NORGES BANK

4|14 DECEMBER

MONETARY POLICY REPORT

WITH FINANCIAL STABILITY ASSESSMENT

Norges Bank

Oslo 2014

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Monetary Policy Report
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The *Report* is published four times a year, in March, June, September and December. The *Report* assesses the interest rate outlook and forms the basis for Norges Bank's advice on the level of the countercyclical capital buffer. The *Report* includes projections of developments in the Norwegian economy.

At the Executive Board meeting on 26 November 2014, the economic outlook, the monetary policy stance and the need for a countercyclical capital buffer for banks were discussed. On the basis of this discussion and a recommendation from Norges Bank's management, the Executive Board adopted at its meeting on 10 December 2014 a monetary policy strategy for the period to the publication of the next *Report* on 19 March 2015. The Executive Board also approved Norges Bank's advice to the Ministry of Finance on the level of the countercyclical capital buffer. The Executive Board's assessment of the economic outlook and monetary policy strategy is provided in "The Executive Board's assessment". The advice on the level of the countercyclical capital buffer is submitted to the Ministry of Finance in connection with the publication of the *Report*. The advice is made public when the Ministry of Finance has made its decision.
The *Report* is available at www.norges-bank.no.

CONTENTS

This *Monetary Policy Report* is based on information in the period to 5 December 2014.
The monetary policy strategy was approved by the Executive Board on 10 December 2014.

Monetary policy in Norway

OBJECTIVE

Norges Bank's operational implementation of monetary policy shall be oriented towards low and stable inflation. The operational target of monetary policy is low and stable inflation, with annual consumer price inflation of close to 2.5% over time.

IMPLEMENTATION

Norges Bank operates a flexible inflation targeting regime, so that weight is given to both variability in inflation and variability in output and employment. In general, the direct effects on consumer prices resulting from changes in interest rates, taxes, excise duties and extraordinary temporary disturbances are not taken into account.

Monetary policy influences the economy with a lag. Norges Bank sets the interest rate with a view to stabilising inflation close to the target in the medium term. The horizon will depend on disturbances to which the economy is exposed and the effects on prospects for the path for inflation and the real economy.

THE DECISION-MAKING PROCESS

The monetary policy stance is presented to the Executive Board for discussion at a meeting about two weeks before the *Monetary Policy Report* is published. Themes of relevance to the *Report* have been discussed at a previous meeting. On the basis of the analysis and discussion, the Executive Board assesses the consequences for future interest rate developments. The final decision to adopt a monetary policy strategy is made on the day before the *Report* is published. The strategy applies for the period up to the next *Report* and is presented at the beginning of the *Report*.

The key policy rate is set by Norges Bank's Executive Board. Decisions concerning the interest rate are normally taken at the Executive Board's monetary policy meeting. The Executive Board has six monetary policy meetings per year.

REPORTING

Norges Bank reports on the conduct of monetary policy in the *Monetary Policy Report* and the *Annual Report*. The Bank's reporting obligation is set out in Article 75c of the Constitution, which stipulates that the Storting shall supervise Norway's monetary system, and in Section 3 of the Norges Bank Act. The *Annual Report* is submitted to the Ministry of Finance and communicated to the King in Council and to the Storting in the Government's Financial Markets Report. The Governor of Norges Bank provides an assessment of monetary policy in an open hearing before the Standing Committee on Finance and Economic Affairs in connection with the Storting deliberations on the Financial Markets Report.

Countercyclical capital buffer

The objective of the countercyclical capital buffer is to bolster banks' resilience to an impending downturn and counter possible procyclical effects of banks' lending practice.

The Regulation on the Countercyclical Capital Buffer was issued by the Government on 4 October 2013. The Ministry of Finance sets the level of the buffer four times a year. Norges Bank draws up a decision basis and provides advice to the Ministry regarding the level of the buffer. The decision basis includes Norges Bank's assessment of systemic risk that is building up or has built up over time. In drawing up the basis, Norges Bank and Finanstilsynet (Financial Supervisory Authority of Norway) exchange relevant information and assessments. The advice and a summary of the background for the advice are submitted to the Ministry of Finance in connection with the publication of Norges Bank's *Monetary Policy Report*. The advice is published when the Ministry of Finance has made its decision.

The buffer rate shall ordinarily be between 0% and 2.5% of banks' risk-weighted assets. The buffer requirement will apply to all banks with activities in Norway, eventually including branches of foreign banks.

Norges Bank will recommend that the buffer rate should be increased when financial imbalances are building up or have built up. The buffer rate will be assessed in the light of other requirements applying to banks. The buffer rate may be reduced in the event of an economic downturn and large bank losses, with a view to mitigating the procyclical effects of tighter bank lending.

