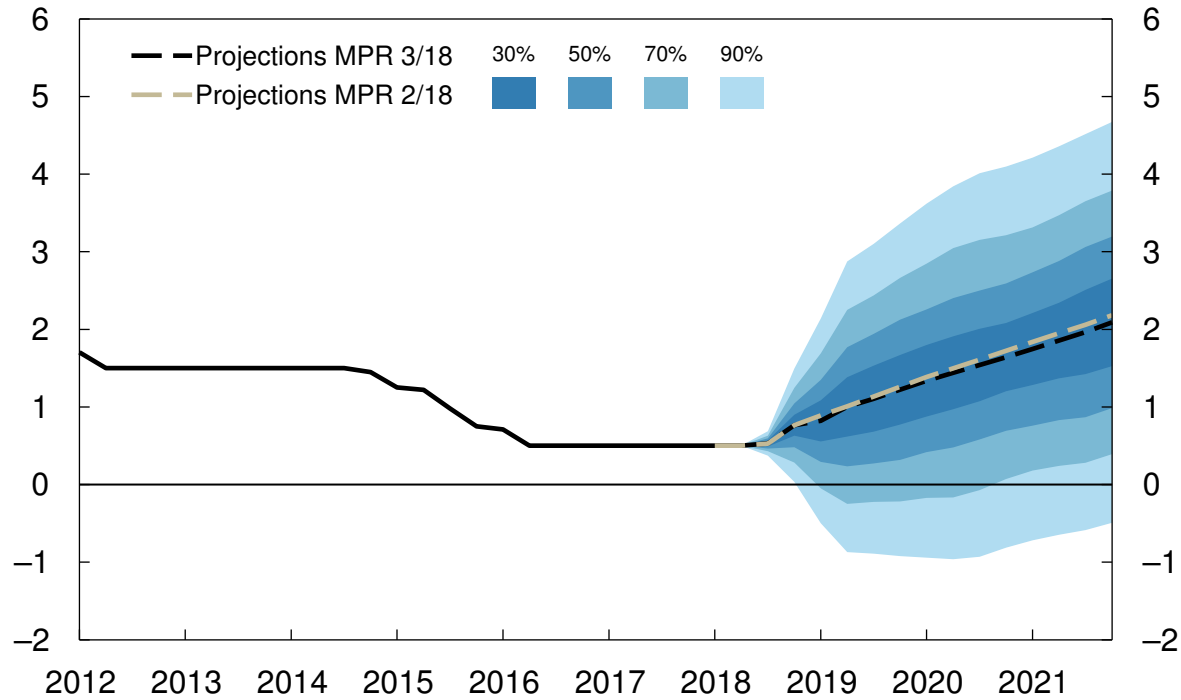


Chart 1.1a Key policy rate with fan chart¹⁾.
Percent. 2012 Q1 – 2021 Q4²⁾

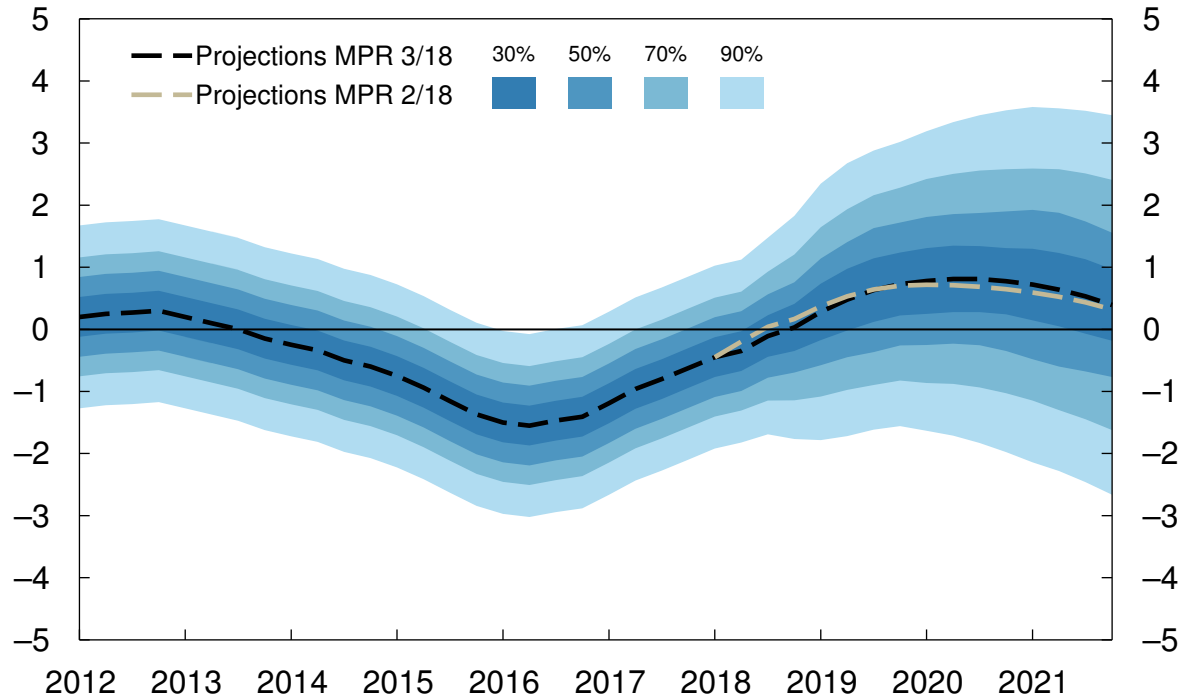


1) The fan chart is based on historical experience and stochastic simulations in Norges Bank's main macroeconomic model, NEMO. It does not take into account that a lower bound for the interest rate exists.

2) Projections for 2018 Q3 – 2021 Q4.

Source: Norges Bank

Chart 1.1b Estimated output gap¹⁾ with fan chart²⁾.
 Percent. 2012 Q1 – 2021 Q4

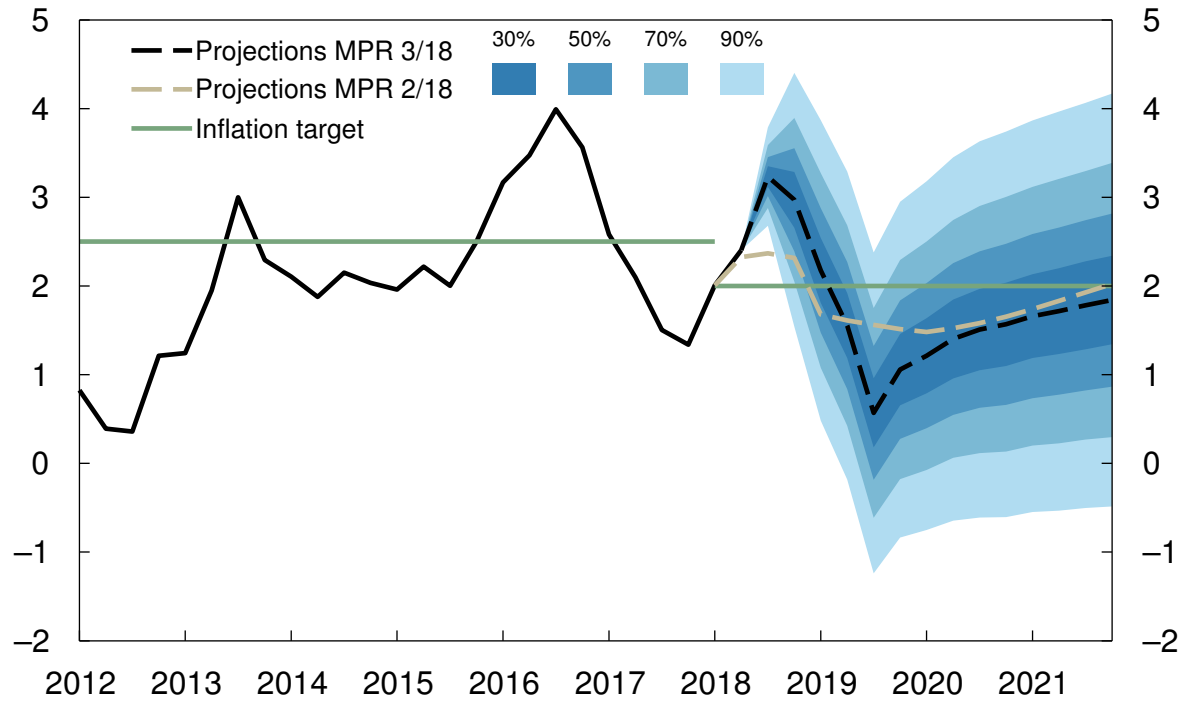


1) The output gap measures the percentage deviation between mainland GDP and estimated potential mainland GDP.

2) The fan chart is based on historical experience and stochastic simulations in Norges Bank's main macroeconomic model, NEMO.

Source: Norges Bank

Chart 1.1c Consumer price index (CPI) with fan chart¹⁾.
 Four-quarter change. Percent. 2012 Q1 – 2021 Q4²⁾

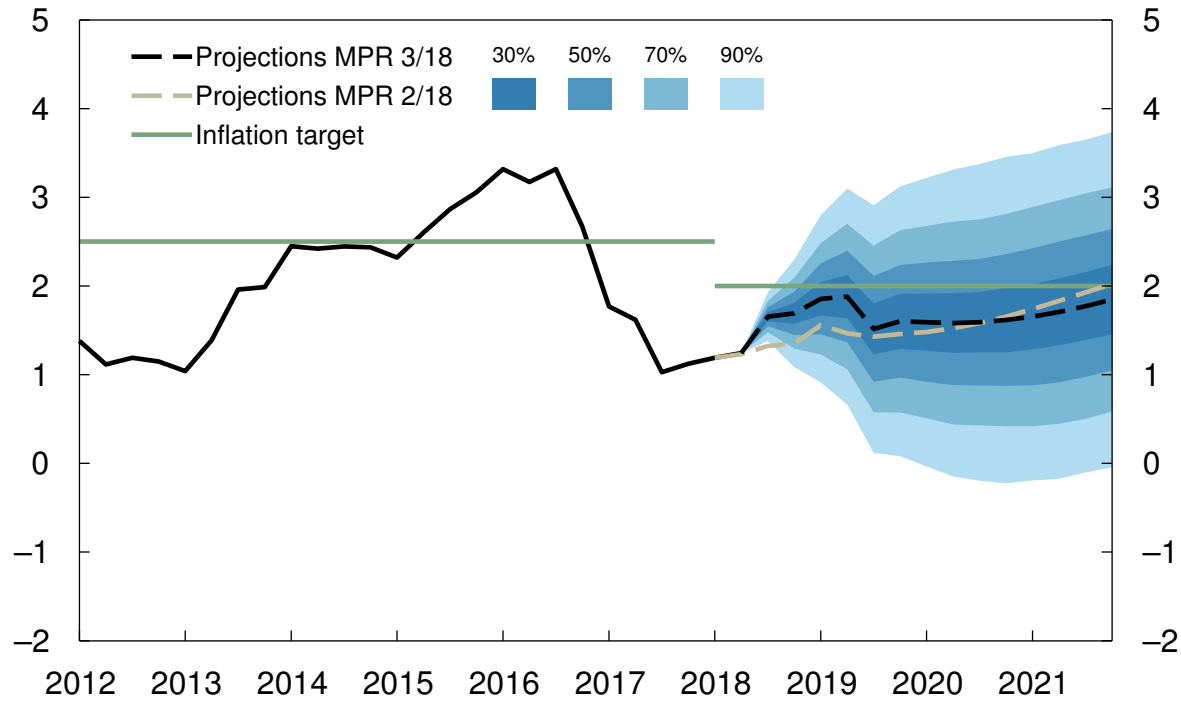


1) The fan chart is based on historical experience and stochastic simulations in Norges Bank's main macroeconomic model, NEMO.

2) Projections for 2018 Q3 – 2021 Q4.

Sources: Statistics Norway and Norges Bank

Chart 1.1d CPI-ATE¹⁾ with fan chart²⁾.
 Four-quarter change. Percent. 2012 Q1 – 2021 Q4³⁾



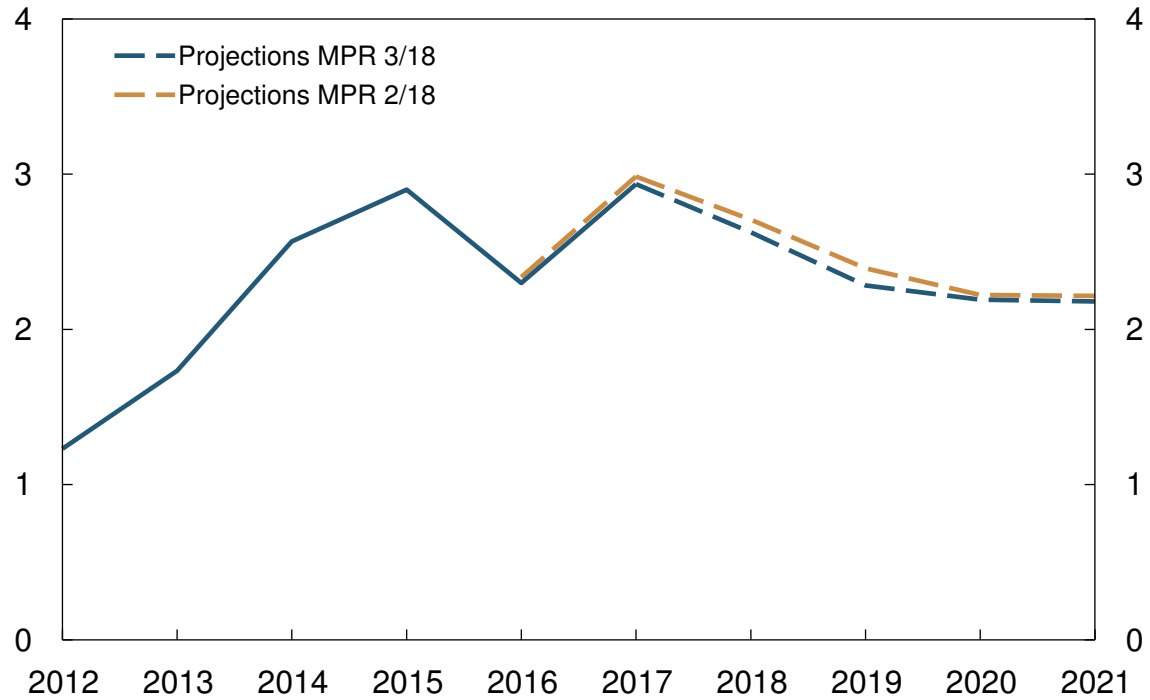
1) CPI adjusted for tax changes and excluding energy products.

2) The fan chart is based on historical experience and stochastic simulations in Norges Bank's main macroeconomic model, NEMO.

3) Projections for 2018 Q3 – 2021 Q4.

Sources: Statistics Norway and Norges Bank

Chart 1.2 GDP for Norway's trading partners.¹⁾
Annual change. Percent. 2012 – 2021²⁾

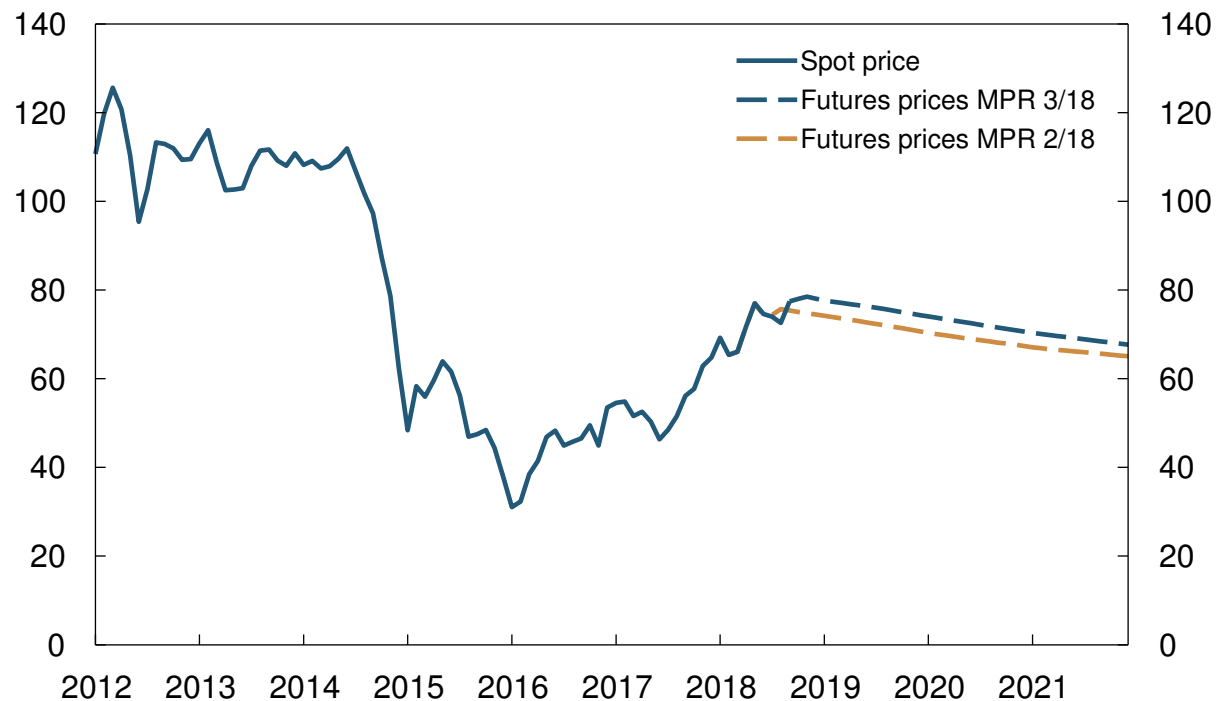


1) Export weights. 25 main trading partners.

2) Projections for 2018 – 2021.

Sources: Thomson Reuters and Norges Bank

Chart 1.3 Oil price.¹⁾ USD/barrel. January 2012 – December 2021²⁾

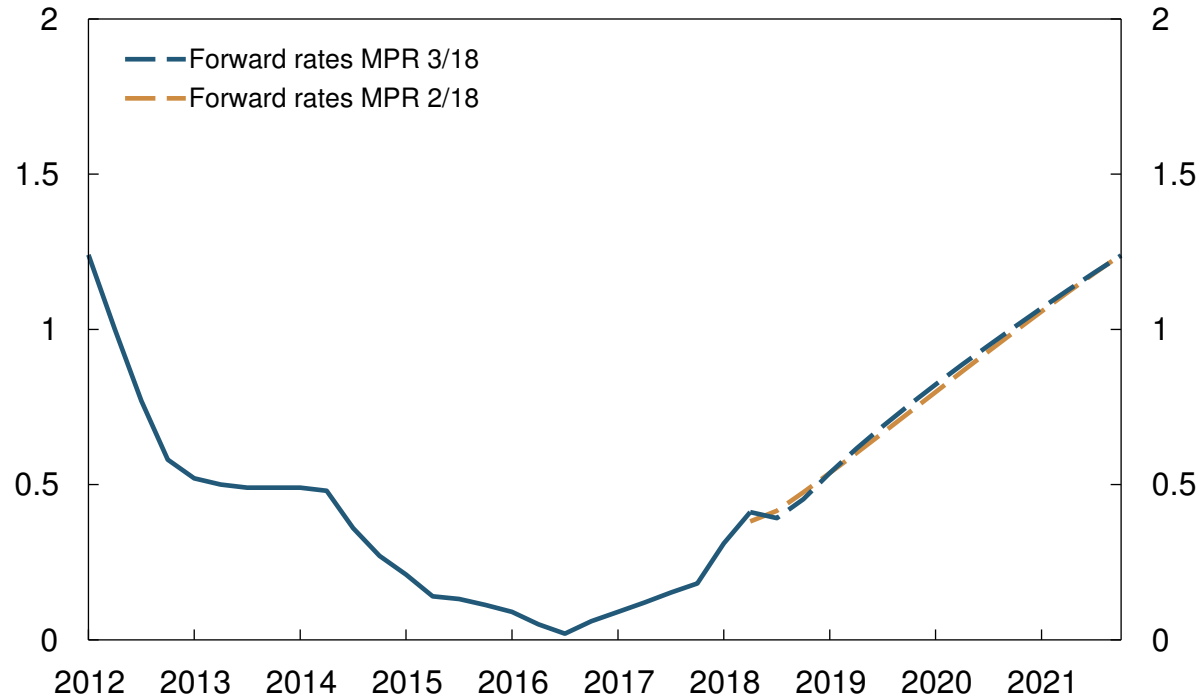


1) Brent Blend.

2) Futures prices are the average of futures prices for the period 11 June – 15 June 2018 for MPR 2/18 and the period 10 September – 14 September 2018 for MPR 3/18.

Sources: Thomson Reuters and Norges Bank

Chart 1.4 Three-month money market rates for Norway's trading partners.¹⁾
Percent. 2012 Q1 – 2021 Q4²⁾

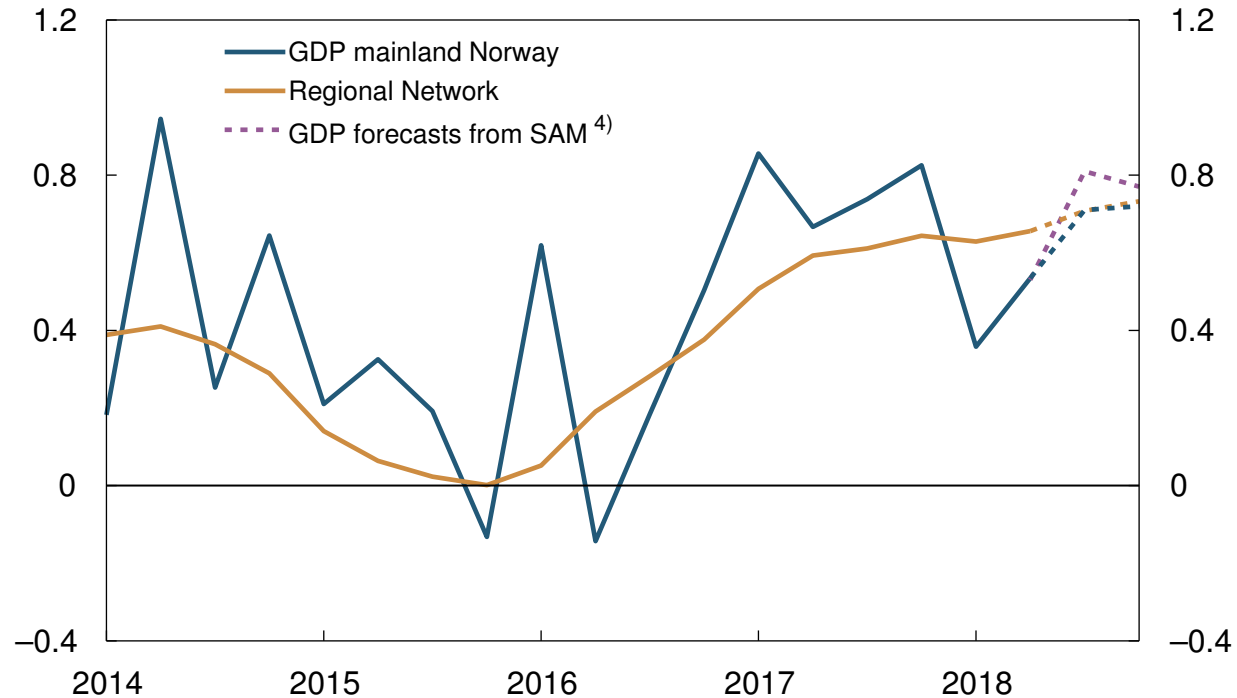


1) Based on money market rates and interest rate swaps. See Norges Bank (2015) "Calculation of the aggregate for trading partner interest rates". *Norges Bank Papers 2/2015*.

2) Forward rates at 15 June 2018 for MPR 2/18 and 14 September 2018 for MPR 3/18.

Sources: Thomson Reuters and Norges Bank

Chart 1.5 GDP for mainland Norway¹⁾ and the Regional Network's indicator of output growth²⁾. Quarterly change. Percent. 2014 Q1 – 2018 Q4³⁾



1) Seasonally adjusted.

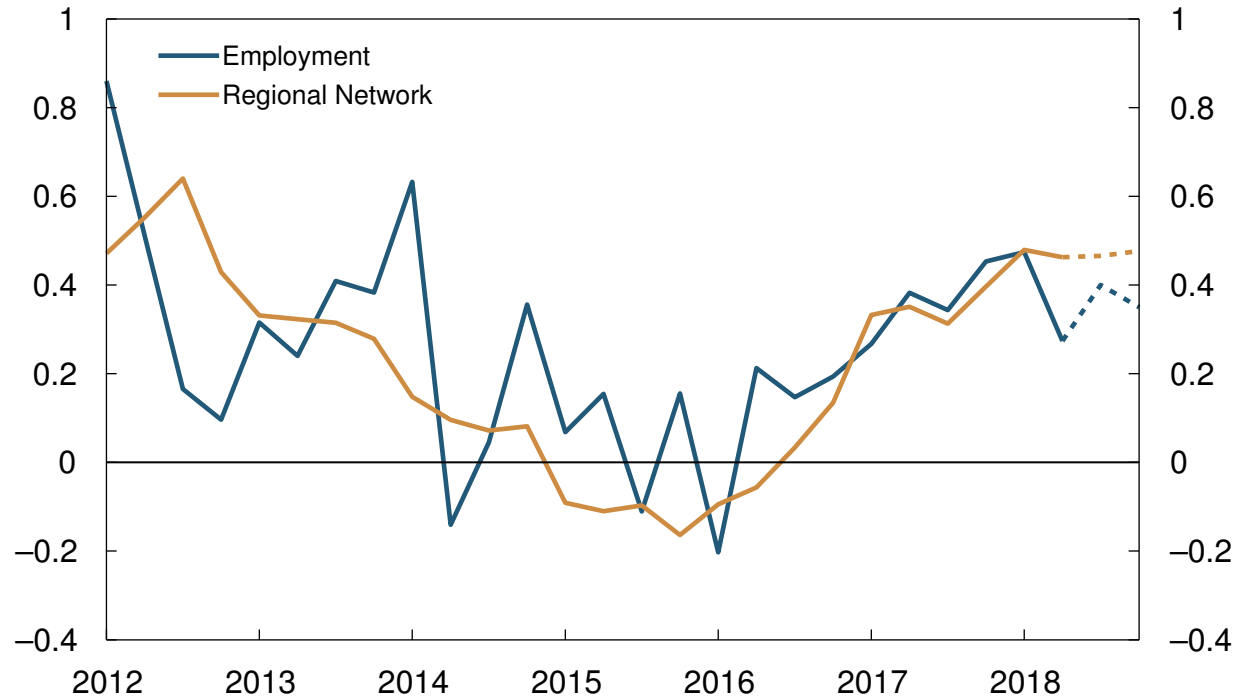
2) Reported output growth past three months converted to quarterly figures. Quarterly figures are calculated by weighting together three-month figures on the basis of survey timing. For 2018 Q3, expected output growth is estimated by weighting together reported growth over the past three months and expected growth in the next six months as reported in August. 2018 Q4 is expected growth in the next six months as reported in August.

3) Projections for 2018 Q3 – 2018 Q4 (broken lines).

4) System for Averaging short-term Models.

Sources: Statistics Norway and Norges Bank

Chart 1.6 Employment growth according to the quarterly national accounts and Regional Network¹⁾. Quarterly change. Percent. 2012 Q1 – 2018 Q4²⁾

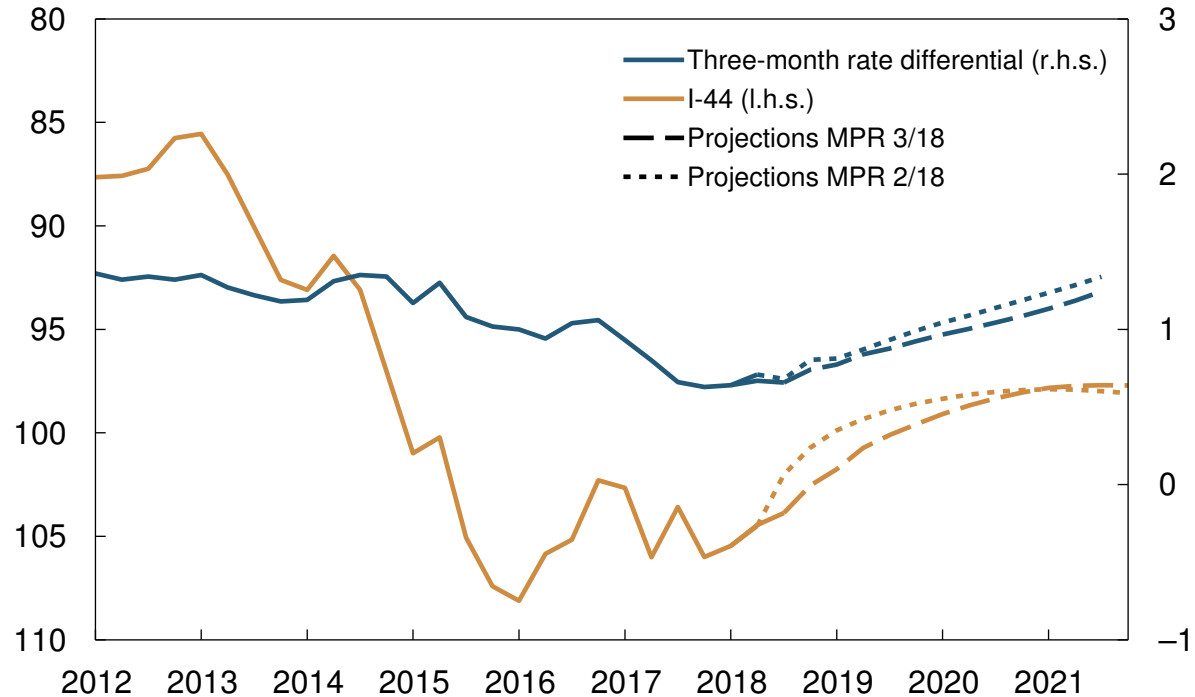


1) Reported employment growth for the past three months. Quarterly figures are calculated by weighting together three-month figures based on survey timing. For 2018 Q3, expected employment growth is estimated by weighting together reported growth over the past three months and expected growth in the next three months as reported in August. 2018 Q4 is expected growth in the next three months as reported in August.

2) Projections for 2018 Q3 – 2018 Q4 (broken lines).

Sources: Statistics Norway and Norges Bank

Chart 1.7 Three-month money market rate differential between Norway¹⁾ and trading partners²⁾. Percentage points. Import-weighted exchange rate index (I-44)³⁾. 2012 Q1 – 2021 Q4⁴⁾



1) Projections for the money market rate are calculated as an average of the key policy rate in the current and subsequent quarter plus an estimate of the money market premium.

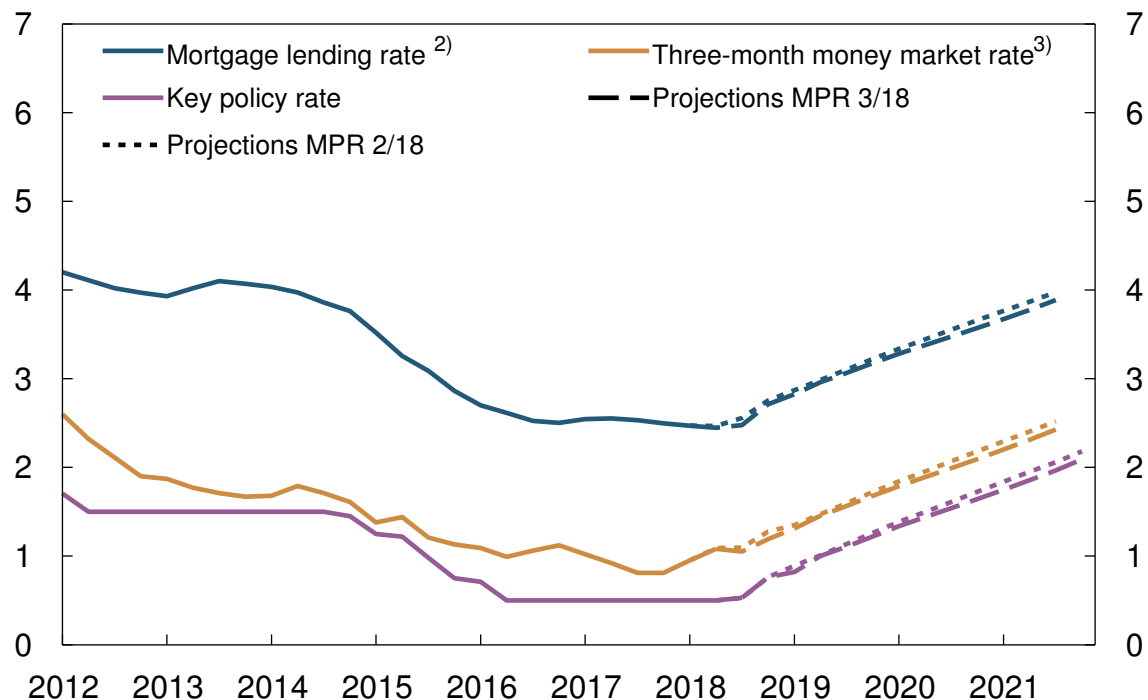
2) Forward rates for trading partners at 15 June 2018 for MPR 2/18 and 14 September 2018 for MPR 3/18. See Norges Bank (2015) "Calculation of the aggregate for trading partner interest rates". *Norges Bank Papers* 2/2015.

3) A positive slope denotes a stronger krone exchange rate.

4) Projections for 2018 Q3 – 2021 Q4.

Sources: Thomson Reuters and Norges Bank

Chart 1.8 Interest rates. Percent. 2012 Q1 – 2021 Q4 ¹⁾



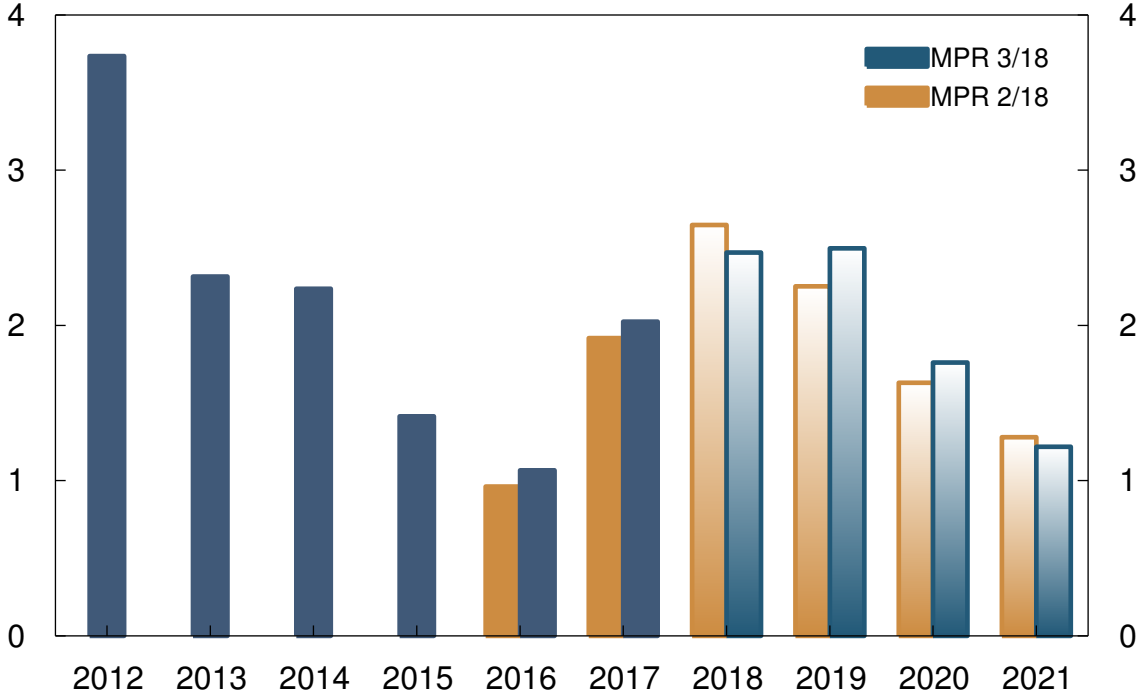
1) For key policy rate projections for 2018 Q3 – 2021 Q4. For mortgage lending rate and three-month money market rate projections for 2018 Q3 – 2021 Q3.

2) The mortgage lending rate is the average interest rate on outstanding mortgage loans to households, for the sample of banks and mortgage companies included in Statistics Norway's monthly interest rate statistics.

3) Projections for the money market rate are calculated as an average of the key policy rate in the current and subsequent quarter plus an estimate of the money market premium.

