.2. GDP with uncertainty bands

Annual percentage change, seasonally-adjusted data

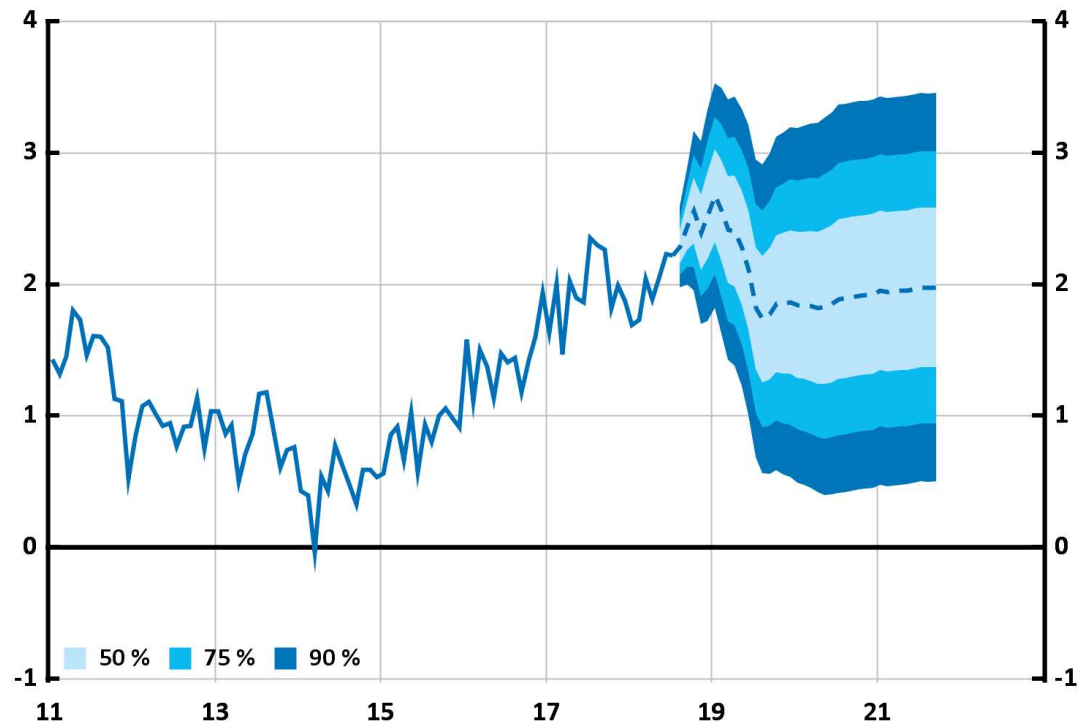


Note. The uncertainty bands are based on the Riksbank's historical forecasting errors. There is also uncertainty for the outcomes for GDP, as the figures in the National Accounts are revised several years after the preliminary publication.

Sources: Statistics Sweden and the Riksbank

Figure 1.3. CPIF with uncertainty bands

Annual percentage change

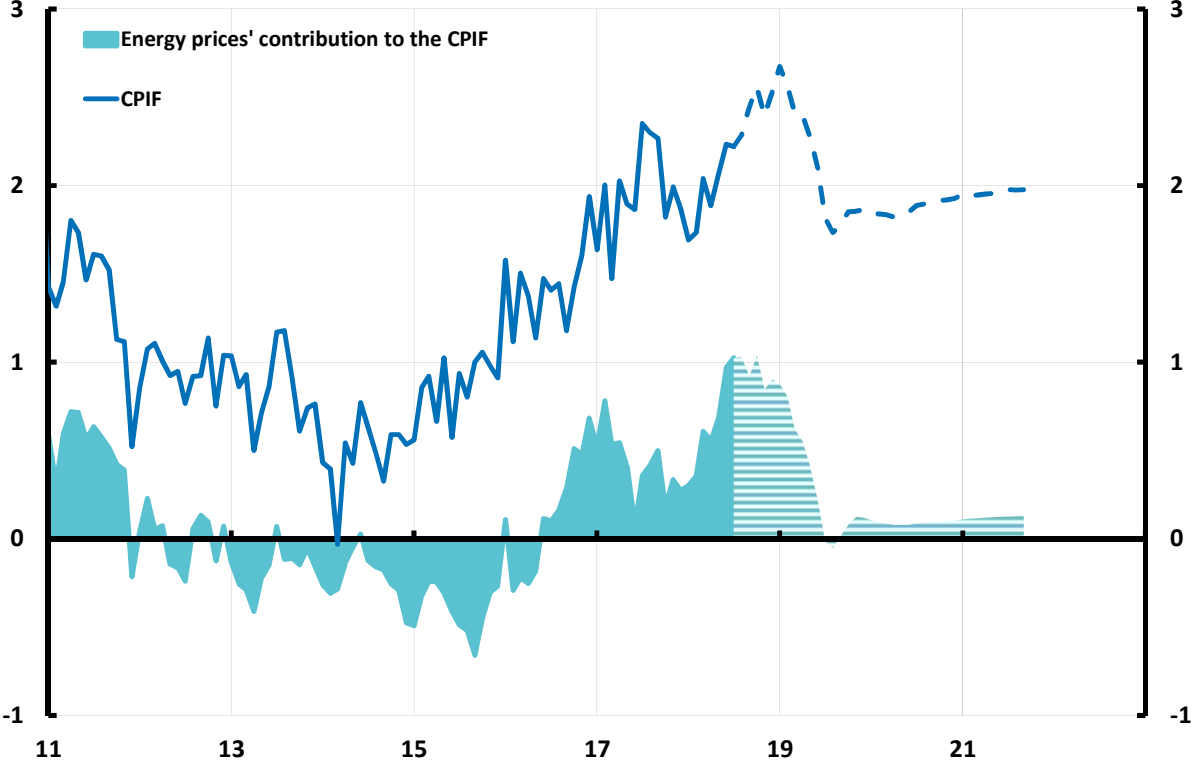


Note. The uncertainty bands are based on the Riksbank's historical forecasting errors.

Sources: Statistics Sweden and the Riksbank

Figure 1.4. CPIF and contribution from energy prices

Annual percentage change and percentage points respectively



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

Sources: Statistics Sweden and the Riksbank

Figure 1.5. Competition-weighted nominal exchange rate, KIX

Index, 1992-11-18 = 100

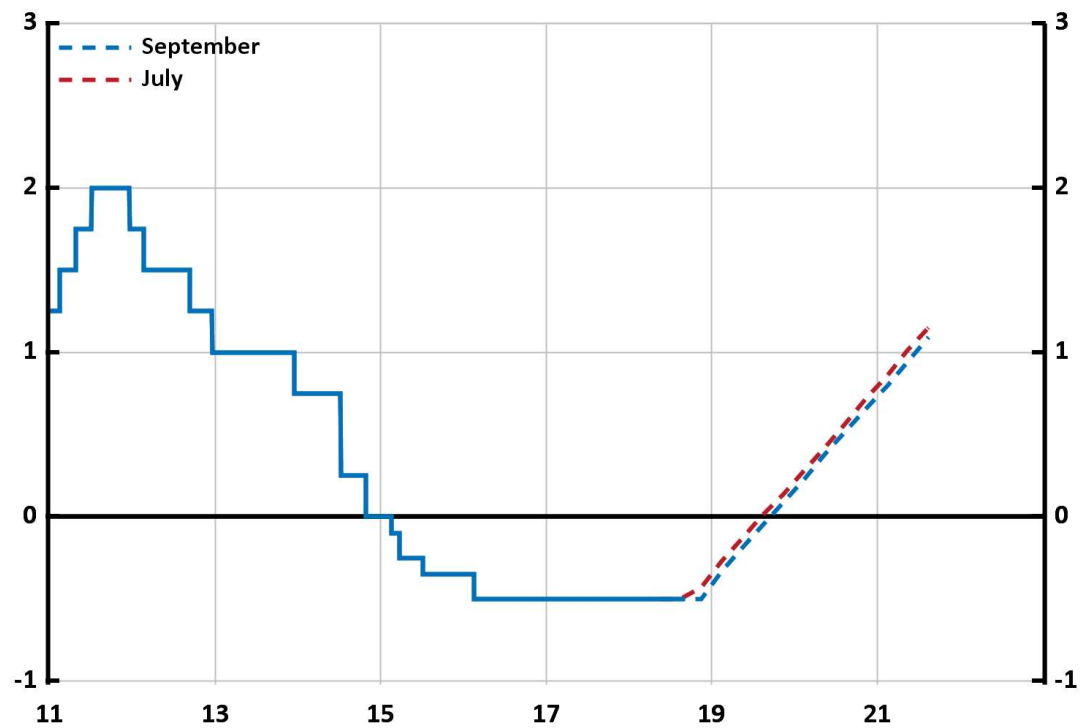


Note. Outcomes are daily rates and forecasts refer to quarterly averages. KIX refers to an aggregate of countries that are important for Sweden's international transactions.

Sources: National sources and the Riksbank

Figure 1.6. Repo rate

Per cent

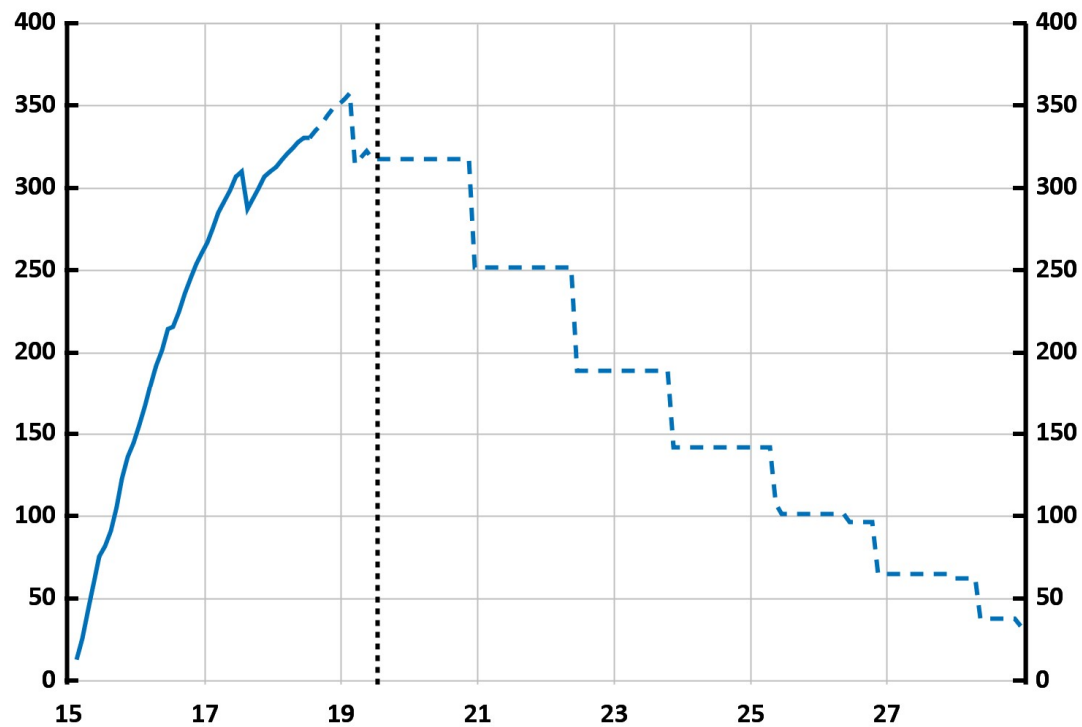


Note. Outcomes are daily data and the forecasts refer to quarterly averages.

Source: The Riksbank

Figure 1.7. The Riksbank's holdings of government bonds

Nominal amounts, SEK billion

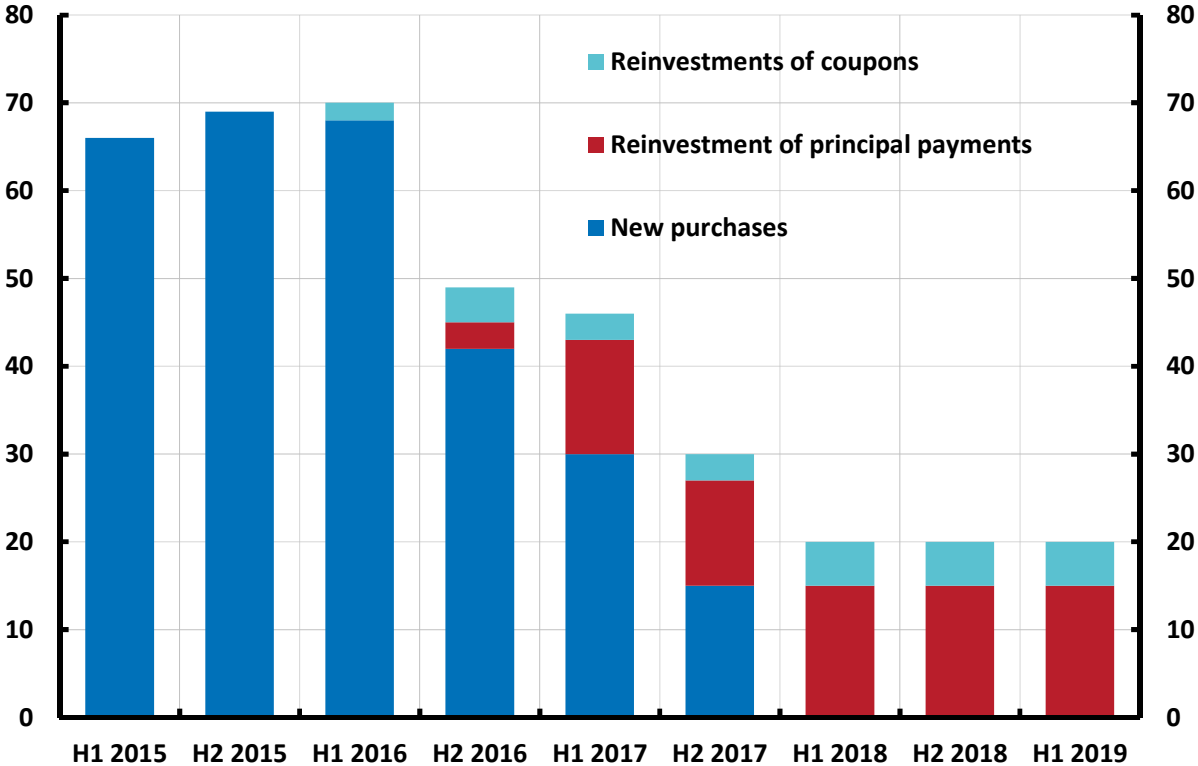


Note. Forecast up until June 2019, after that a technical projection with the assumption that no further reinvestments are made. The development of the holdings is also affected to a certain extent by the bonds' market prices and by which bonds the Riksbank chooses to reinvest in. The vertical line marks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

Source: The Riksbank

Figure 1.8. The Riksbank's purchases and reinvestments

Nominal amounts, SEK billion

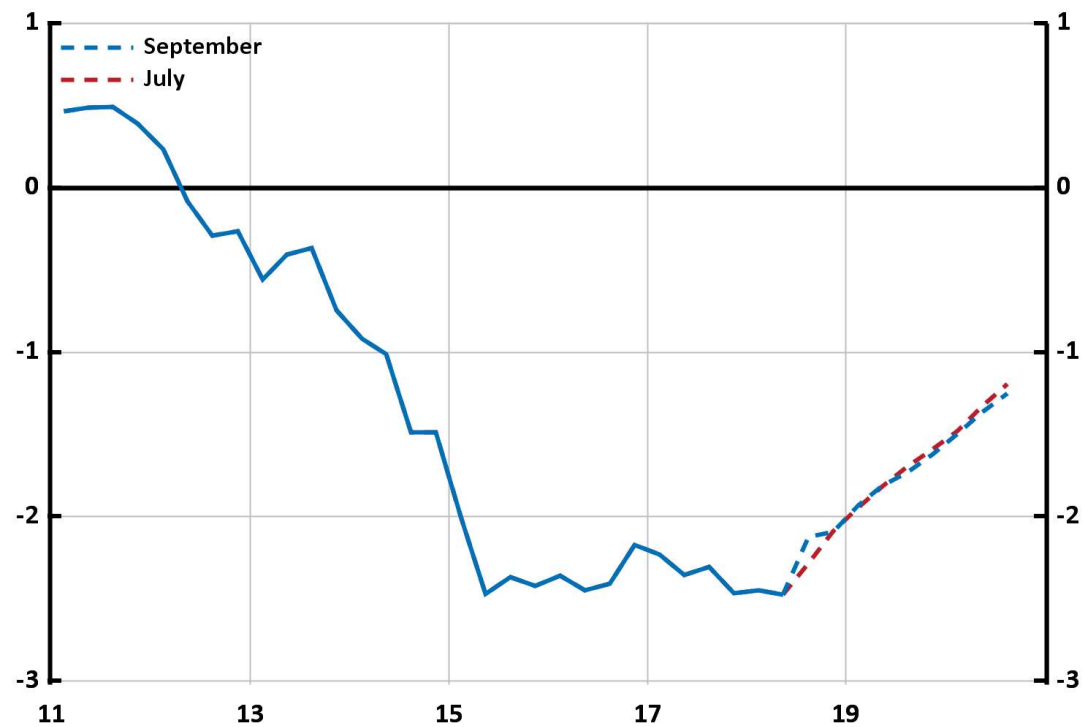


Note. The development for reinvestments from mid-2018 onwards is a forecast and refers to nominal amounts. The final amounts will depend on prevailing market prices.