EXECUTIVE BOARD'S ASSESSMENT

At its meetings on 26 November and 10 December 2014, the Executive Board discussed the monetary policy strategy. The starting point for the discussion was the strategy that the Executive Board adopted at its meeting on 17 September 2014 and the analysis in the September 2014 *Monetary Policy Report*. The analysis in the September 2014 *Report* implied a key policy rate of 1.5% in the period to end-2015, followed by a gradual rise. With this path for the key policy rate, there were prospects that inflation would lie somewhat below, but close to, 2.5% throughout the projection period. Capacity utilisation was projected to edge down in the coming year, but to move up again to close to a normal level thereafter. At the monetary policy meeting on 22 October 2014, the Executive Board decided to leave the key policy rate unchanged at 1.5%. At the same time, the Executive Board pointed out that the uncertainty surrounding the outlook for the Norwegian economy had increased since September.

In its discussions on 26 November and 10 December, the Executive Board placed emphasis on the following developments:

- Growth among Norway's trading partners has been broadly in line with that projected in the September 2014 *Report*. The uncertainty surrounding developments ahead remains elevated, particularly in the euro area.

- Oil prices have fallen sharply. Oil prices have recently hovered around USD 70 per barrel, which is about 35% lower than the average for the first half of 2014.

- Policy rates are close to zero among many of our trading partners. In Sweden, the Riksbank lowered its policy rate by 0.25 percentage point to 0% in October. Market expectations indicate that an interest rate increase abroad has again been pushed further out.

- The krone has depreciated markedly. As measured by the import-weighted krone exchange rate (I-44), the krone has depreciated by more than 7% since the time of the September *Report*.

- Banks' residential mortgage lending rates have been reduced and the lending rate facing households is now slightly lower than envisaged in the September *Report*.

- According to quarterly national accounts figures, the mainland economy grew by a seasonally adjusted 0.4% in Q3. The enterprises in Norges Bank's regional network reported in October that growth in production was fairly moderate and that growth prospects had weakened. The oil supplier industry reported declining activity. Private consumption has been lower than expected and consumer confidence indicators have fallen.

- House prices have risen somewhat more than projected, but the pace of household debt accumulation has been in line with that projected.

- Inflation has been in line with that projected in the September *Report*. Consumer price inflation adjusted for tax changes and excluding energy products (CPI-ATE) was 2.5% in October.

The point of departure for the Executive Board's assessment of monetary policy is that the key policy rate is set with a view to keeping inflation close to 2.5% over time. The objective of low and stable inflation is weighed against the objective of stable developments in output and employment. Monetary policy should be robust. There is uncertainty surrounding economic driving forces and the functioning of the economy. This normally suggests a gradual approach in interest rate setting. In the event of major shocks, it may be appropriate to implement measures to reduce uncertainty and stave off particularly adverse outcomes. It may then be appropriate to pursue a more active monetary policy than normal. A robust monetary policy also takes into account the risk of a build-up of financial imbalances.

Higher capital requirements will strengthen the resilience of banks and can mitigate the risk that imbalances trigger or amplify an economic downturn. If financial imbalances build up, it will be appropriate to assess the level of the countercyclical capital buffer for banks.

The Executive Board noted that the analyses in this *Report* show that the outlook for the Norwegian economy has weakened since September. Oil prices have fallen sharply and activity in the petroleum industry is set to be weaker than projected earlier. Growth in private consumption and business investment are also expected to be lower than projected. At the same time, a weaker krone is contributing to underpinning inflation and to dampening the impact of lower oil prices on the Norwegian economy. The key policy rate forecast is notably lower than projected in September. The analysis in this *Report* suggests that the key policy rate should be lowered and kept at 1¼%, or somewhat lower, in the period towards the end of 2016. With this path for the key policy rate, the analysis suggests that inflation will be somewhat higher than projected earlier and close to 2.5% in the coming years. Mainland capacity utilisation will probably decline to a further extent than projected earlier, but is expected to increase again towards the end of the projection period.

The Executive Board discussed the effects of the sharp drop in oil prices. It was noted that the oil price decline likely reflects increased oil supply, but also lower demand for crude oil owing to slower growth in the world economy. Many oil companies and oil industry suppliers have recently reported staff and cost cutbacks. The sharp fall in oil prices will probably amplify this tendency. It was pointed out that this would engender spillover effects on the mainland economy and that unemployment may edge up ahead. Heightened uncertainty surrounding economic developments may also induce households and businesses to exercise greater caution with regard to consumption and investment decisions. Weaker global oil investment may also curb exports from the oil supplier industry.