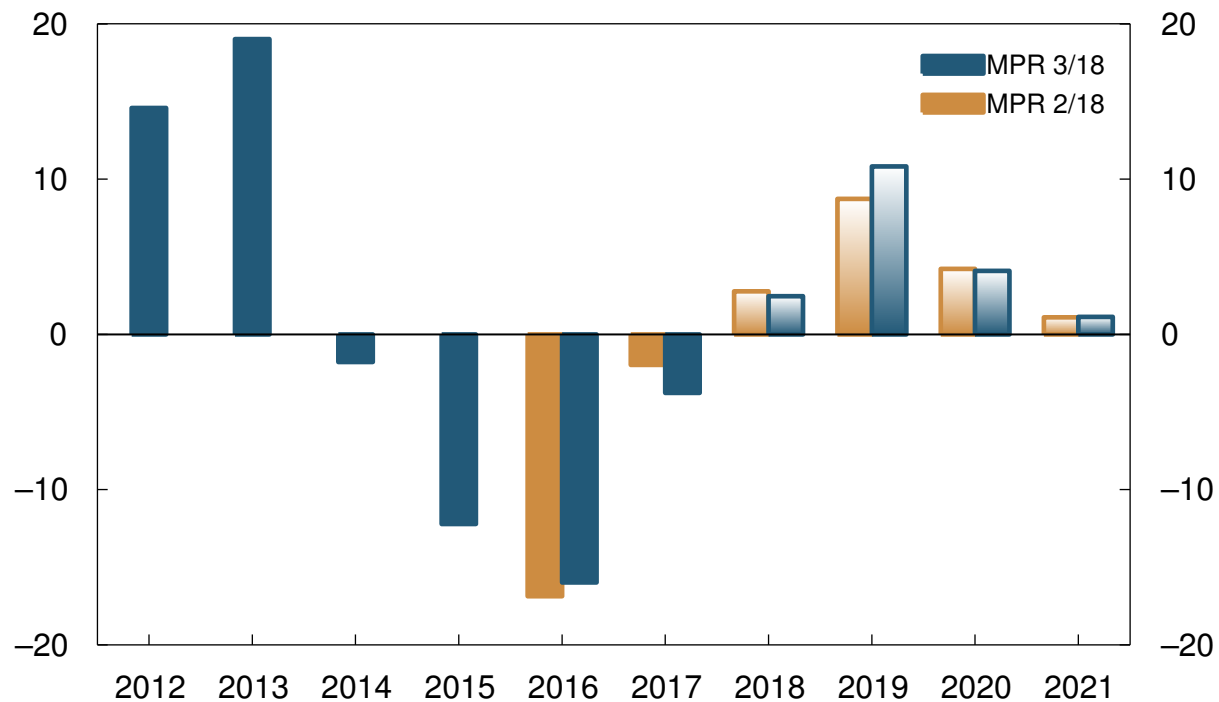
Sources: Statistics Norway, Thomson Reuters and Norges Bank

Chart 1.9 GDP for mainland Norway. Annual change. Percent. 2012 – 2021¹⁾



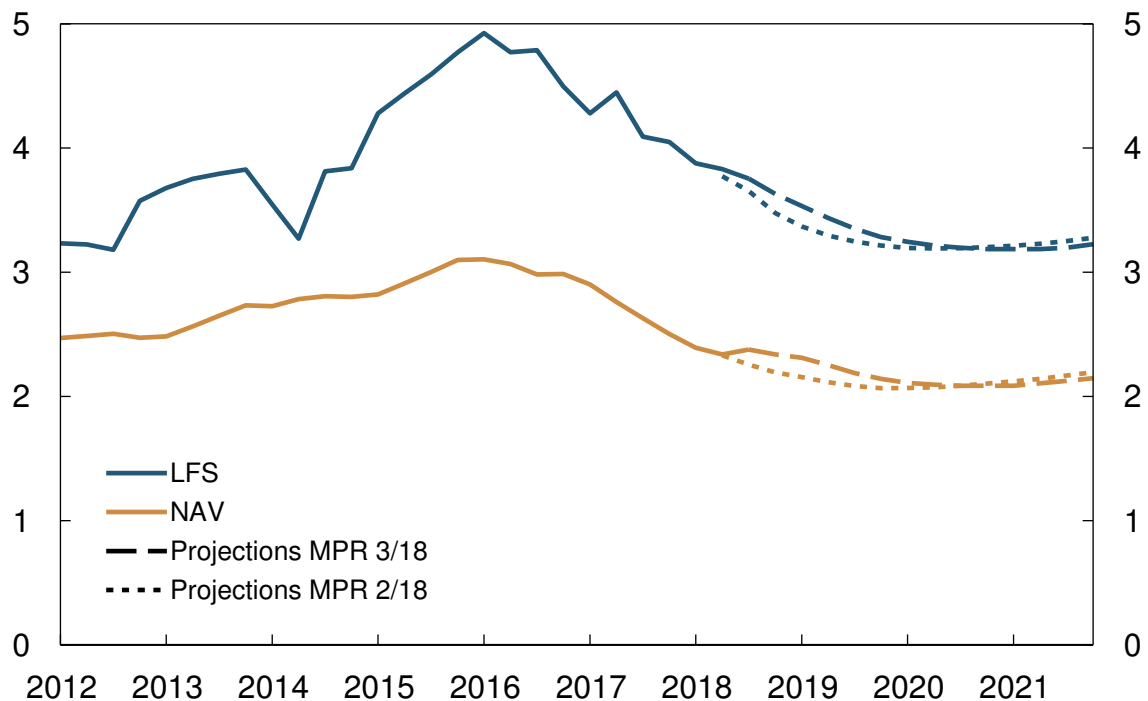
1) Projections for 2018 – 2021 (shaded bars).
Sources: Statistics Norway and Norges Bank

Chart 1.10 Petroleum investment. Annual change. Percent. 2012 – 2021¹⁾



1) Projections for 2018 – 2021 (shaded bars).
Sources: Statistics Norway and Norges Bank

Chart 1.11 Unemployment according to LFS ¹⁾ and NAV ²⁾.
 Share of the labour force. Seasonally adjusted. Percent. 2012 Q1 – 2021 Q4 ³⁾



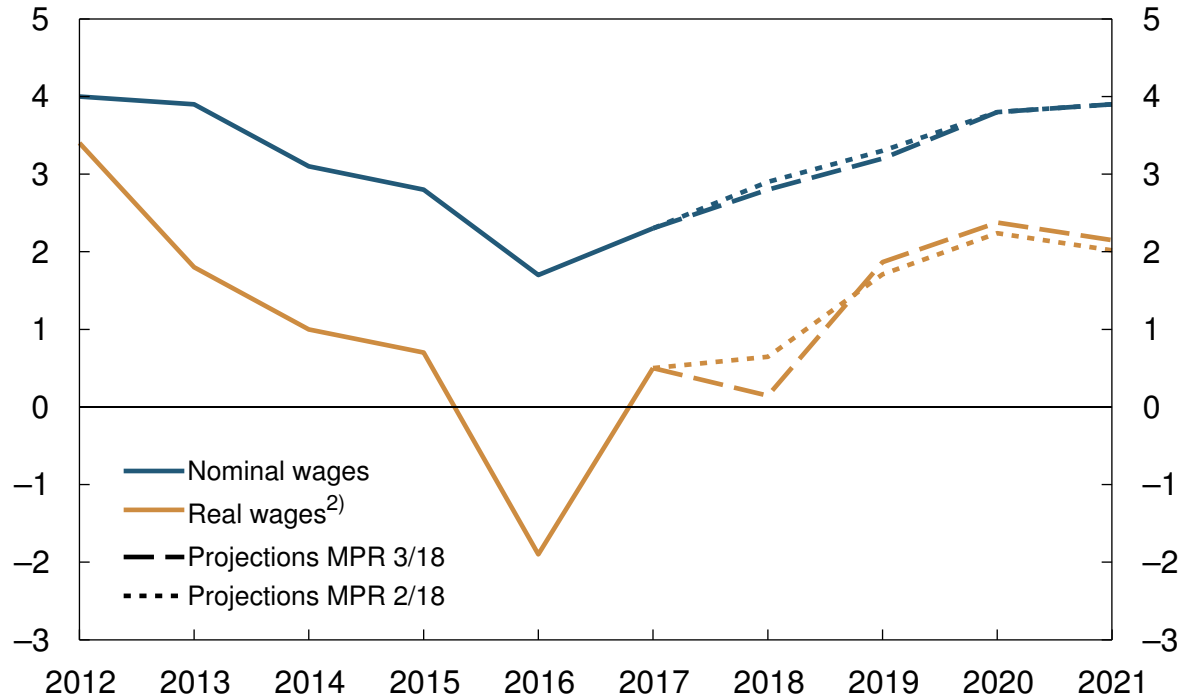
1) Labour Force Survey.

2) Registered unemployment.

3) Projections for 2018 Q3 – 2021 Q4.

Sources: Norwegian Labour and Welfare Administration (NAV), Statistics Norway and Norges Bank

Chart 1.12 Wages. Annual change. Percent. 2012 – 2021¹⁾

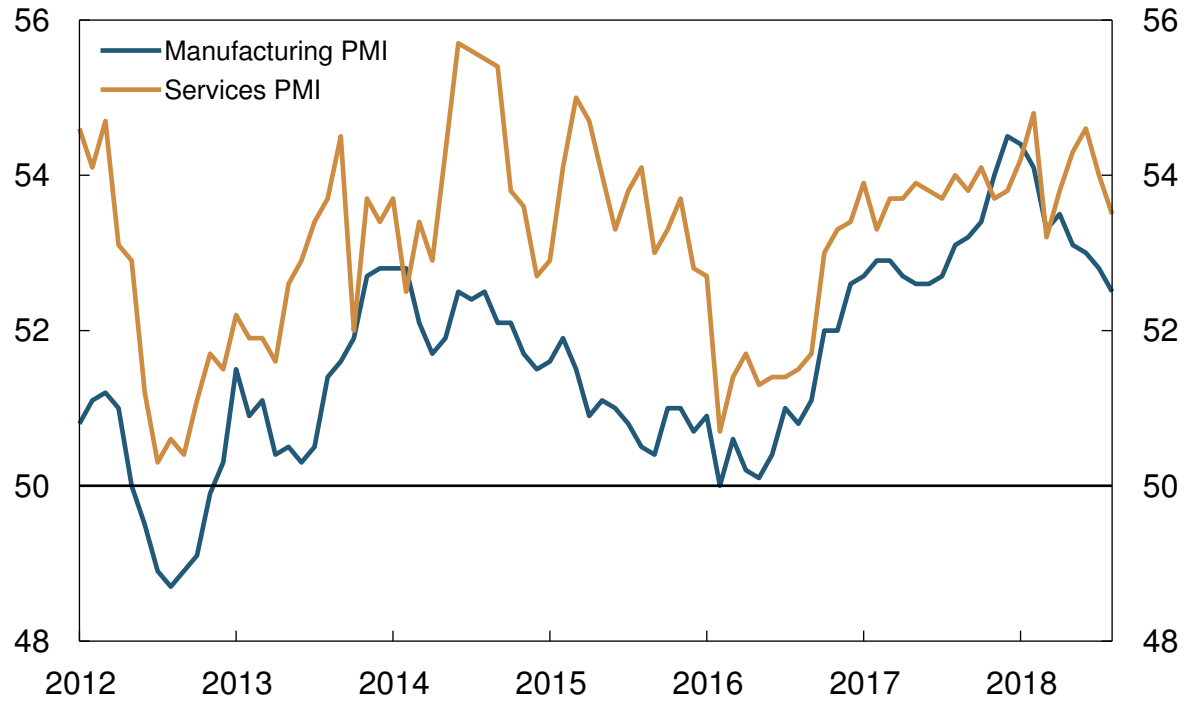


1) Projections for 2018 – 2021.

2) Nominal wage growth deflated by the CPI.

Sources: Statistics Norway and Norges Bank

Chart 2.1 Global PMI. ¹⁾ Seasonally adjusted. Index. ²⁾ January 2012 – August 2018

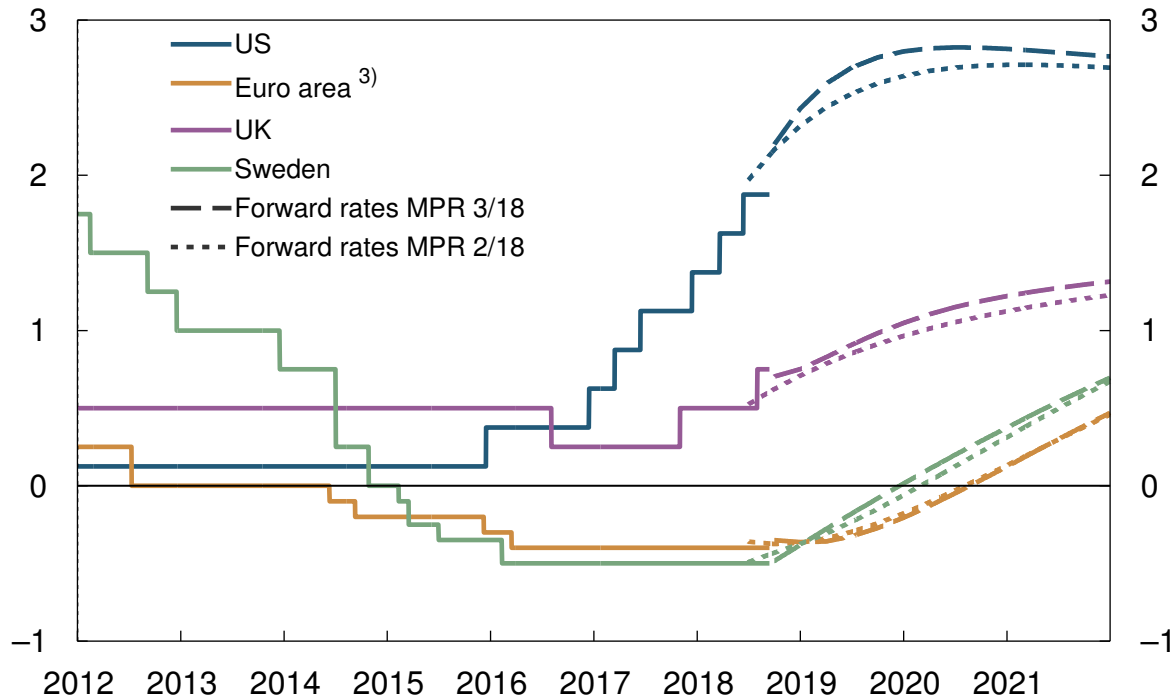


1) The weights are based on contribution to global production of goods and services.

2) Survey of purchasing managers. Diffusion index centered around 50.

Source: Thomson Reuters

Chart 2.2 Policy rates and estimated forward rates¹⁾ in selected countries.
 Percent. 1 January 2012 – 31 December 2021²⁾



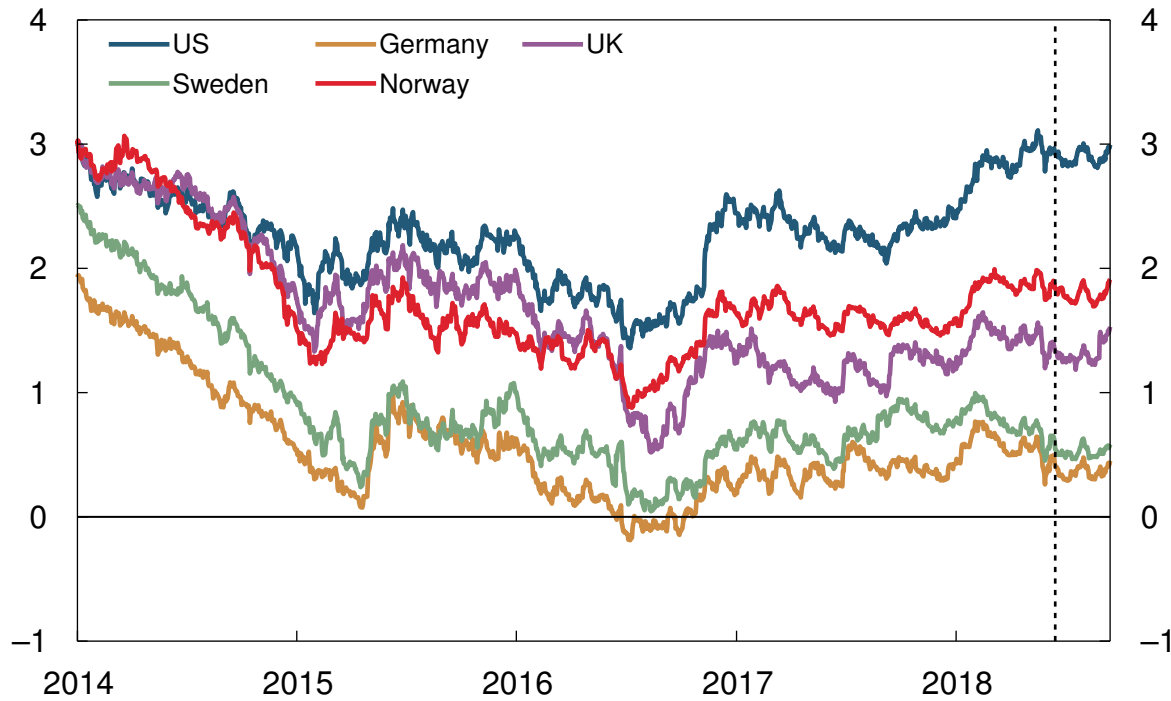
1) Forward rates at 15 June 2018 for MPR 2/18 and 14 September 2018 for MPR 3/18. Forward rates are estimated based on Overnight Index Swap (OIS) rates.

2) Daily data through 14 September 2018. Quarterly data from 2018 Q4.

3) ECB deposit facility rate. Eonia from 2018 Q4.

Sources: Bloomberg, Thomson Reuters and Norges Bank

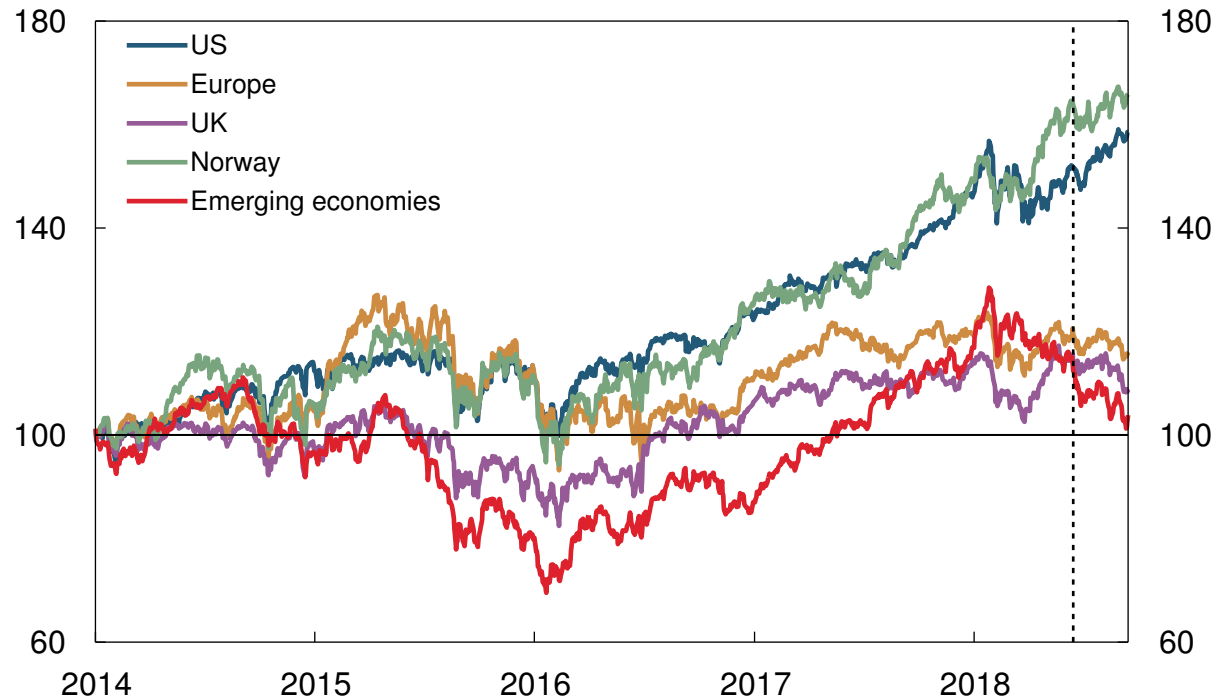
Chart 2.3 Yields on ten-year government bonds in selected countries.
Percent. 2 January 2014 – 14 September 2018¹⁾



1) MPR 2/18 was based on information in the period up to 15 June 2018 indicated by the vertical line.
Source: Bloomberg

Chart 2.4 Equity price indexes in selected countries.¹⁾

Index. 2 January 2014 = 100. 2 January 2014 – 14 September 2018²⁾

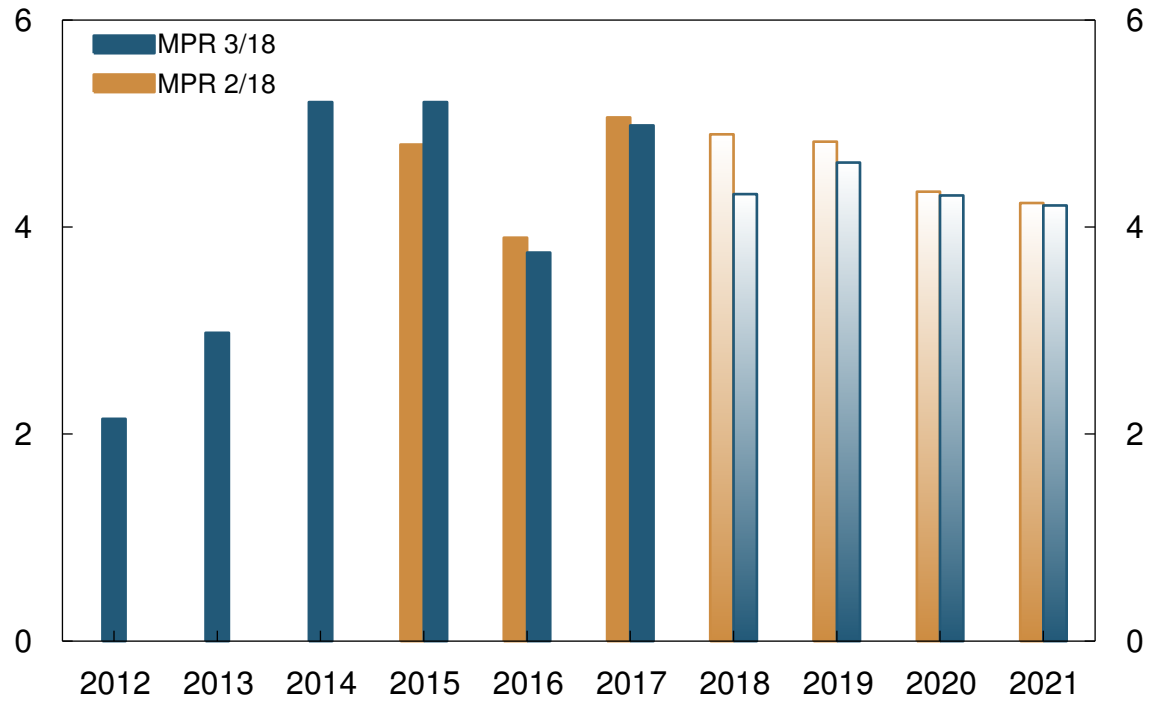


1) Standard and Poor's 500 Index (US). Stoxx Europe 600 Index (Europe).
Financial Times Stock Exchange 100 Index (UK). Oslo Børs Benchmark Index (Norway).
MSCI Emerging Markets Index (emerging economies).

2) MPR 2/18 was based on information in the period up to 15 June 2018 indicated by the vertical line.

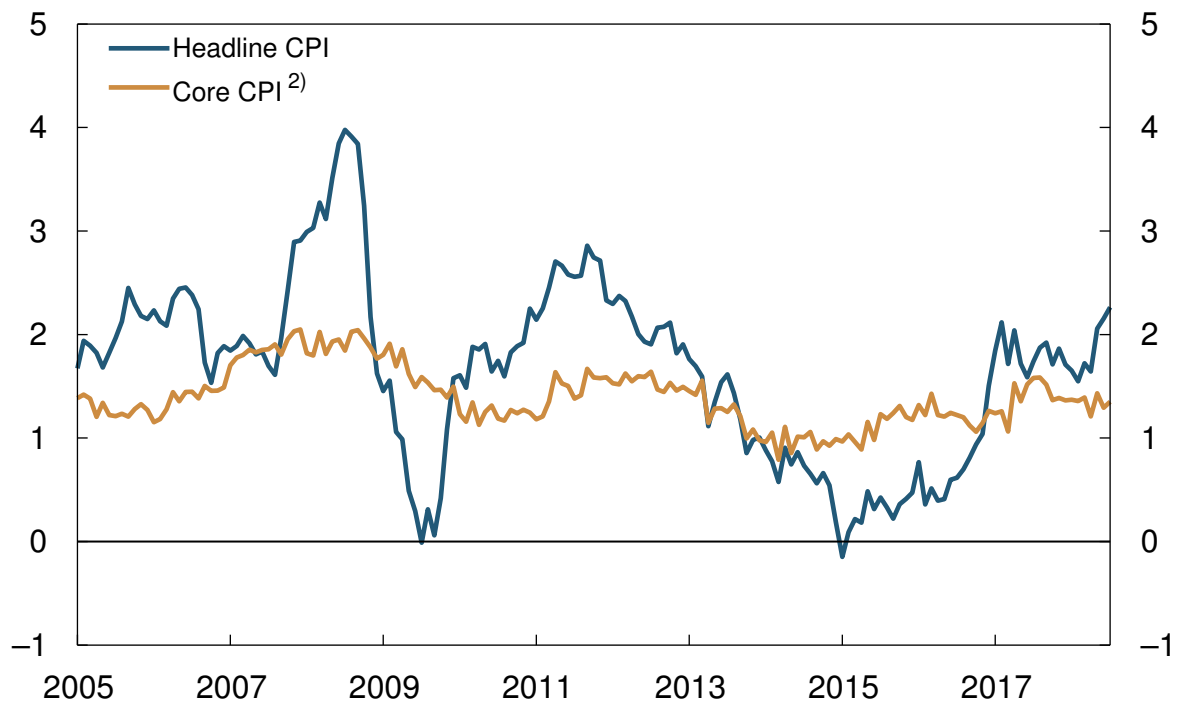
Source: Bloomberg

Chart 2.5 Imports for Norway's trading partners.¹⁾
 Annual change. Percent. 2012 – 2021²⁾



1) Export weights. 25 main trading partners.
 2) Projections for 2018 – 2021 (shaded bars).
 Sources: Thomson Reuters and Norges Bank

Chart 2.6 Headline and core inflation in selected countries.¹⁾
Twelve-month change. Percent. January 2005 – July 2018



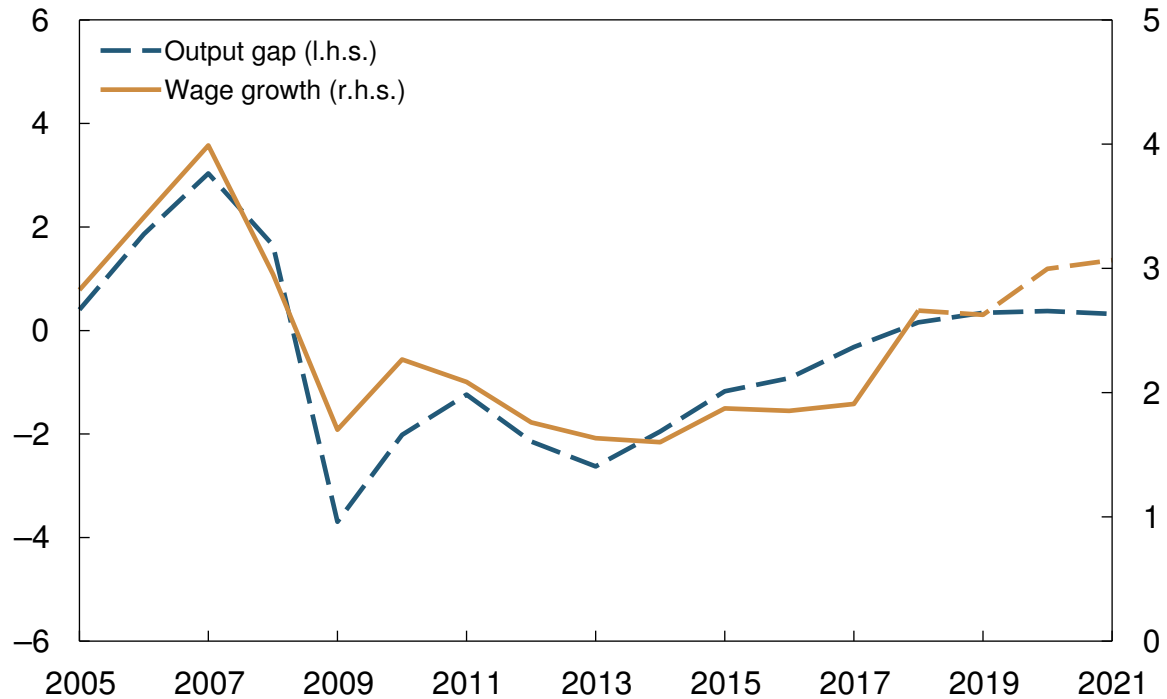
1) Import weights. US, euro area, UK and Sweden.

2) US: excluding food and energy. UK and euro area: excluding food, energy, tobacco and alcohol.

Sweden: excluding energy.

Sources: Thomson Reuters and Norges Bank

Chart 2.7 Wage growth¹⁾ and estimated output gap²⁾ in selected countries.³⁾
 Percent. 2005 – 2021⁴⁾



1) Annual percentage change. Compensation per employee in the total economy.

2) The output gap measures the percentage deviation between GDP and estimated potential GDP.

IMF estimates for 2005 – 2015. Norges Bank projections for the rest of the period.

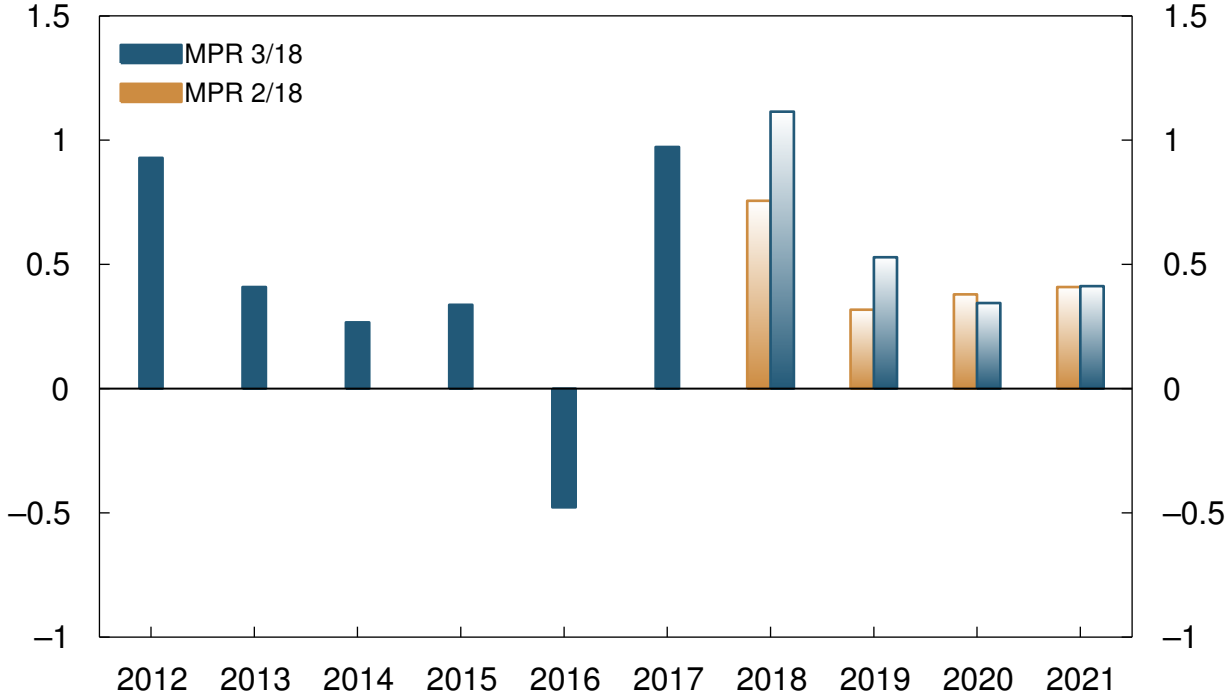
3) Export weights. US, euro area, UK and Sweden.

4) Projections for wage growth 2018 – 2021 (broken yellow line).

Sources: Thomson Reuters and Norges Bank

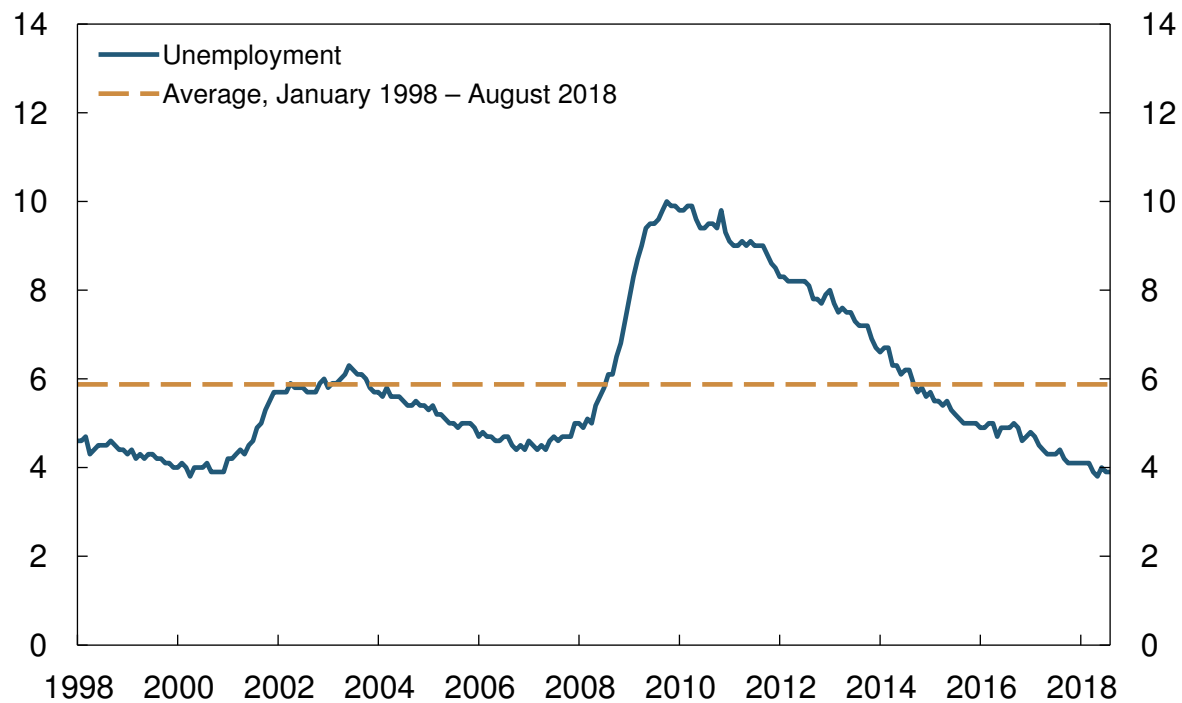
Chart 2.8 Indicator of international inflationary impulses to imported consumer goods with compositional effect (IPC).