Source: The Riksbank

Figure 1.9. Real repo rate

Per cent, quarterly averages

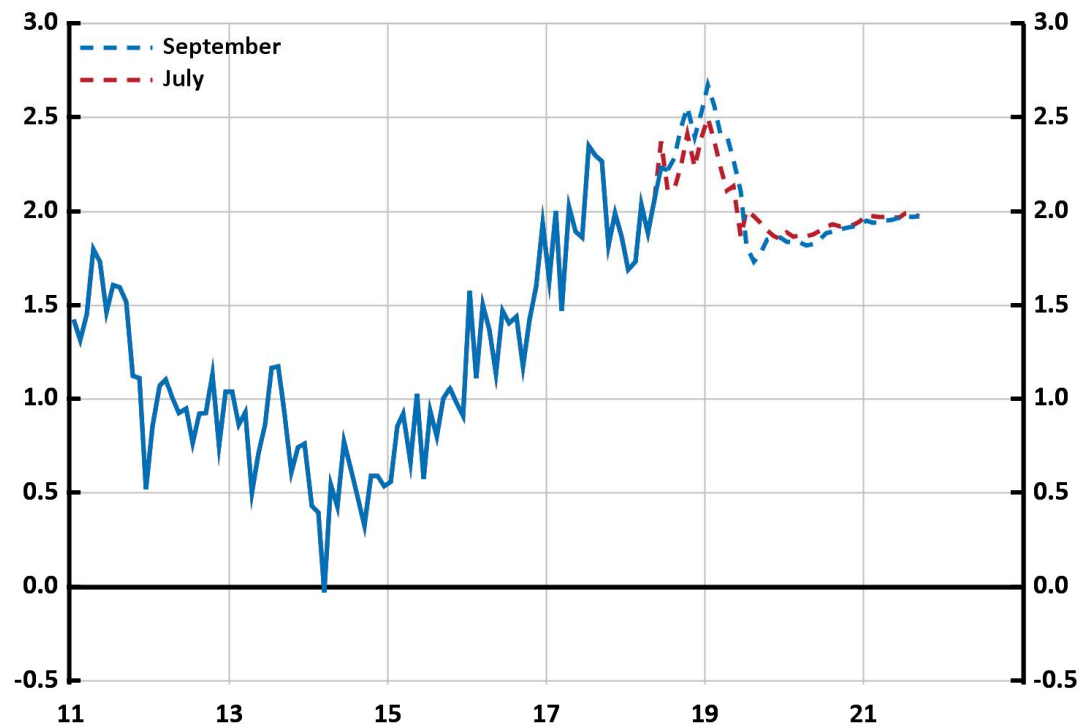


Note. The real repo rate is calculated as the mean of the Riksbank's repo rate forecast for the year ahead minus the inflation forecast (CPIF) for the corresponding period.

Sources: Statistics Sweden and the Riksbank

Figure 1.10. CPIF

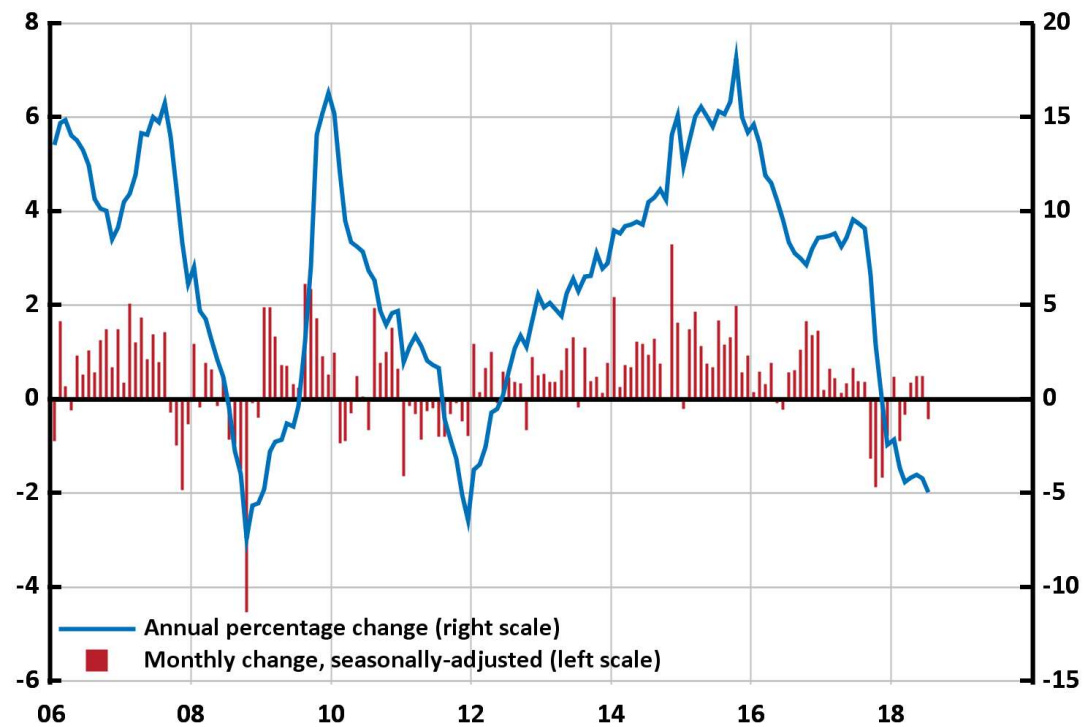
Annual percentage change



Sources: Statistics Sweden and the Riksbank

Figure 1.11. House prices according to HOX Sweden

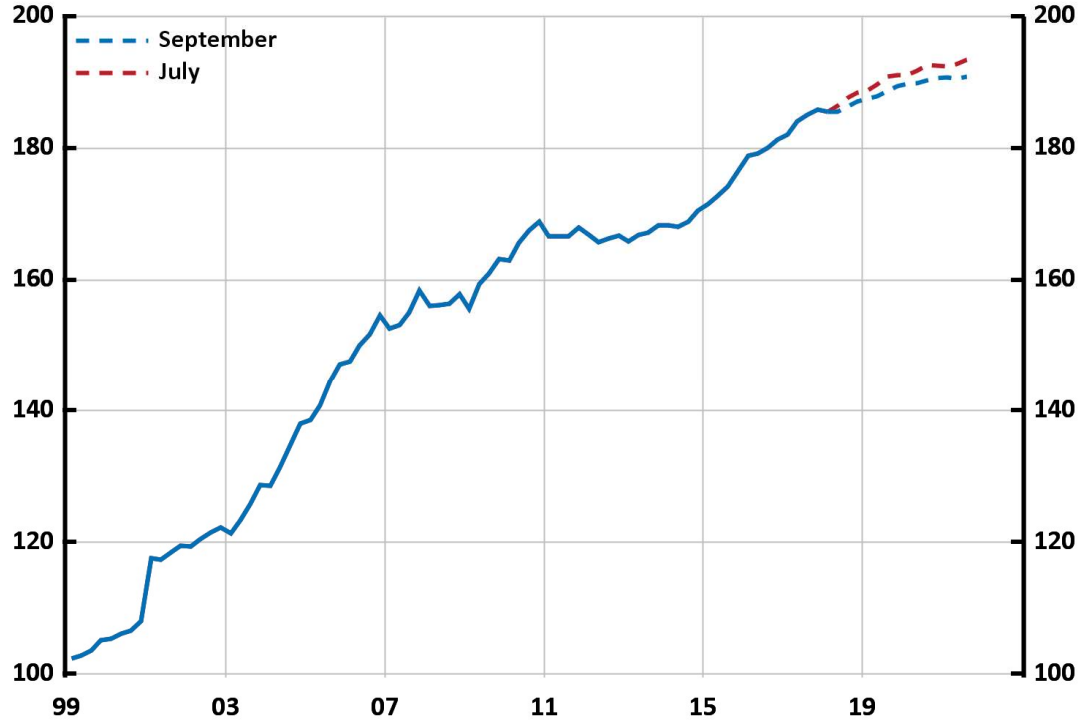
Per cent



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.

Sources: Statistics Sweden and the Riksbank

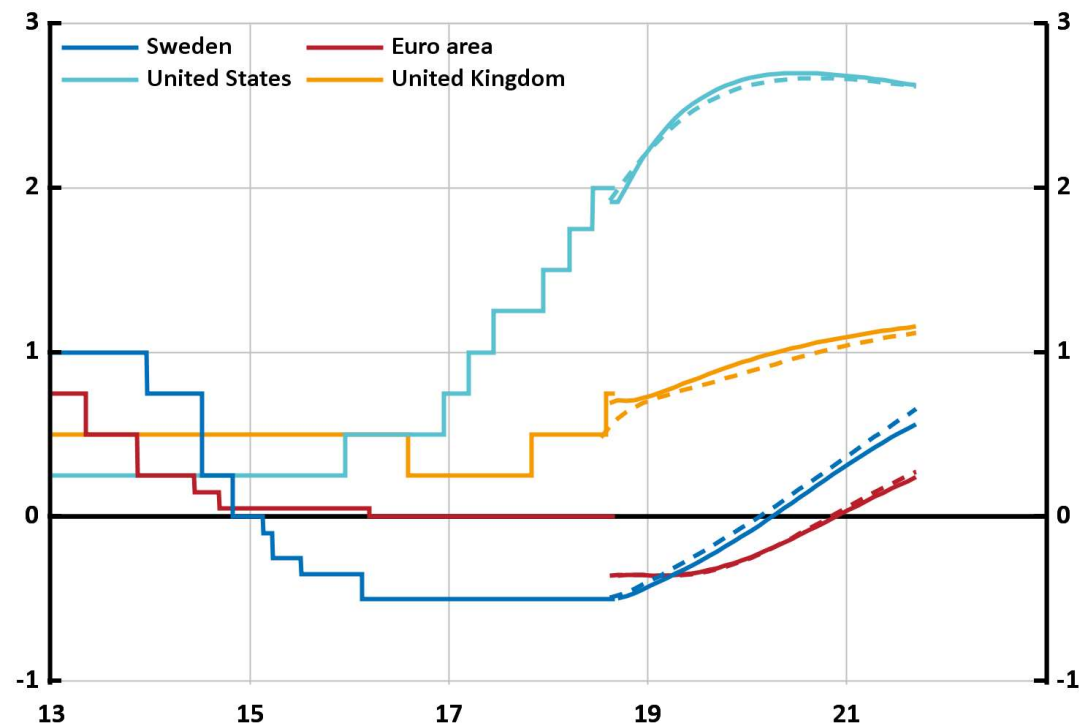
Chapter 2

S V E R I G E S R I K S B A N K



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

Per cent

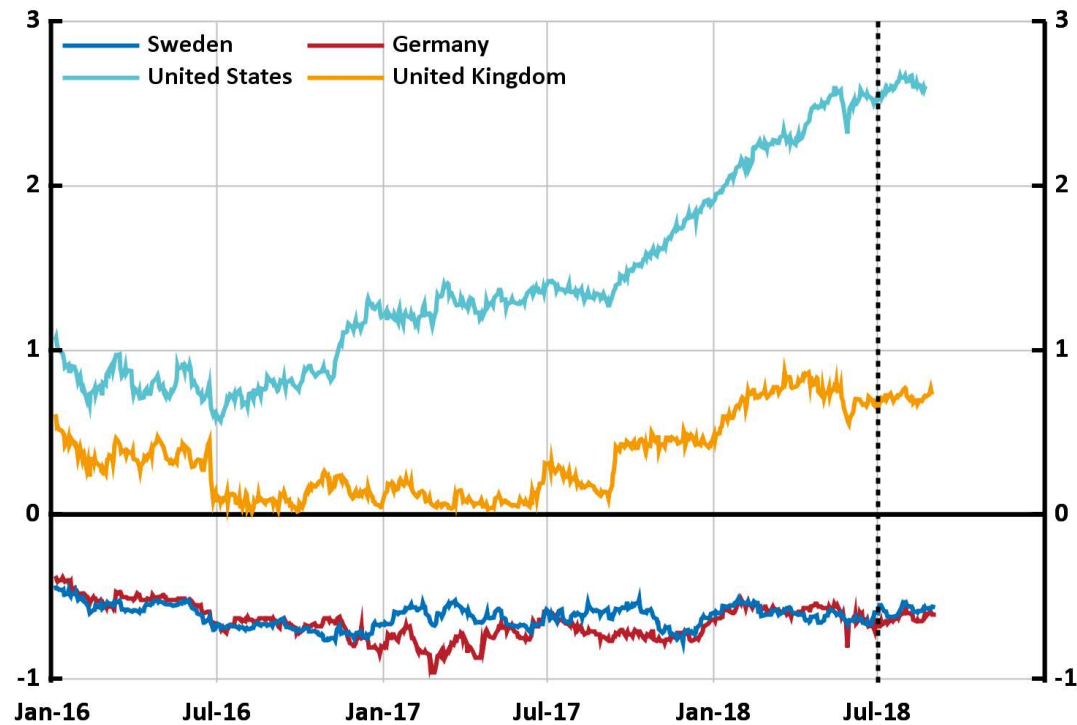


Note. Forward rates describe the expected overnight rate, which does not always correspond to the policy rate (the main refinancing rate for the euro area). Unbroken lines are estimated on 3 September 2018, broken lines are estimated on 3 July 2018.

Sources: The national central banks, Macrobond and the Riksbank

Figure 2.2. Government bond yields with 2 years to maturity

Per cent

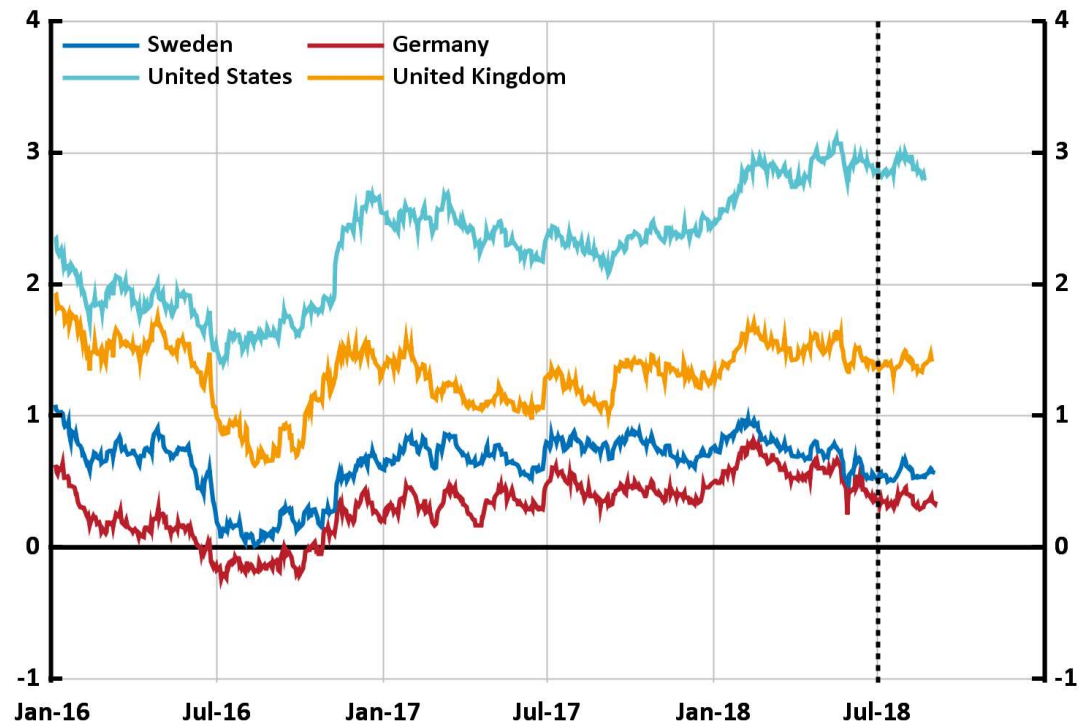


Note. Implied zero-coupon yields from government bonds. The vertical line indicates the Monetary Policy Meeting in July.

Sources: The national central banks and the Riksbank

Figure 2.3. Government bond yields with 10 years to maturity

Per cent

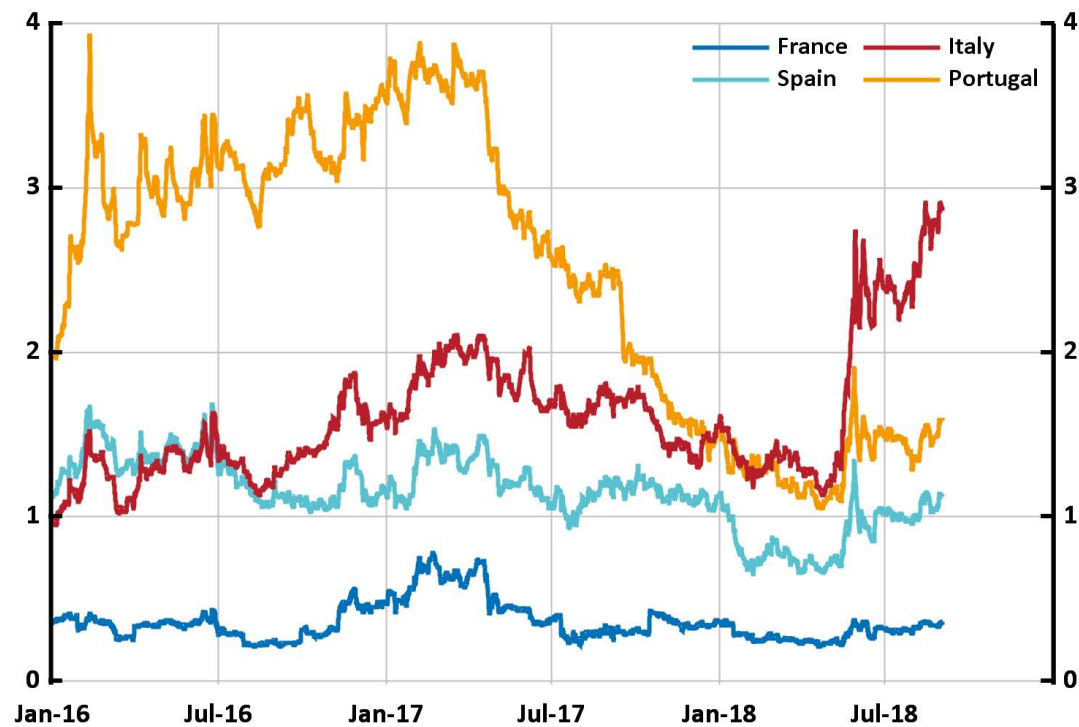


Note. Implied zero-coupon yields from government bonds. The vertical line indicates the Monetary Policy Meeting in July.