Foreign currency. Annual change. Percent. 2012 – 2021¹⁾



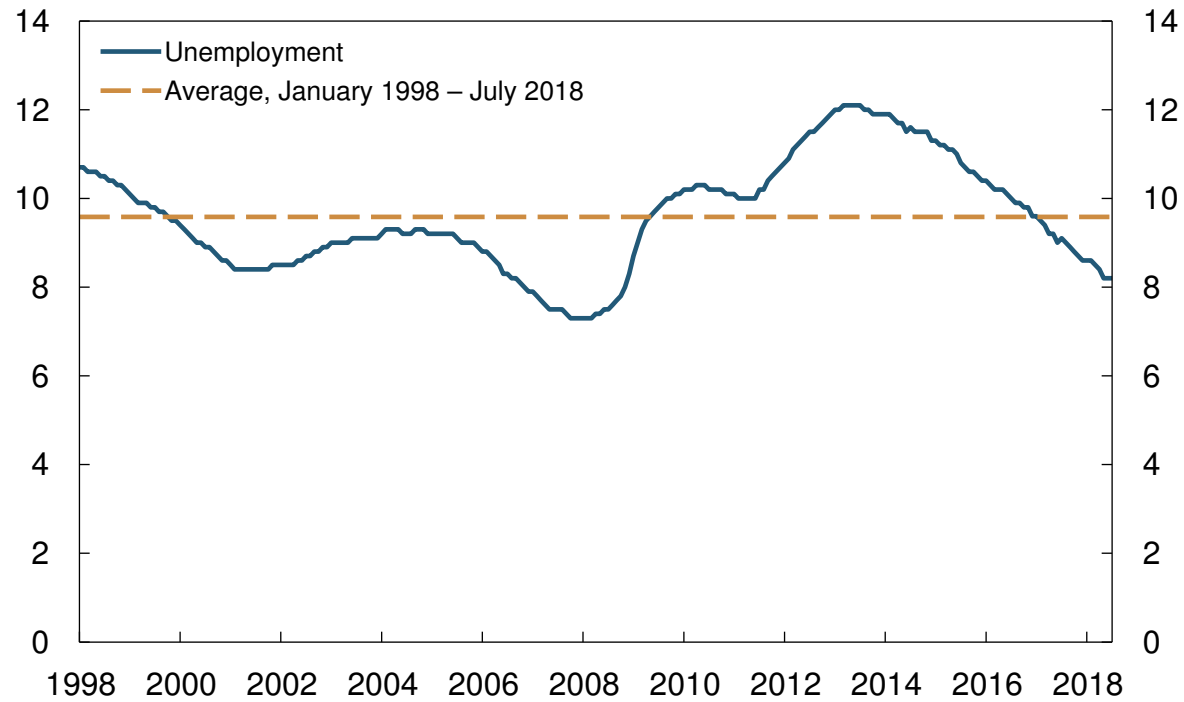
1) Projections for 2018 – 2021 (shaded bars).
Sources: Statistics Norway, Thomson Reuters and Norges Bank

Chart 2.9 Unemployment¹⁾ in the US.
Seasonally adjusted. Percent. January 1998 – August 2018



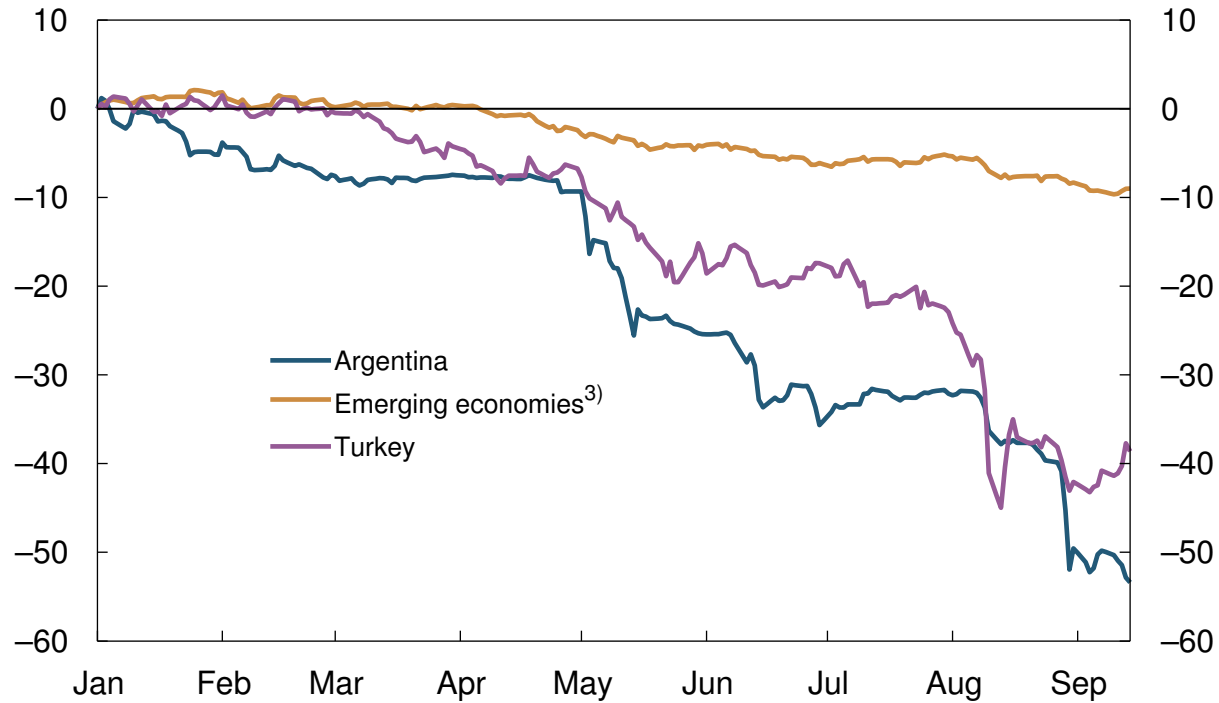
1) Unemployed as a share of the labour force.
Sources: Thomson Reuters and Norges Bank

Chart 2.10 Unemployment¹⁾ in the euro area.
Seasonally adjusted. Percent. January 1998 – July 2018



1) Unemployed as a share of the labour force.
Sources: Thomson Reuters and Norges Bank

Chart 2.11 Exchange rates¹⁾ in selected emerging economies.
 Percentage change from 1 January 2018.²⁾ 1 January 2018 – 14 September 2018



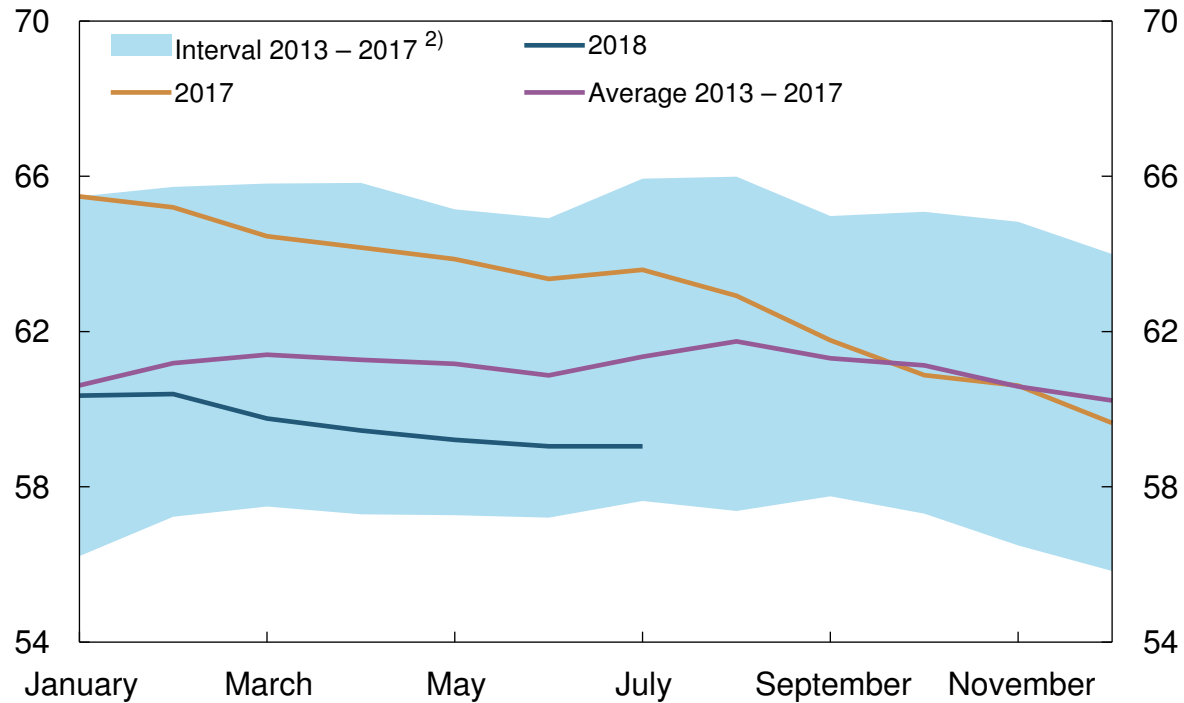
1) Relative to USD.

2) A positive slope denotes a stronger exchange rate.

3) PPP-adjusted GDP weights. Brazil, Chile, Colombia, Czech Republic, Egypt, Hungary, India, Indonesia, Malaysia, Mexico, Pakistan, Peru, Philippines, Poland, Russia, South Africa, South Korea, Taiwan, Thailand, Uruguay and Vietnam.

Sources: Thomson Reuters and Norges Bank

Chart 2.12 Total OECD oil inventories.
In days of consumption.¹⁾ January 2017 – July 2018

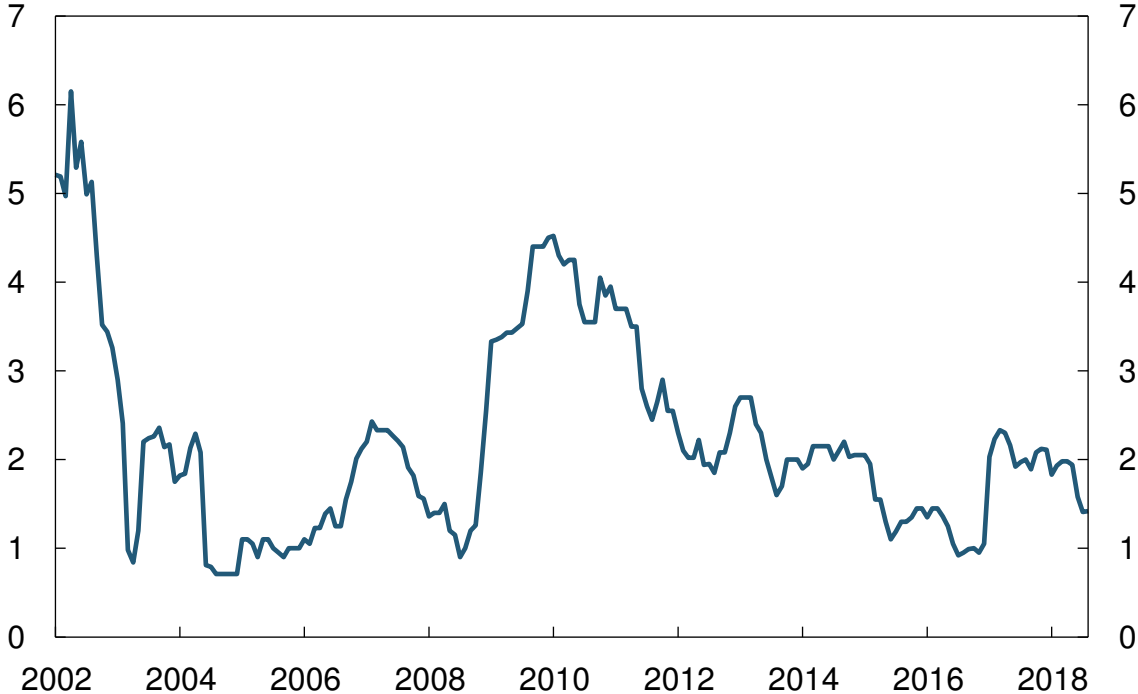


1) Days of consumption is calculated using average expected demand over the next three months.

2) Interval between the highest and lowest level for a given month in the period 2013 – 2017.

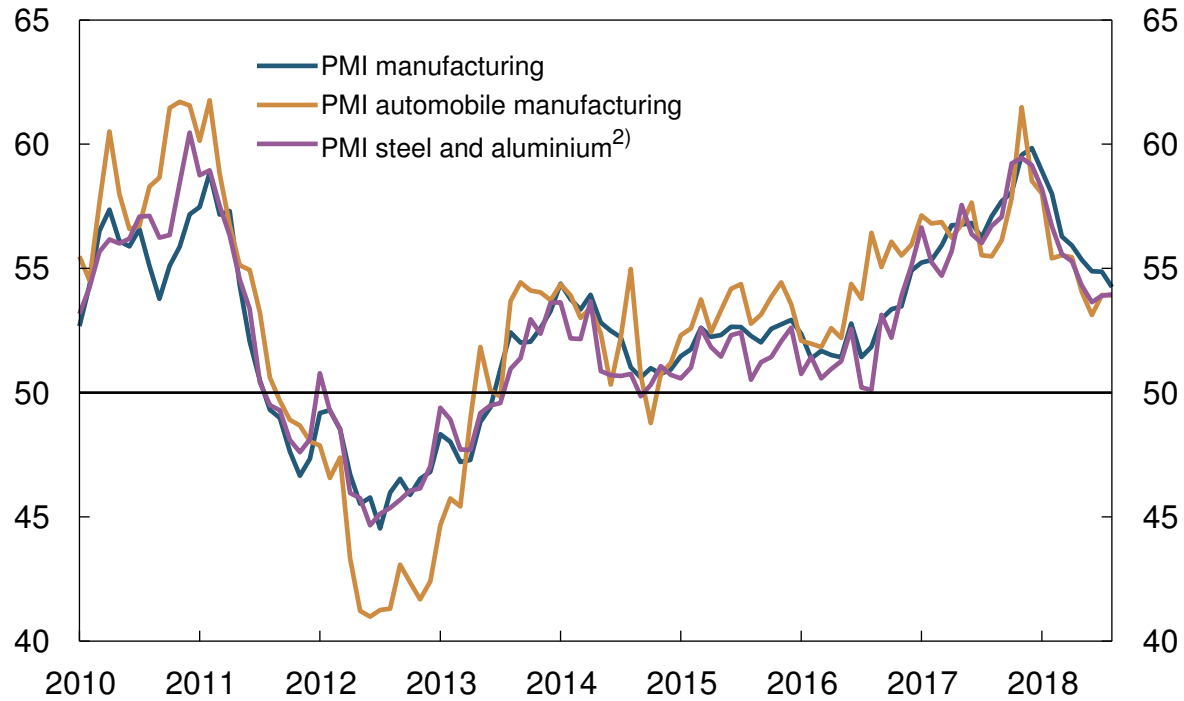
Sources: International Energy Agency and Norges Bank

Chart 2.13 OPEC surplus production capacity.
Million barrels/day. January 2002 – August 2018



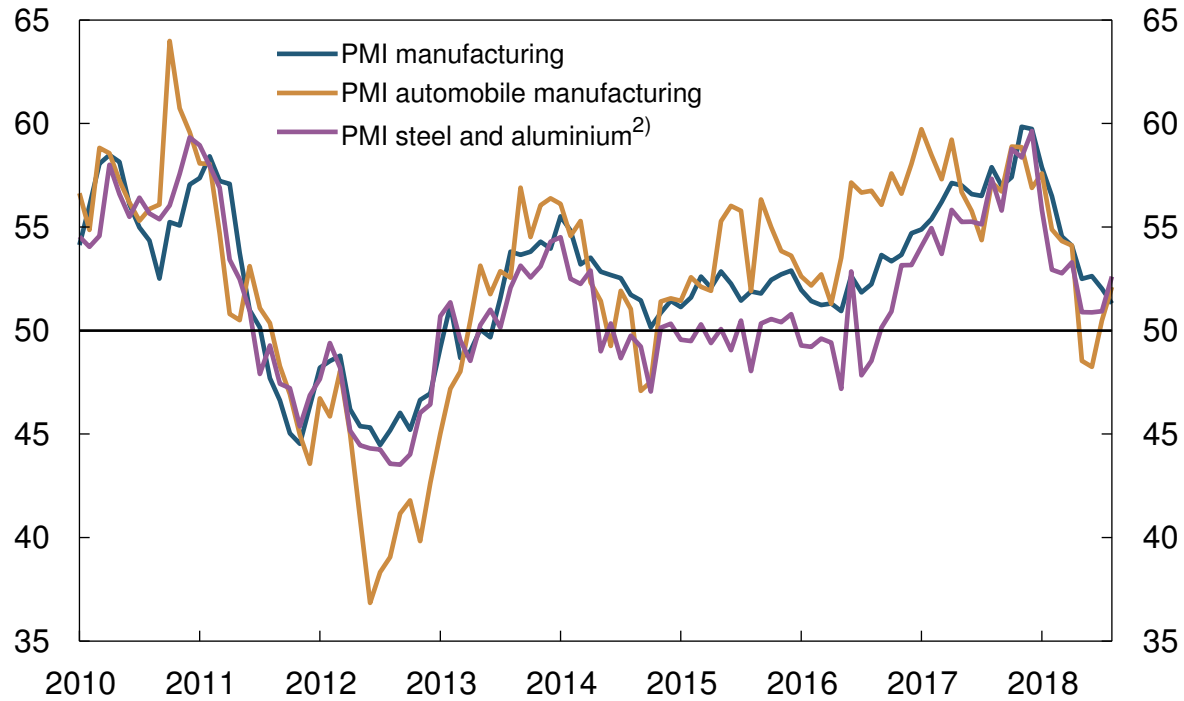
Source: Energy Information Administration

Chart 2.14 PMI for the EU.
Seasonally adjusted. Index.¹⁾ January 2010 – August 2018



1) Survey of purchasing managers. Diffusion index centered around 50.
2) PMI steel and aluminium is the average of PMI steel and PMI aluminium.
Source: IHS Markit

Chart 2.15 PMI for new export orders for the EU.
Seasonally adjusted. Index.¹⁾ January 2010 – August 2018

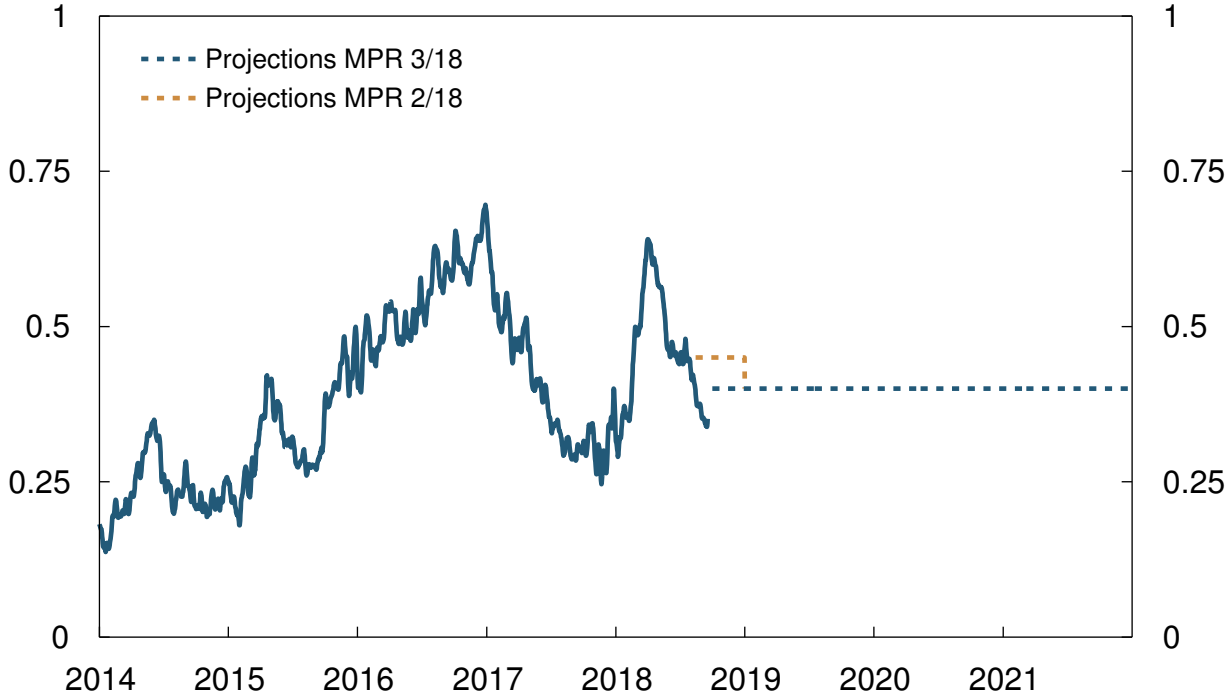


1) Survey of purchasing managers. Diffusion index centered around 50.

2) PMI steel and aluminium is the average of PMI steel and PMI aluminium.

Source: IHS Markit

Chart 3.1 Norwegian three-month money market premium.¹⁾ Five-day moving average. Percentage points. 1 January 2014 – 31 December 2021²⁾

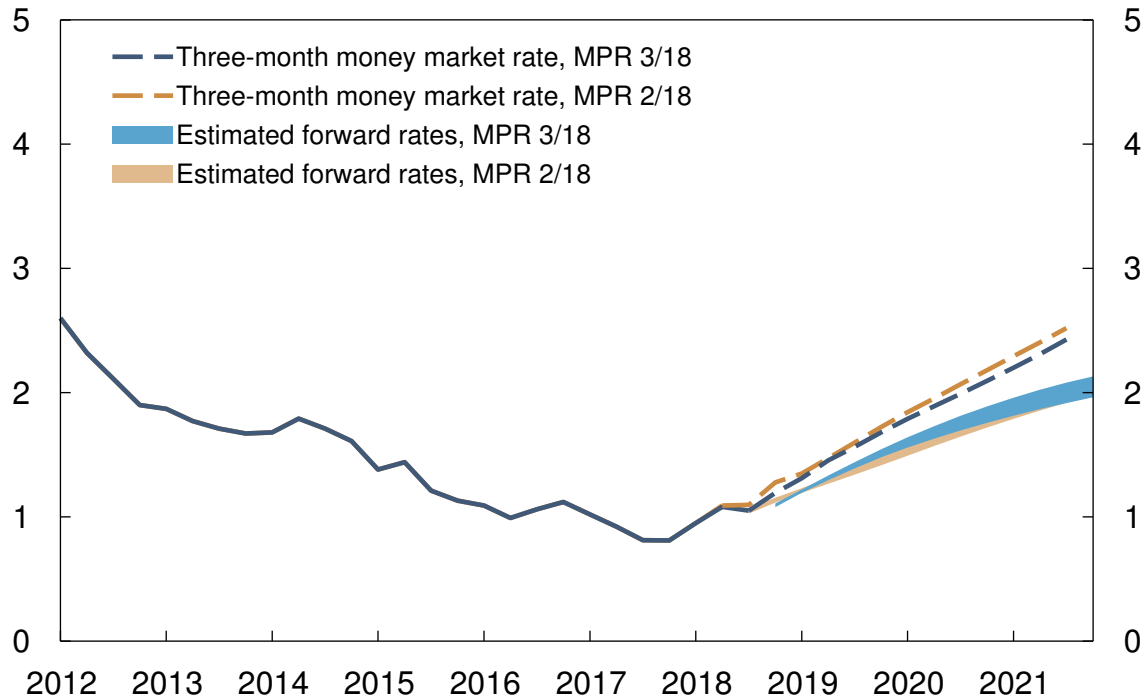


1) Norges Bank estimates of the difference between the three-month money market rate and the expected key policy rate.

2) Projections for 2018 Q4 – 2021 Q4.

Sources: Thomson Reuters and Norges Bank

Chart 3.2 Three-month money market rate ¹⁾ and estimated forward rates ²⁾.
 Percent. 2012 Q1 – 2021 Q4 ³⁾



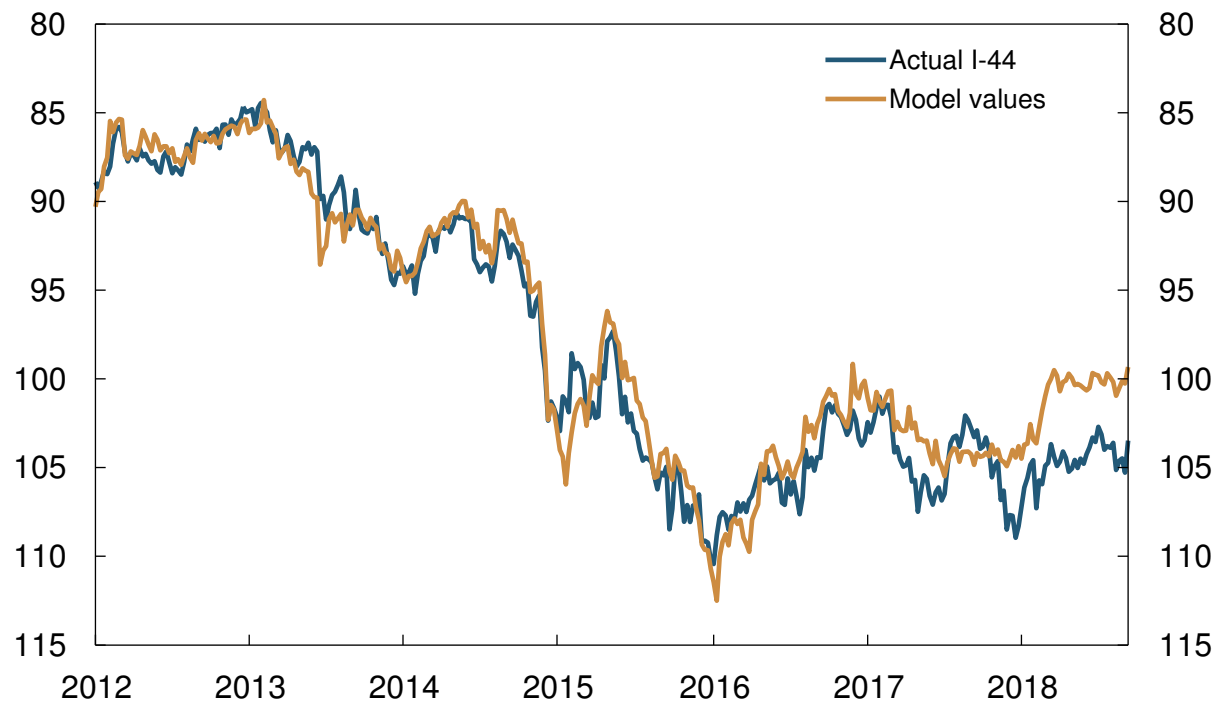
1) Projections for the money market rate are calculated as an average of the key policy rate in the current and subsequent quarter plus an estimate of the money market premium.

2) Forward rates are based on money market rates and interest rate swaps. The orange and blue bands show the highest and lowest rates in the period 4 June – 15 June in 2018 for MPR 2/18 and in the period 3 September – 14 September in 2018 for MPR 3/18, respectively.

3) Projections for 2018 Q3 – 2021 Q4.

Sources: Thomson Reuters and Norges Bank

Chart 3.3 Empirical model for import-weighted krone exchange rate (I-44).^{1) 2)}
Week 1 2012 – week 37 2018

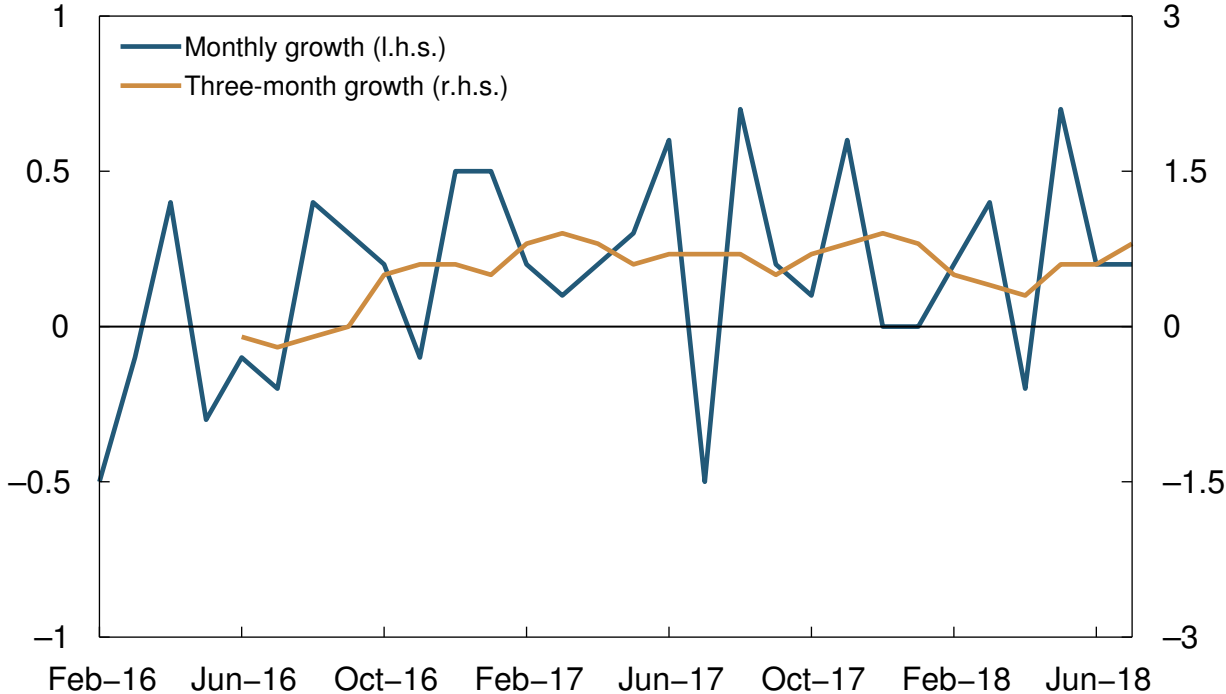


1) Oil price and one-year and 10-year interest rate differential against trading partners are incorporated as explanatory variables. The model is estimated using data from the first week of January 2009 to the last week of December 2016. The chart shows the fitted values for this period and the model-predicted values from the first week of January 2017 to the last week of September 2018.

2) Rising value in the chart denotes a stronger krone.

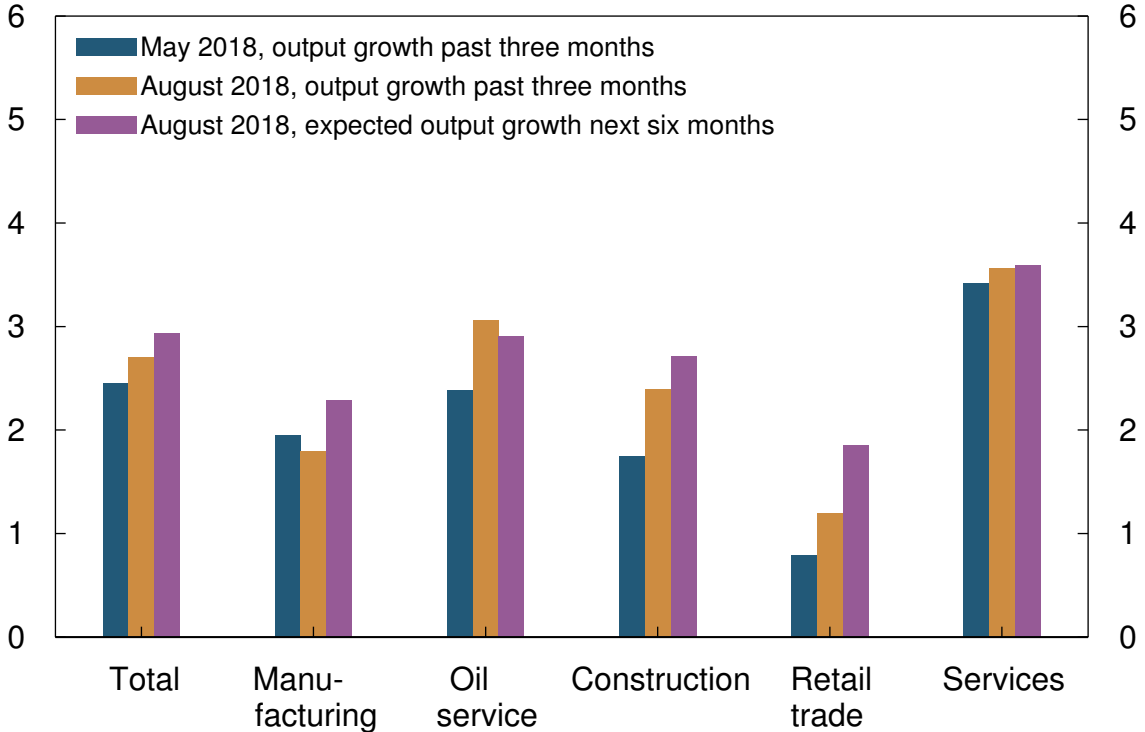
Sources: Bloomberg, Thomson Reuters and Norges Bank

Chart 3.4 GDP for mainland Norway. Seasonally adjusted. Monthly growth and three-month growth¹⁾. Percent. February 2016 – July 2018



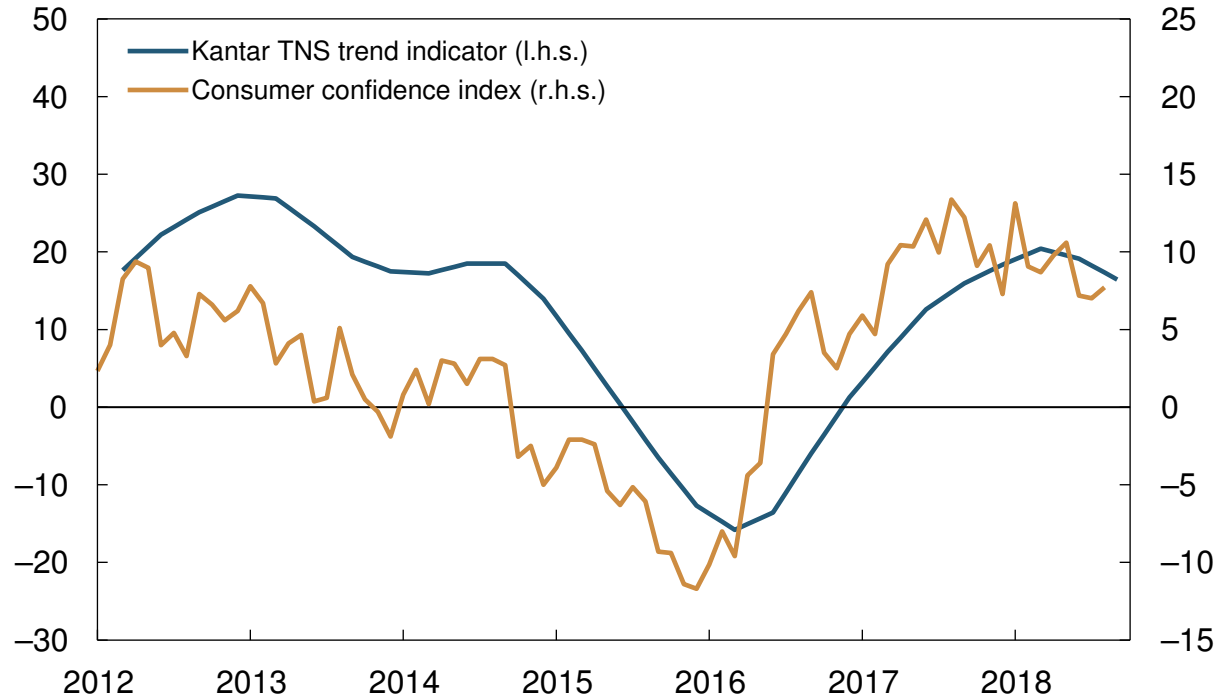
1) Latest three months against past three months.
Source: Monthly national accounts from Statistics Norway

Chart 3.5 Output growth by sector as reported by the Regional Network. Annualised. Percent



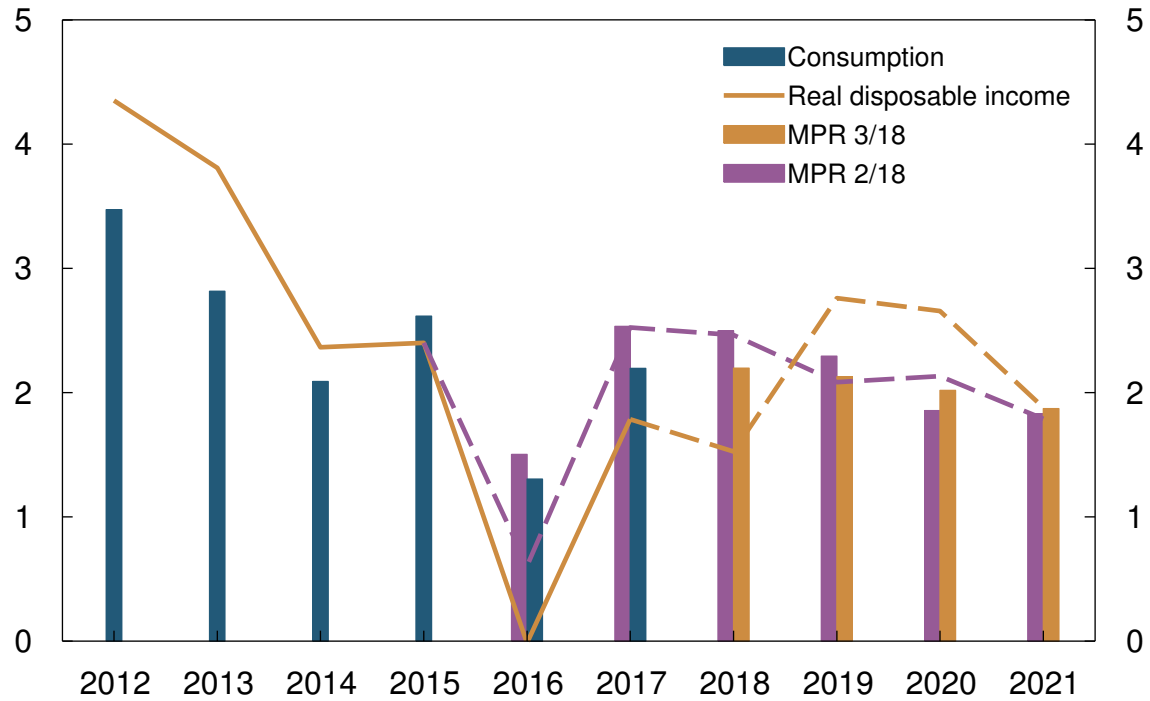
Source: Norges Bank

Chart 3.6 Consumer confidence. Net values. Kantar TNS trend indicator for households. 2012 Q1 – 2018 Q3. Opinion consumer confidence index (CCI). January 2012 – August 2018



Sources: ForbrukerMeteret™ from Opinion and Kantar TNS

Chart 3.7 Household consumption¹⁾ and real disposable income²⁾.
Annual change. Percent. 2012 – 2021³⁾



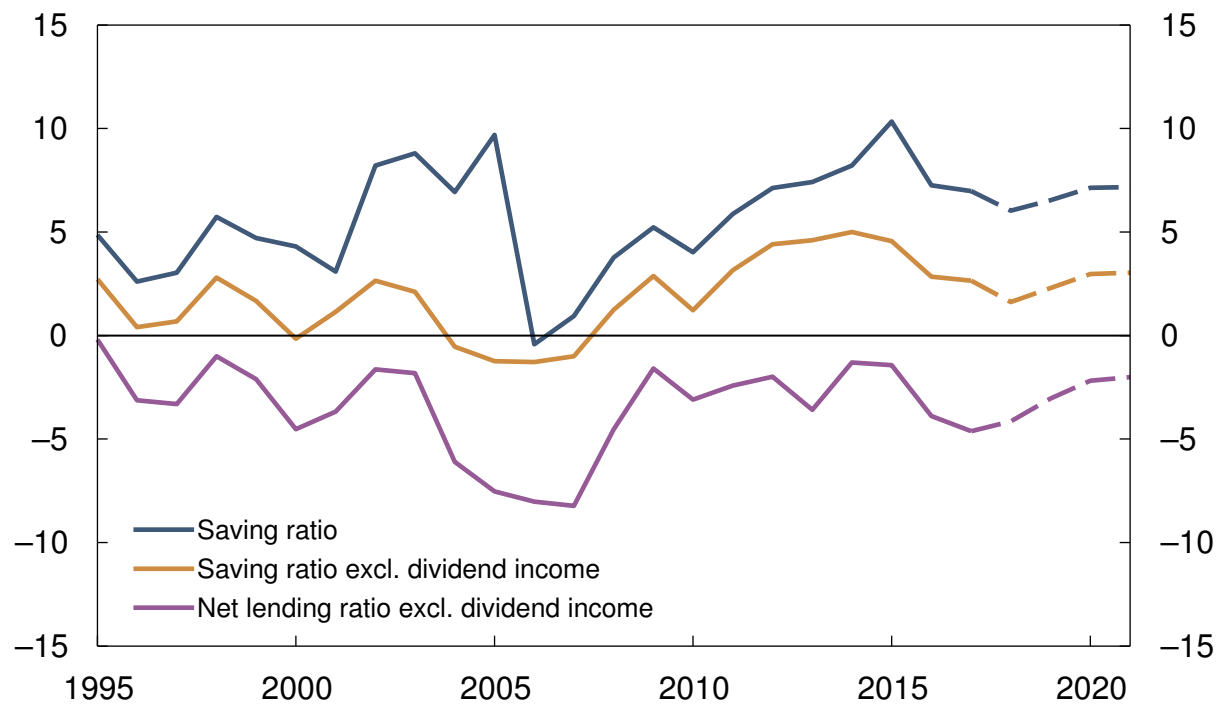
1) Includes consumption for non-profit organisations.