Sources: The national central banks and the Riksbank

Figure 2.4. Yield differential in relation to Germany, 10-year

Percentage points

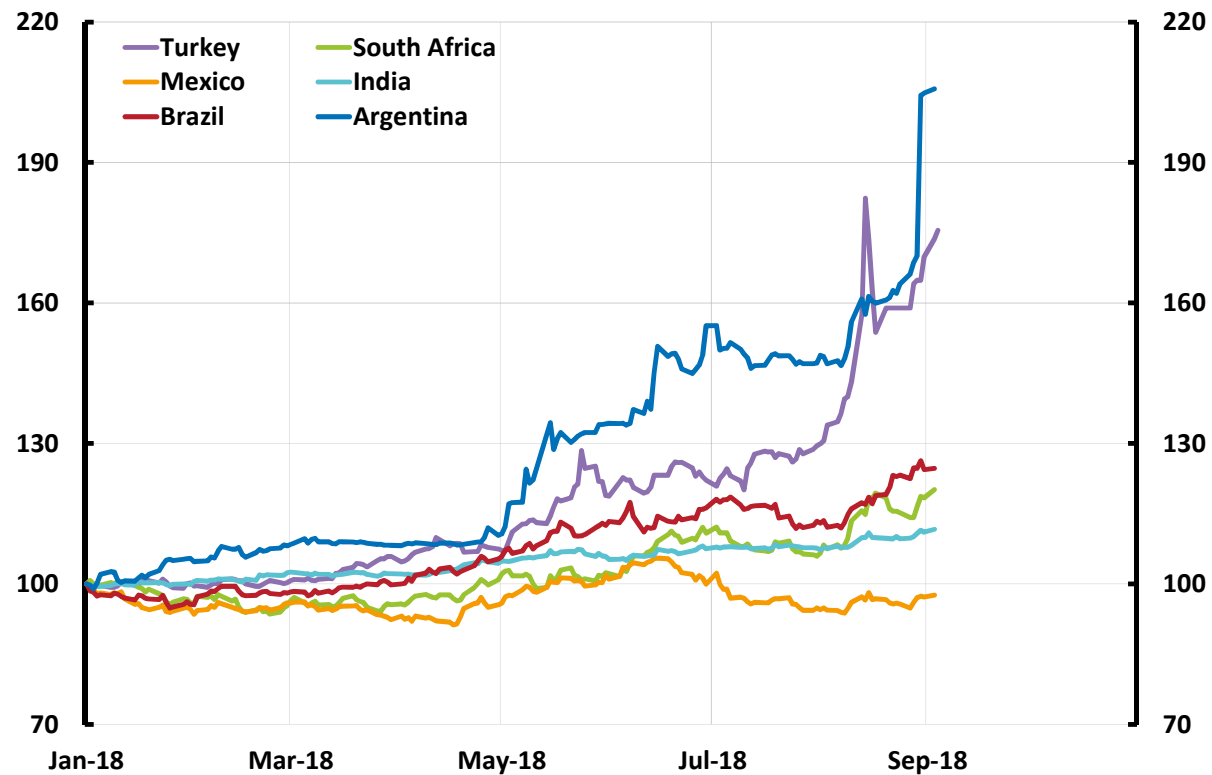


Note. Yield differentials refer to 10-year benchmark bonds.

Source: Macrobond

Figure 2.5. Emerging market economies' currencies against the dollar

Index, 2018-01-01=100

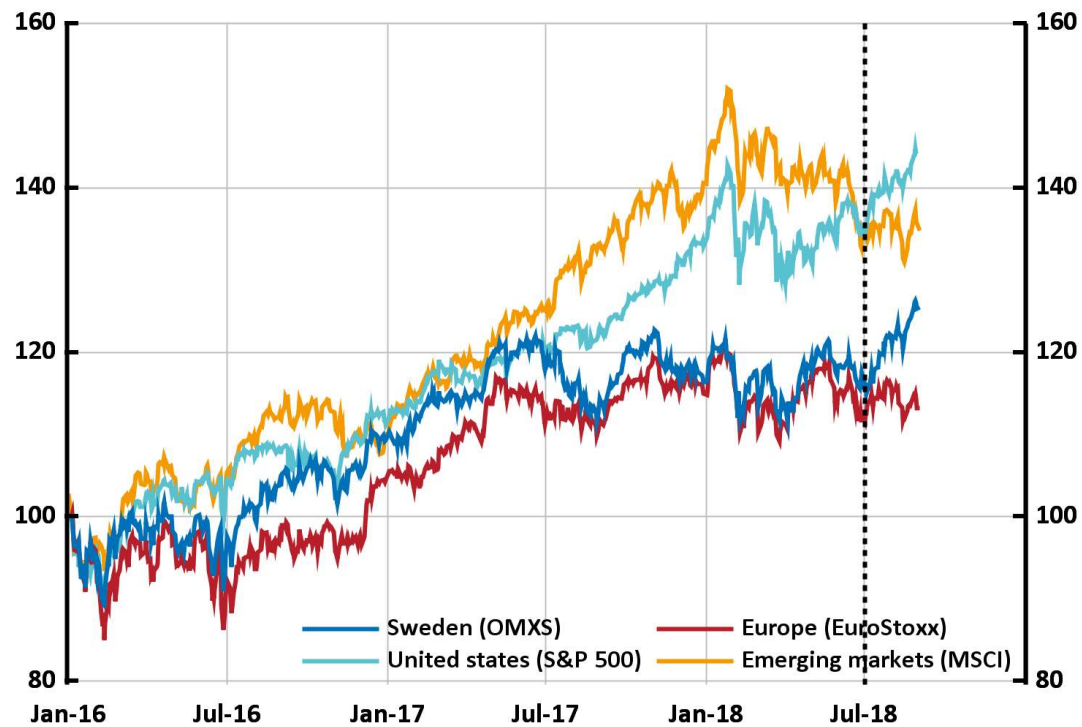


Note. A higher value indicates a weaker exchange rate.

Source: Macrobond

Figure 2.6. Stock market movements in local currency

Index, 2016-01-04 = 100

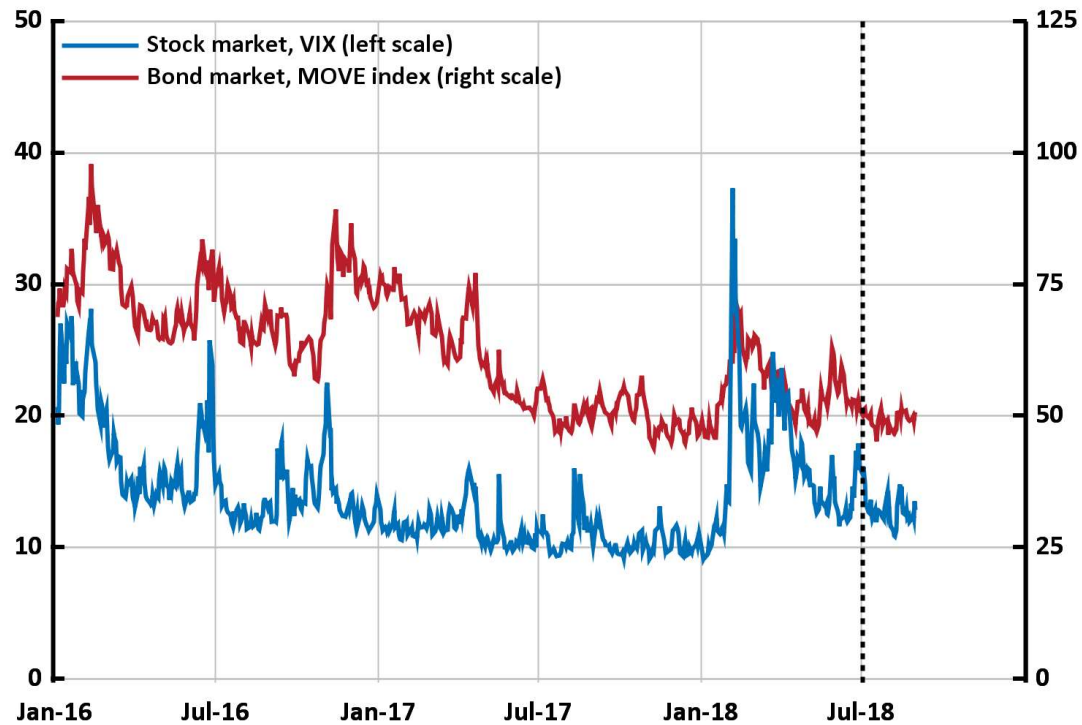


Note. The vertical line indicates the Monetary Policy Meeting in July.

Source: Macrobond

Figure 2.7. Volatility Indices

Per cent and index, respectively

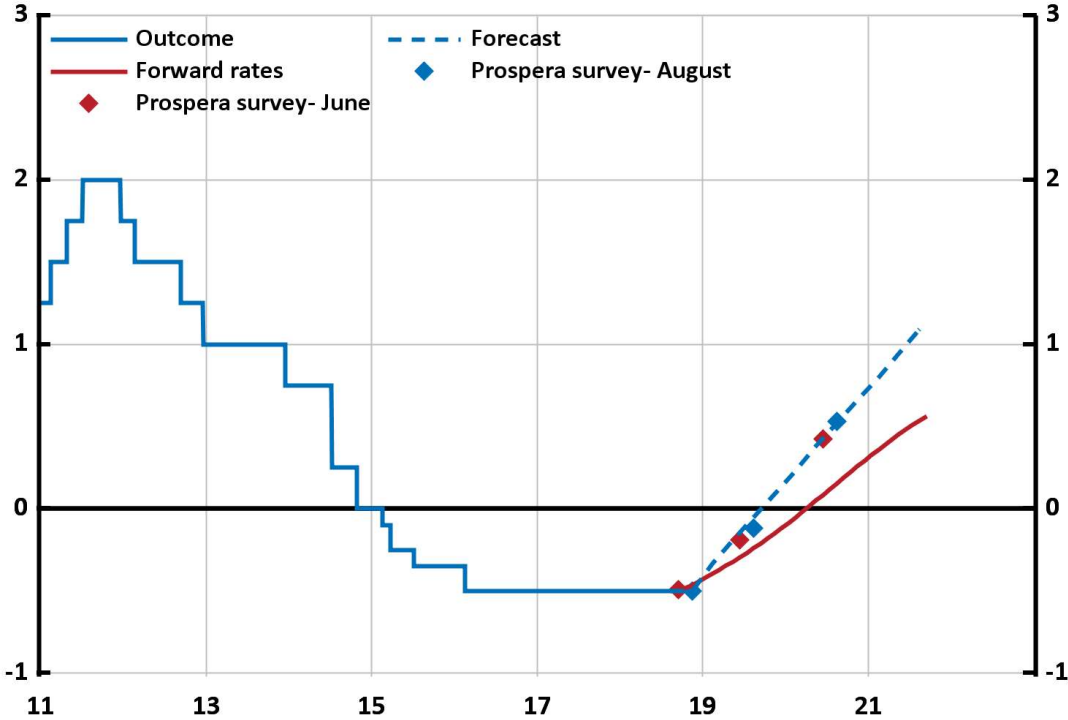


Note. Volatility Index (VIX) shows the expected volatility on the US stock market based on options prices. MOVE index is a measure of the expected volatility of US government bonds based on options prices. The vertical line indicates the Monetary Policy Meeting in July.

Sources: Chicago Board Options Exchange and Merrill Lynch

Figure 2.8. Repo rate and market expectations

Per cent, average

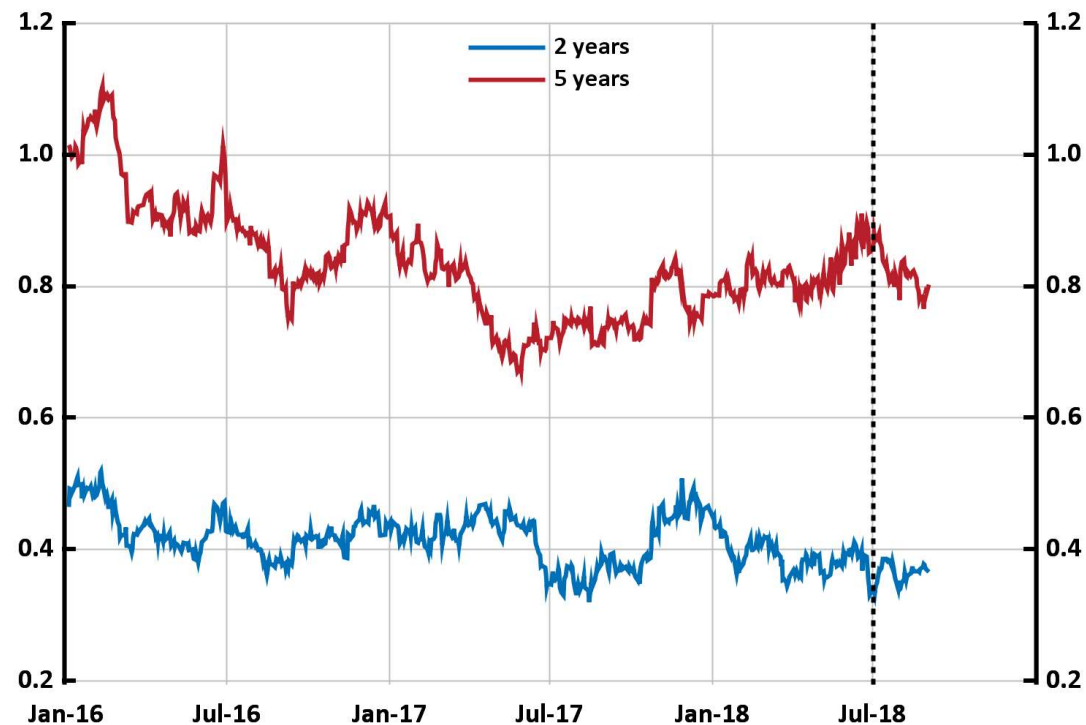


Note. The forward rate is estimated on 2018-09-03 and is a measure of the expected repo rate. The survey responses show the average for money market participants 2018-05-30 respectively 2018-07-25.

Sources: Macrobond, TNS Sifo Prospera and the Riksbank

Figure 2.9. Yield spread between mortgage bonds and government bonds

Percentage points



Note. Yields on mortgage bonds and government bonds are zero coupon yields calculated using the Nelson-Siegel method. The vertical line indicates the Monetary Policy Meeting in July.

Sources: Macrobond and the Riksbank

Figure 2.10. Competition-weighted nominal exchange rate, KIX

Index, 1992-11-18 = 100

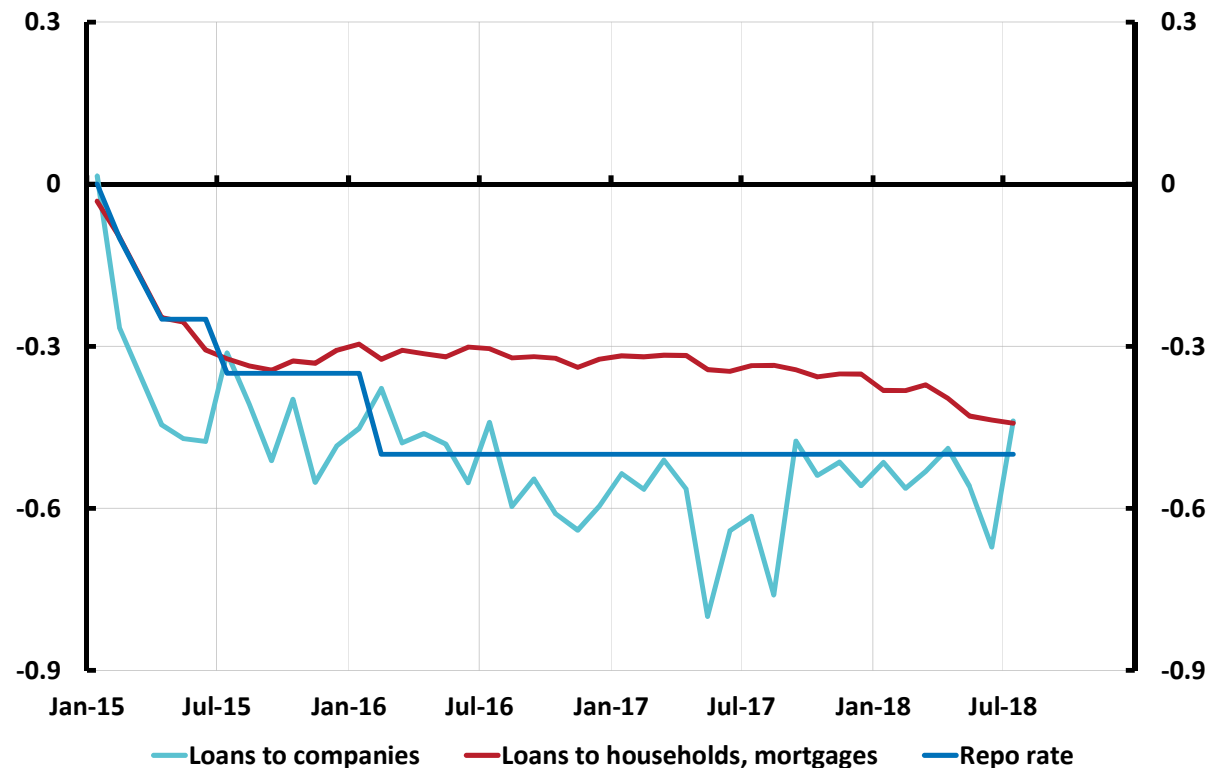


Note. KIX refers to an aggregate of countries that are important for Sweden's international transactions. The vertical line indicates the Monetary Policy Meeting in July.

Sources: National sources and the Riksbank

Figure 2.11. Change of repo rate and lending rates to households and companies since 2015

Percentage points

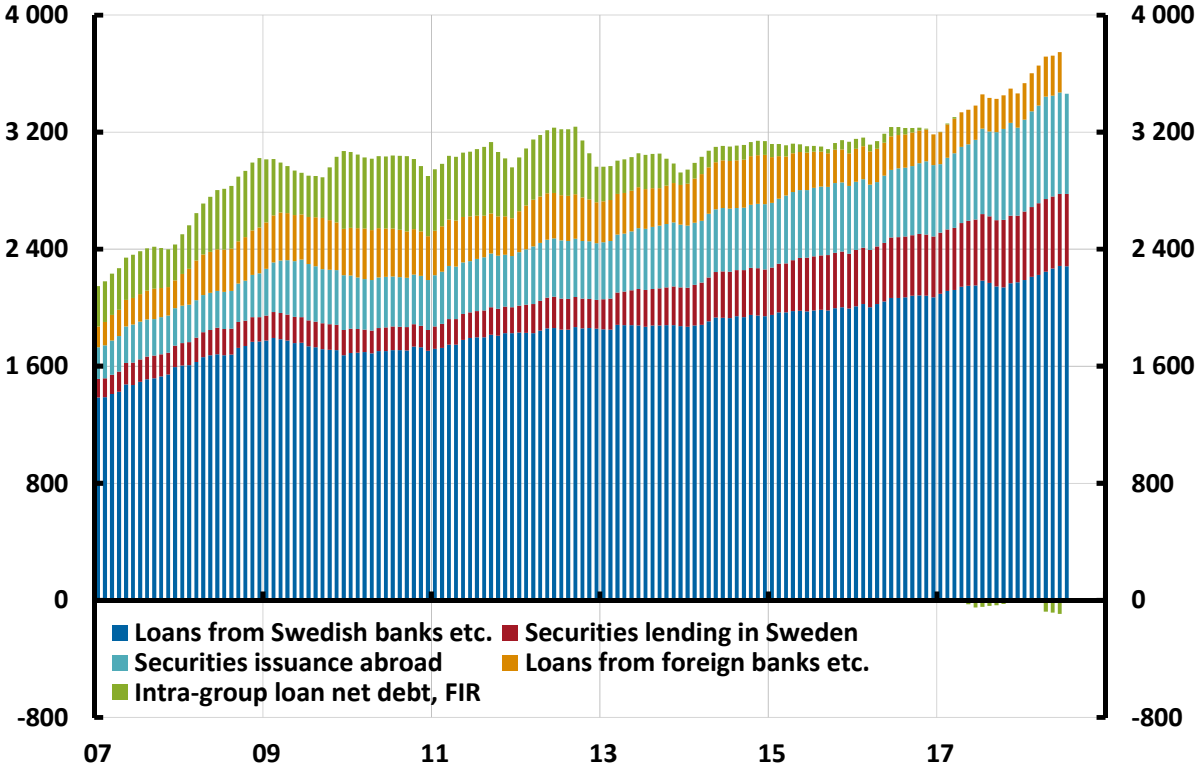


Note. The cumulative changes in each rate since the start of January 2015. Outcomes are monthly data and lending rates are value-weighted averages of the actual lending rates reported by the banks.

Sources: Statistics Sweden and the Riksbank

Figure 2.12. Swedish companies' interest-bearing loan debt

SEK billion



Note. Outcomes for loans from foreign banks and intra-group loans extend until June. Outcomes for the rest of the variables are until July.

Source: Statistics Sweden and the Riksbank

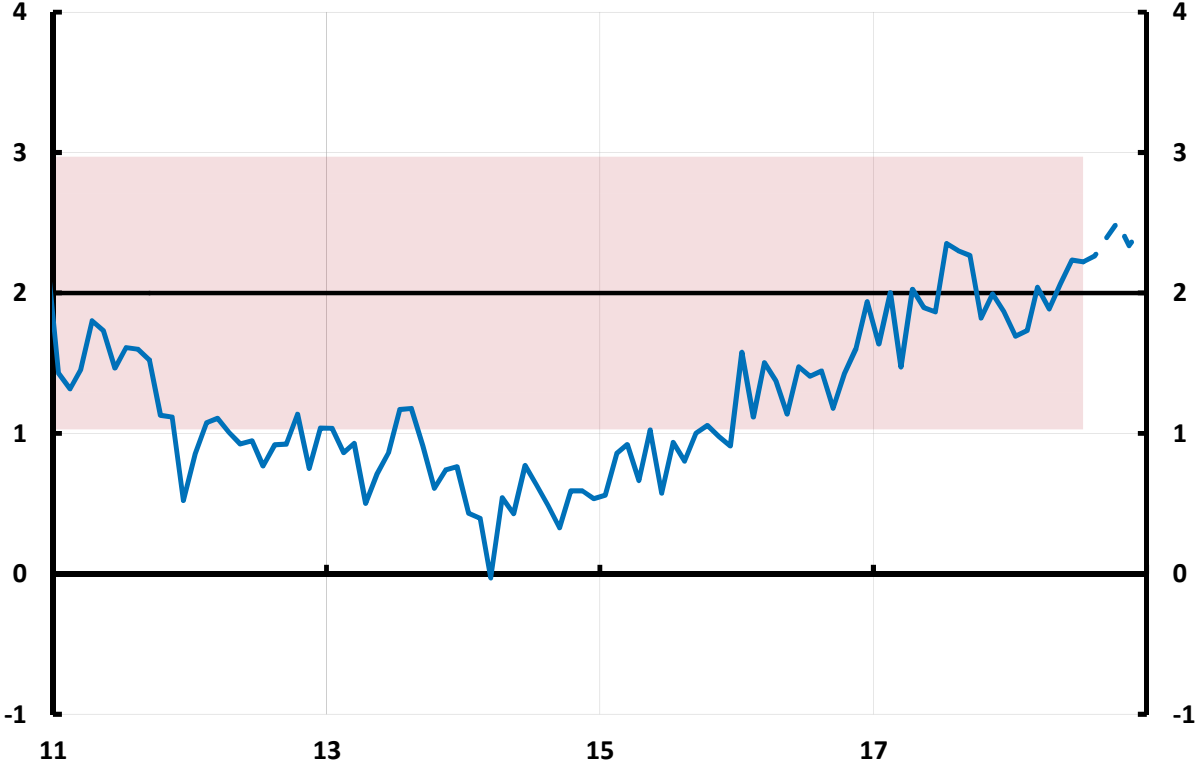
Chapter 3

S V E R I G E S R I K S B A N K



Figure 3.1. CPIF and variation band

Annual percentage change

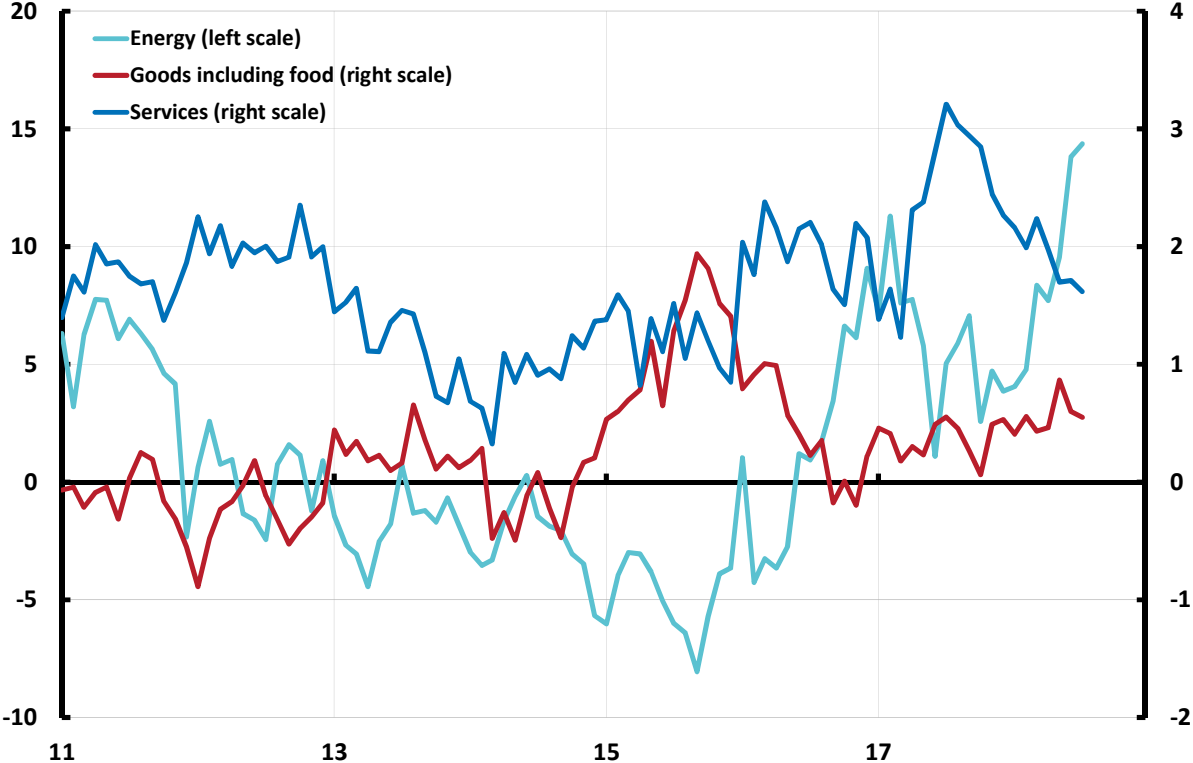


Note. The pink area shows the Riksbank’s variation band and covers about three-quarters of the outcomes since January 1995. The variation band is a means of showing whether the deviation from the inflation target is unusually large. The broken line represents the Riksbank’s forecast.

Sources: Statistics Sweden and the Riksbank

Figure 3.2. Prices of energy, services and goods in the CPI

Annual percentage change

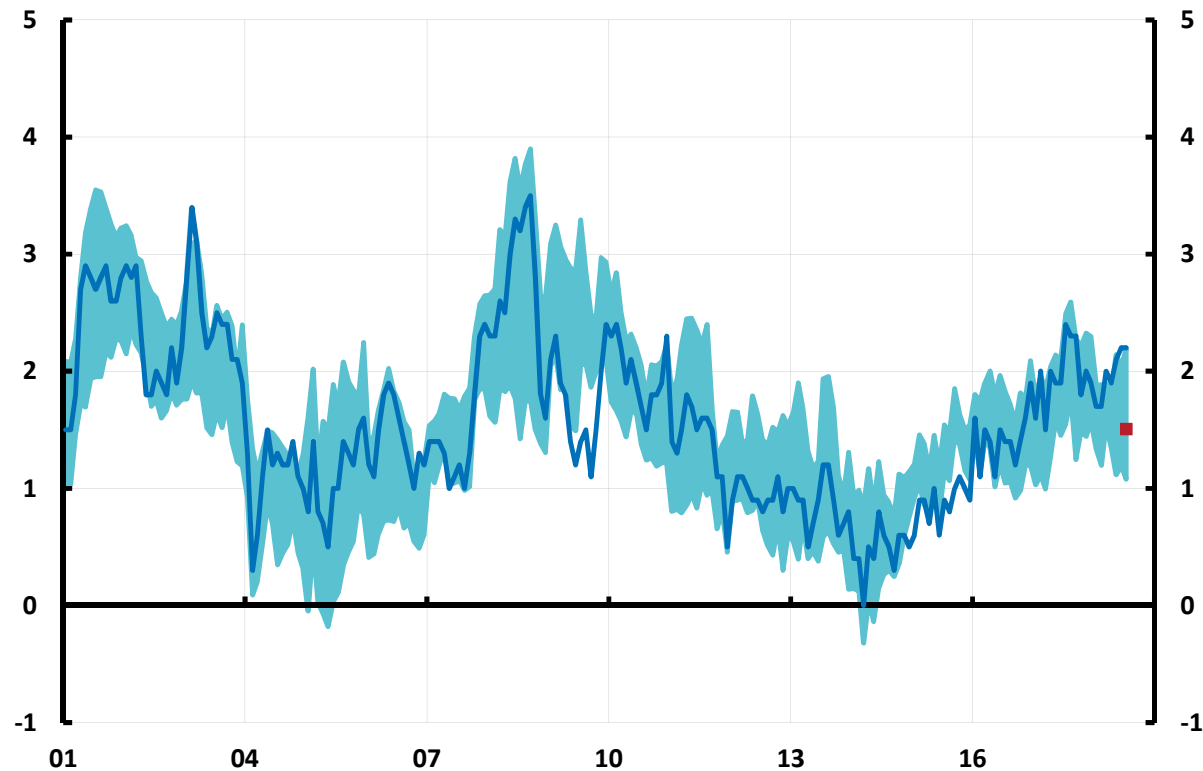


Note. Goods including food is a combination of the aggregate goods and food in the CPI. Together, these account for 45 per cent of the CPI. Service prices and energy prices account for 45 and 7 per cent, respectively, of the CPI.

Sources: Statistics Sweden and the Riksbank

Figure 3.3. The CPIF and different measures of underlying inflation

Annual percentage change

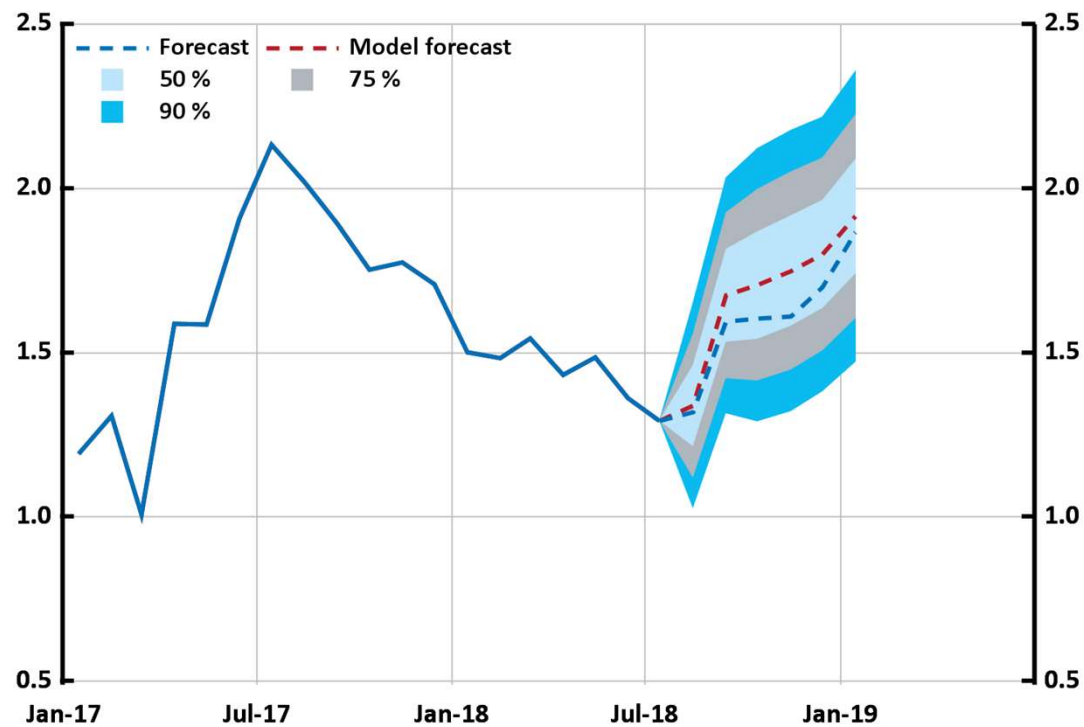


Note. The field shows the highest and lowest outcomes among different measures of underlying inflation. As of this report, the calculations are based on the CPIF instead of the CPI. The measures included are the CPIF excluding energy, UND24, Trim85, the CPIF excluding energy and unprocessed food, persistence-weighted inflation, factors from principal component analysis and weighted median inflation. The line represents the CPIF. The red dot represents the median in July 2018 of all included measures.

Sources: Statistics Sweden and the Riksbank

Figure 3.4. CPIF excluding energy, model forecast with uncertainty bands

Annual percentage change

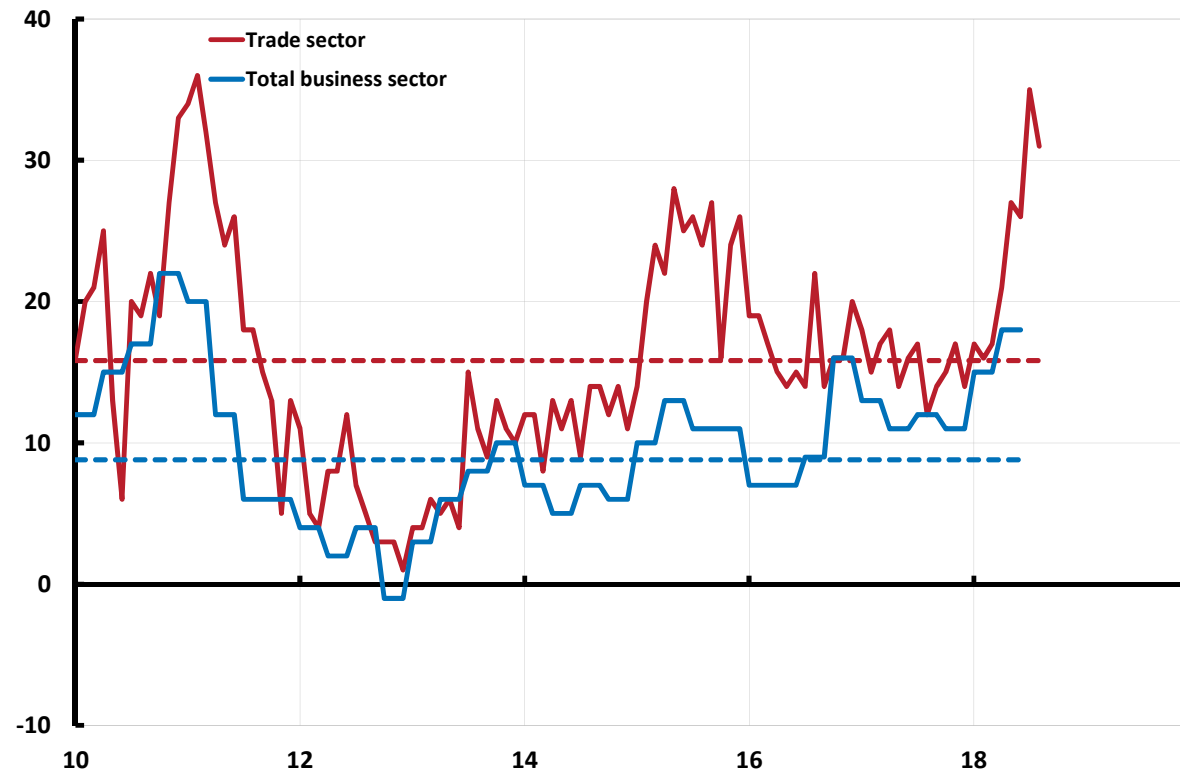


Note. The uncertainty bands are based on the models' historical forecast errors. The model forecasts are adjusted to the new seasonal pattern following method changes in the calculation of the price index for package holidays.