2) Excluding dividend income. Including income for non-profit organisations.

3) Projections for 2018 – 2021 (broken lines).

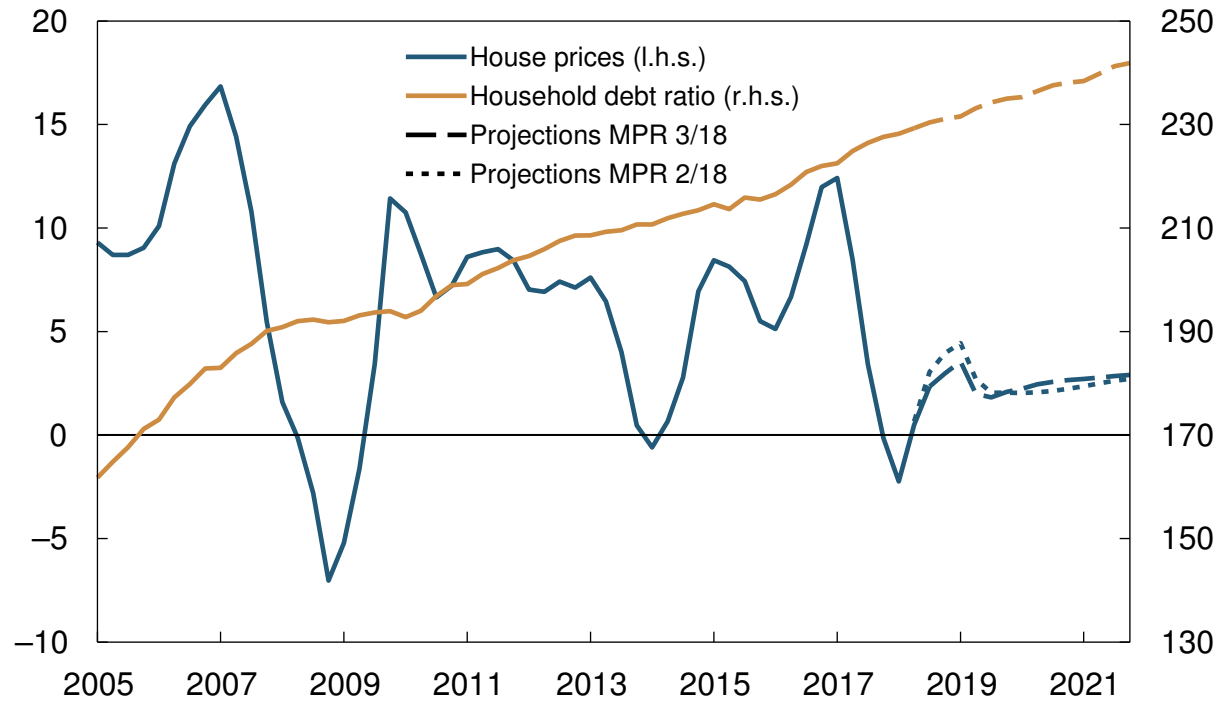
Sources: Statistics Norway and Norges Bank

Chart 3.8 Household saving and net lending.
Share of disposable income. Percent. 1995 – 2021¹⁾



1) Projections for 2018 – 2021 (broken lines).
Sources: Statistics Norway and Norges Bank

Chart 3.9 House prices. Four-quarter change. Household debt ratio ¹⁾. Percent.
2005 Q1 – 2021 Q4 ²⁾

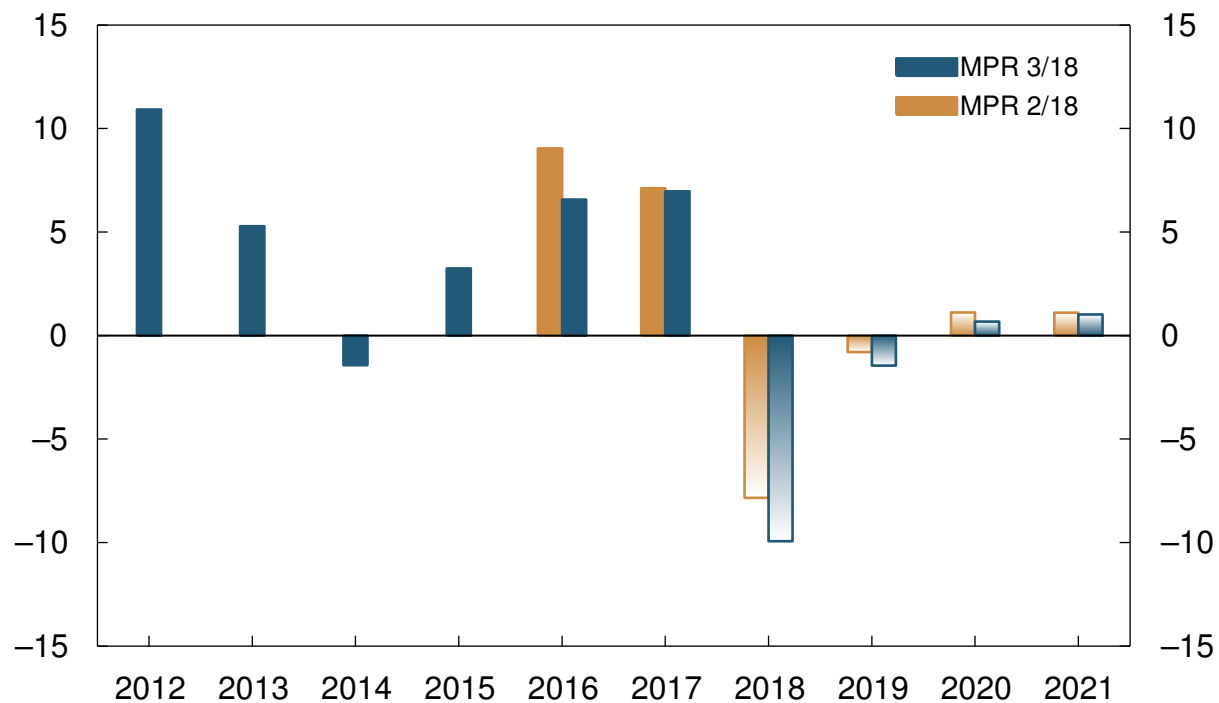


1) Loan debt as a percentage of disposable income.

2) Projections for 2018 Q3 – 2021 Q4.

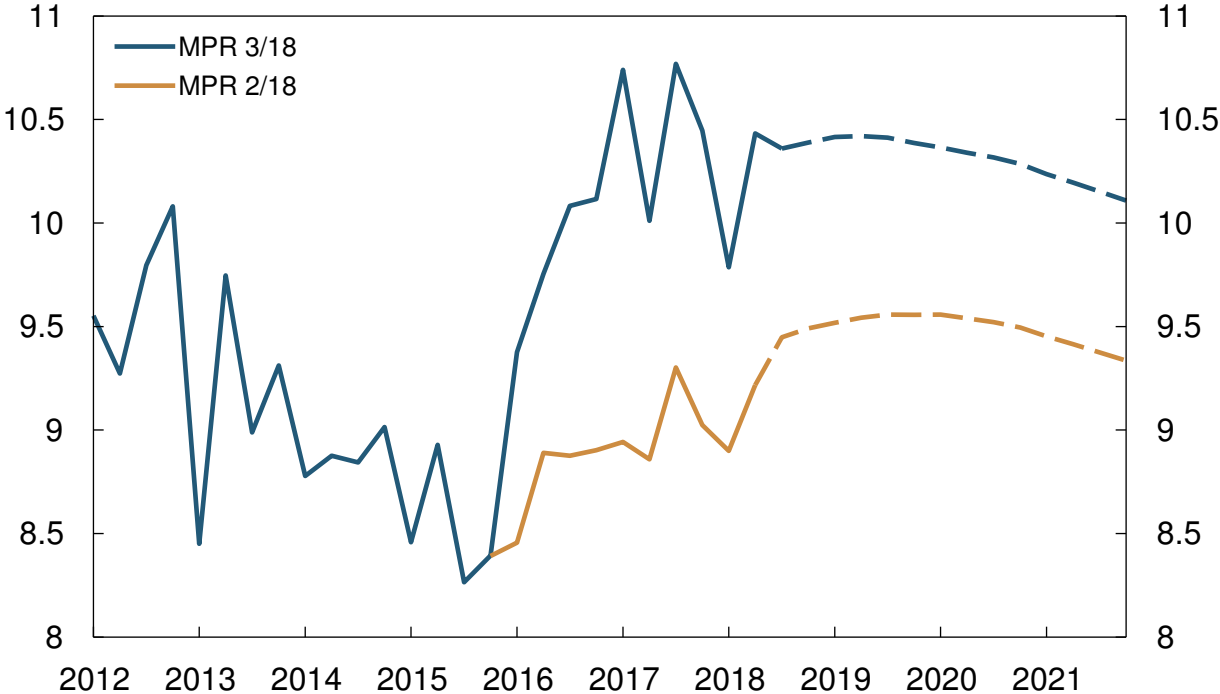
Sources: Eiendomsverdi, Finn.no, Real Estate Norway, Statistics Norway and Norges Bank

Chart 3.10 Housing investment. Annual change. Percent. 2012 – 2021 ¹⁾



1) Projections for 2018 – 2021 (shaded bars).
Sources: Statistics Norway and Norges Bank

Chart 3.11 Business investment as share of GDP for mainland Norway.¹⁾
 Seasonally adjusted. Percent. 2012 Q1 – 2021 Q4²⁾

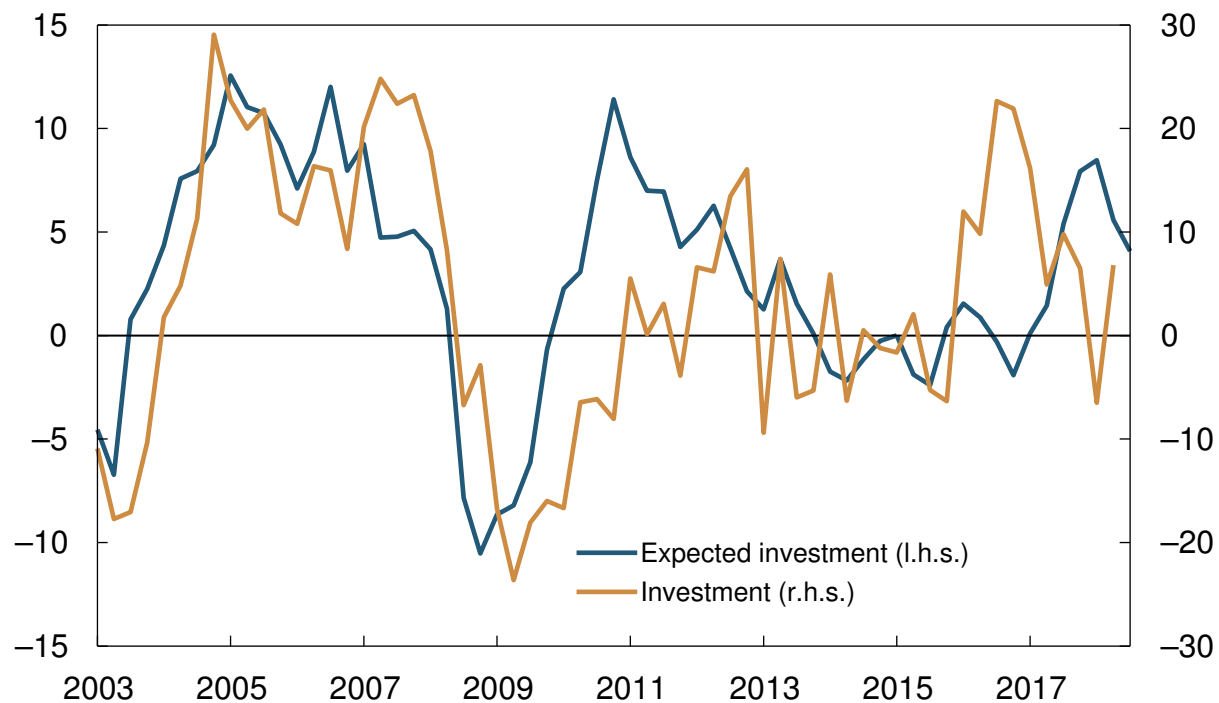


1) According to Statistics Norway, business investment in 2016 will be revised down somewhat in the next quarterly national accounts.

2) Projections for 2018 Q3 – 2021 Q4 (broken lines).

Sources: Statistics Norway and Norges Bank

Chart 3.12 Expected change in business investment over the next 12 months.¹⁾
 Percent. Business investment for mainland Norway. Four-quarter change.
 Seasonally adjusted. Percent. 2003 Q1 – 2018 Q3²⁾

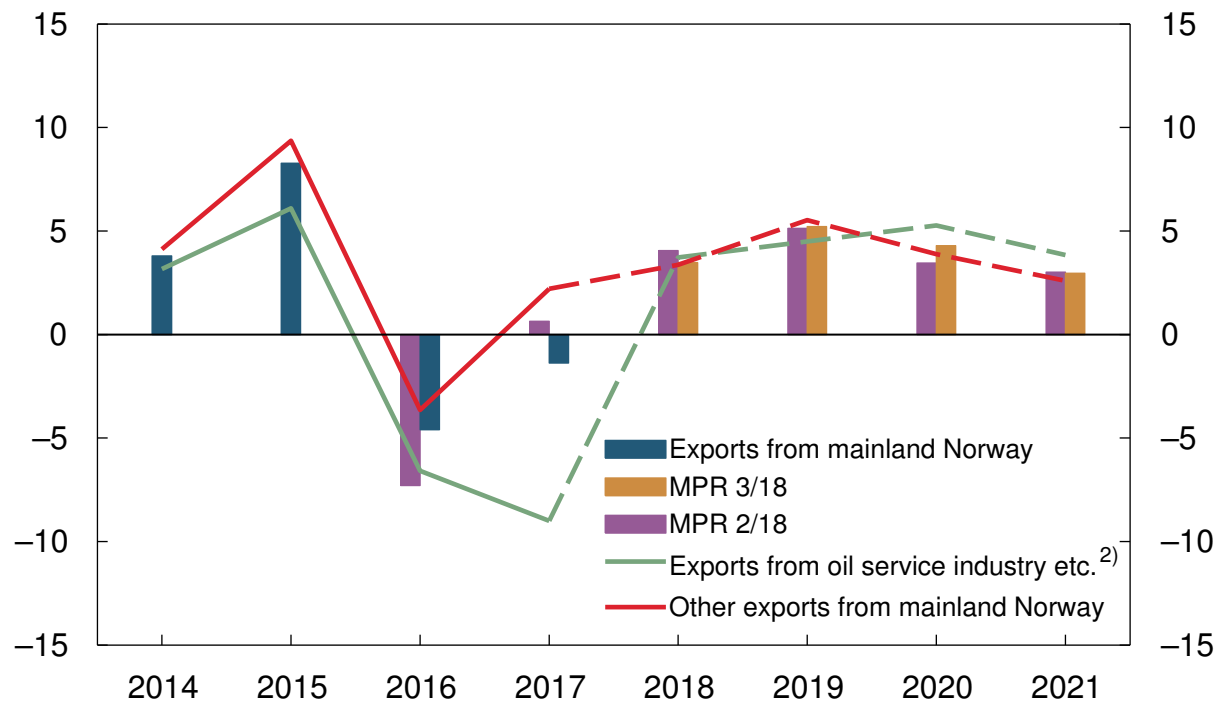


1) Regional Network. Weighted average of manufacturing, oil services, retail trade and services.

2) Latest observation for investment is 2018 Q2.

Sources: Statistics Norway and Norges Bank

Chart 3.13 Exports from mainland Norway. Annual change. Percent. 2014 – 2021¹⁾

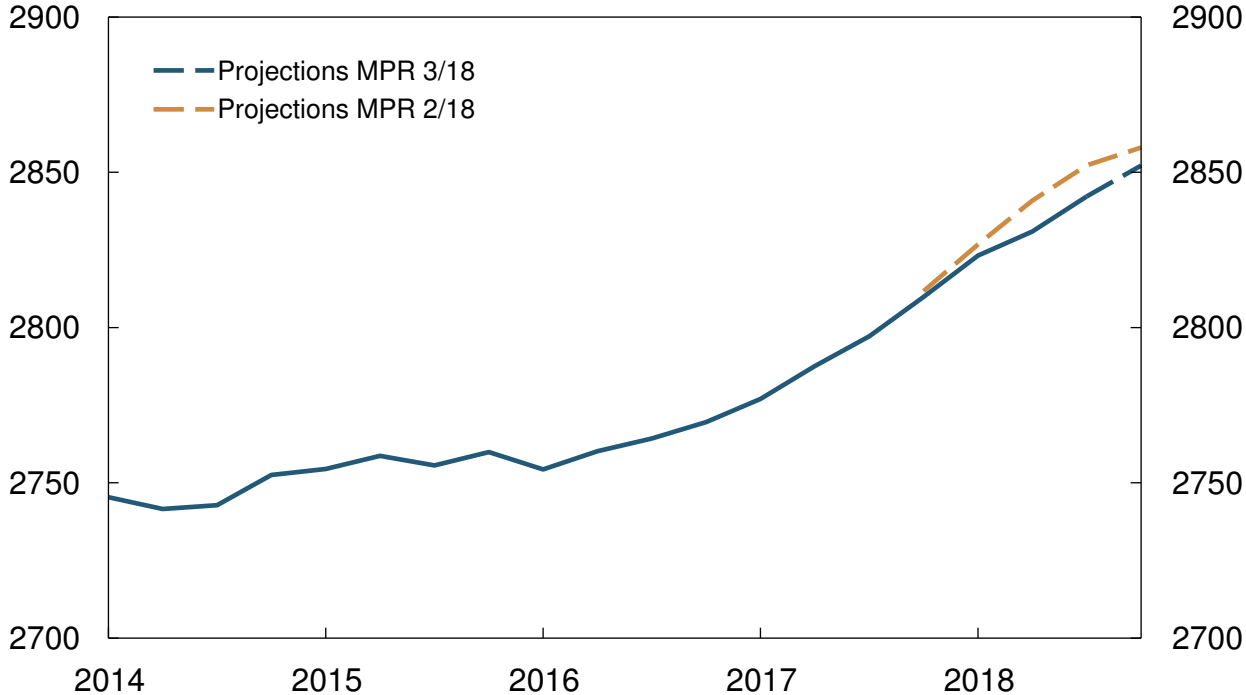


1) Projections for 2018 – 2021 (broken lines).

2) Groups of goods and services in the national accounts where the oil service industry accounts for a considerable share of exports.

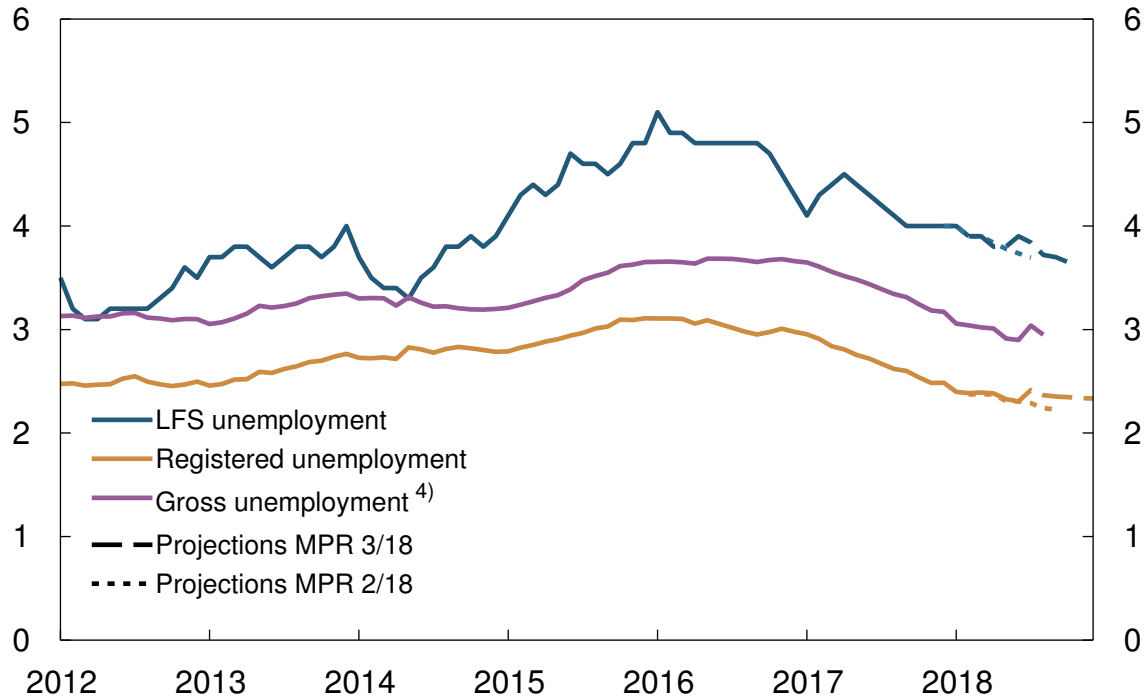
Sources: Statistics Norway, Thomson Reuters and Norges Bank

Chart 3.14 Employment. Seasonally adjusted. In thousands. 2014 Q1 – 2018 Q4 ¹⁾



1) Projections for 2018 Q3 – 2018 Q4.
Sources: Statistics Norway and Norges Bank

Chart 3.15 Unemployment according to LFS¹⁾ and NAV²⁾. Share of the labour force. Seasonally adjusted. Percent. January 2012 – December 2018³⁾



1) Labour Force Survey.

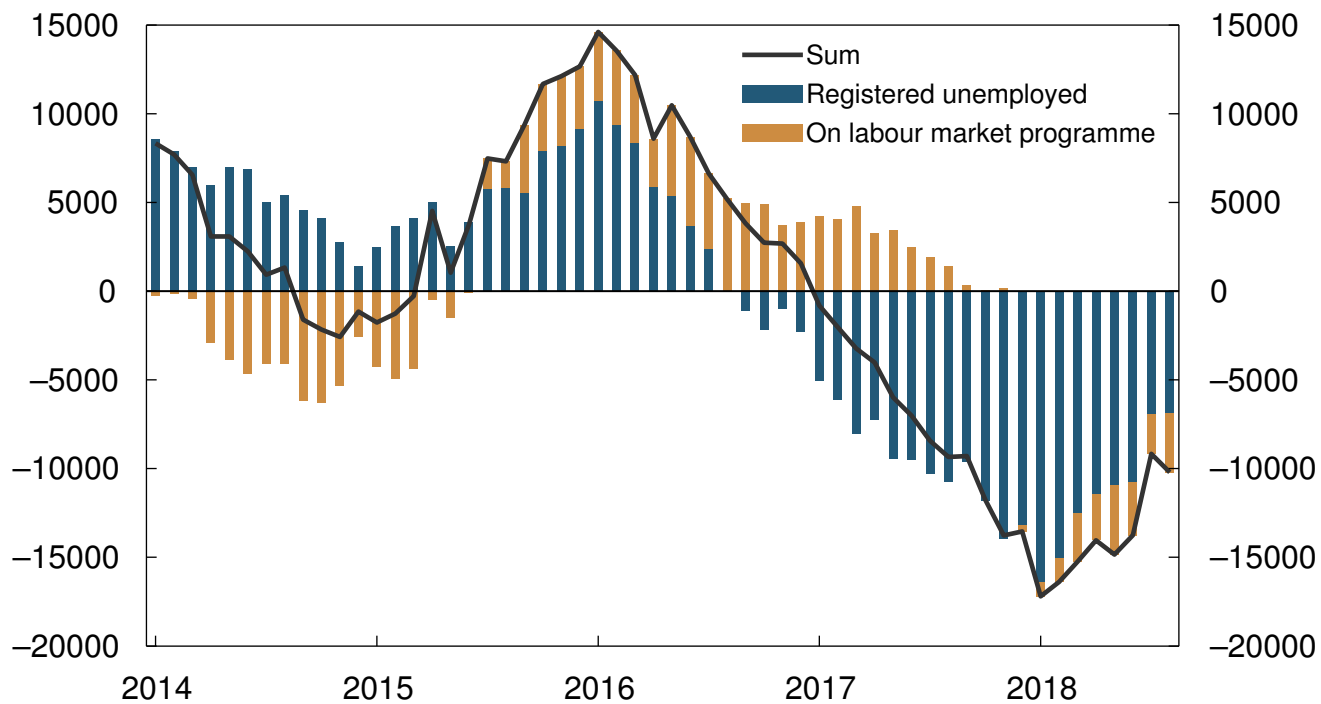
2) Registered unemployment.

3) Projections for September 2018 – December 2018 (NAV) and July 2018 – October 2018 (LFS).

4) Registered unemployed and ordinary labour market programme participants.

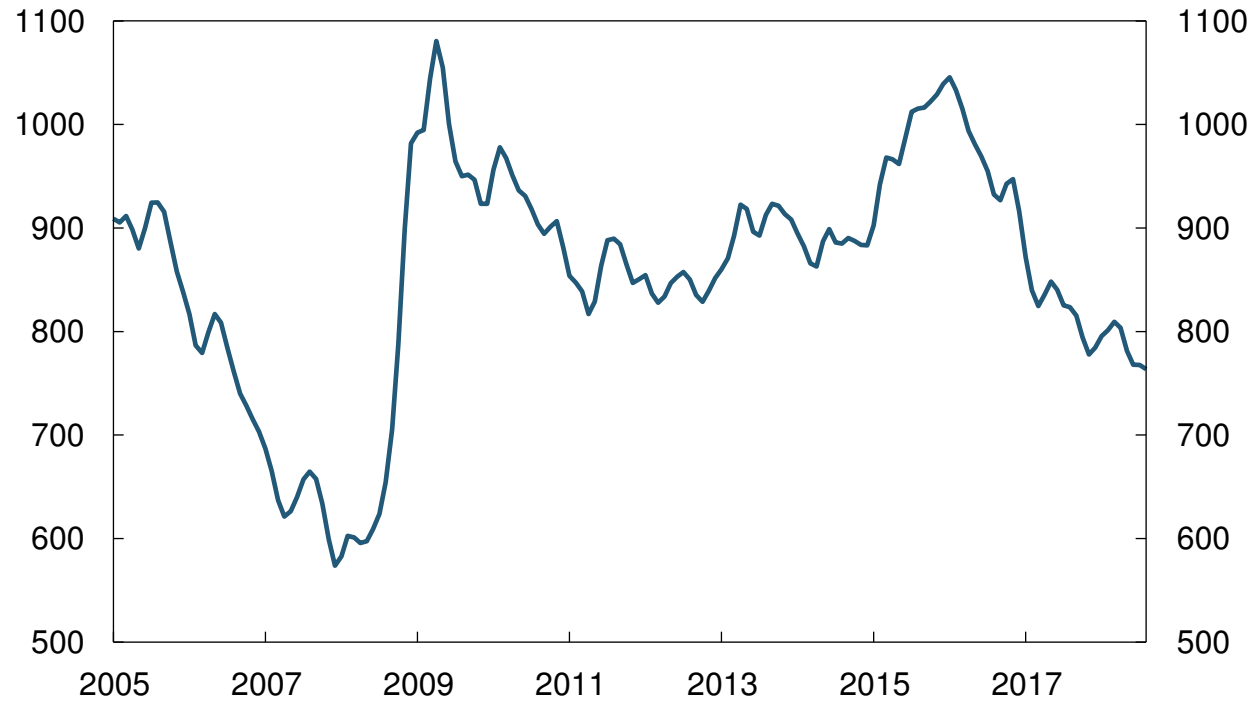
Sources: Norwegian Labour and Welfare Administration (NAV), Statistics Norway and Norges Bank

Chart 3.16 Gross unemployment. ¹⁾
Twelve-month change. Number of unemployed. January 2014 – August 2018



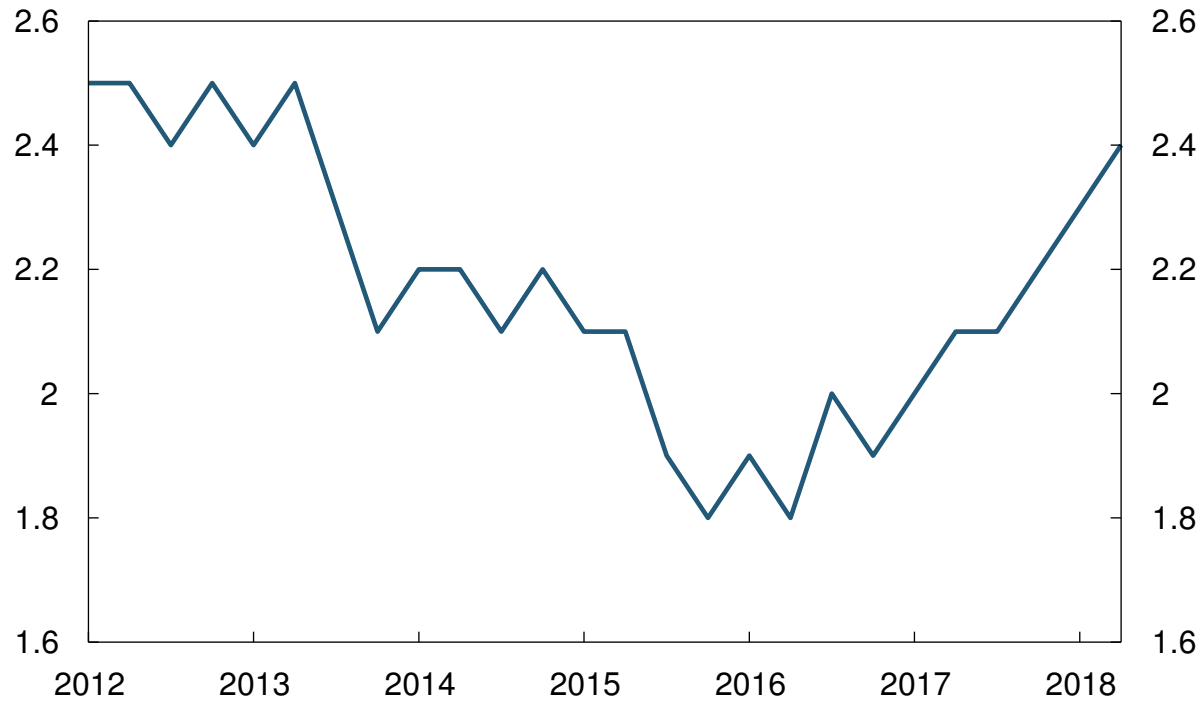
1) Sum of registered unemployed and ordinary labour market programme participants.
Source: Norwegian Labour and Welfare Administration (NAV)

Chart 3.17 New job seekers per business day.
Number of persons. Seasonally adjusted. January 2005 – August 2018



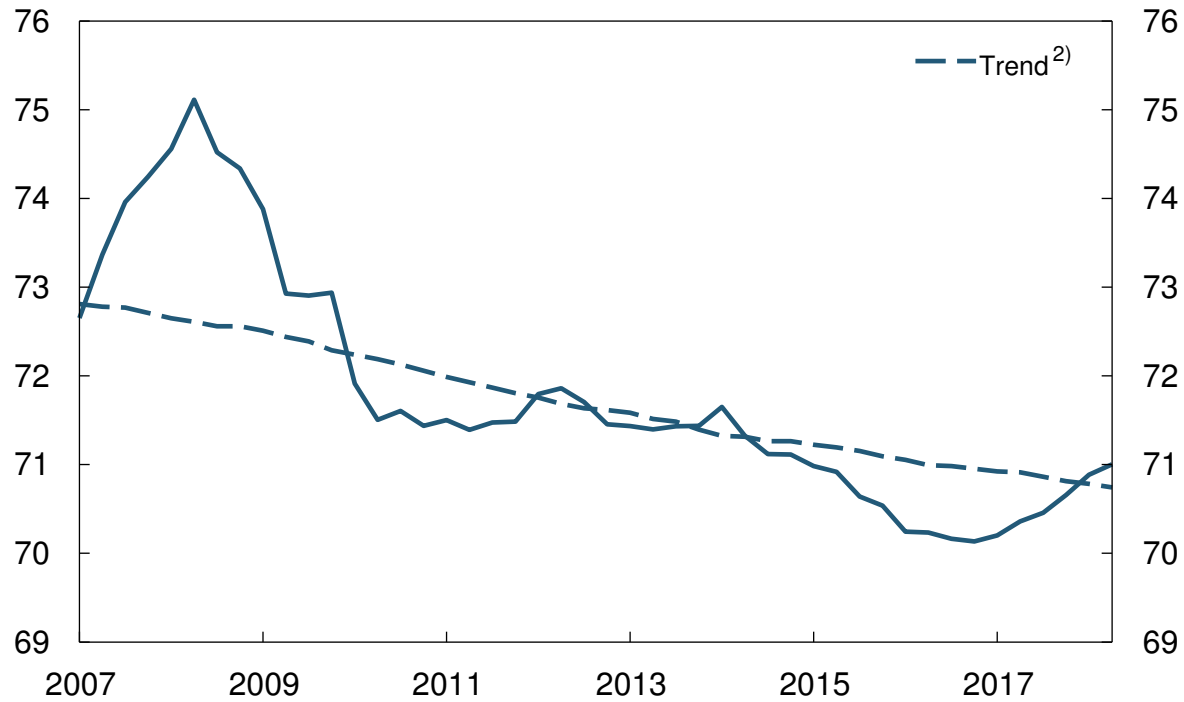
Source: Norwegian Labour and Welfare Administration (NAV)

Chart 3.18 Job vacancies. Share of the total number of jobs. Seasonally adjusted.
Percent. 2012 Q1 – 2018 Q2



Source: Statistics Norway

Chart 3.19 Employment rate¹⁾. Percent. 2007 Q1 – 2018 Q2

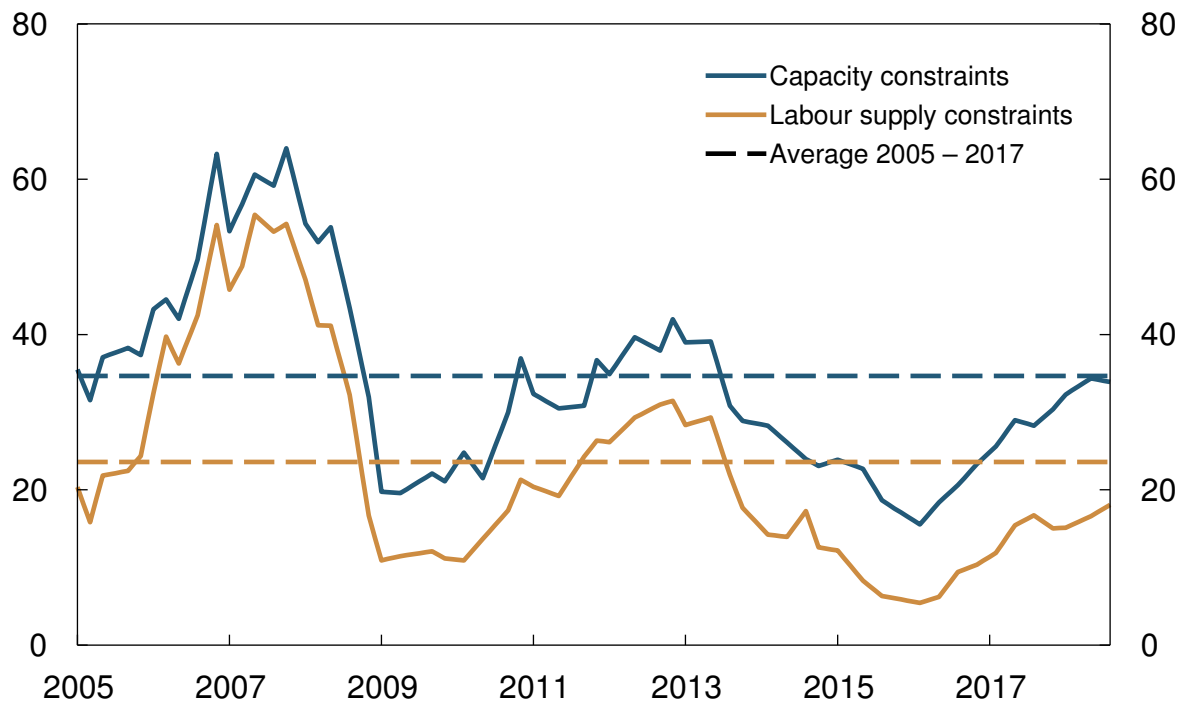


1) Employment in quarterly national accounts as a share of the population (aged 15-74).