Sources: Statistics Sweden and the Riksbank

Figure 3.5. Price plans in the total business sector and trade sector

Net figures, seasonally-adjusted data

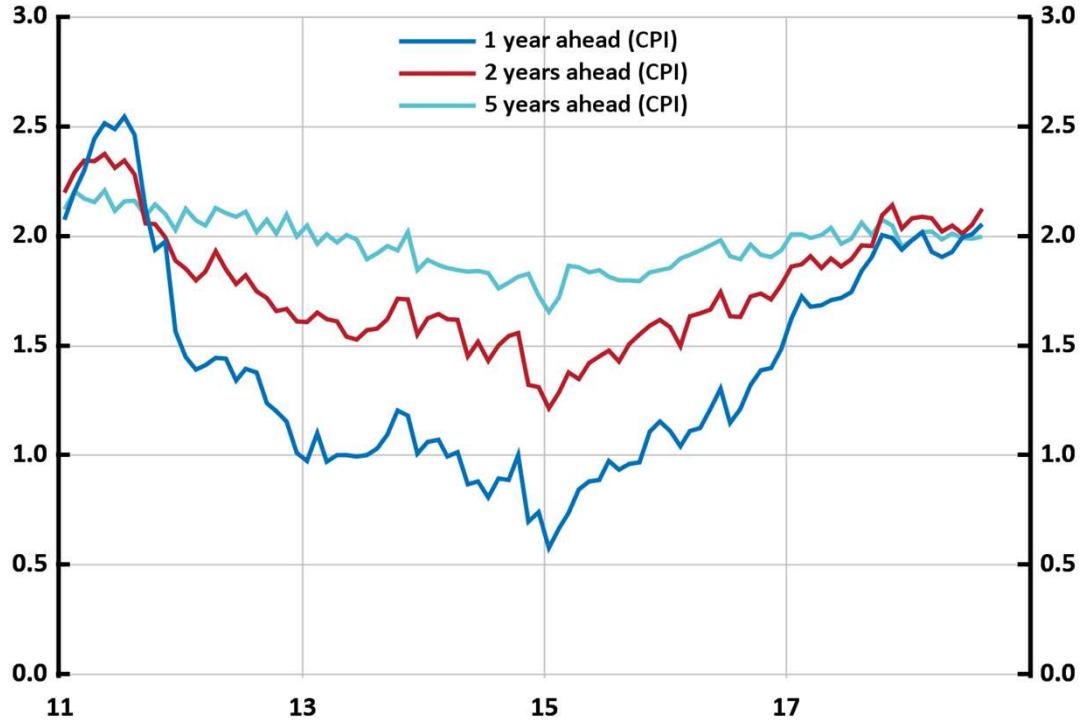


Note. The net figure is the balance between the proportion of companies stating that they expect higher sales prices and those expecting lower sales prices over the next three months. Broken lines represent the averages since May 2003.

Source: National Institute of Economic Research

Figure 3.6. Inflation expectations among money market participants

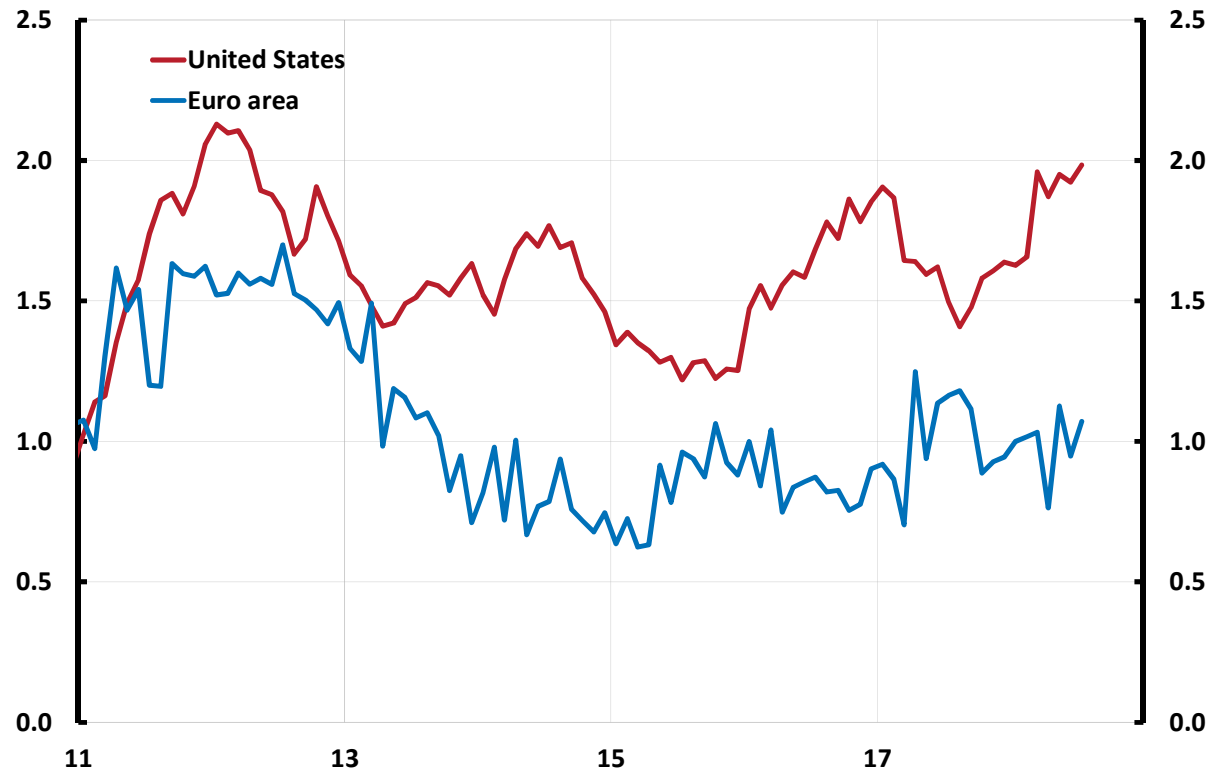
Per cent, mean value



Source: TNS Sifo Prospera

Figure 3.7. Underlying inflation abroad

Annual percentage change

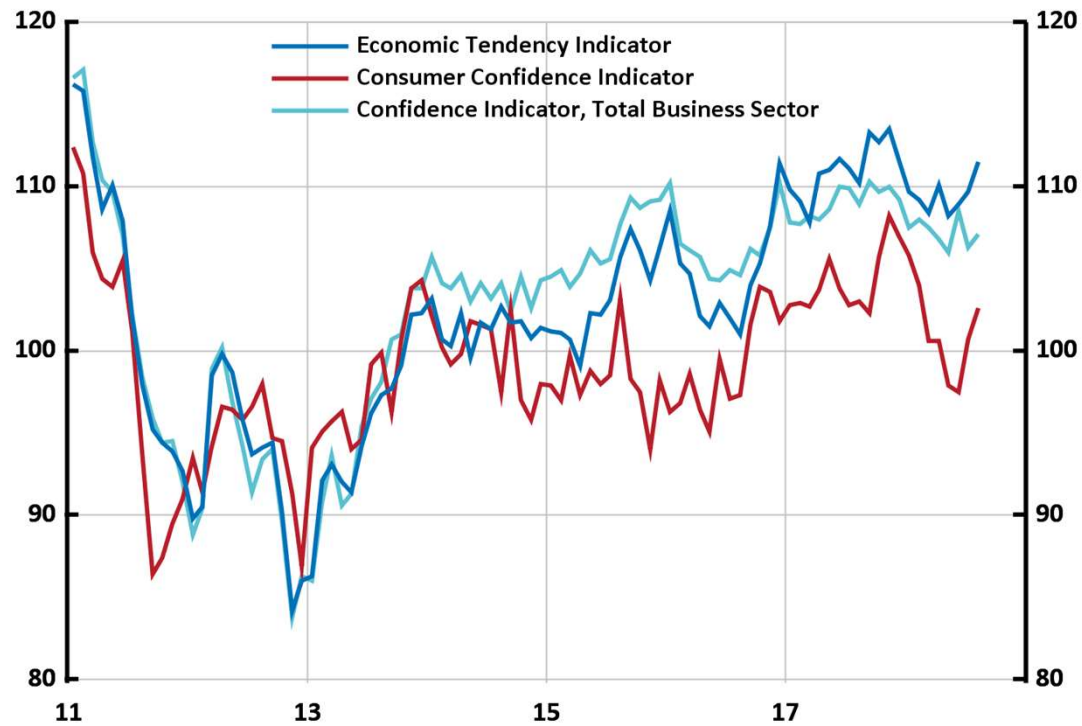


Note. The HICP excluding energy, food, alcohol and tobacco is shown for the euro area. The deflator for private consumption excluding energy and food is shown for the United States.

Sources: Bureau of Economic Analysis and Eurostat

Figure 3.8. Confidence indicators

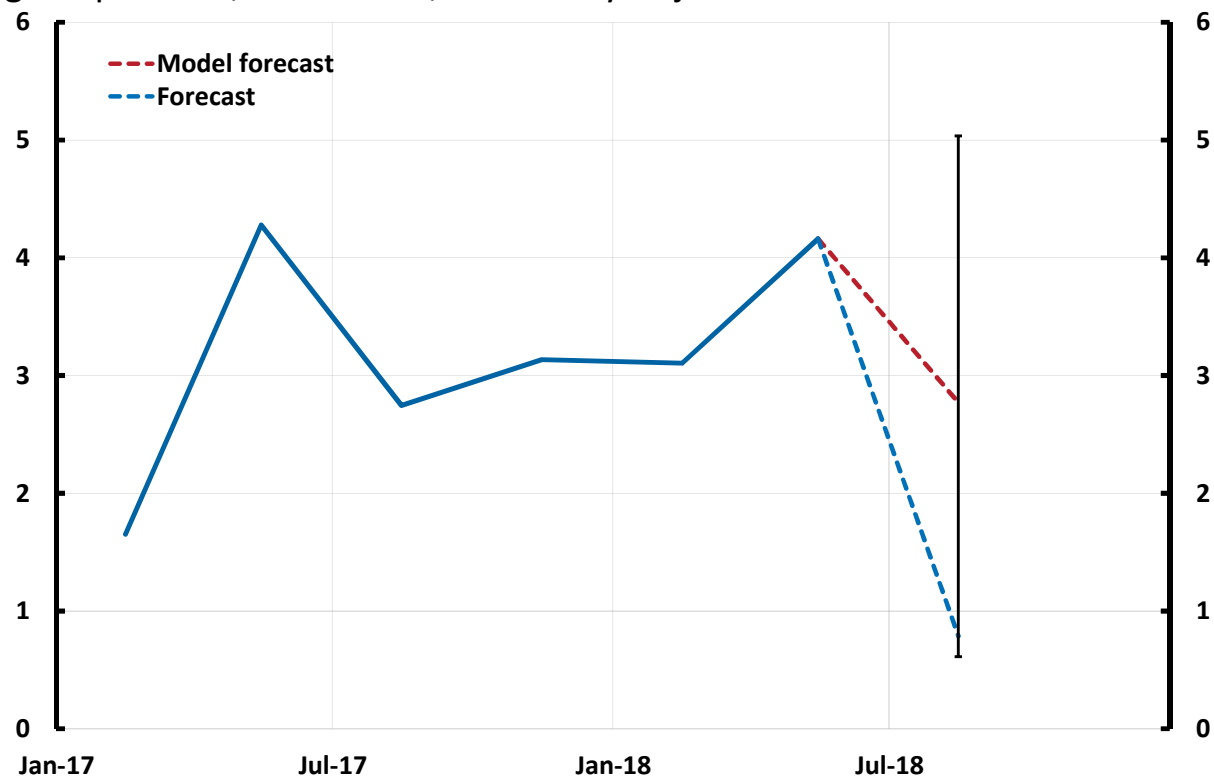
Index, average = 100, standard deviation = 10, seasonally-adjusted data



Source: National Institute of Economic Research

Figure 3.9. GDP, model forecast with uncertainty bands

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

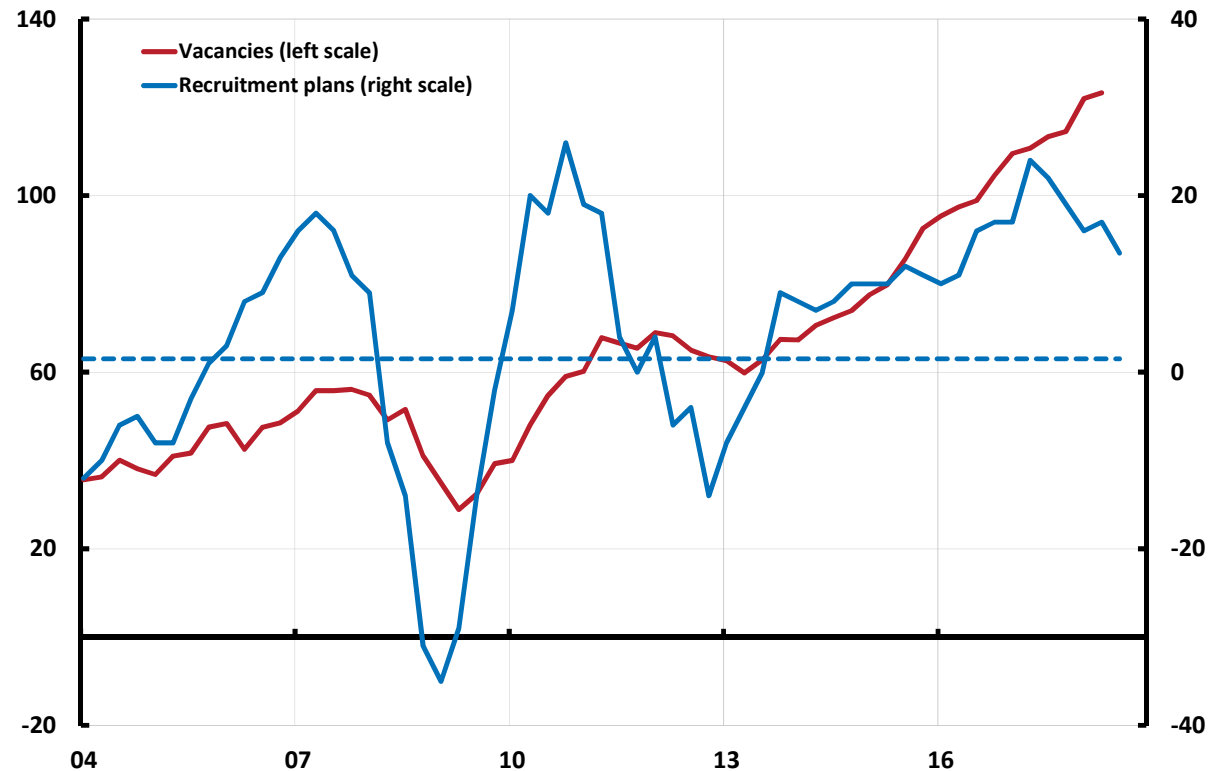


Note. The model forecast is an average of forecasts from different statistical models. The vertical line refers to a 50 per cent uncertainty band based on the models' historical forecast errors.

Sources: Statistics Sweden and the Riksbank

Figure 3.10. Vacancies and recruitment plans

Thousands and net figures, respectively, seasonally-adjusted data

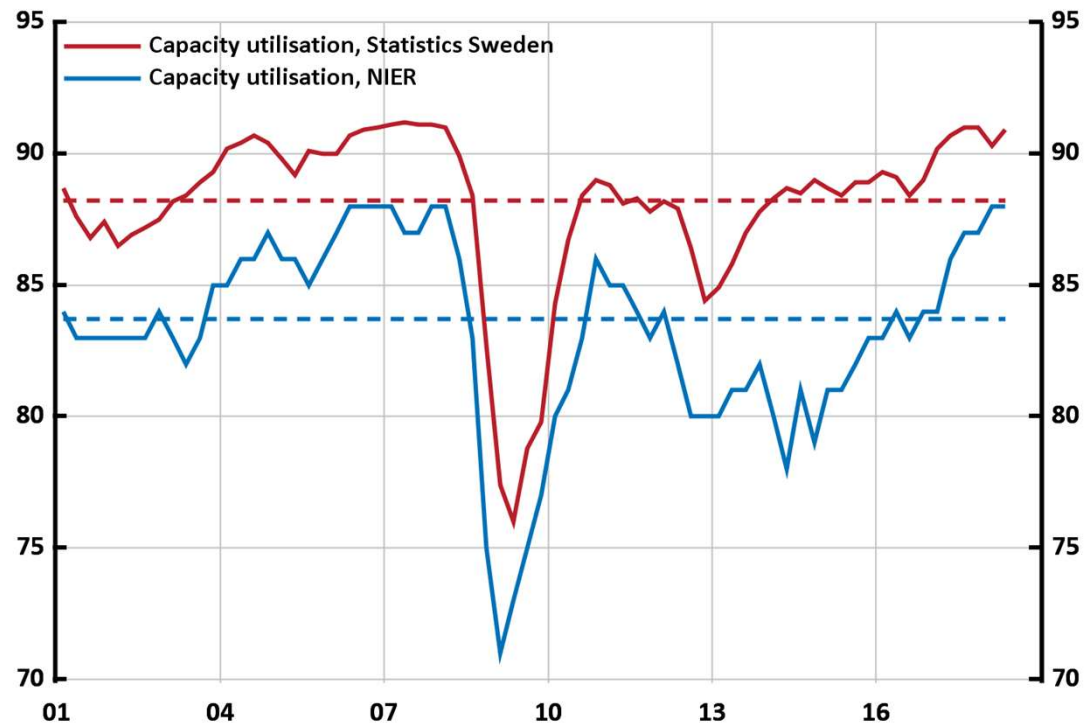


Note. Recruitment plans refer to expectations of the number of employed in the business sector three months ahead. Recruitment plans for 2018 Q3 refer to an average of the monthly outcomes in July-August 2018. The broken line represents the average of recruitment plans since 1996.