2) Employment rate if the rate for each five-year age cohort had been unchanged at 2013 levels. The curve slopes downward because the population is ageing. 2013 was selected because capacity utilisation in that year was close to a normal level.

Sources: Statistics Norway and Norges Bank

Chart 3.20 Capacity¹⁾ and labour supply²⁾ constraints as reported by the Regional Network. Percent. January 2005 – August 2018

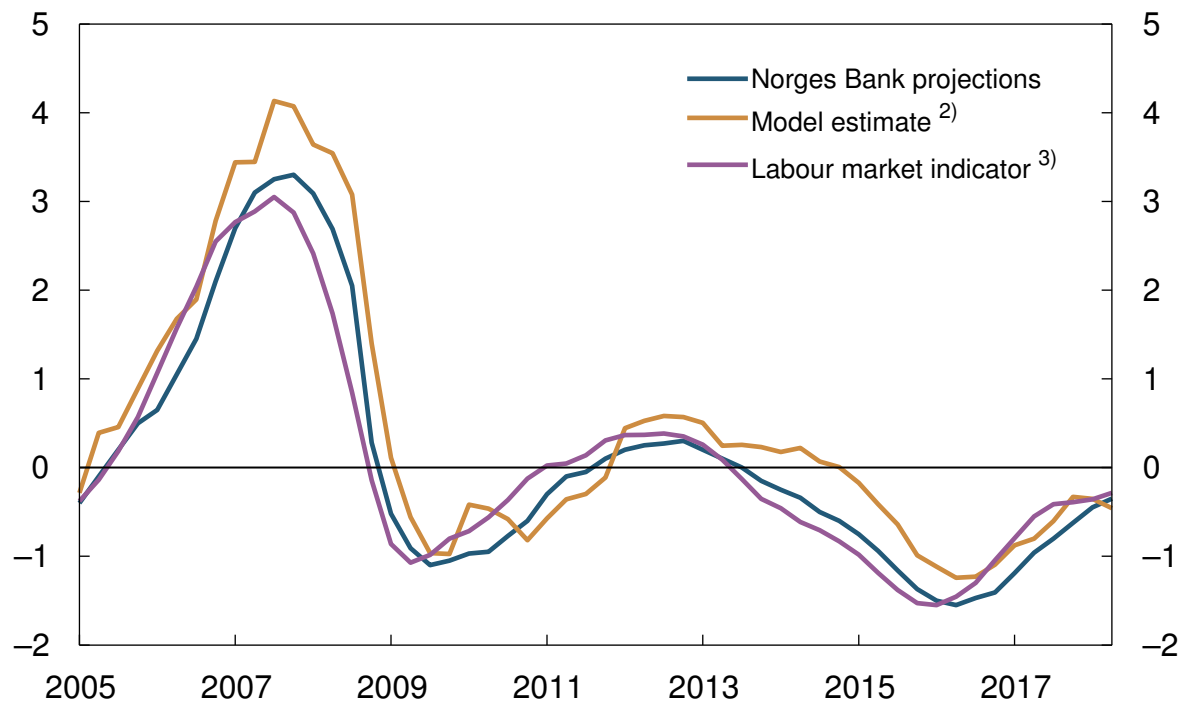


1) Share of contacts that will have some or considerable problems accommodating an increase in demand.

2) Share of contacts reporting that output is being constrained by labour supply.

Source: Norges Bank

Chart 3.21 Estimated output gap¹⁾. Percent. 2005 Q1 – 2018 Q2



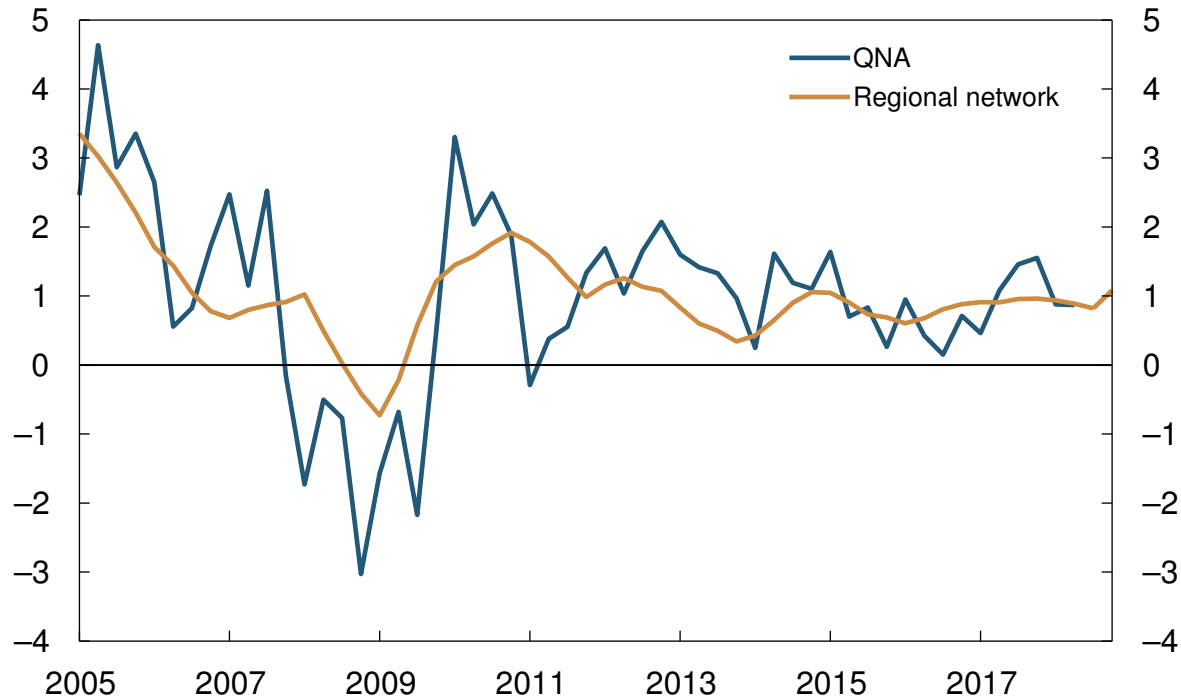
1) The output gap measures the percentage difference between mainland GDP and estimated potential mainland GDP.

2) See box on page 34 in *Monetary Policy Report 4/17* for a review of the model estimate.

3) Indicator of the output gap based on the labour market. See Hagelund, K., F. Hansen and Ø. Robstad (2018) "Model estimates of the output gap". *Staff Memo 4/2018*. Norges Bank, for a further discussion.

Source: Norges Bank

Chart 3.22 Productivity. GDP for mainland Norway per employee according to the QNA¹⁾. Four-quarter change. Production per employee according to Regional network²⁾. Percent. 2005 Q1 – 2018 Q4³⁾



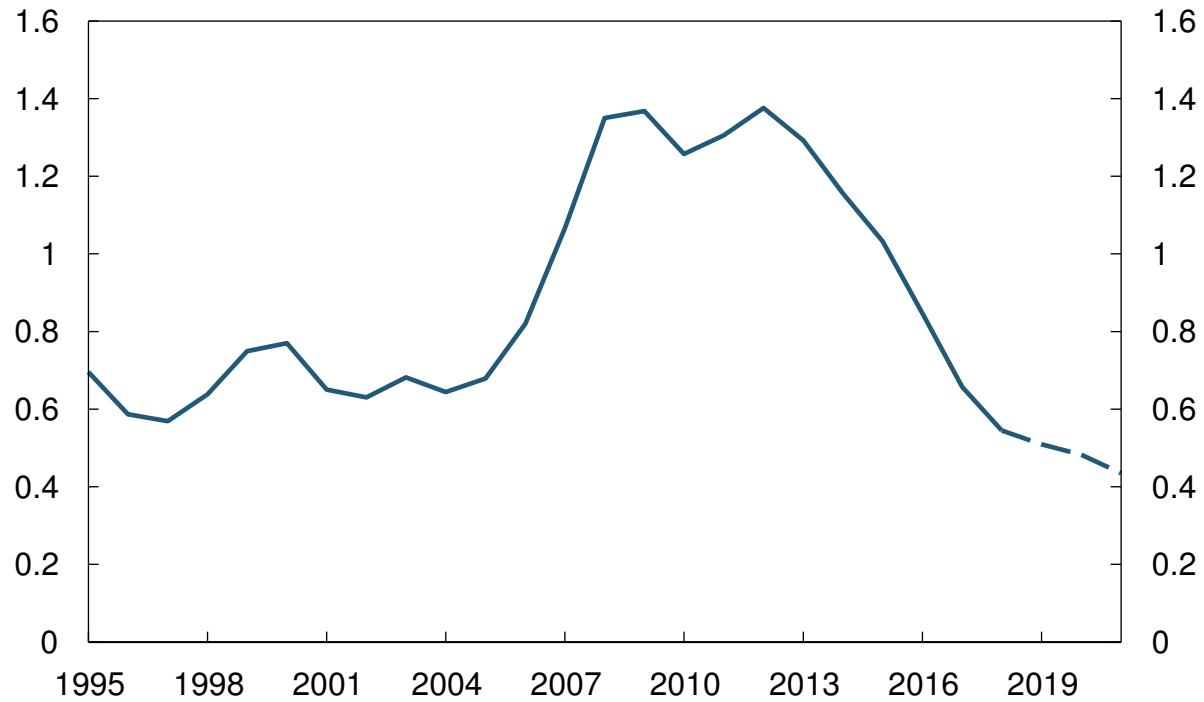
1) Quarterly national accounts.

2) Difference between four quarters' production and employment growth.

3) Latest observation for quarterly national accounts is 2018 Q2.

Sources: Statistics Norway and Norges Bank

Chart 3.23 Labour force. Trend.¹⁾ Annual change. Percent. 1995 – 2021²⁾

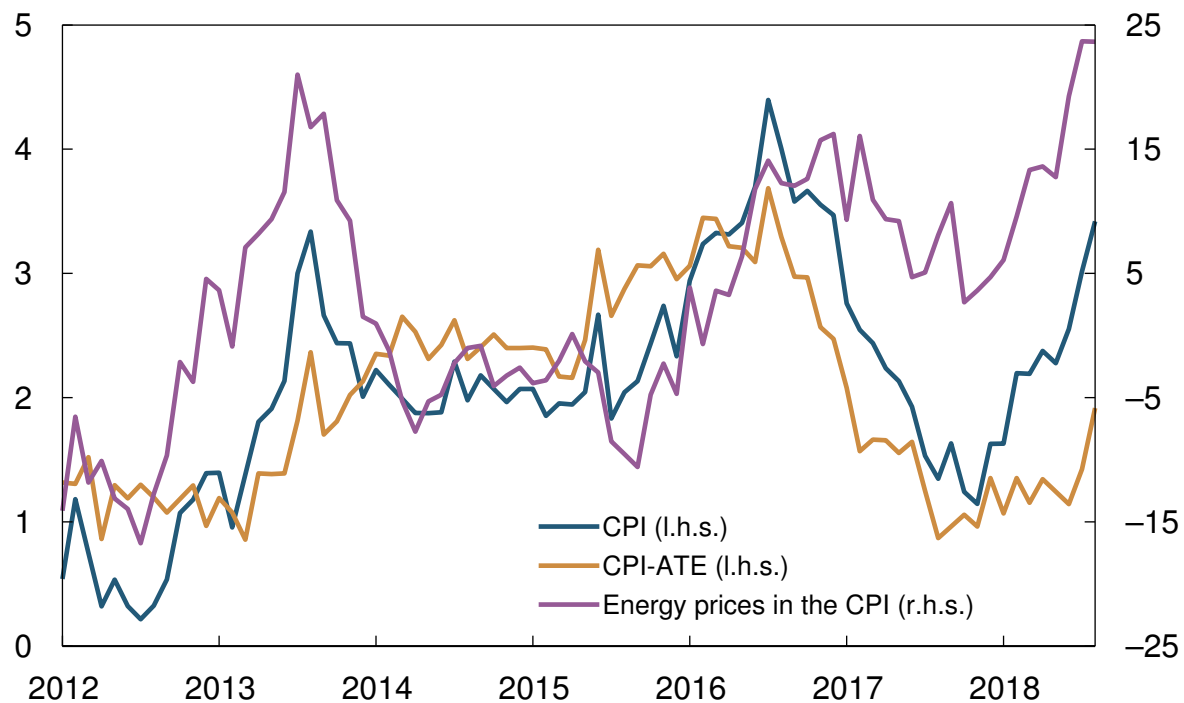


1) Growth due to changes in population aged 15-74, with labour supply held constant at 2013 level for each five-year age group.

2) Projections for 2018 – 2021 (broken line).

Sources: Statistics Norway and Norges Bank

Chart 3.24 CPI, CPI-ATE¹⁾ and energy prices in the CPI²⁾.
 Twelve-month change. Percent. January 2012 – August 2018

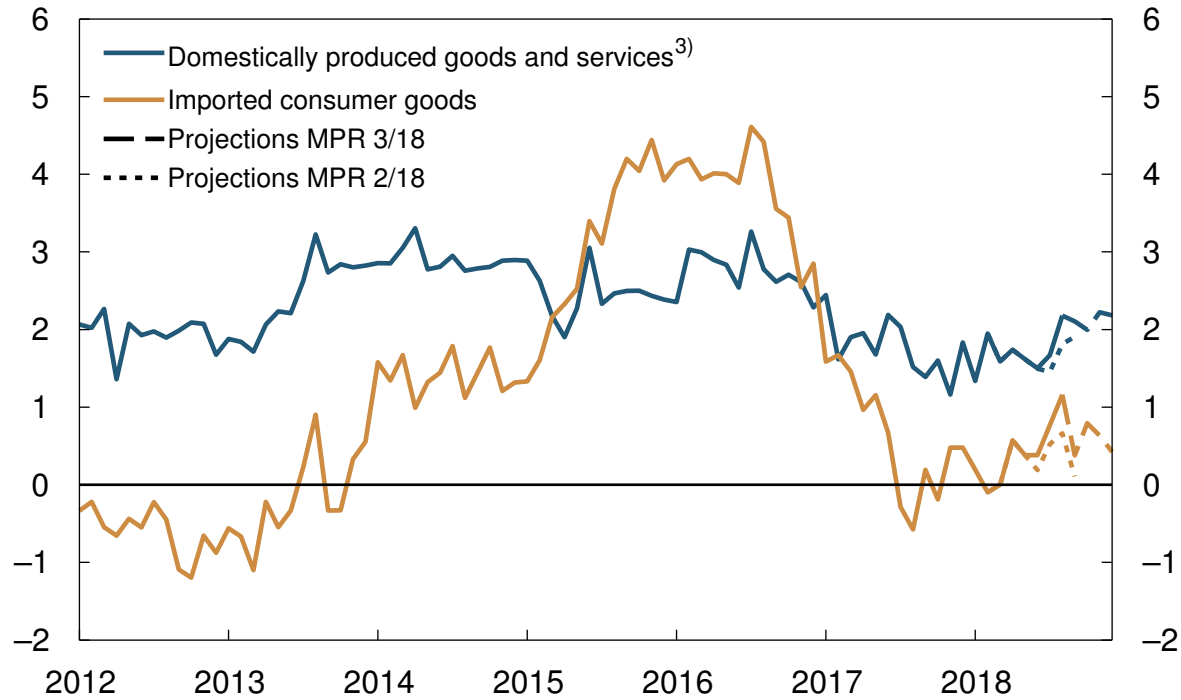


1) CPI adjusted for tax changes and excluding energy products.

2) Estimated by the groups Transport fuels and lubricants and Electricity and other fuels.

Sources: Statistics Norway and Norges Bank

Chart 3.25 CPI-ATE¹⁾ by supplier sector.
 Twelve-month change. Percent. January 2012 – December 2018²⁾



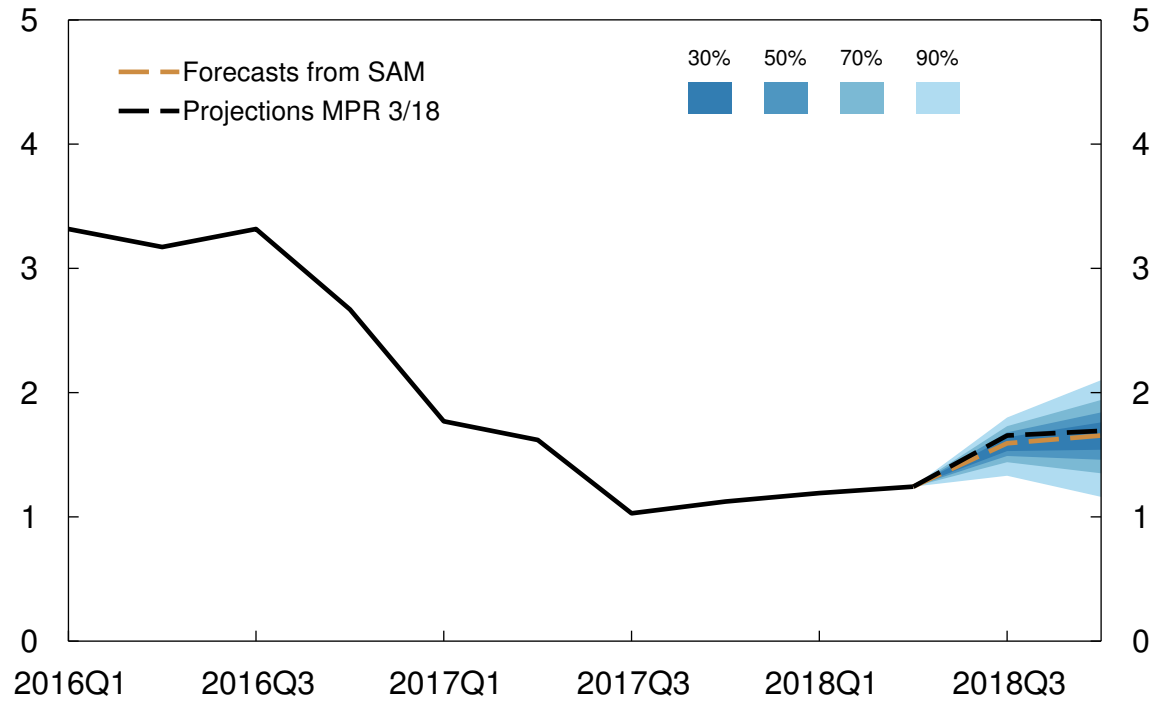
1) CPI adjusted for tax changes and excluding energy products.

2) Projections for September 2018 – December 2018.

3) Norges Bank's estimates.

Sources: Statistics Norway and Norges Bank

Chart 3.26 CPI-ATE¹⁾ with fan chart from SAM²⁾.
 Four-quarter change. Percent. 2016 Q1 – 2018 Q4³⁾



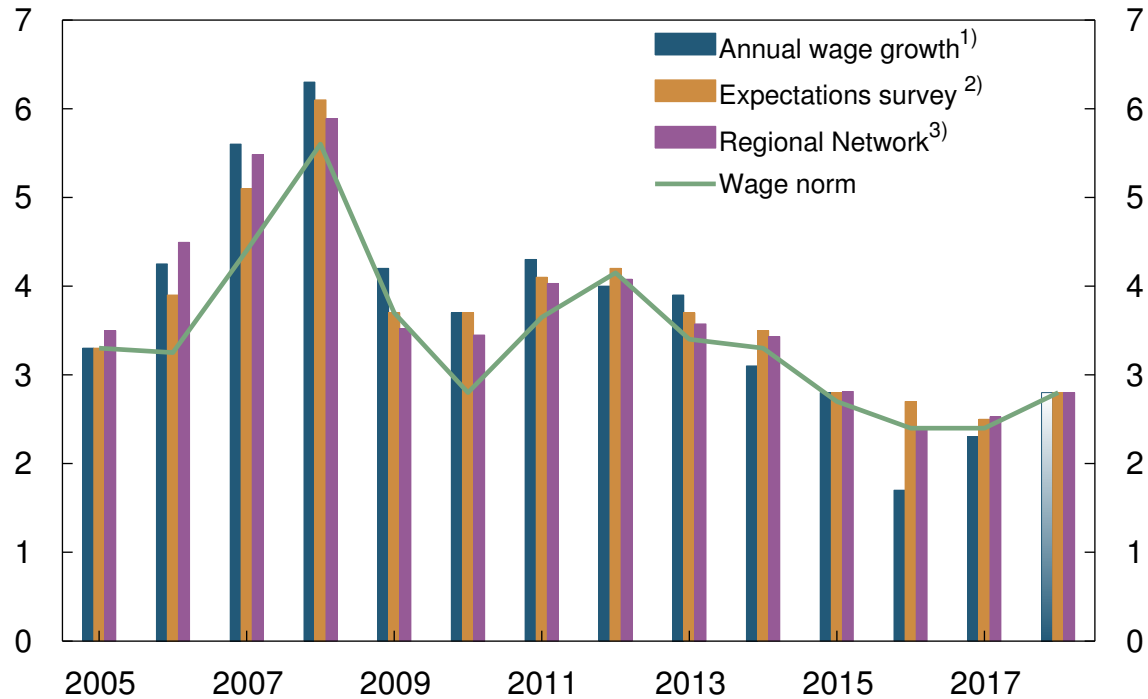
1) CPI adjusted for tax changes and excluding energy products.

2) System for Averaging short-term Models.

3) Projections for 2018 Q3 – 2018 Q4.

Sources: Statistics Norway and Norges Bank

Chart 3.27 Wage growth, wage norm and wage expectations.
Annual change. Percent. 2005 – 2018



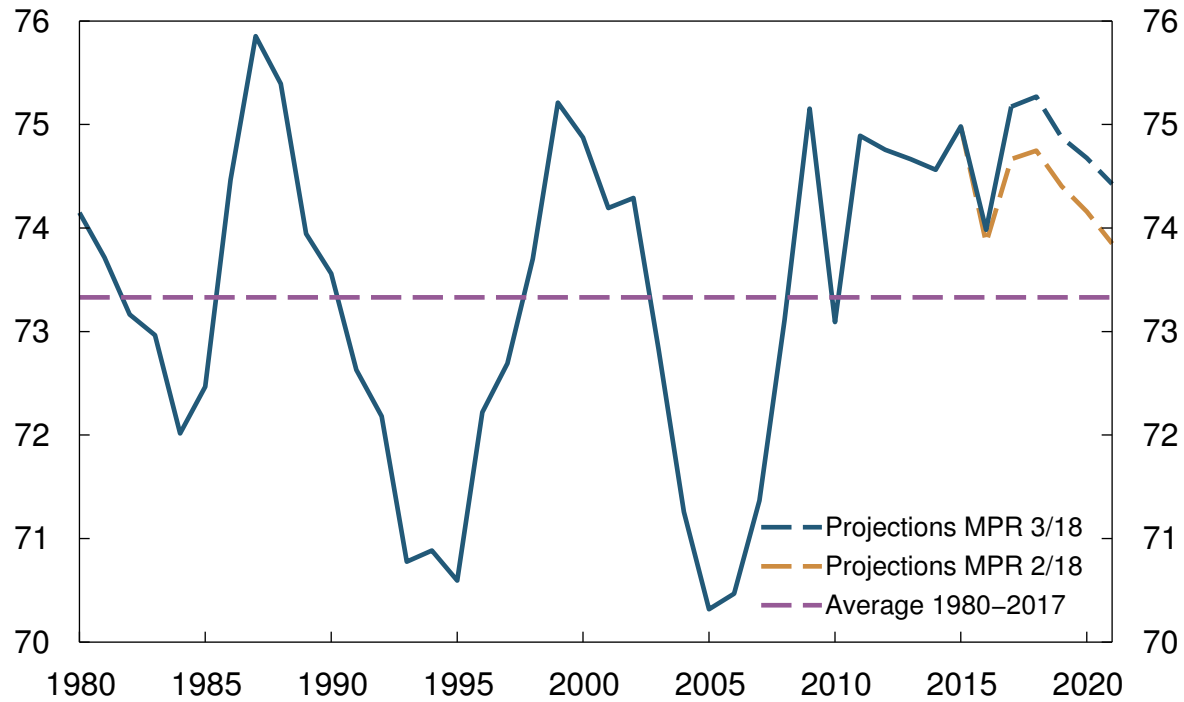
1) Actual annual wage growth from Statistics Norway. Norges Bank's projections for 2018 (shaded bar).

2) Social partners' wage growth expectations for the current year as measured by Norges Bank's expectations survey in Q3 each year.

3) Expected wage growth for the current year as reported by the Regional Network in Q3 each year.

Sources: Epinion, Kantar TNS, Opinion, Statistics Norway and Norges Bank.

Chart 3.28 Labour share for mainland Norway.¹⁾ Percent. 1980 – 2021²⁾

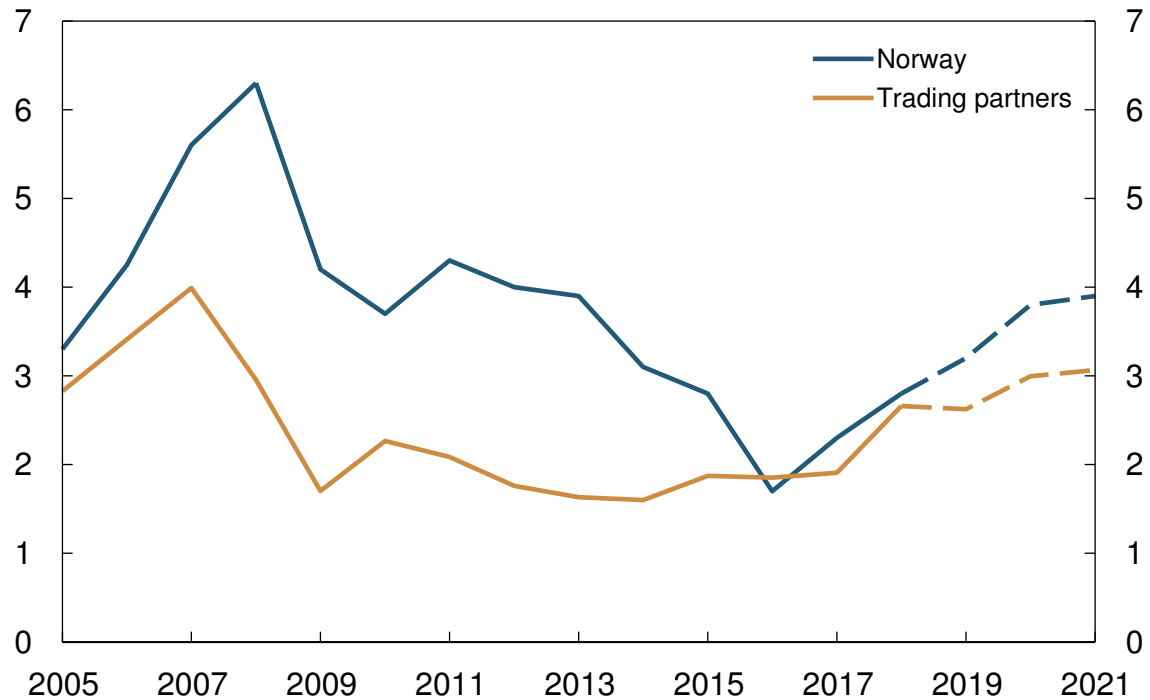


1) Labour costs as a share of the sum of labour costs and operating profit.

2) Projections for 2018 – 2021.

Sources: Statistics Norway and Norges Bank

Chart 3.29 Wage growth in Norway and for main trading partners¹⁾.
Annual change. Percent. 2005 – 2021²⁾

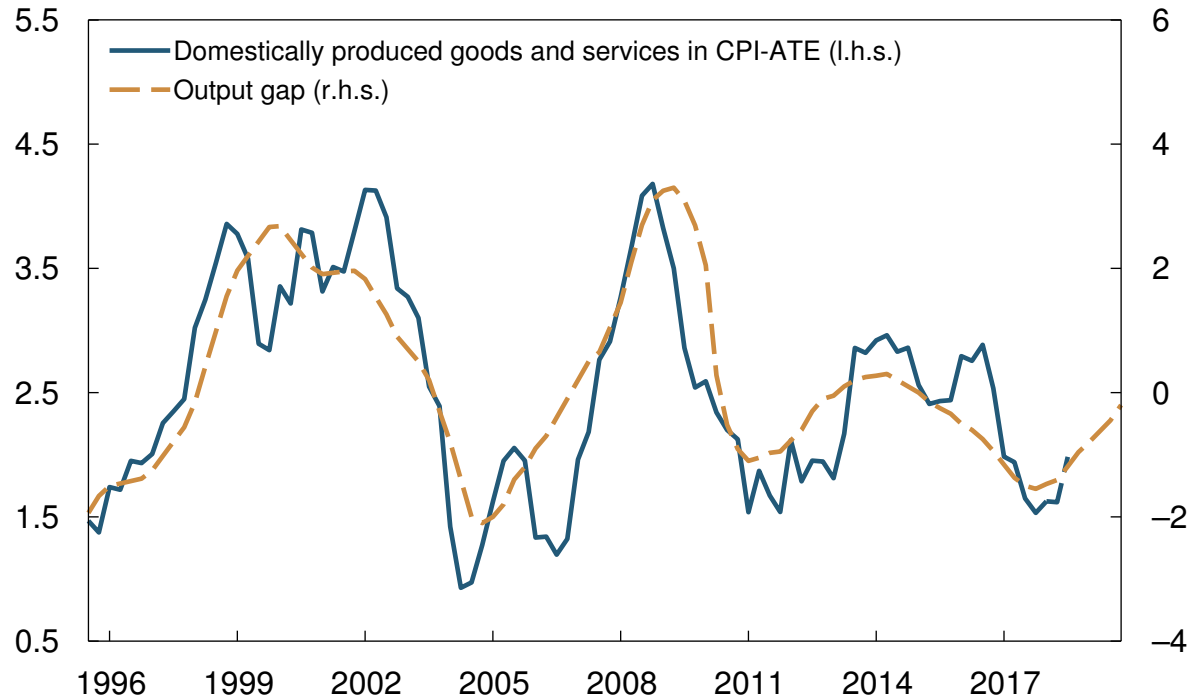


1) Aggregate for wage growth for trading partners is based on labour cost growth in the euro area, Sweden, UK and US.

2) Projections for 2018 – 2021 (broken lines).

Sources: Statistics Norway, Thomson Reuters and Norges Bank

Chart 3.30 Domestically produced goods and services in CPI-ATE ¹⁾.
 Four-quarter change. Percent. Lagged output gap ²⁾. Percent. 1995 Q3 – 2019 Q4

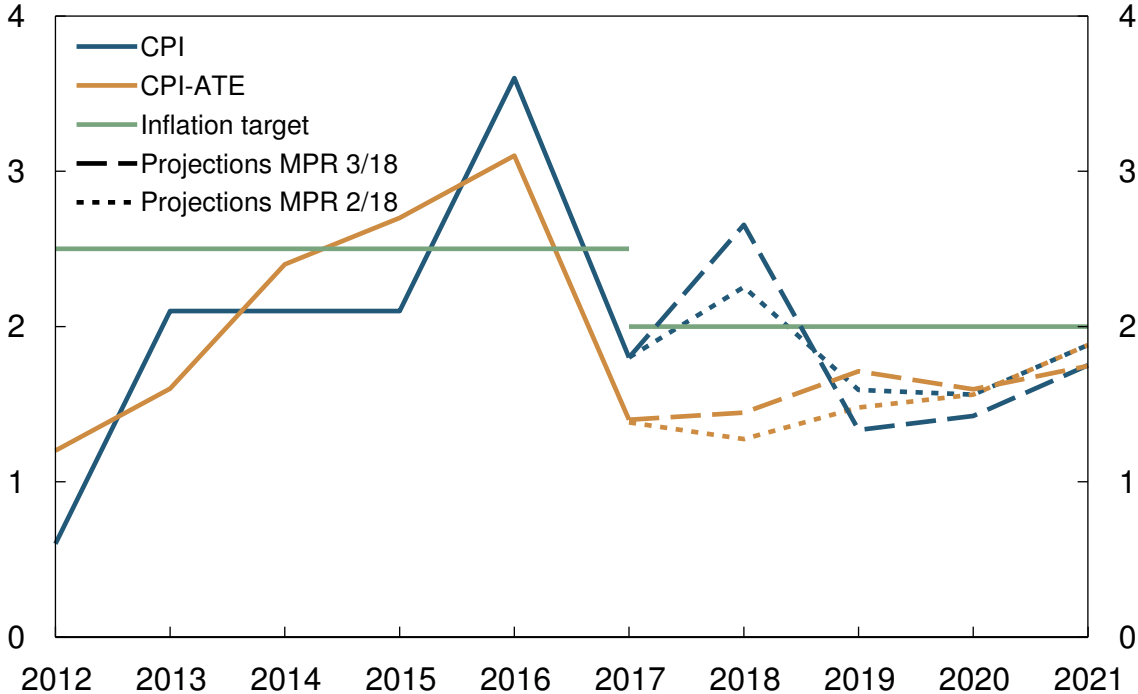


1) CPI adjusted for tax changes and excluding energy products. Norges Bank's estimates. 1995 Q3 – 2018 Q3. Projections for 2018 Q3.

2) The output gap is measured by the percentage difference between mainland GDP and estimated potential mainland GDP. The gap is lagged by six quarters and shows data for 1994 Q1 – 2018 Q2.

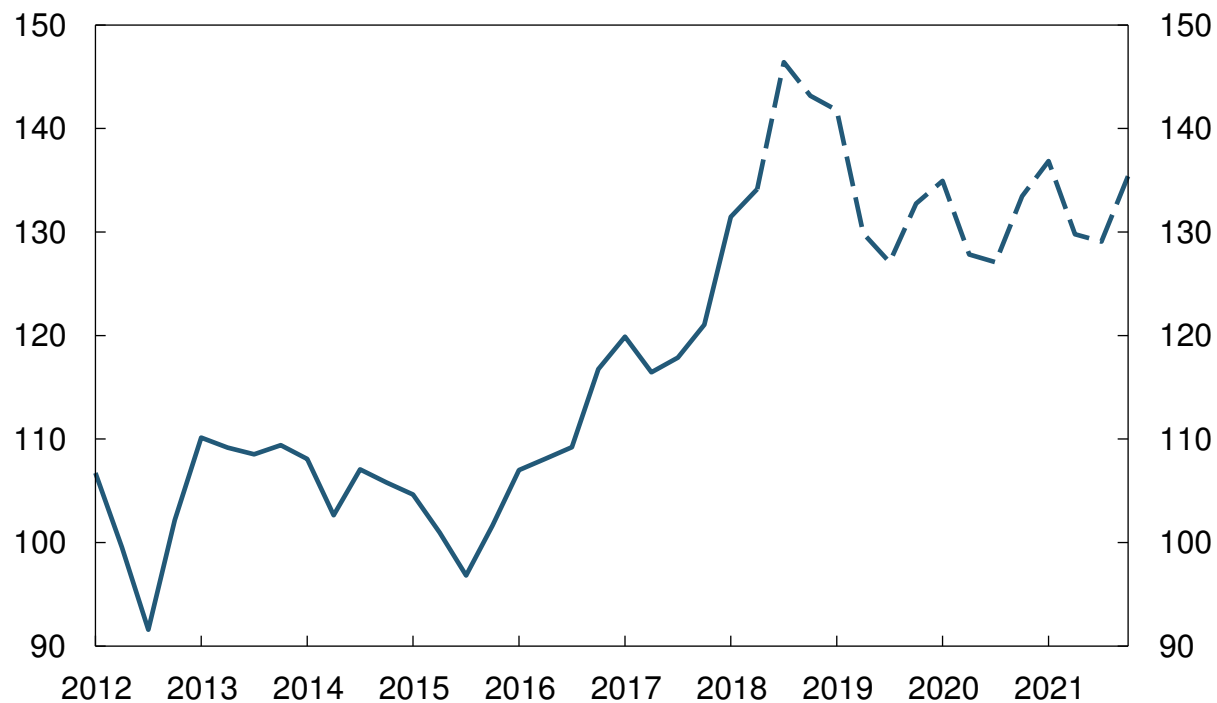
Sources: Statistics Norway and Norges Bank

Chart 3.31 CPI and CPI-ATE¹⁾. Annual change. Percent. 2012 – 2021



1) CPI adjusted for tax changes and excluding energy products.
Sources: Statistics Norway and Norges Bank

Chart 3.32 Energy prices in CPI. ¹⁾ Index 2012 = 100. 2012 Q1 – 2021 Q4 ²⁾

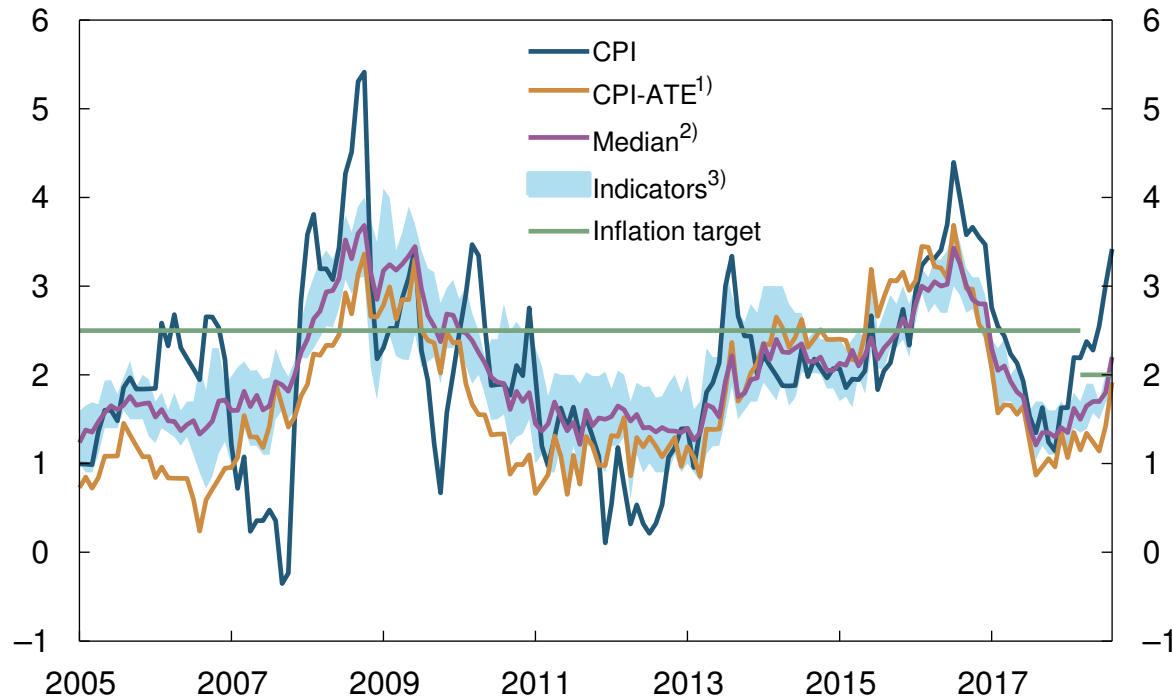


1) Weighted average of prices for transport fuels and lubricants, and of electricity and other fuels in the CPI. The estimate is based on futures prices for electricity, petrol and fuel. Not seasonally adjusted.

2) Projections for 2018 Q3 – 2021 Q4 (broken line).

Sources: Norwegian Water Resources and Energy Directorate, Thomson Reuters and Norges Bank

Chart 3.33 CPI and indicators of underlying inflation.
 Twelve-month change. Percent. January 2005 – August 2018



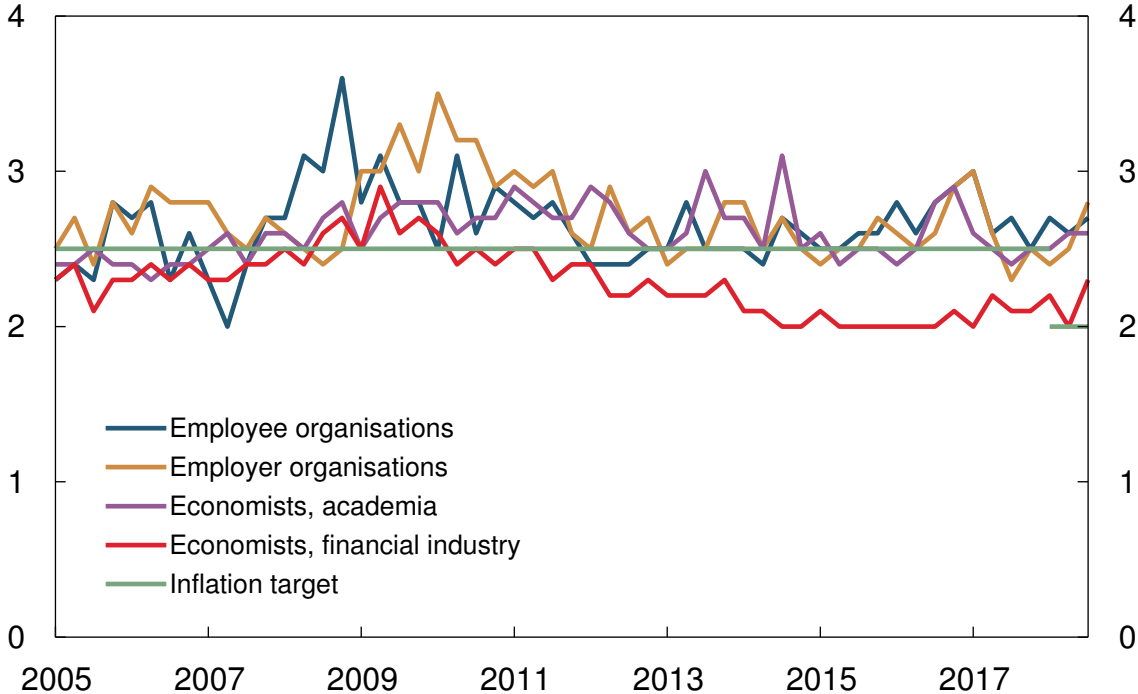
1) CPI adjusted for tax changes and excluding energy products.

2) Median of CPIM, CPIXE, 20% trimmed mean, weighted median, CPI-XV and CPI common. See Husabø, E. (2017) "Indicators of underlying inflation in Norway". *Staff Memo* 13/2017. Norges Bank, for a review of the indicators.

3) The band shows the highest and lowest values for CPIM, CPIXE, 20% trimmed mean, weighted median, CPI-XV and CPI common.

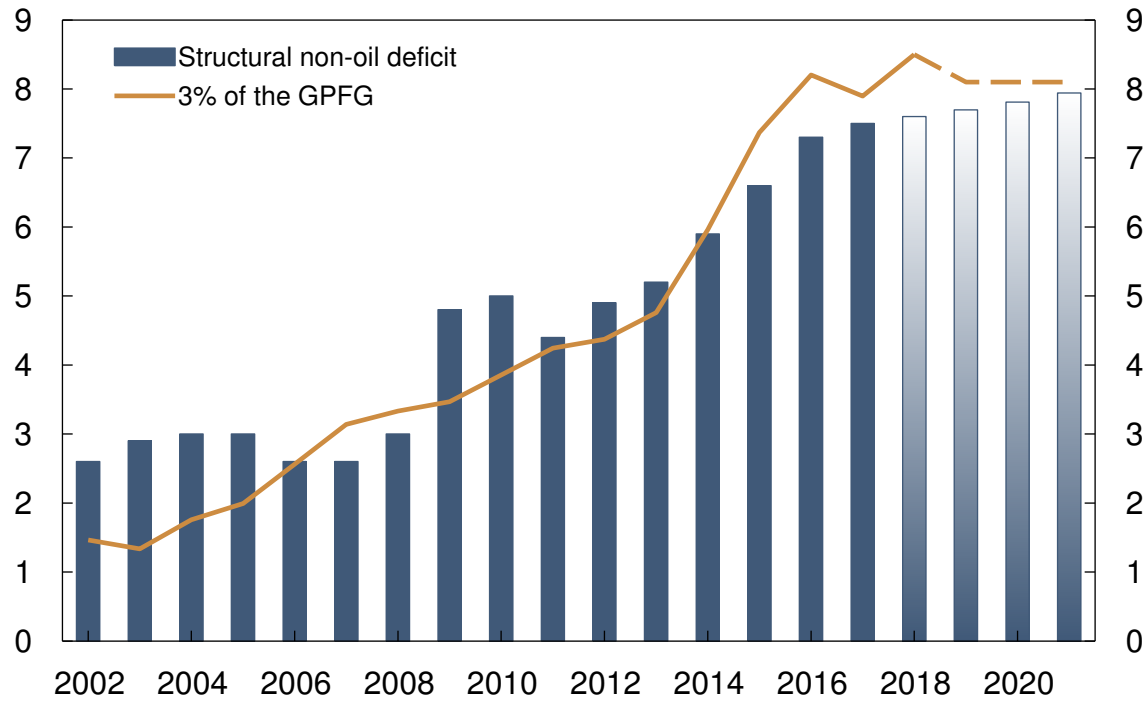
Sources: Statistics Norway and Norges Bank

Chart 3.34 Expected 12-month change in consumer prices five years ahead.
Percent. 2005 Q1 – 2018 Q3



Sources: Epinion, Kantar TNS and Opinion

Chart 3.35 Structural non-oil deficit and 3% of the GPFG¹⁾.
Share of trend GDP for mainland Norway. Percent. 2002 – 2021²⁾

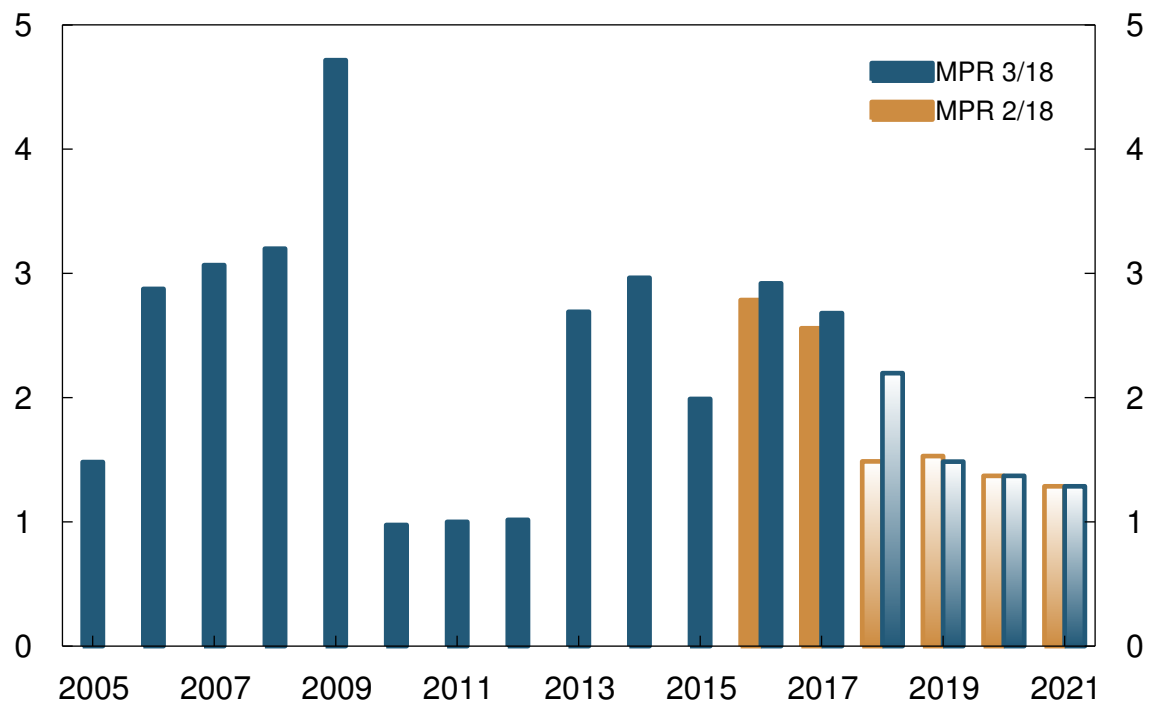


1) Government Pension Fund Global.

2) Projections for 2018 – 2021 (broken line and shaded bars).

Sources: Ministry of Finance and Norges Bank

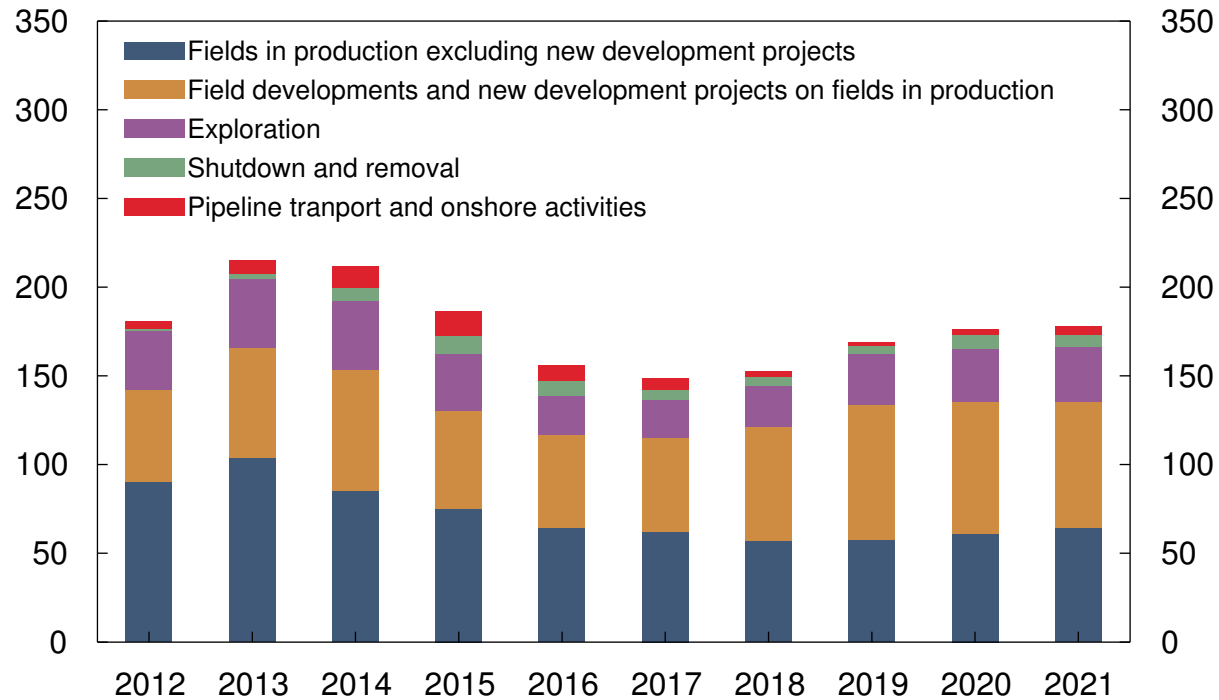
Chart 3.36 Public sector demand. Annual change. Percent. 2005 – 2021 ¹⁾



1) Projections for 2018 – 2021 (shaded bars).
Sources: Statistics Norway and Norges Bank

Chart 3.37 Petroleum investment.

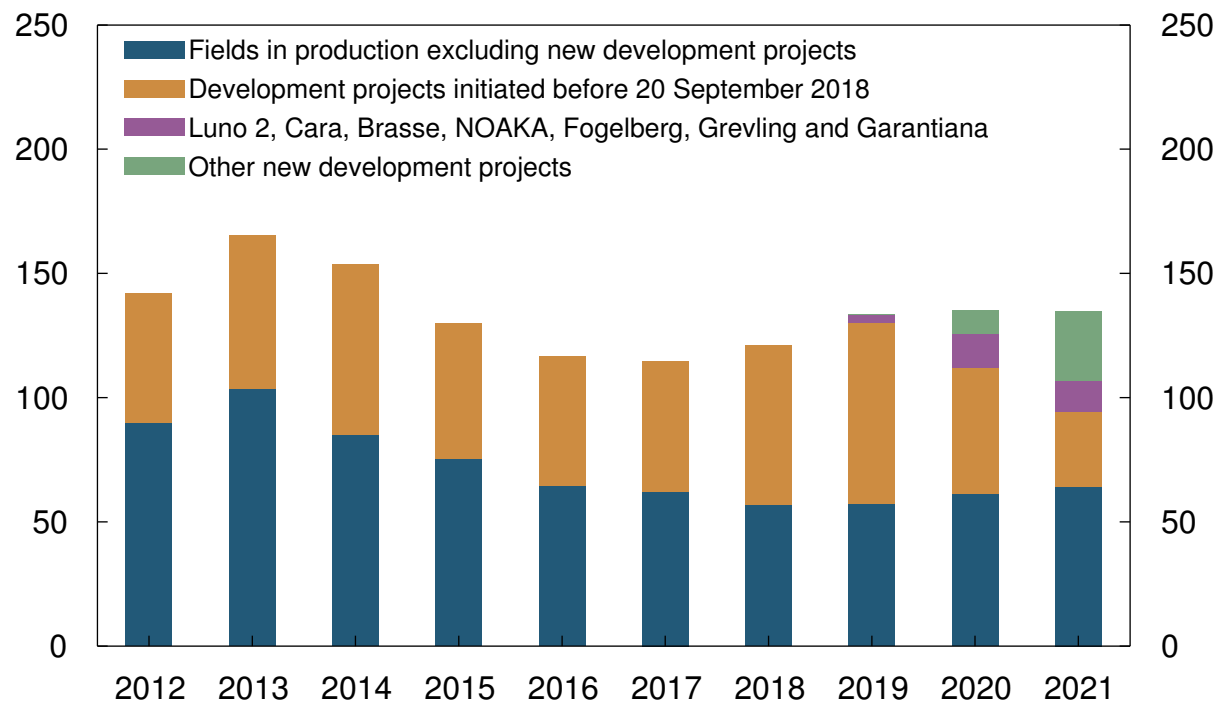
Constant 2018 prices. In billions of NOK. 2012 – 2021¹⁾



1) Projections for 2018 – 2021. Figures for 2010 – 2017 are from Statistics Norway's investment intentions survey and deflated by the price index for petroleum investment in the national accounts. The index is projected to remain unchanged between 2017 and 2019.

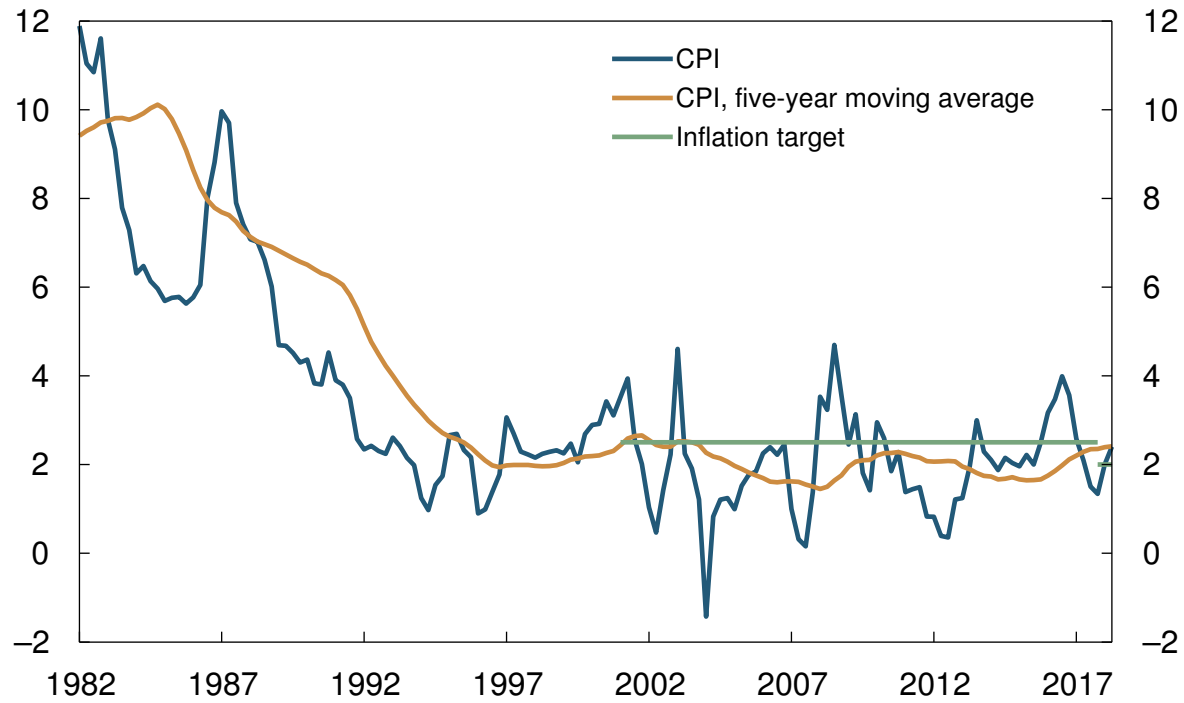
Sources: Statistics Norway and Norges Bank

Chart 3.38 Investment in field development and fields in production.
Constant 2018 prices. In billions of NOK. 2012 – 2021 ¹⁾



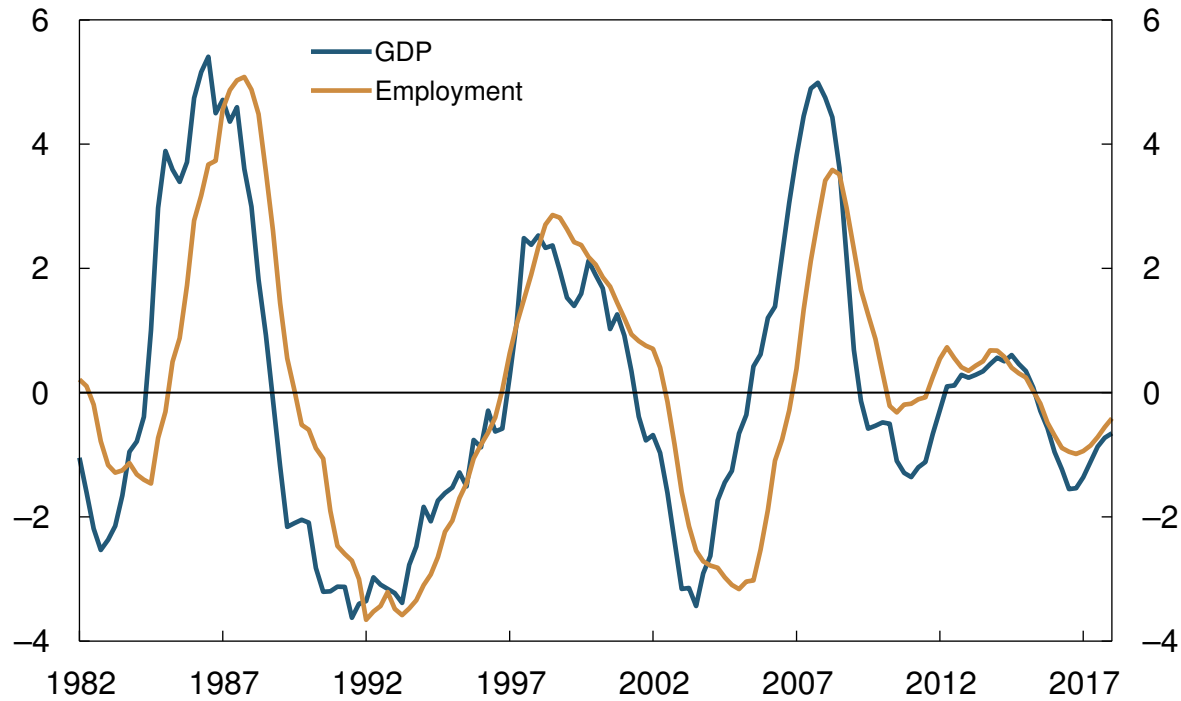
1) Projections for 2018 – 2021. Figures for 2010 – 2017 are from Statistics Norway's investment intentions survey and deflated by the price index for petroleum investment in the national accounts. The projections are based on reports to the Storting, impact analyses, forecasts from the Norwegian Petroleum Directorate, Statistics Norway's investment intentions survey and current information about development projects.
Sources: Statistics Norway and Norges Bank

Chart 4.1 Consumer price index (CPI).
Four-quarter change. Percent. 1982 Q1 – 2018 Q2



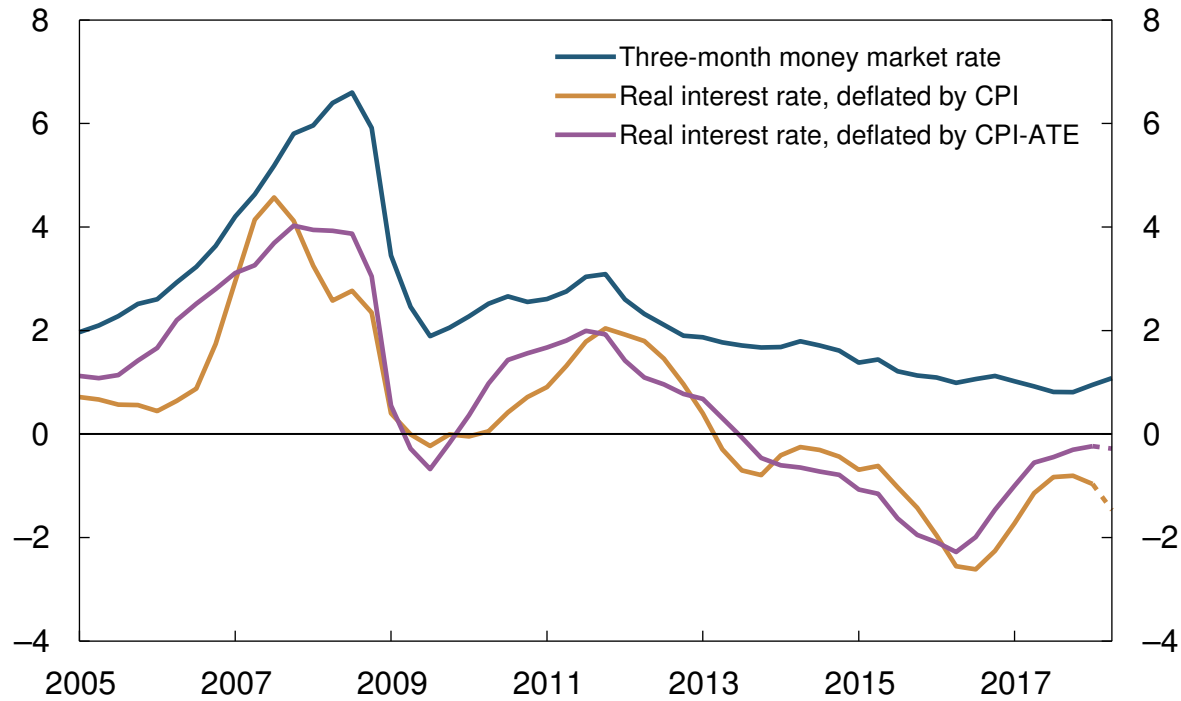
Sources: Statistics Norway and Norges Bank

Chart 4.2 GDP for mainland Norway and employment.
Deviation from trend.¹⁾ Percent. 1982 Q1 – 2018 Q1



1) The trend for both series is calculated using an HP filter with $\lambda = 40\,000$. Calculations are based on data from 1978 Q1 – 2018 Q2. The deviation from trend is three-quarter moving average.
Sources: Statistics Norway and Norges Bank

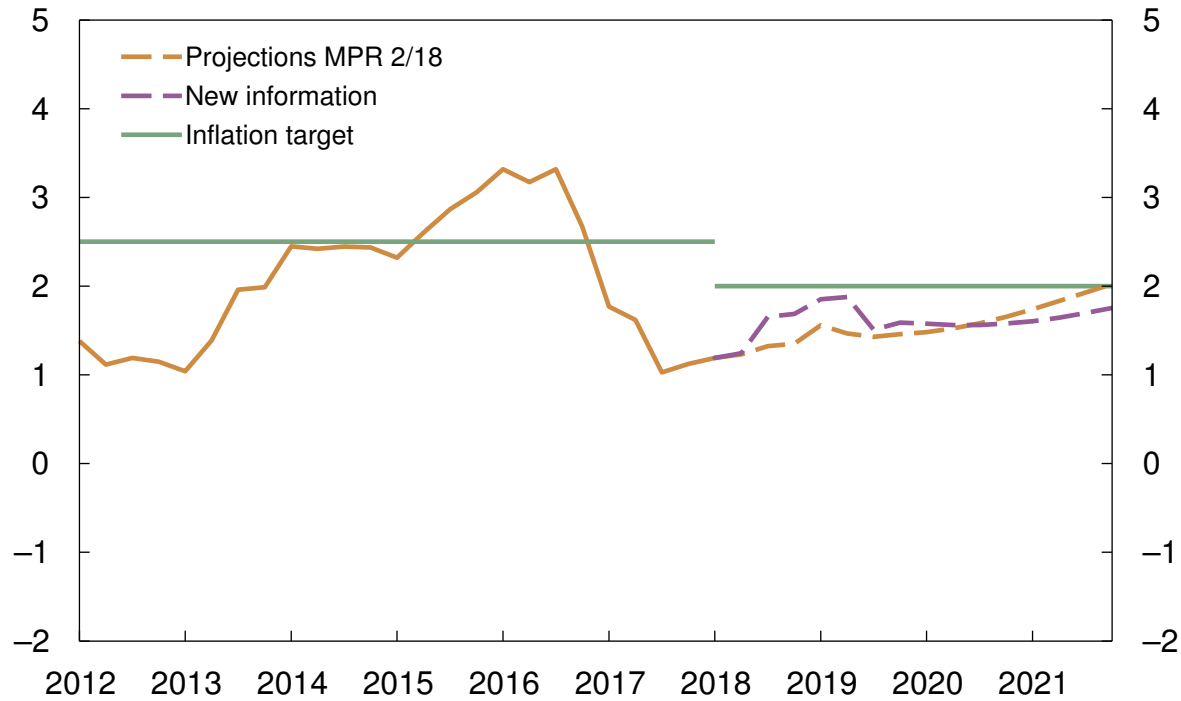
Chart 4.3 Three-month money market rate and real interest rates ¹⁾.
 Percent. 2005 Q1 – 2018 Q2 ²⁾



1) Three-month money market rate deflated by a three-quarter centered moving average of inflation, measured by four-quarter CPI inflation and CPI inflation adjusted for tax changes and excluding energy prices (CPI-ATE).
 2) Projections for 2018 Q2 (broken lines).

Sources: Statistics Norway and Norges Bank

Chart 4.4a CPI-ATE.¹⁾ Projection conditional on new information and key policy rate forecast in MPR 2/18. Four-quarter change. Percent. 2012 Q1 – 2021 Q4²⁾

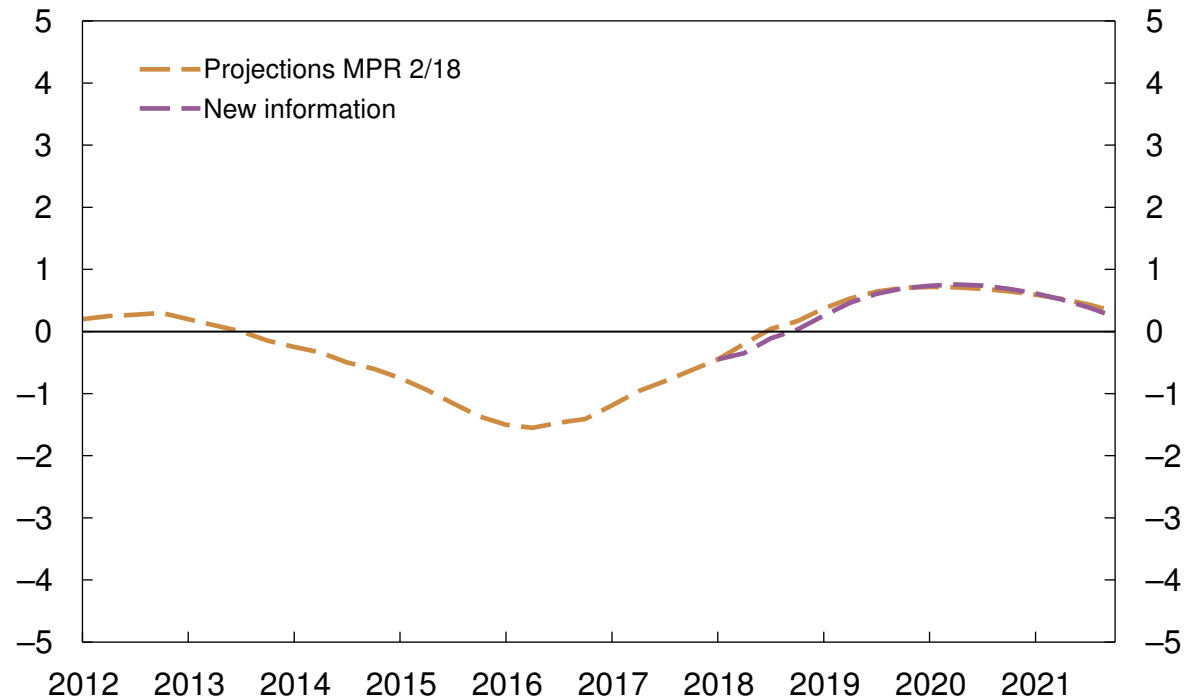


1) CPI adjusted for tax changes and excluding energy products.

2) Projections for 2018 Q3 – 2021 Q4.