Sources: National Institute of Economic Research and Statistics Sweden

Figure 3.11. Capacity utilisation in manufacturing industry

Per cent, seasonally-adjusted data

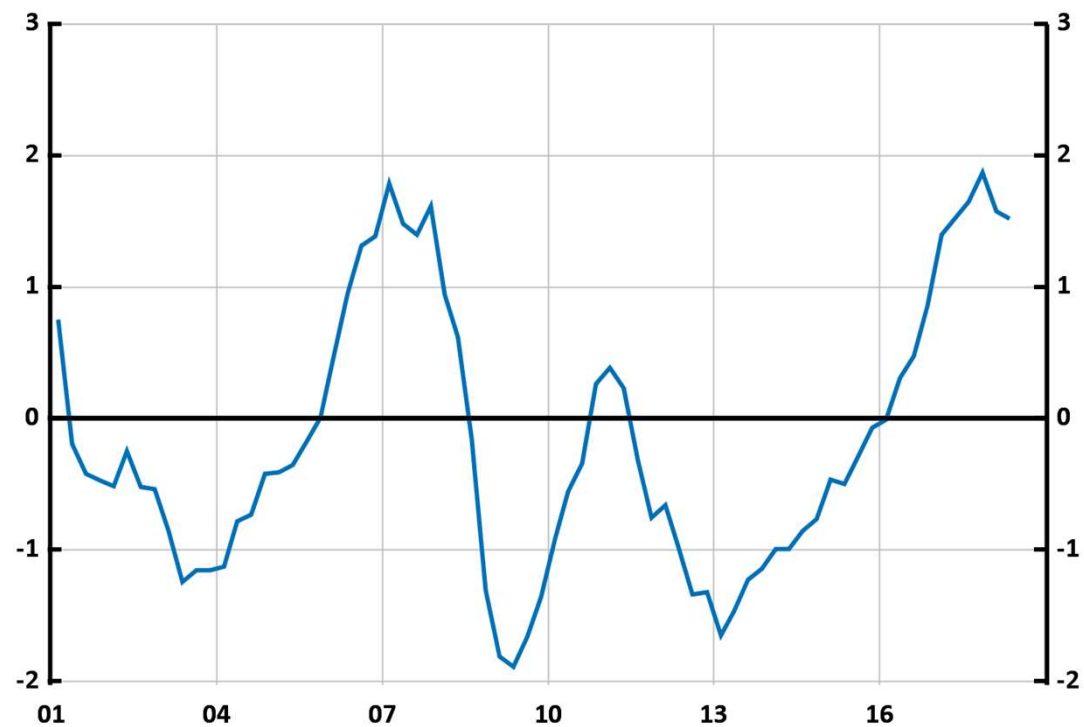


Note. The broken lines represents the mean value since 1996.

Sources: National Institute of Economic Research and Statistics Sweden

Figure 3.12. Resource utilisation indicator

Standard deviations

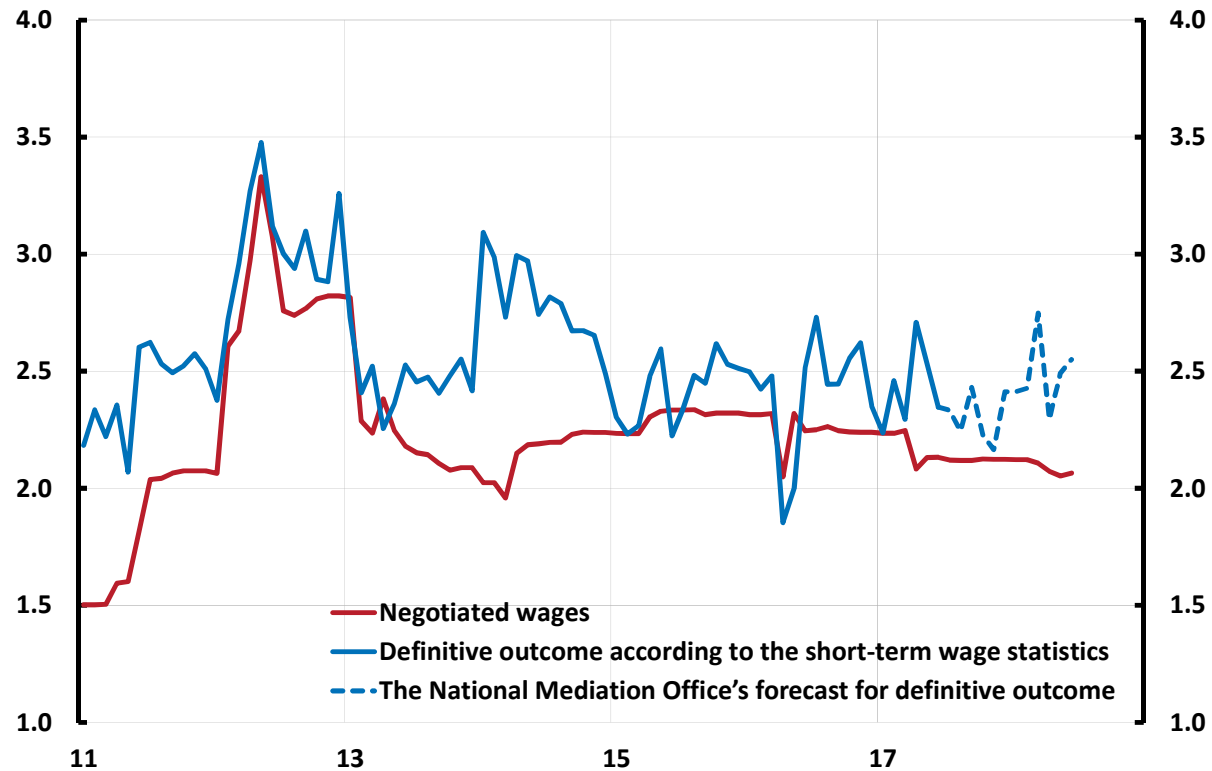


Note. The RU indicator is a statistical measure of resource utilisation. It is normalised so that the mean value is 0 and the standard deviation is 1.

Source: The Riksbank

Figure 3.13. Wages and wage agreements in the economy as a whole

Annual percentage change



Source: National Mediation Office

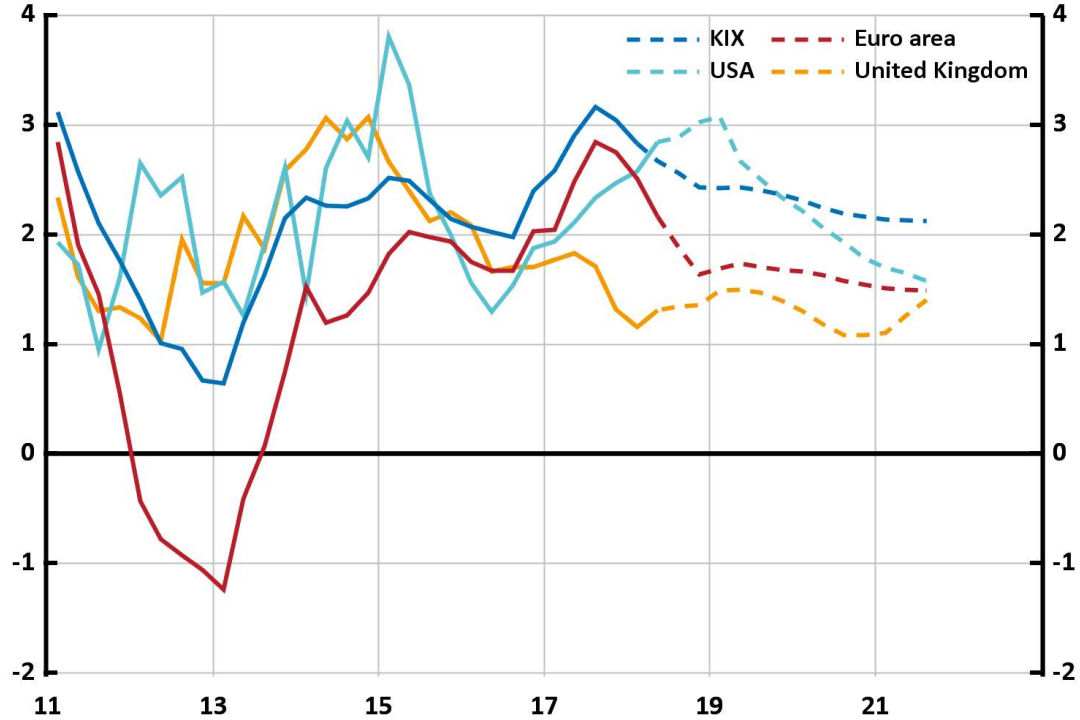
Chapter 4

S V E R I G E S R I K S B A N K



Figure 4.1. GDP in various countries and regions

Annual percentage change

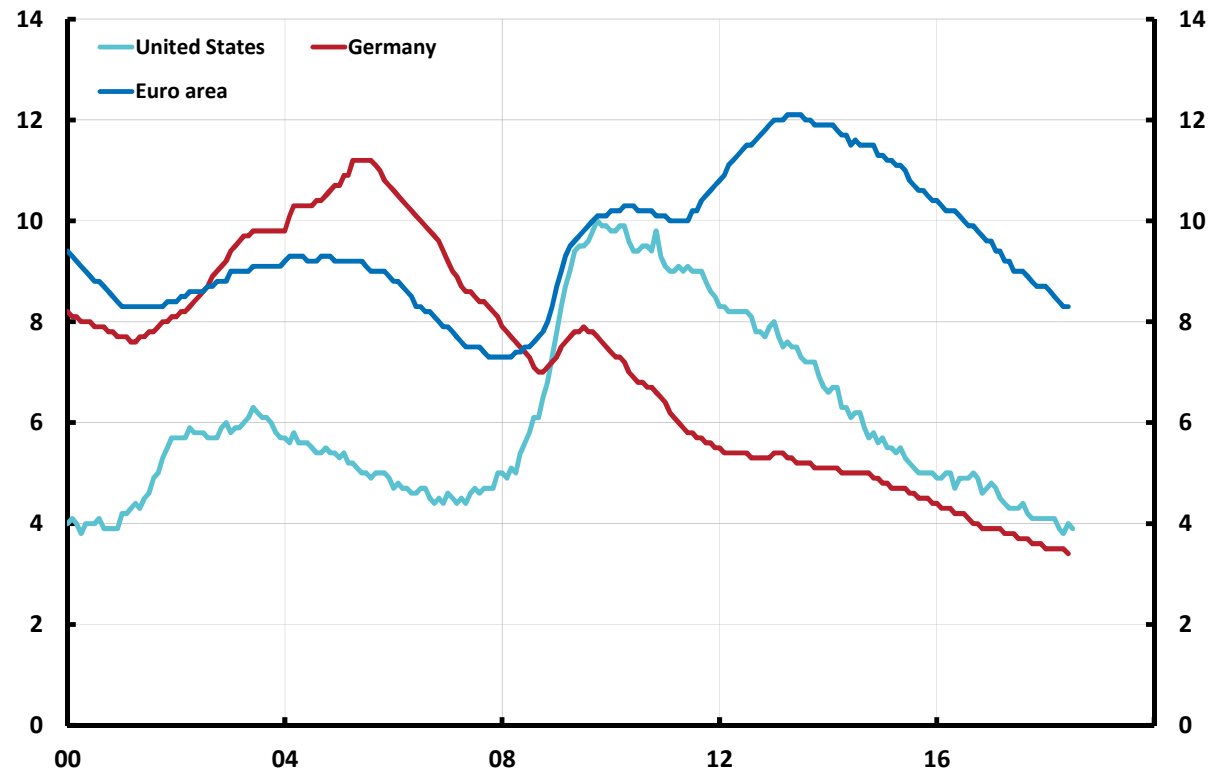


Note. KIX is an aggregate of countries that are important to Sweden's international transactions.

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

Figure 4.2. Unemployment in various countries and regions

Percentage of the labour force, seasonally-adjusted data



Source: OECD

Figure 4.3. Price of crude oil

USD per barrel, Brent oil

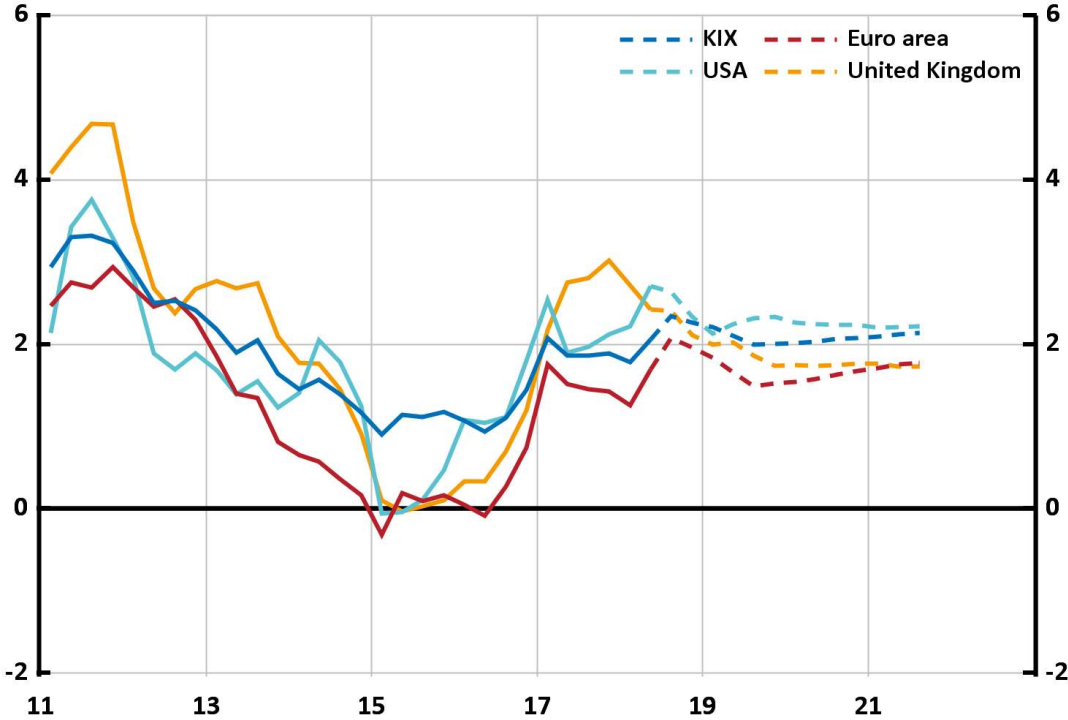


Note. Forward prices are calculated as a 15-day average. The outcomes refer to monthly averages of spot prices.

Sources: Macrobond and the Riksbank

Figure 4.4. Inflation in various countries and regions

Annual percentage change

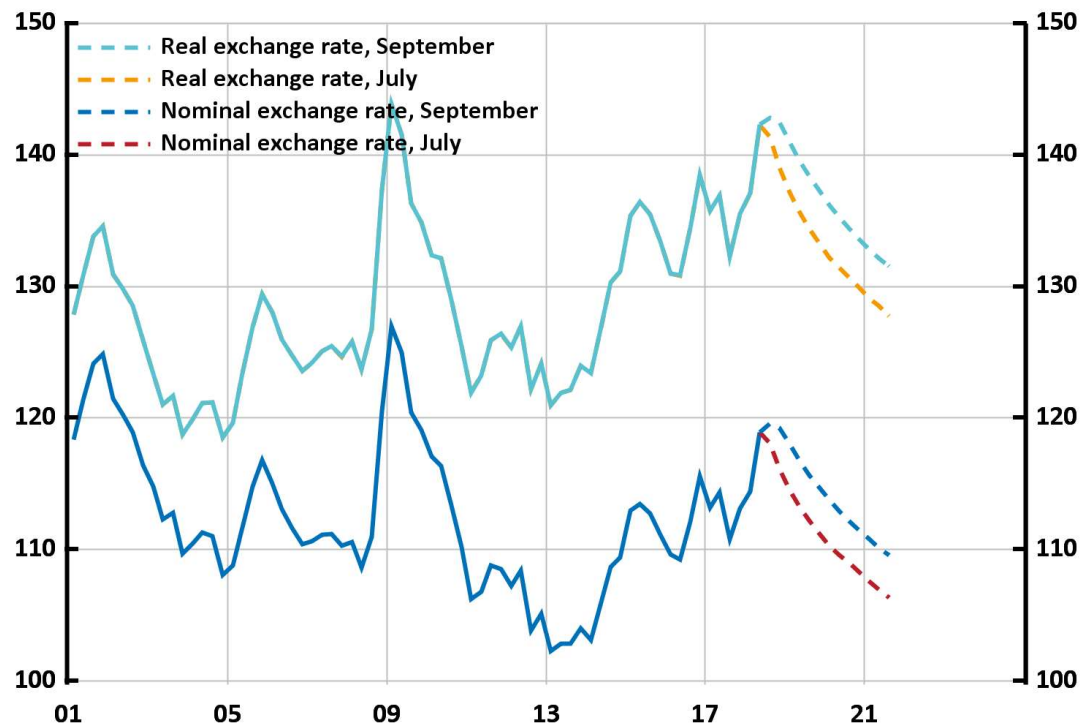


Note. KIX is an aggregate of the countries that are important to Sweden's international transactions.

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

Figure 4.5. Real and nominal exchange rate, KIX

Index, 18 November 1992 = 100

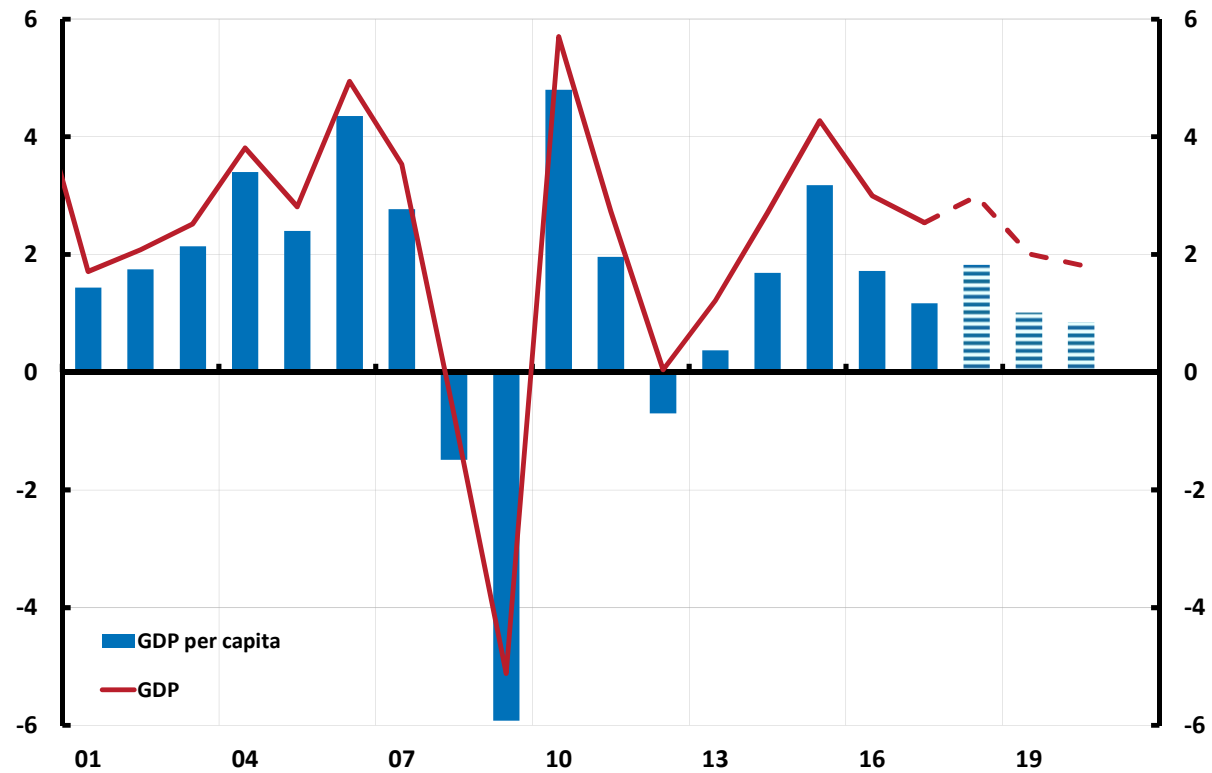


Note. The real exchange rate is calculated using the CPI for Sweden and the CPI for the rest of the world. Outcomes for the real exchange rate, nominal exchange rate and forecasts refer to quarterly averages. The KIX is an aggregate of 32 countries that are important for Sweden's international transactions.

Sources: National sources, Statistics Sweden and the Riksbank

Figure 4.6. GDP and GDP per capita

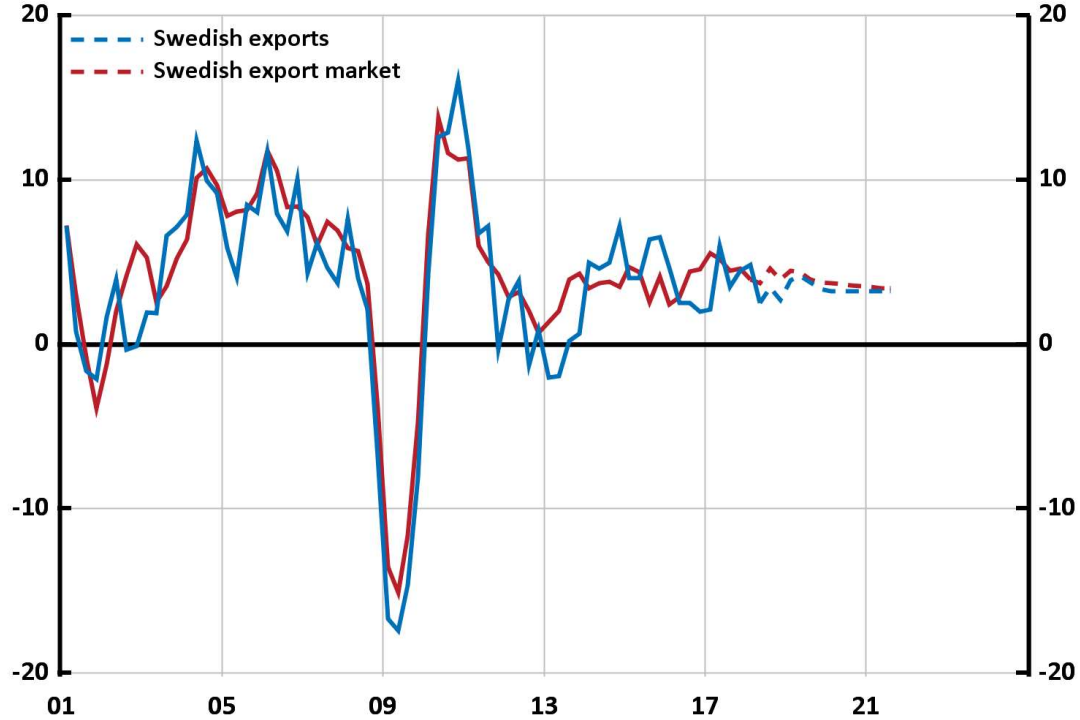
Annual percentage change, calendar-adjusted data



Sources: Statistics Sweden and the Riksbank

Figure 4.7. Exports and the Swedish export market

Annual percentage change, calendar-adjusted data

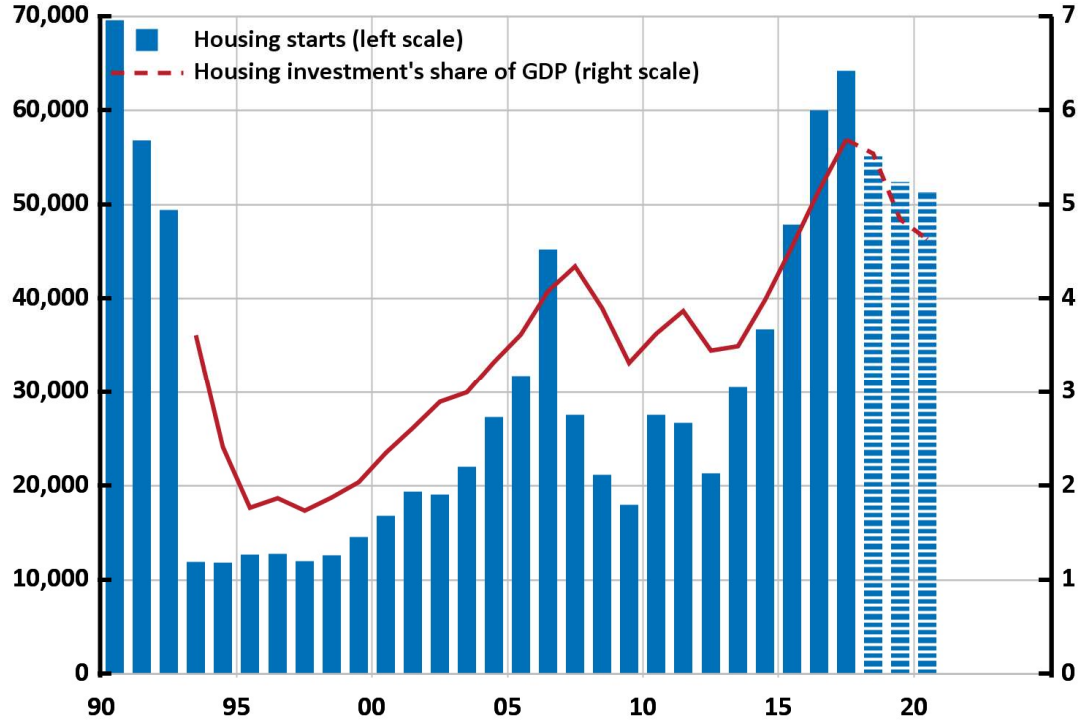


Note. The Swedish export market index measures import demand in the countries to which Sweden exports. This is calculated by aggregating imports in the countries included in KIX and covers around 85 per cent of the total Swedish export market.

Sources: Statistics Sweden and the Riksbank

Figure 4.8. Housing starts and housing investments

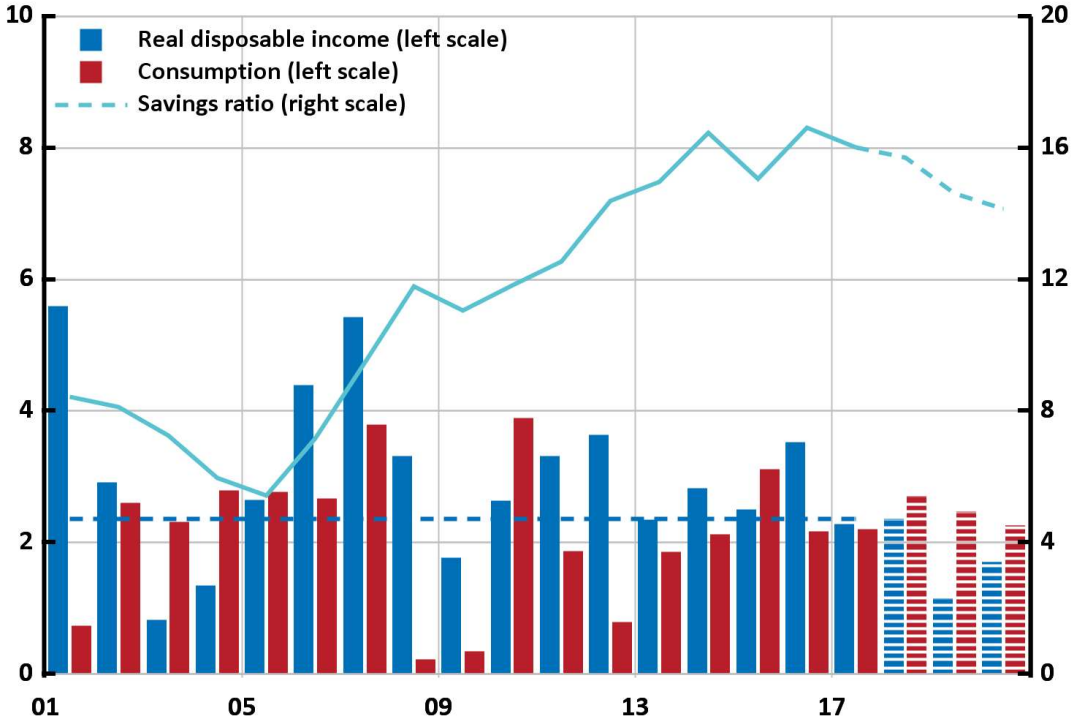
Number and per cent, respectively



Sources: Statistics Sweden and the Riksbank

Figure 4.9. Households' real disposable income, consumption and savings ratio

Annual percentage change and per cent of disposable income

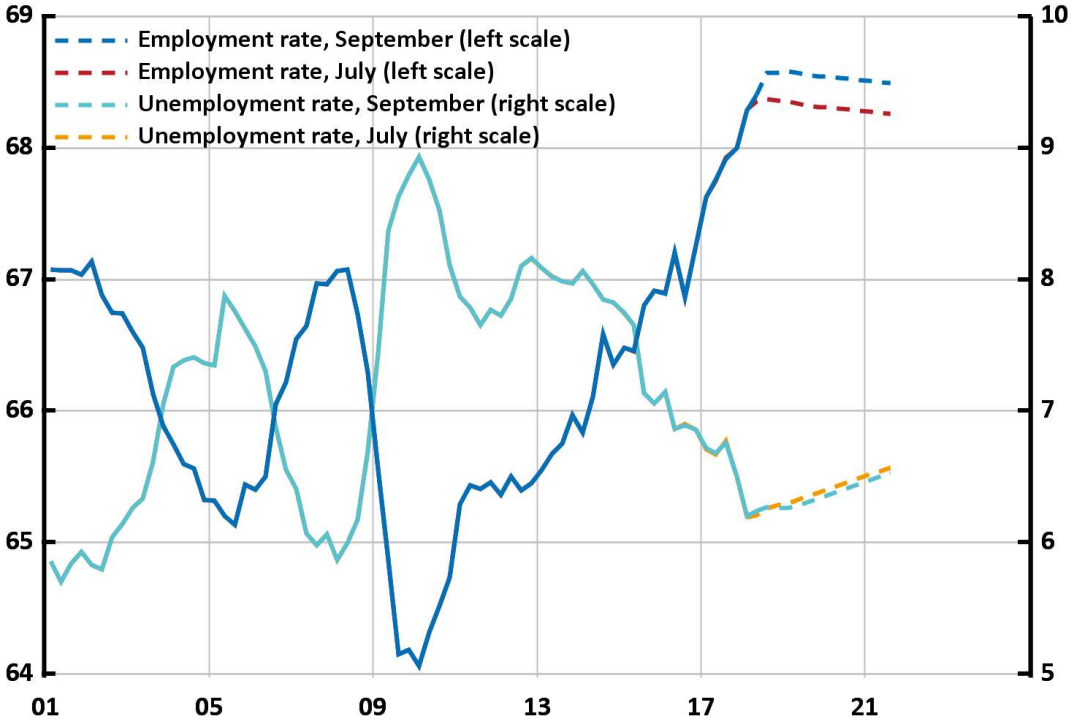


Note. Disposable income has been deflated using the household consumption deflator. Broken line is the average of consumption growth 1994–2017.

Sources: Statistics Sweden and the Riksbank

Figure 4.10. Employment and unemployment rate

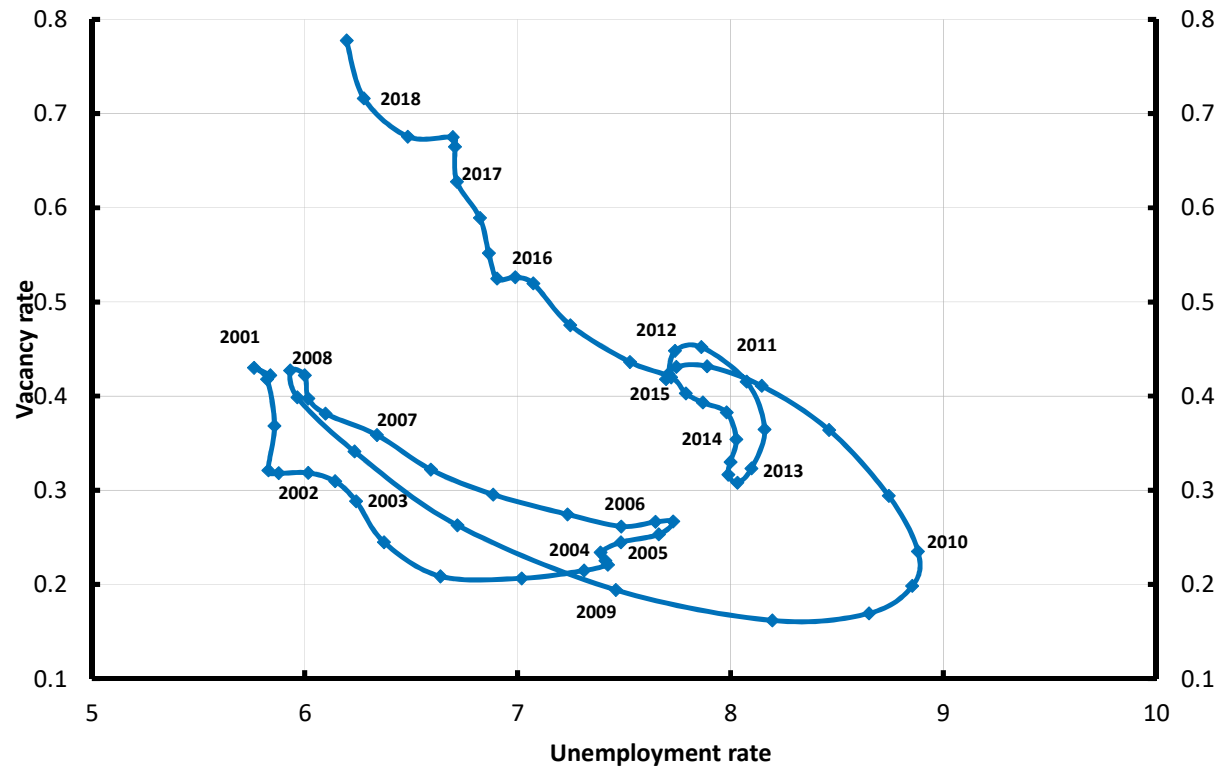
Per cent of population and labour force, respectively, 15-74 years, seasonally-adjusted data



Sources: Statistics Sweden and the Riksbank

Figure 4.11. Beveridge curve

Percentage of the labour force, seasonally-adjusted data, 15-74 years, trend values

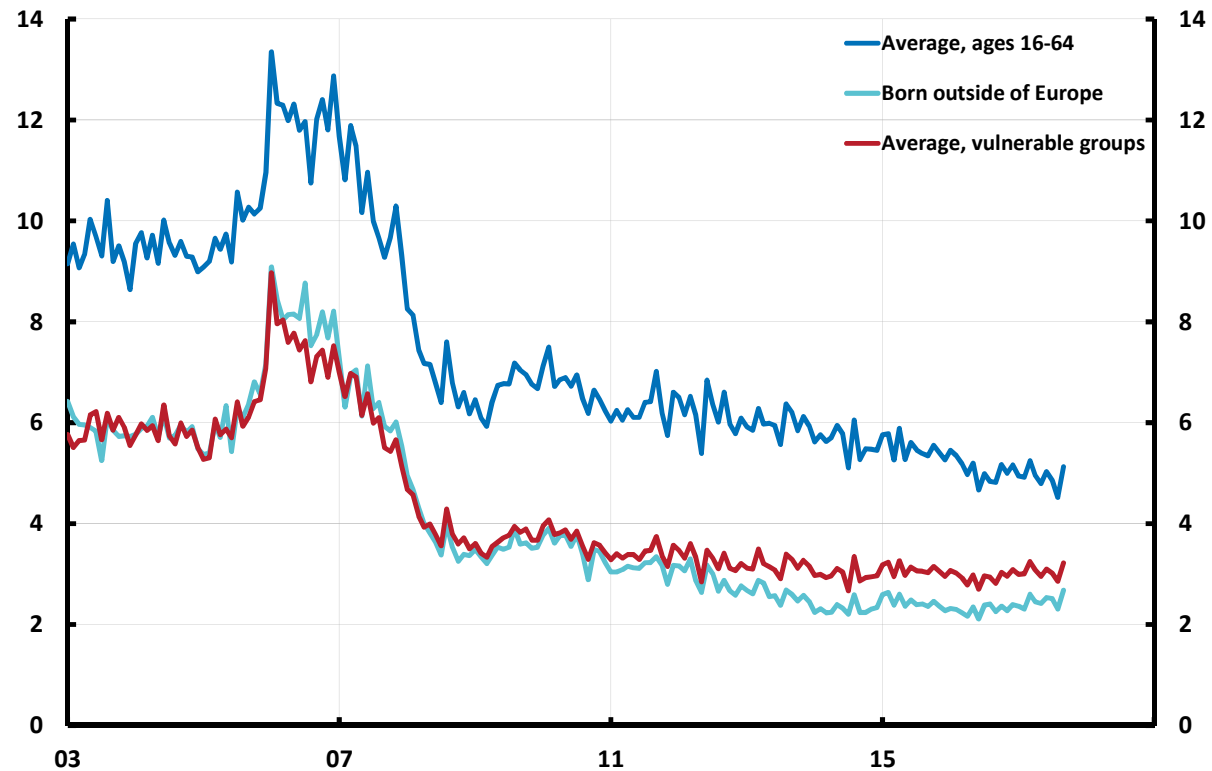


Note. Dates denote first quarter of each year respectively.