Sources: Statistics Norway and Norges Bank

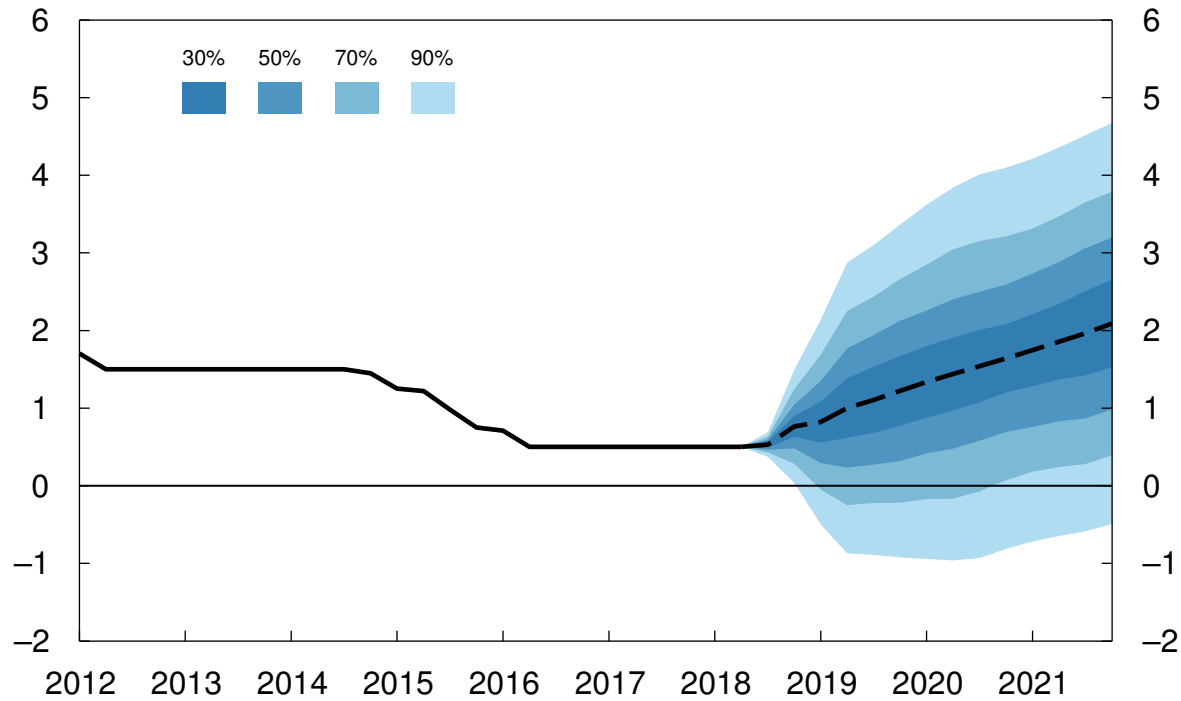
Chart 4.4b Estimated output gap¹⁾. Projection conditional on new information and key policy rate forecast in MPR 2/18. Percent. 2012 Q1 – 2021 Q4



1) The output gap measures the percentage deviation between mainland GDP and estimated potential mainland GDP.

Source: Norges Bank

Chart 4.5a Key policy rate with fan chart¹⁾.
Percent. 2012 Q1 – 2021 Q4²⁾

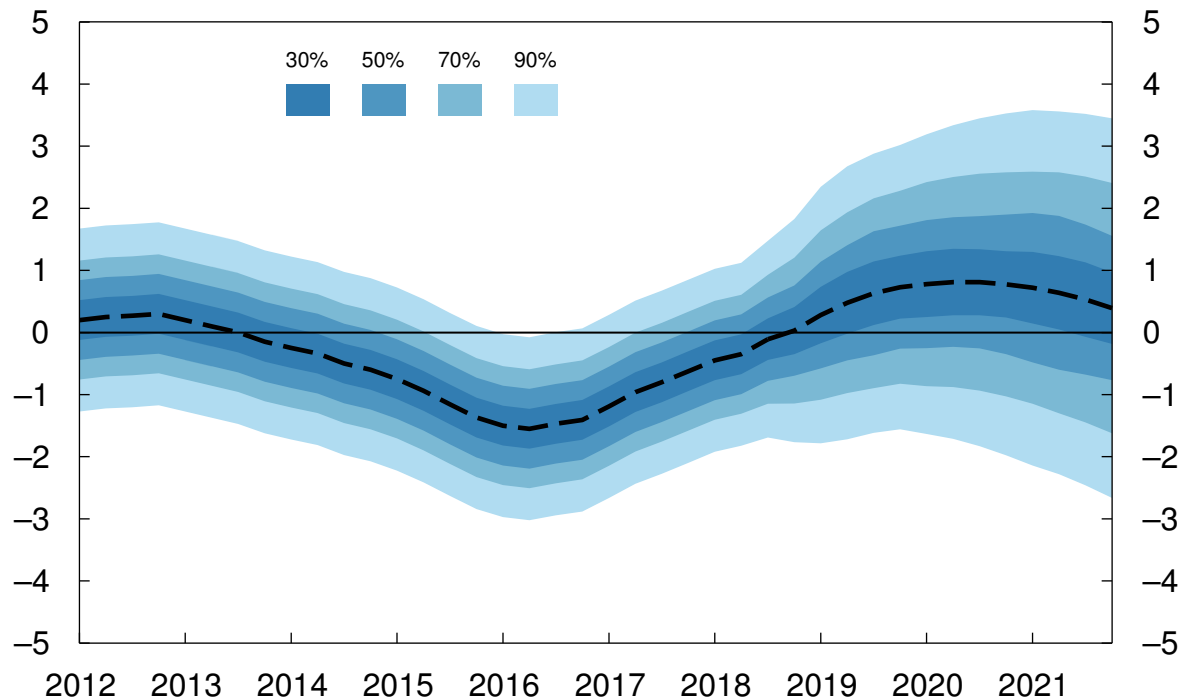


1) The fan chart is based on historical experience and stochastic simulations in Norges Bank's main macroeconomic model, NEMO. It does not take into account that a lower bound for the interest rate exists.

2) Projections for 2018 Q3 – 2021 Q4 (broken line).

Source: Norges Bank

Chart 4.5b Estimated output gap¹⁾ with fan chart²⁾.
Percent. 2012 Q1 – 2021 Q4

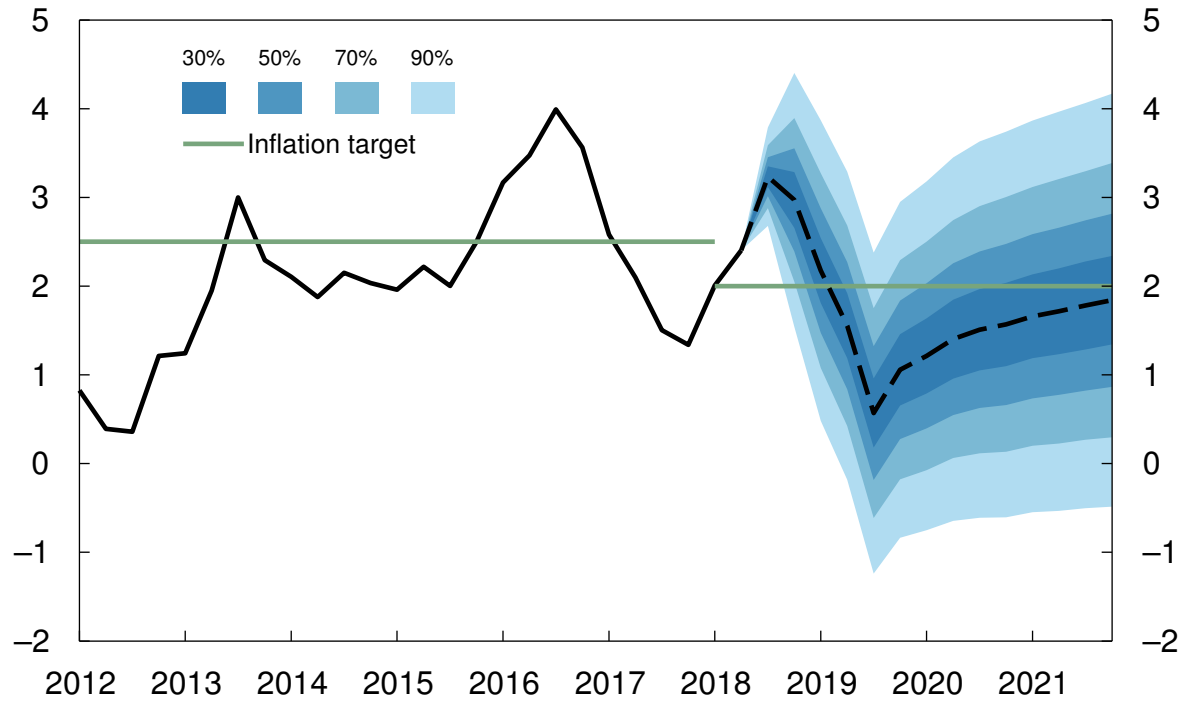


1) The output gap measures the percentage deviation between mainland GDP and estimated potential mainland GDP.

2) The fan chart is based on historical experience and stochastic simulations in Norges Bank's main macroeconomic model, NEMO.

Source: Norges Bank

Chart 4.5c CPI with fan chart¹⁾.
Four-quarter change. Percent. 2012 Q1 – 2021 Q4²⁾

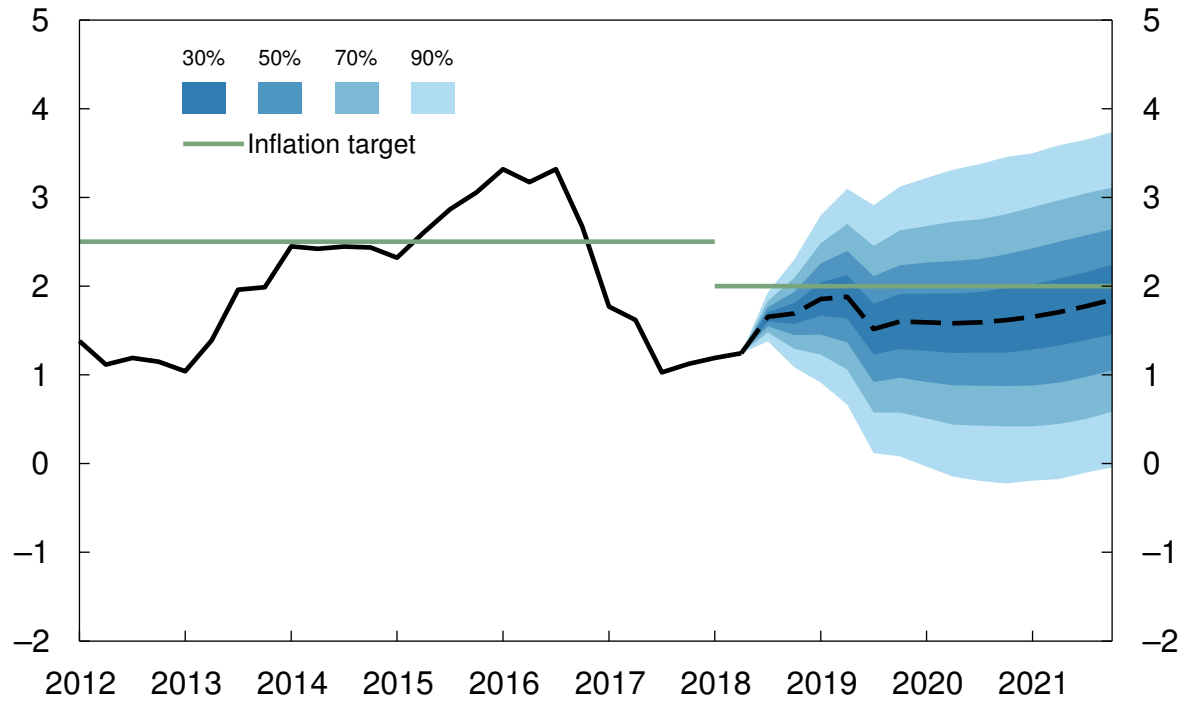


1) The fan chart is based on historical experience and stochastic simulations in Norges Bank's main macroeconomic model, NEMO.

2) Projections for 2018 Q3 – 2021 Q4 (broken line).

Sources: Statistics Norway and Norges Bank

Chart 4.5d CPI-ATE¹⁾ with fan chart²⁾.
 Four-quarter change. Percent. 2012 Q1 – 2021 Q4³⁾



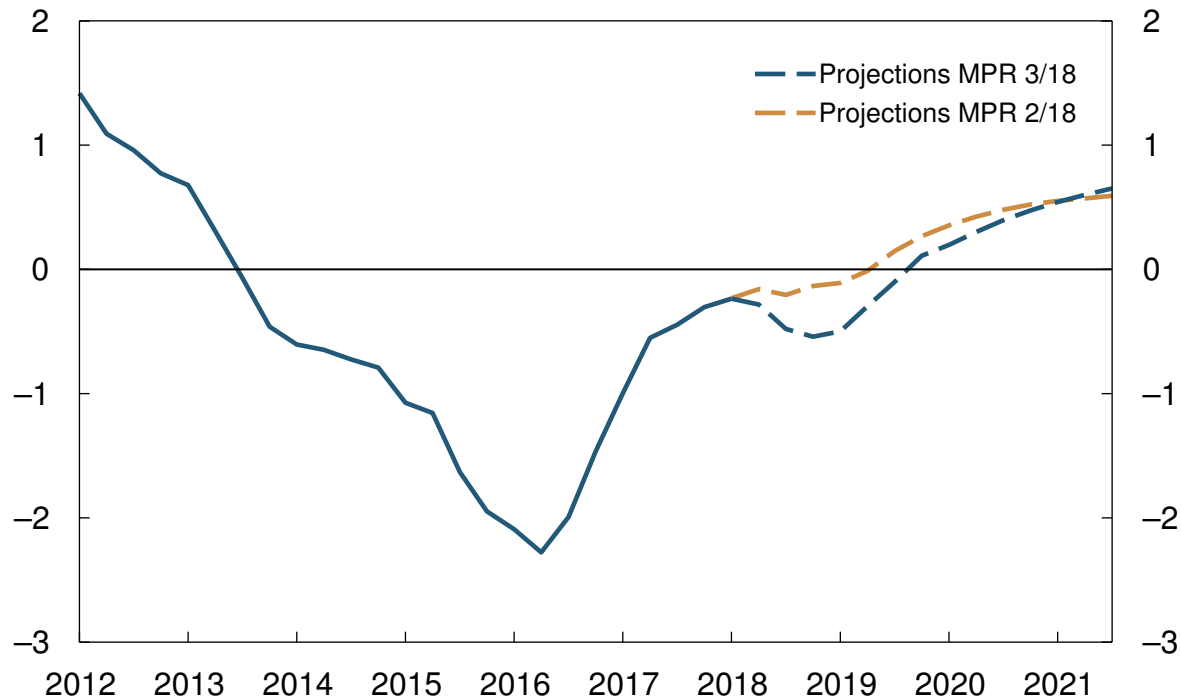
1) CPI adjusted for tax changes and excluding energy products.

2) The fan chart is based on historical experience and stochastic simulations in Norges Bank's main macroeconomic model, NEMO.

3) Projections for 2018 Q3 – 2021 Q4 (broken line).

Sources: Statistics Norway and Norges Bank

Chart 4.6 Real interest rate.¹⁾ Percent. 2012 Q1 – 2021 Q3²⁾

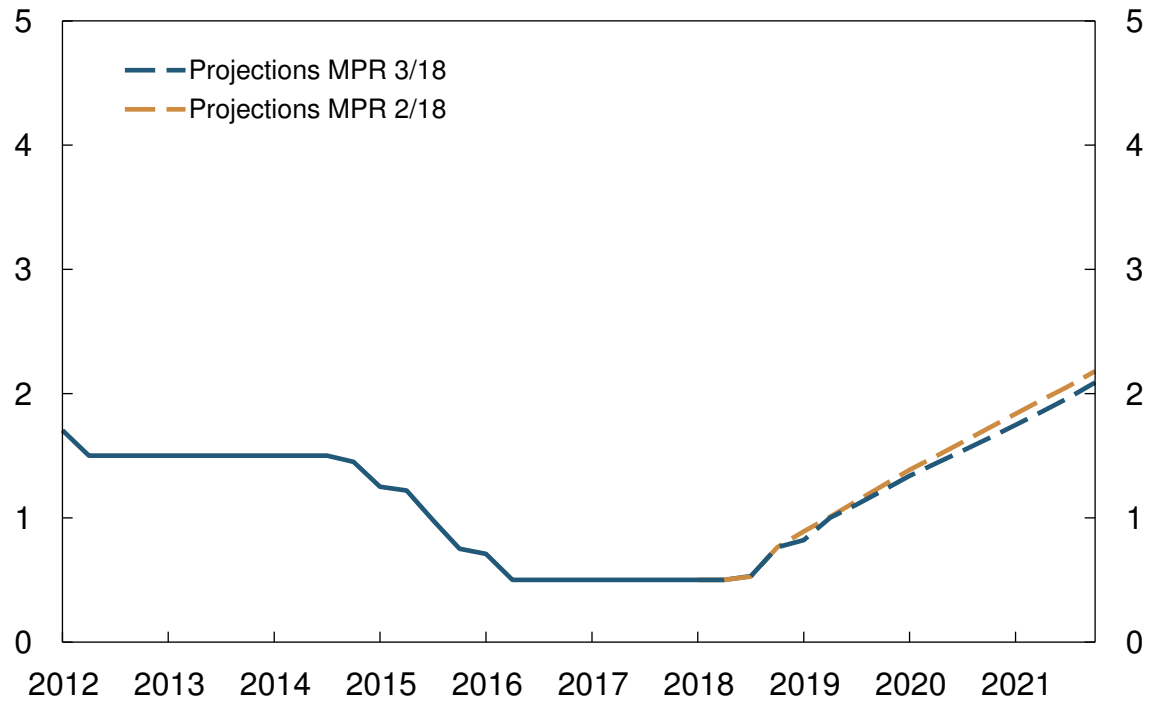


1) Three-month money market rate deflated by a three-quarter centered moving average of inflation, measured by four-quarter CPI inflation adjusted for tax changes and excluding energy prices (CPI-ATE).

2) Projections for 2018 Q2 – 2021 Q3.

Source: Statistics Norway and Norges Bank

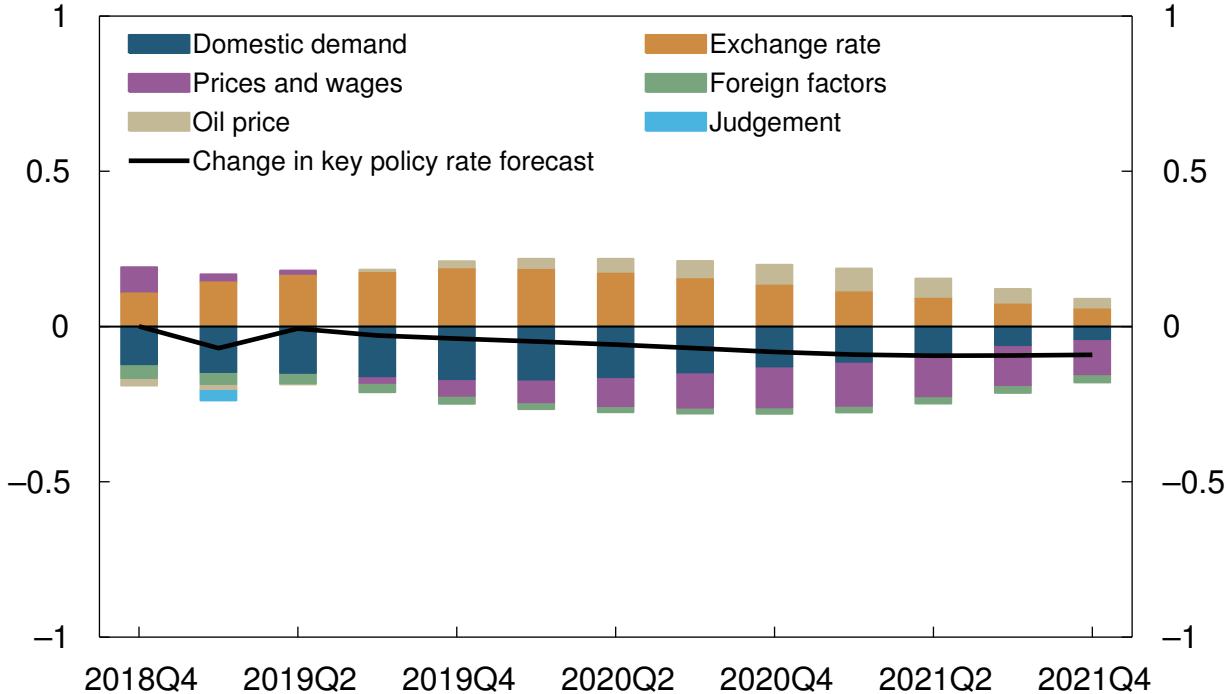
Chart 4.7 Key policy rate. Percent. 2012 Q1 – 2021 Q4¹⁾



1) Projections for 2018 Q3 – 2021 Q4.

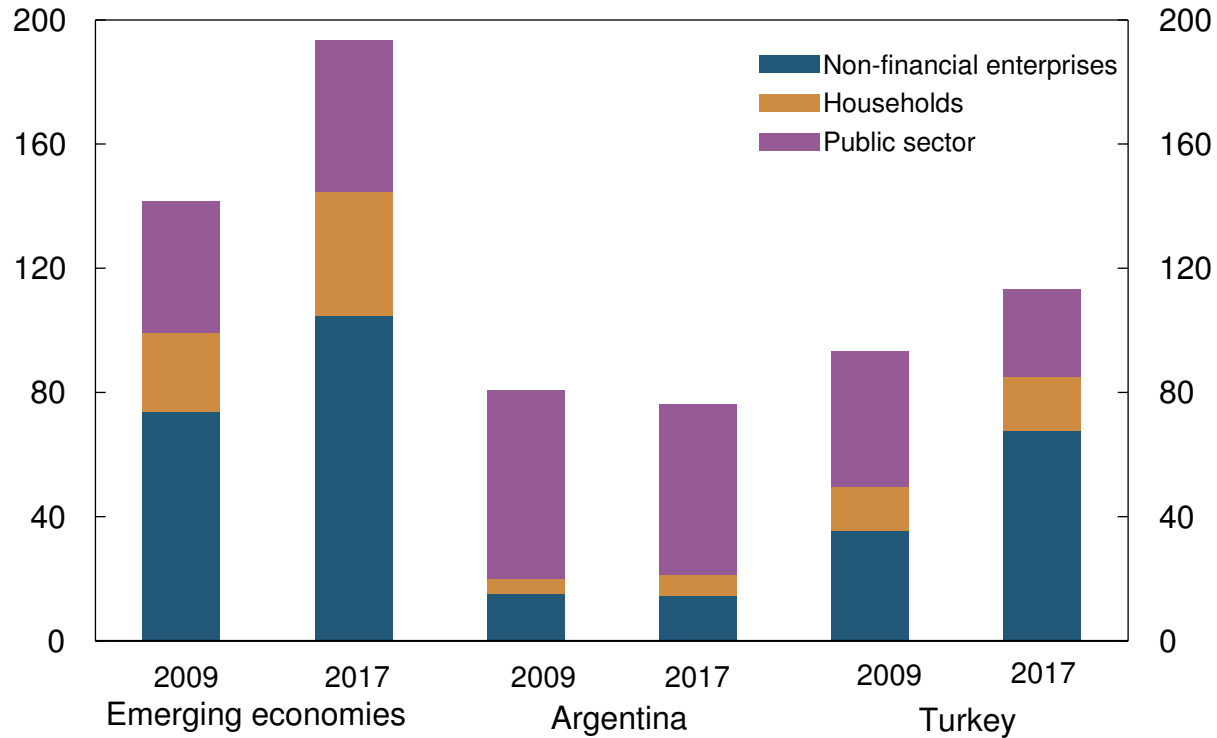
Source: Norges Bank

Chart 4.8 Factors behind changes in key policy rate forecast since MPR 2/18. Cumulative contribution. Percentage points. 2018 Q4 – 2021 Q4



Source: Norges Bank

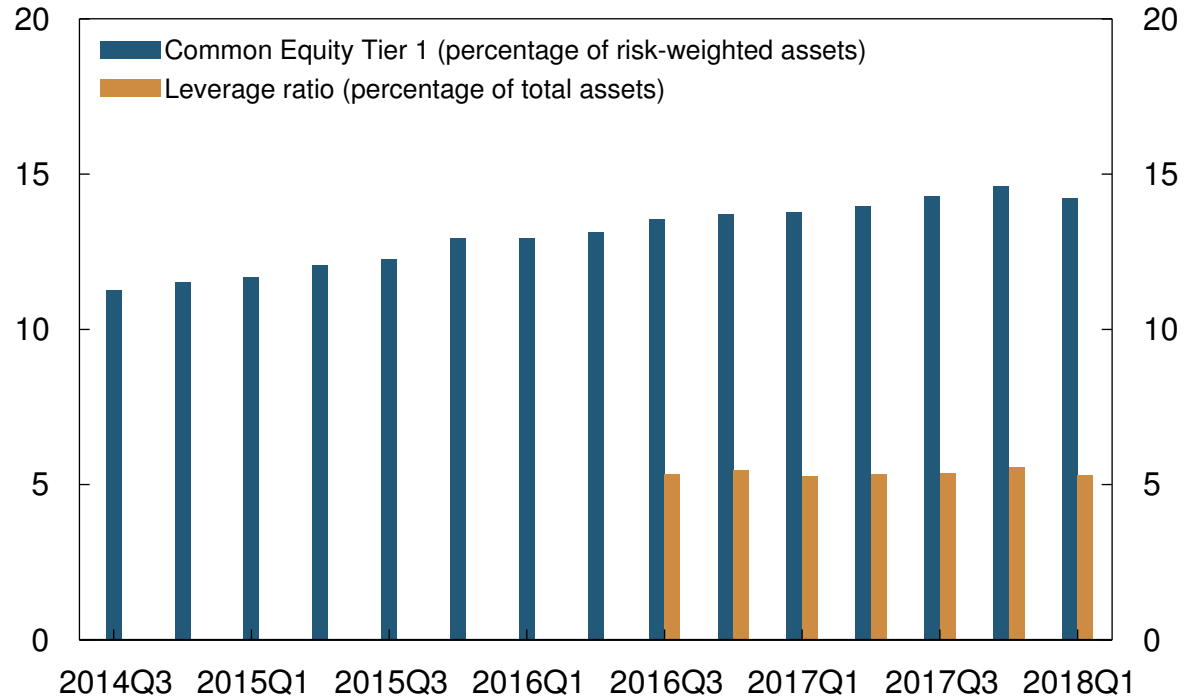
Chart 5.1 Debt as a share of GDP in emerging economies¹⁾.
 Percent. 2009 Q4 and 2017 Q4



1) Emerging economies comprise Argentina, Brazil, Chile, China, Colombia, the Czech Republic, Hong Kong, Hungary, India, Indonesia, Israel, Korea, Malaysia, Mexico, Poland, Russia, Saudi Arabia, Singapore, South Africa, Thailand and Turkey.

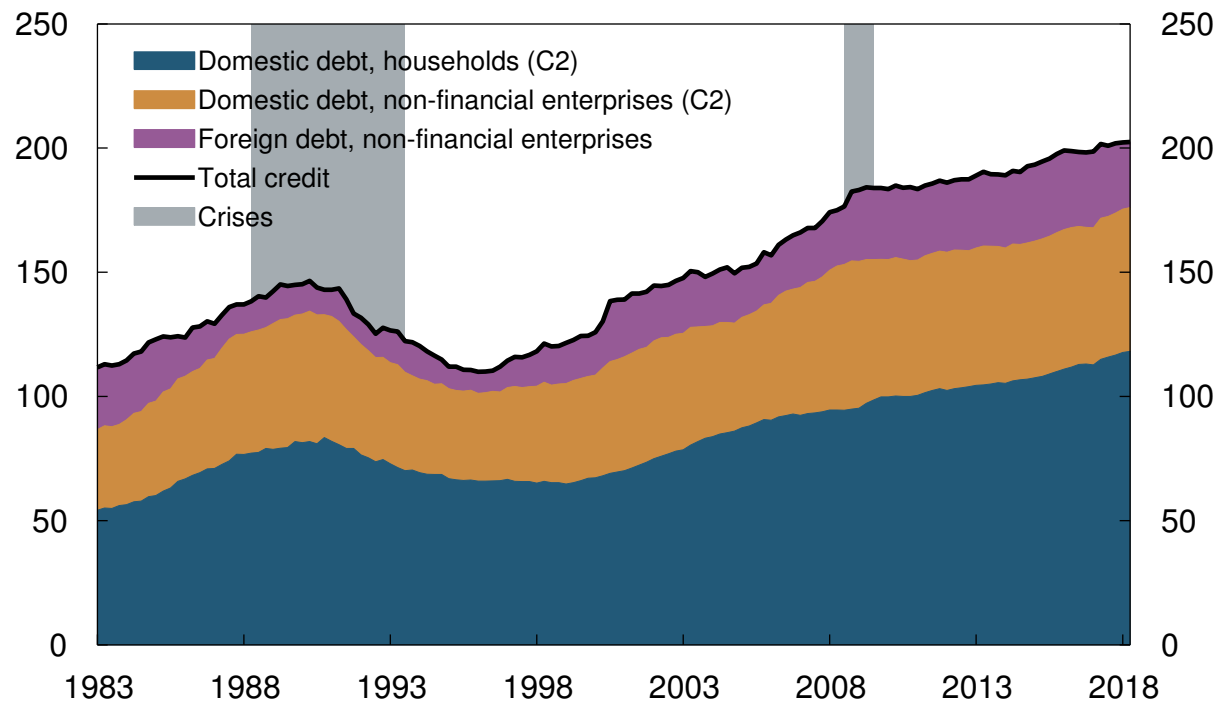
Source: BIS

Chart 5.2 Capital ratios in European banks. Percent. 2014 Q3 – 2018 Q1



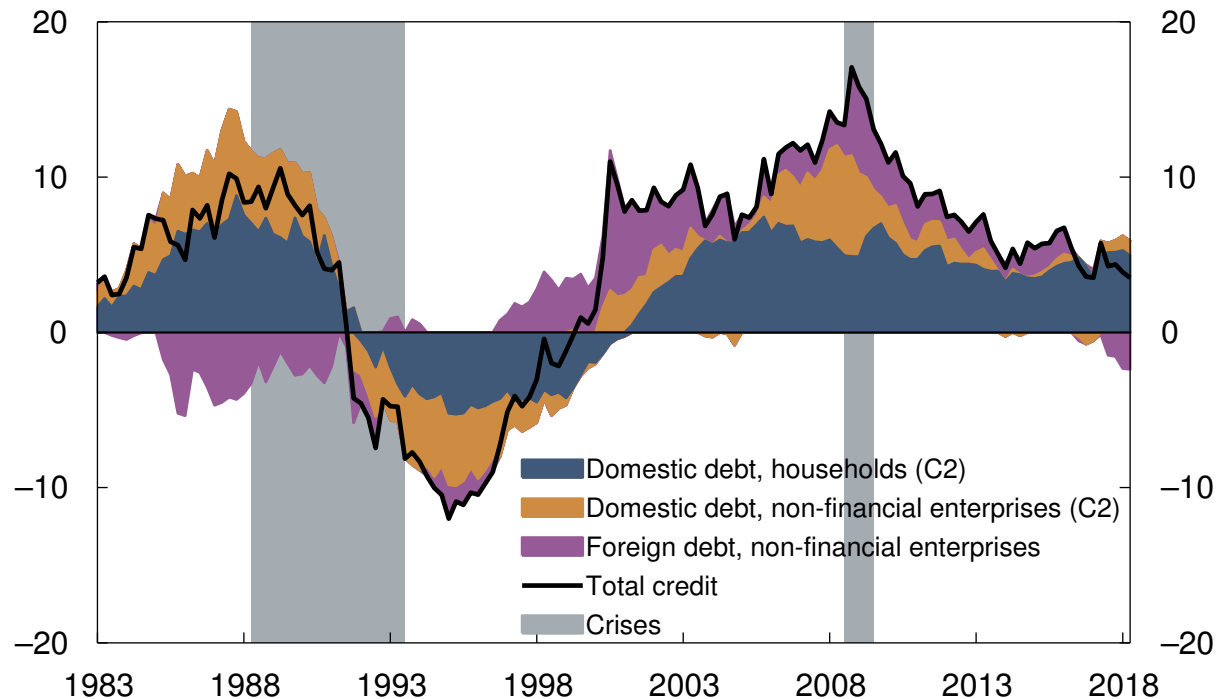
Source: EBA

Chart 5.3 Credit mainland Norway as a share of mainland GDP.
Percent. 1983 Q1 – 2018 Q2



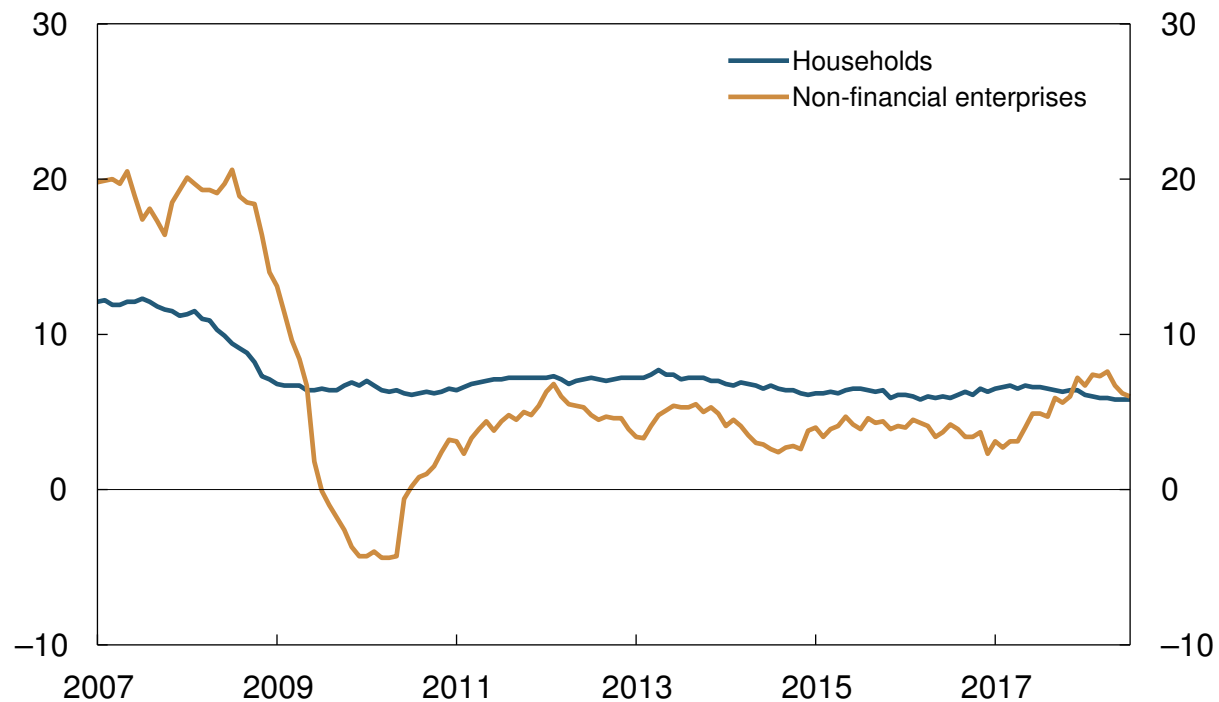
Sources: IMF, Statistics Norway and Norges Bank

Chart 5.4 Decomposed credit gap.¹⁾ Credit mainland Norway as a share of mainland GDP. Percentage points. 1983 Q1 – 2018 Q2



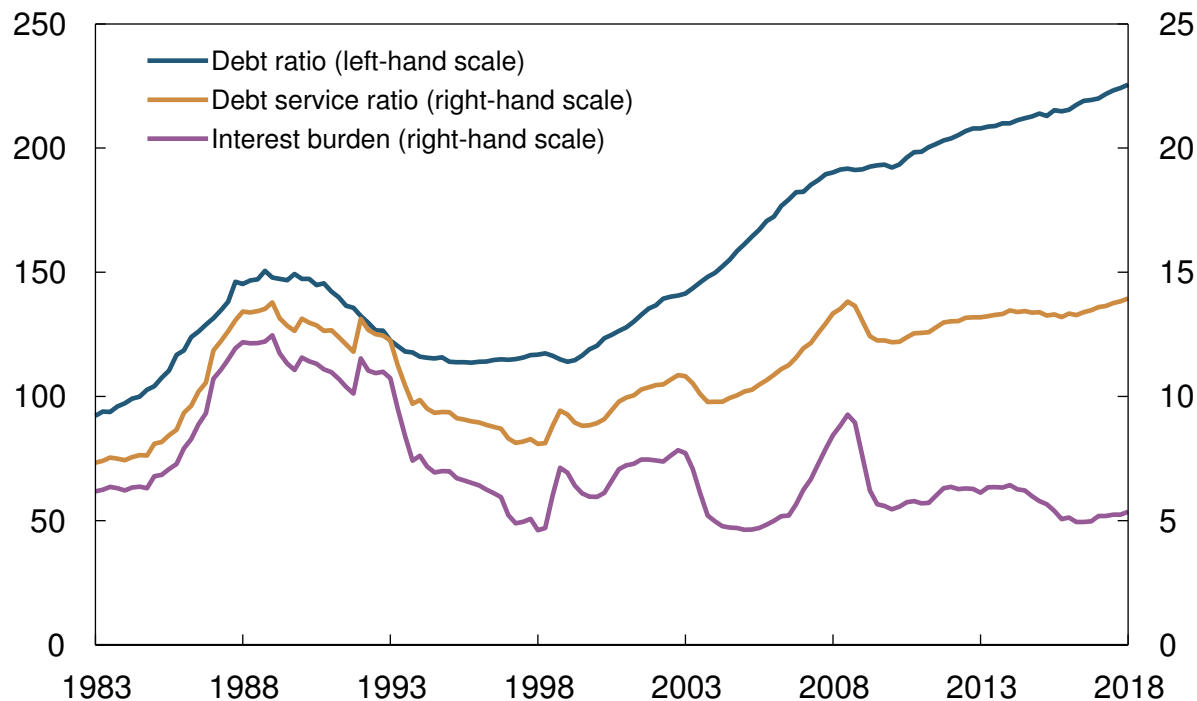
1) Calculated as deviation from trend. The trend is estimated using a one-sided HP filter with $\lambda = 400\,000$. The HP filter is estimated on data augmented with a simple projection.
Sources: IMF, Statistics Norway and Norges Bank

Chart 5.5 Domestic credit to households and non-financial enterprises in mainland Norway. Twelve-month change. Percent. January 2007 – July 2018



Sources: Statistics Norway and Norges Bank

Chart 5.6 Household debt ratio¹⁾, debt service ratio²⁾ and interest burden³⁾.
Percent. 1983 Q1 – 2018 Q1



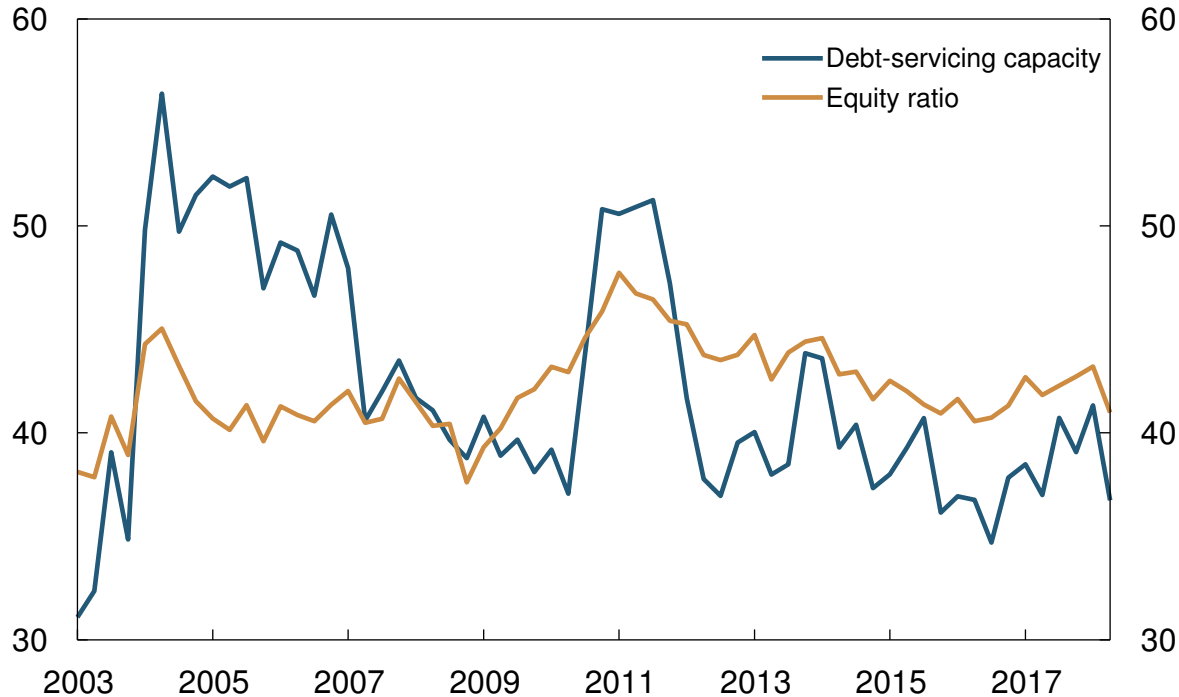
1) Debt ratio is loan debt as a percentage of disposable income. Disposable income is adjusted for estimated reinvested dividend income for 2000 Q1 – 2005 Q4 and reduction of equity capital for 2006 Q1 – 2012 Q3. For 2015 Q1 – 2018 Q1, growth in disposable income excluding dividends is used.