Sources: Statistics Sweden and the Riksbank

Figure 4.12. Job-finding rate

Per cent, seasonally-adjusted data

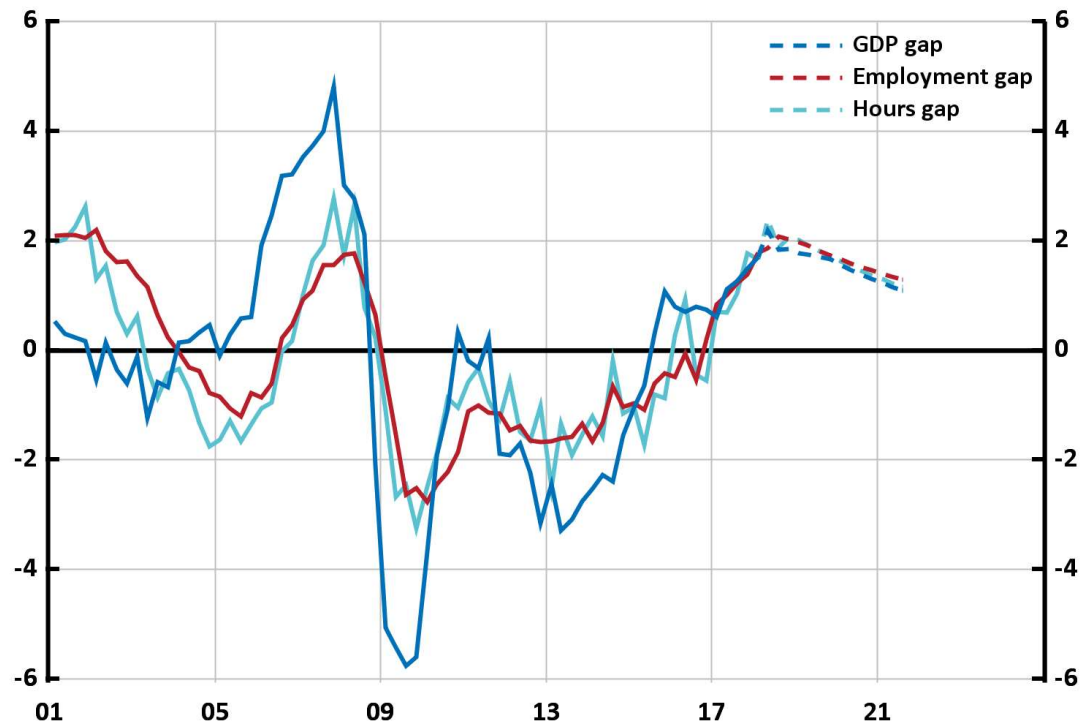


Note. The job-finding rate is calculated as the proportion of people who have left unemployment or a programme for unsubsidised work against the number of people registered as such in the previous month.

Source: Swedish public employment service

Figure 4.13. GDP gap, employment gap and hours gap

Per cent

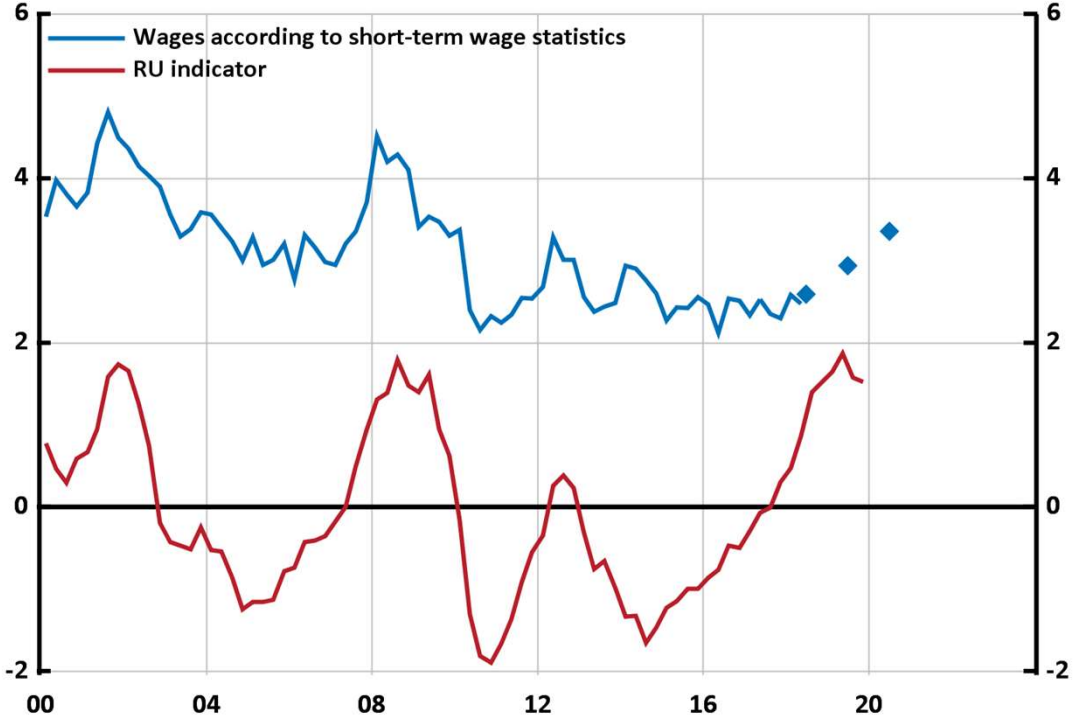


Note. The gaps refer to the deviation in GDP, the number of those employed and the number of hours worked from the Riksbank's assessed trends.

Sources: Statistics Sweden and the Riksbank

Figure 4.14. Wages according to the short-term wage statistics and the RU indicator 6 quarters earlier

Annual percentage change and standard deviation respectively

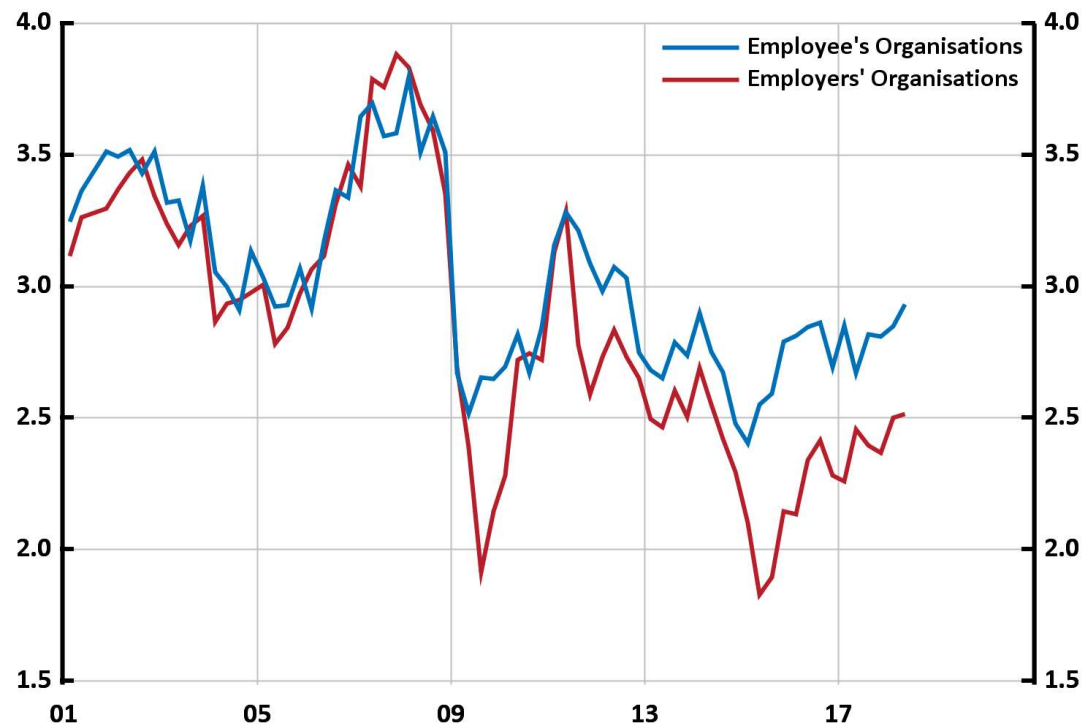


Note. The National Mediation Office’s forecast for definitive outcomes for short-term wages 2017Q3-2018Q2. The RU indicator is a measure of resource utilisation. It is normalised so that the mean value is 0 and the standard deviation is 1.

Sources: The National Mediation Office, Statistics Sweden and the Riksbank

Figure 4.15. Expectations among labour market parties of annual wage growth two years ahead

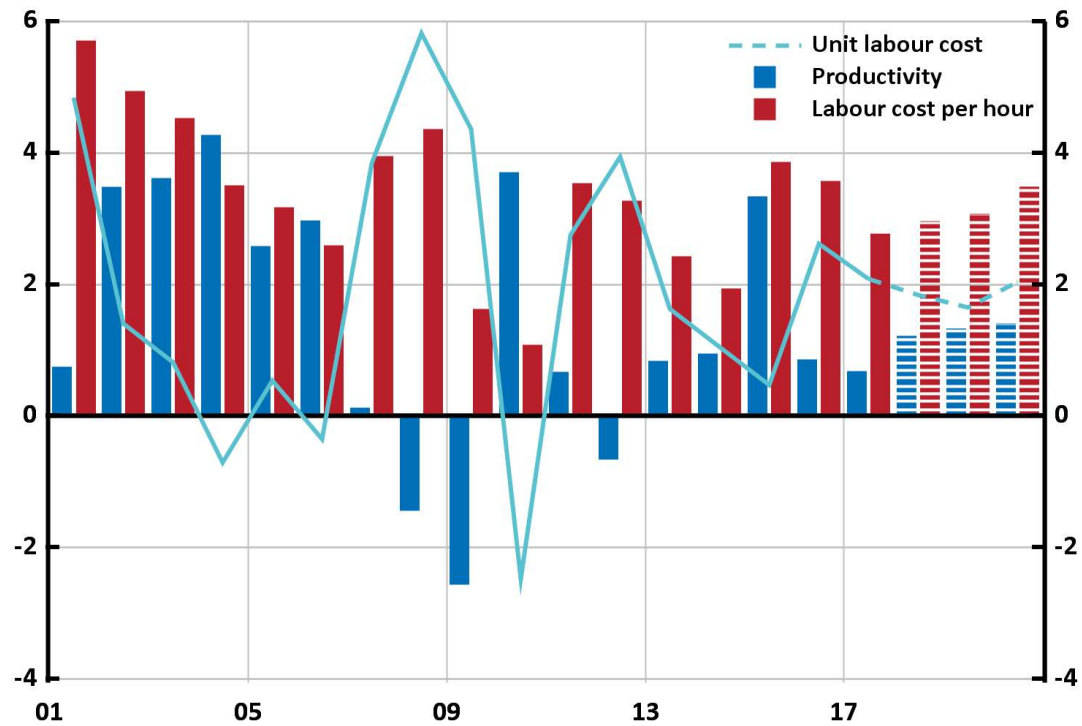
Per cent



Source: TNS Sifo Prospera

Figure 4.16. Labour costs – total economy

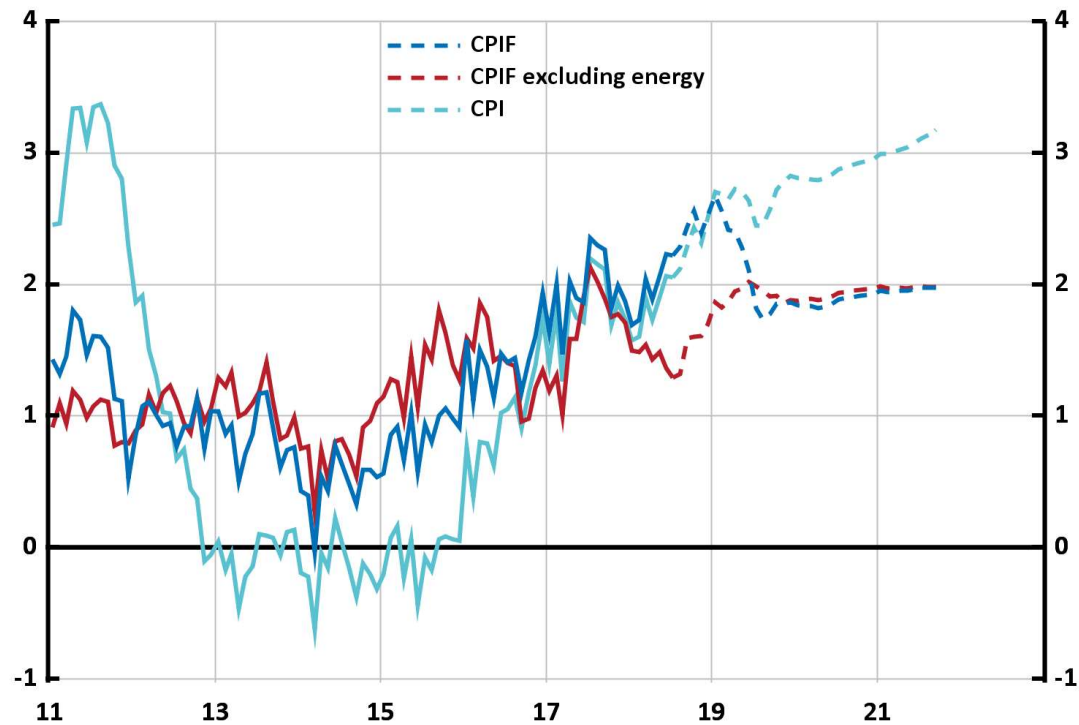
Annual percentage change



Sources: Statistics Sweden and the Riksbank

Figure 4.17. CPIF, CPIF excluding energy and CPI

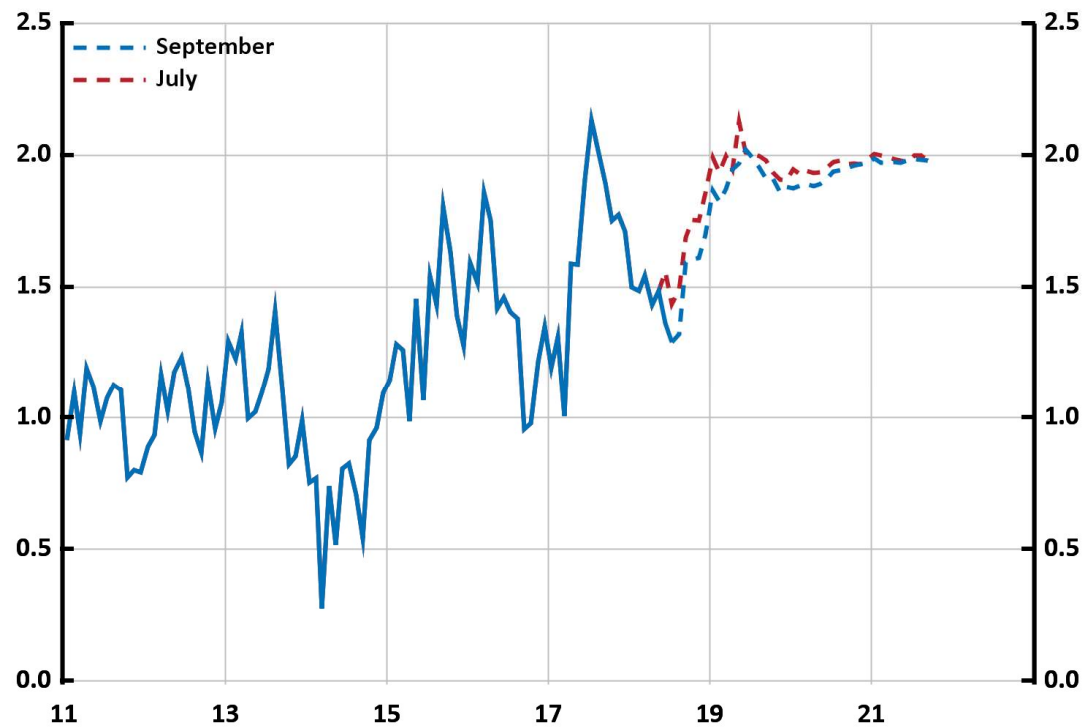
Annual percentage change



Sources: Statistics Sweden and the Riksbank

Figure 4.18. CPIF excluding energy

Annual percentage change



Sources: Statistics Sweden and the Riksbank