2) Debt service ratio is interest expenses and estimated principal payments on an 18-year mortgage as a percentage of disposable income plus interest expenses.

3) Interest burden is interest expenses as a percentage of disposable income plus interest expenses.

Sources: Statistics Norway and Norges Bank

Chart 5.7 Debt-servicing capacity¹⁾ and equity ratio of listed companies²⁾.
 Percent. 2003 Q1 – 2018 Q2



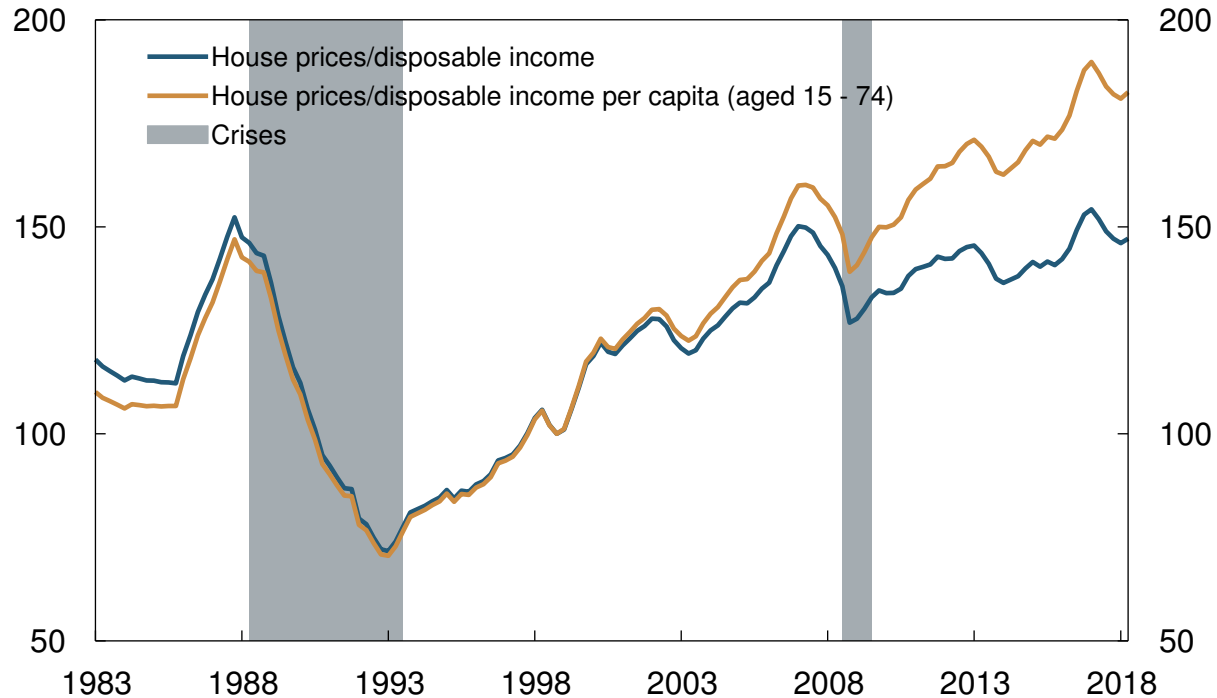
1) Earnings before interest, tax, depreciation and amortisation (EBITDA) for the previous four quarters as a percentage of net-interest bearing debt.

2) Norwegian non-financial enterprises listed on Oslo Børs, excluding oil and gas extraction.

Norsk Hydro is excluded to end-2007 Q3.

Sources: Bloomberg and Norges Bank

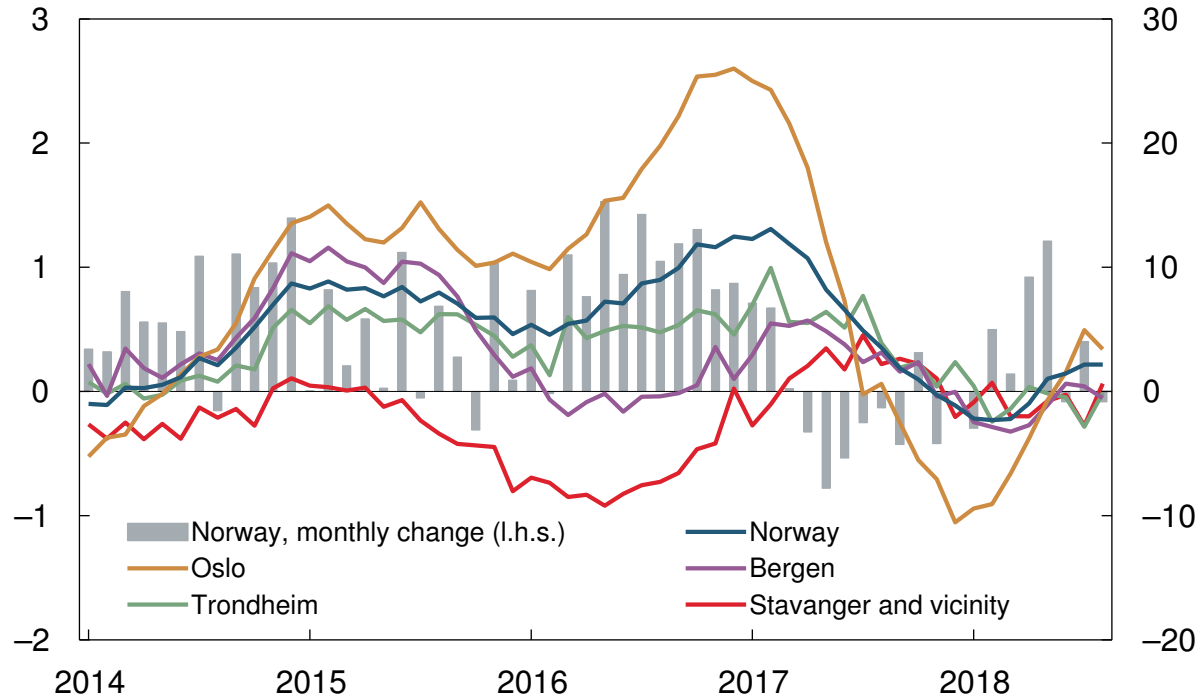
Chart 5.8 House prices relative to disposable income¹⁾.
 Index. 1998 Q4 = 100. 1983 Q1 – 2018 Q2



1) Disposable income adjusted for estimated reinvested dividend income for 2000 Q1 – 2005 Q4 and reduction of equity capital for 2006 Q1 – 2012 Q3. Change in disposable income excluding dividend income is used for 2015 Q1 – 2018 Q2.

Sources: Eiendomsverdi, Finn.no, Norwegian Association of Real Estate Agents (NEF), Real Estate Norway, Statistics Norway and Norges Bank

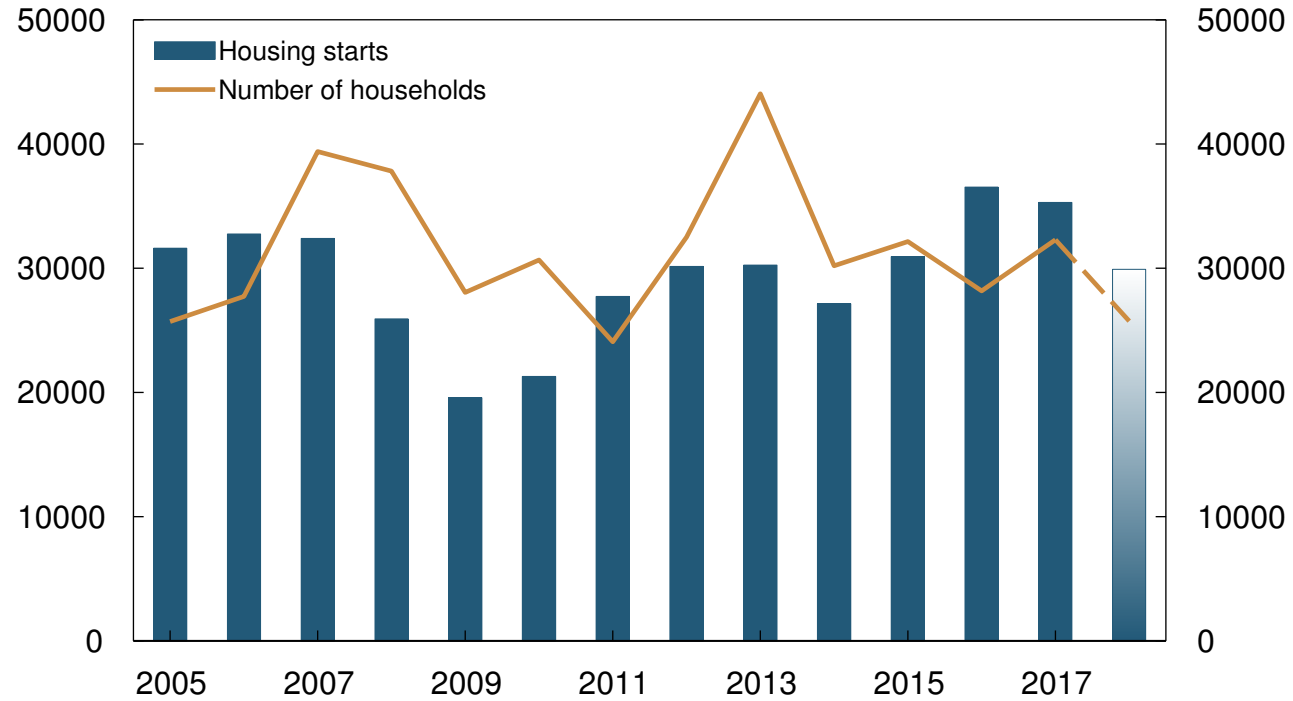
Chart 5.9 House prices. Twelve-month change¹⁾ and seasonally adjusted monthly change. Percent. January 2014 – August 2018



1) Twelve-month change in urban areas and in Norway is shown on right-hand scale.
Sources: Eiendomsverdi, Finn.no and Real Estate Norway

Chart 5.10 Housing starts and households in Norway.

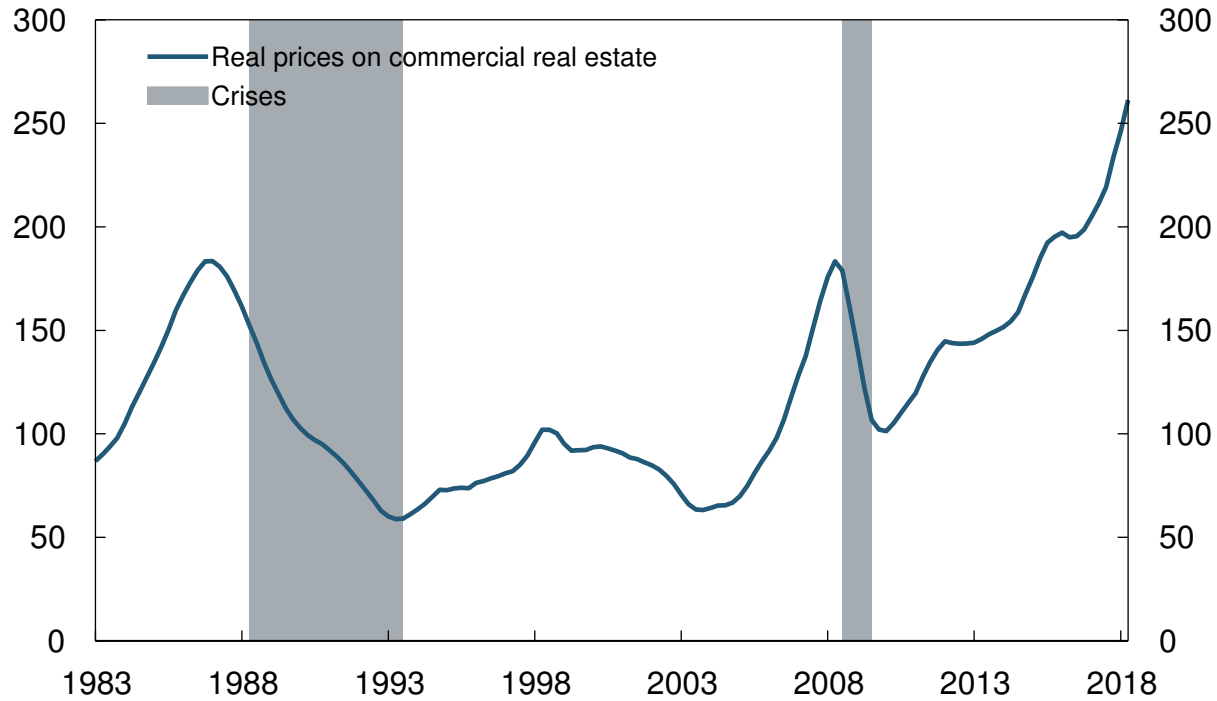
Number of dwellings and change in number of households. 2005 – 2018 ¹⁾



1) Projections for housing starts and change in number of households for 2018.

Sources: Statistics Norway and Norges Bank

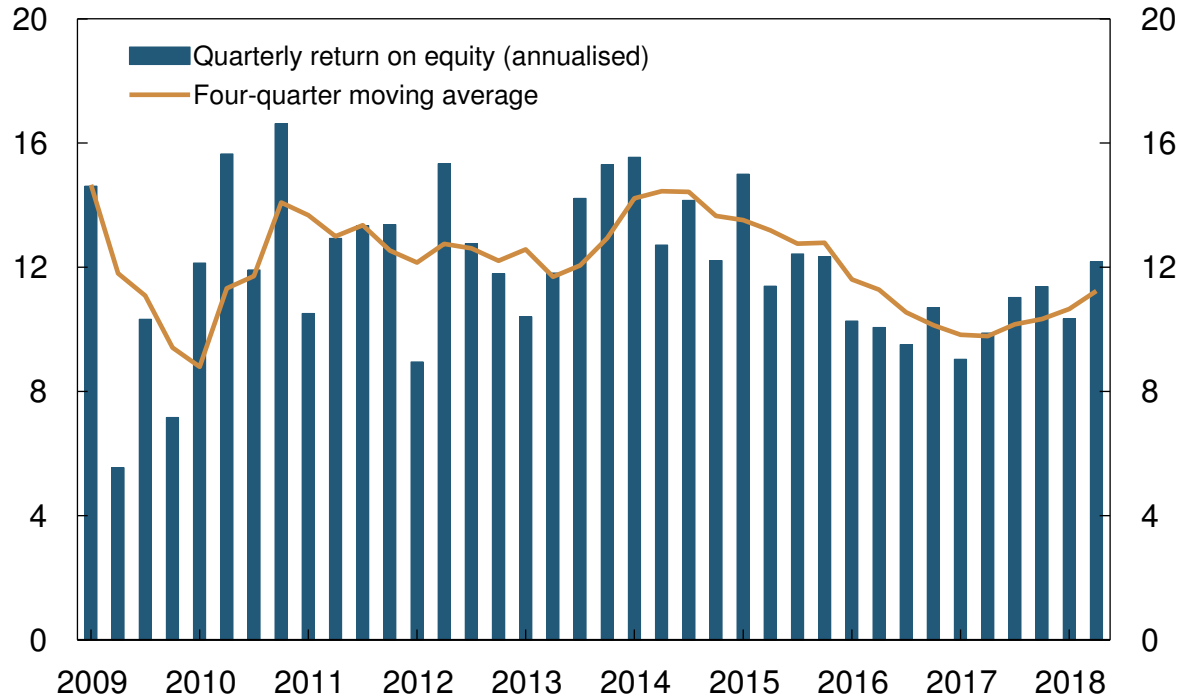
Chart 5.11 Real commercial property prices.¹⁾
Index. 1998 = 100. 1983 Q1 – 2018 Q2



1) Estimated real selling prices per square metre for prime office space in Oslo. Deflated by GDP deflator for mainland Norway. Average selling price for the previous four quarters.

Sources: CBRE, Dagens Næringsliv, OPAK, Statistics Norway and Norges Bank

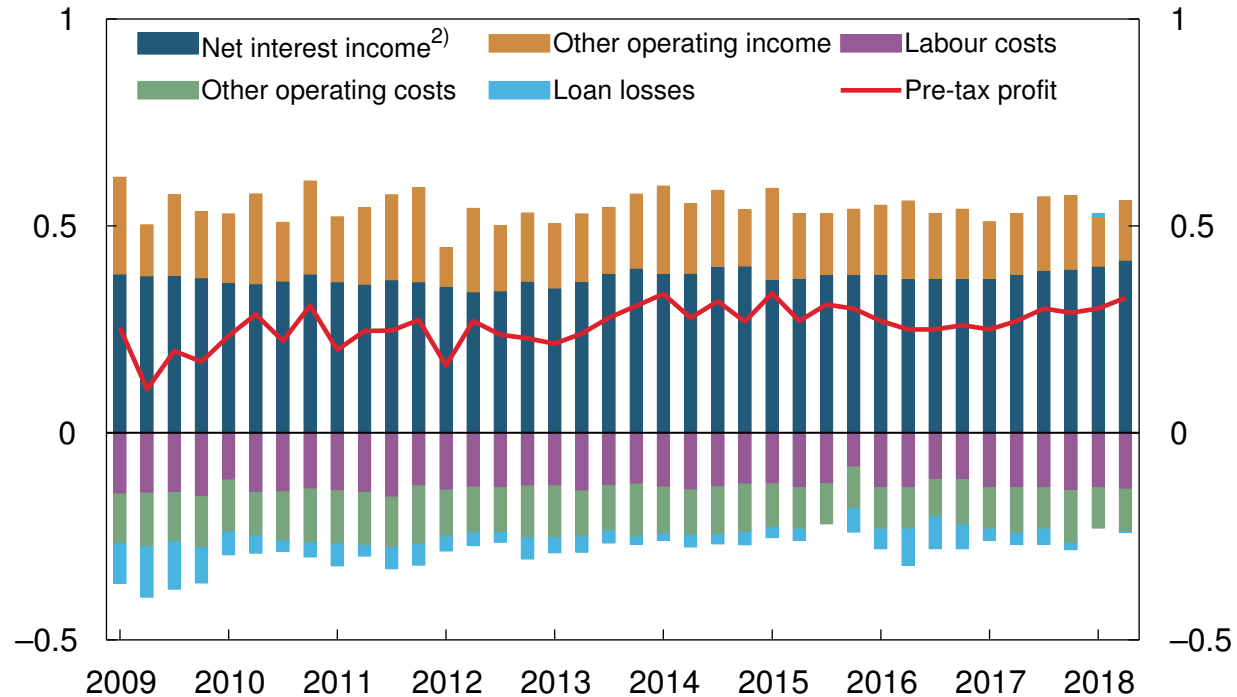
Chart 5.12 Return on equity for large Norwegian banks¹⁾.
 Percent. 2009 Q1 – 2018 Q2



1) DNB Bank, Nordea Bank Norge (up to and including 2016 Q4), Sparebanken Vest, SpareBank 1 Nord-Norge, SpareBank 1 SMN, SpareBank 1 SR-Bank, Sparebanken Sør (from 2014 Q1) and SpareBank 1 Østlandet (from 2016 Q3).

Sources: Banks' quarterly reports and Norges Bank

Chart 5.13 Decomposed change in the profits of large Norwegian banks¹⁾.
 Percentage of average total assets. 2009 Q1 – 2018 Q2

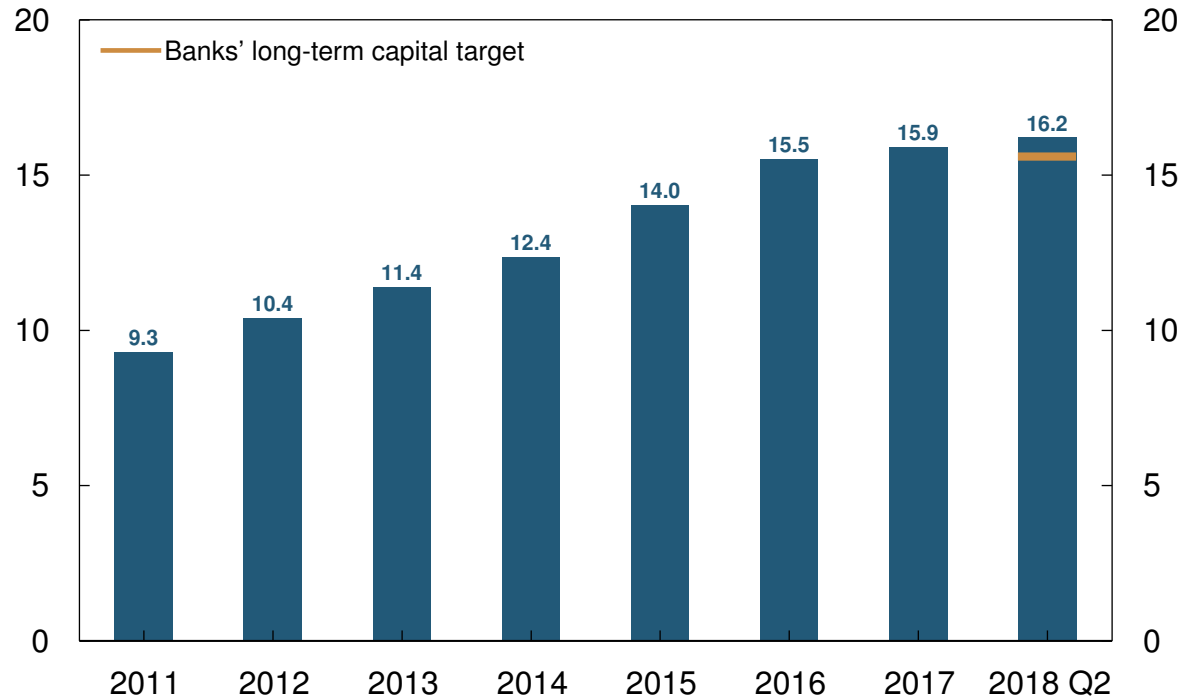


1) DNB Bank, Nordea Bank Norge (up to and including 2016 Q4), Sparebanken Vest, SpareBank 1 Nord-Norge, SpareBank 1 SMN, SpareBank 1 SR-Bank, Sparebanken Sør (from 2014 Q1) and SpareBank 1 Østlandet (from 2016 Q3).

2) Commission income from part-owned mortgage companies in the Sparebank 1-alliance has been reclassified from other operating income to net interest income.

Sources: Banks' quarterly reports and Norges Bank

Chart 5.14 Large Norwegian banks' Common Equity Tier 1 capital ratios¹⁾.
Percent. 2011 – 2018²⁾

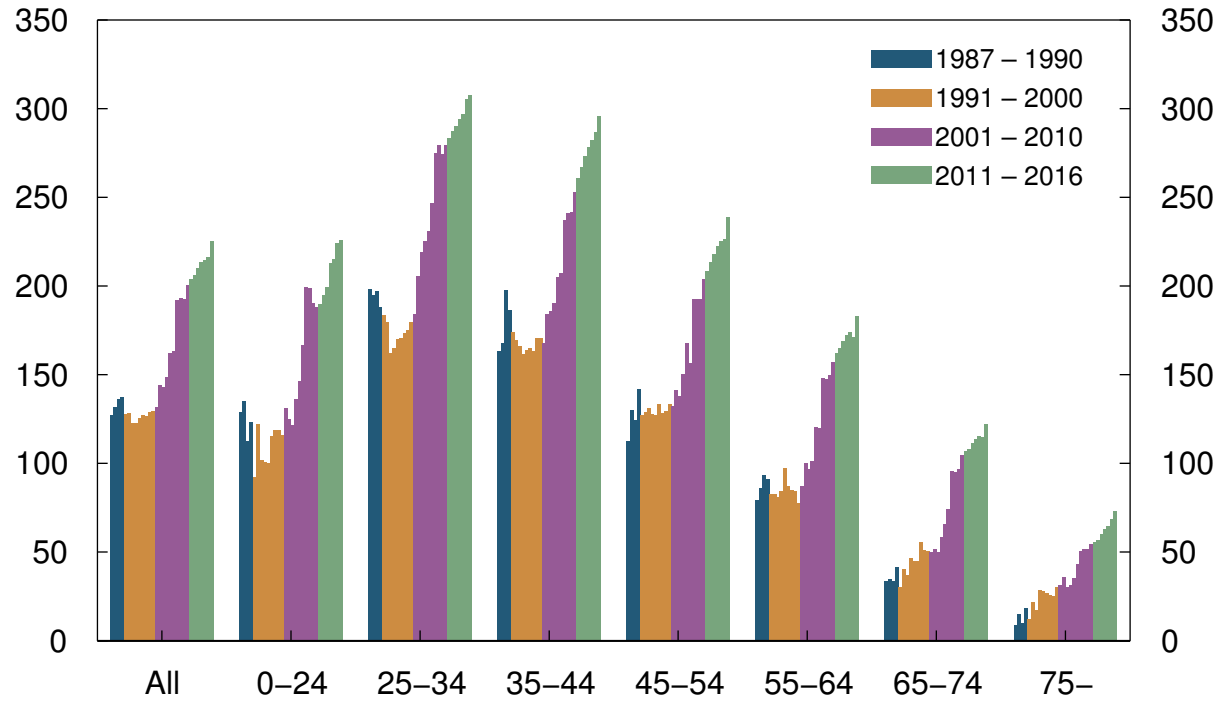


1) DNB Bank, Sparebanken Vest, SpareBank 1 Nord-Norge, SpareBank 1 SMN, SpareBank 1 SR-Bank, Sparebanken Sør (from 2014) and SpareBank 1 Østlandet (from 2016).

2) Includes the entire profit for 2018 Q1 and 2018 Q2.

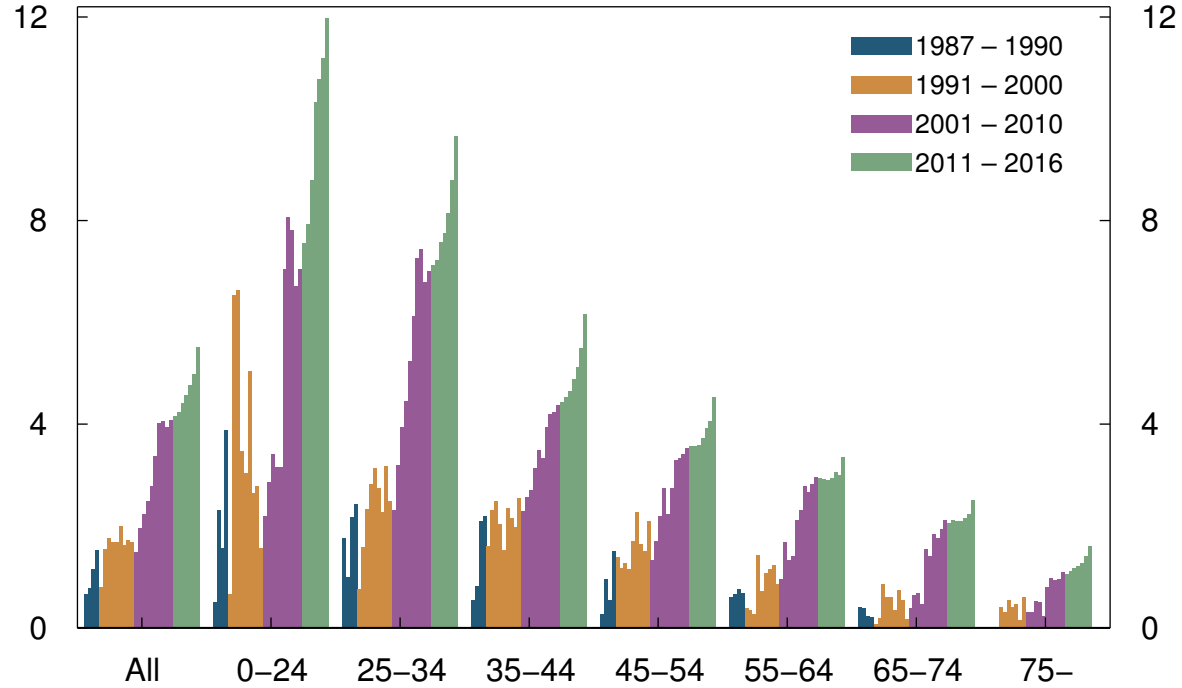
Sources: Banks' quarterly reports and Norges Bank

Chart 5.15 Debt as a share of after-tax income. By age of main income earner.
Percent. 1987 – 2016



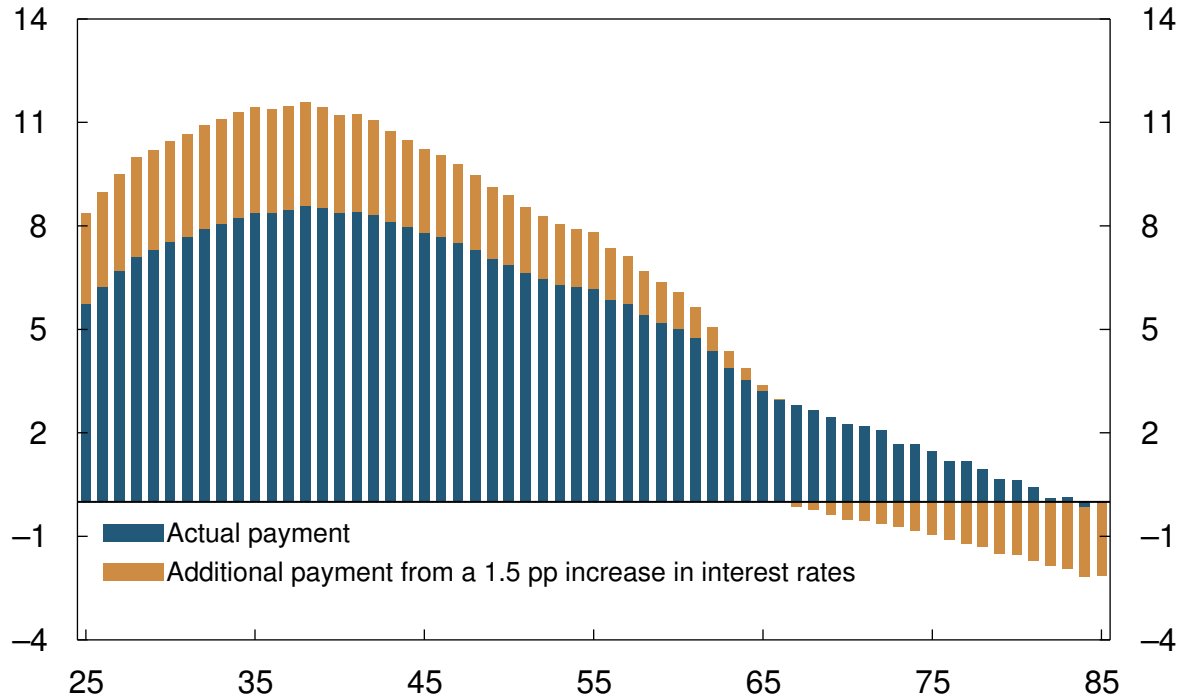
Sources: Statistics Norway and Norges Bank

Chart 5.16 Share of households with debt exceeding five times gross income. By age of main income earner. Percent. 1987 – 2016

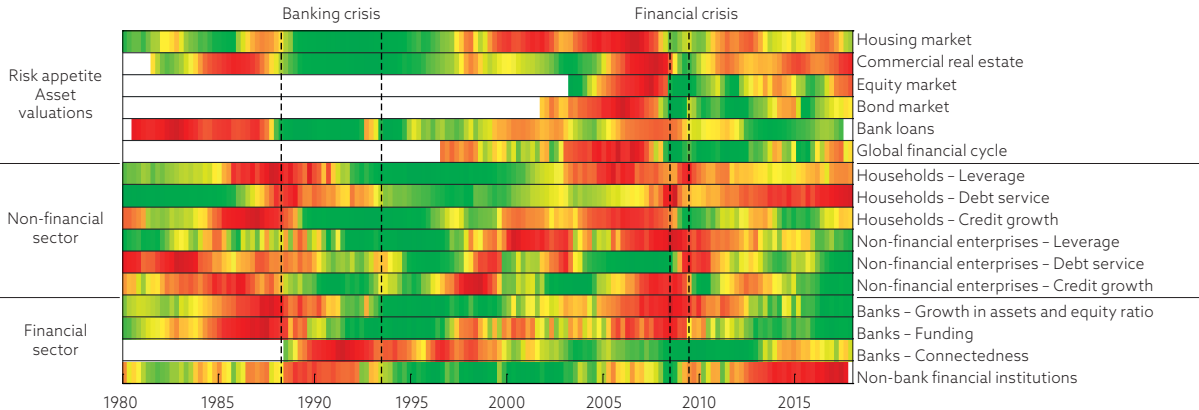


Sources: Statistics Norway and Norges Bank

Chart 5.17 Net interest payments as share of aftertax income by age of main income earner. Percent. 2016



Sources: Statistics Norway and Norges Bank



Sources: BIS, Bloomberg, CBRE, Dagens Næringsliv, DNB Markets, Eiendomsverdi, Finn.no, Norwegian Association of Real Estate Agents (NEF), OECD, OPAK, Real Estate Norway, Statistics Norway, Thomson Reuters and Norges Bank