Furthermore, it was noted that the Norwegian economy is now becoming more dependent on growth in non-oil sectors to support economic growth in Norway. A weaker krone is helping to improve earnings of Norwegian export companies and Norwegian import-competing industries. As global growth picks up, demand for Norwegian goods and services may also rise.

Economic activity in Norway has remained solid so far and unemployment remains low. Inflation is close to 2.5%. In its assessment of monetary policy in the period ahead, the Executive Board gave weight to the fact that the outlook for the Norwegian economy is notably weaker than envisaged earlier. The depreciation of the krone is likely to underpin inflation. With inflation close to 2.5%, the aim of stable developments in output and employment suggests a lower key policy rate. A lower key policy rate may, in isolation, contribute to keeping the rise in house prices and household debt at a higher rate than household income. On the other hand, oil prices have fallen sharply and the outlook for the Norwegian economy has weakened. The Executive Board attaches importance to countering the risk of a pronounced downturn in the Norwegian economy. An overall assessment of the economic outlook and the balance of risks led the Executive Board to conclude that the key policy rate should be reduced now.

At its meeting on 10 December, the Executive Board decided to reduce the key policy rate by 0.25 percentage point to 1.25%. At the same meeting, the Executive Board decided that the key policy rate should lie in the interval ¾% –1¾% in the period to the publication of the next *Report* on 19 March 2015, unless the Norwegian economy is exposed to new major shocks.

Øystein Olsen
11 December 2014

1 ECONOMIC SITUATION

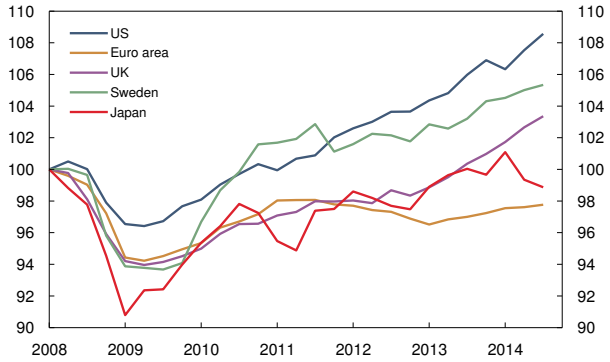
The upturn in the global economy remains moderate and there is substantial uncertainty surrounding developments ahead, particularly in the euro area. Growth in the US economy appears to be on a firm footing (see Chart 1.1). Private consumption and investment are showing solid growth, and the improvement in the labour market is continuing. Wage growth remains moderate. The recovery in the euro area seems to be taking longer than previously expected. Manufacturing output is weak and investment as a share of GDP is declining. It appears that growth in core countries will be lower than previously projected. Growth in the UK economy is expected to remain solid, although the pace of growth may slow somewhat ahead. In Sweden, growth is being sustained by private consumption and housing investment, while growth in business investment is weak. Improved credit conditions, less tight fiscal policy and continued accommodative monetary policy may push up growth in most advanced economies in the years ahead.

In China, growth is still decelerating, but the pace of growth appears set to be slightly higher than expected in the September 2014 *Monetary Policy Report*. Growth in manufacturing output and investment has softened, while export growth remains high. For other emerging Asian economies, growth prospects are approximately as in September.

Oil prices have dropped markedly since September and have recently hovered around USD 70 per barrel (see Chart 1.2), which is about 35% lower than the average for the first half of 2014. Futures prices have also fallen. The oil price decline reflects increased oil supply from both OPEC and non-OPEC countries and weaker growth in global oil demand as prospects for the global economy have been gradually revised down. A stronger US dollar has also played a role. The projections in this *Report* are based on the assumption that oil prices move in line with futures prices, which indicate a modest increase in oil prices ahead (see Chart 1.2) (see box on page 44 for further details on oil prices).

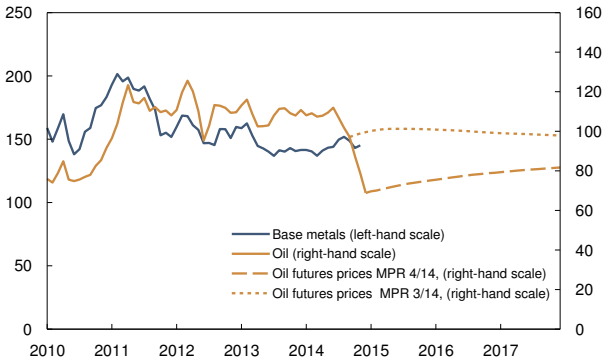
Most advanced economies and many emerging economies are net importers of oil. For these countries, lower oil prices will in isolation boost activity and improve growth prospects through increased

Chart 1.1 GDP. Seasonally adjusted volume index.
2008 Q1=100. 2008 Q1 – 2014 Q3



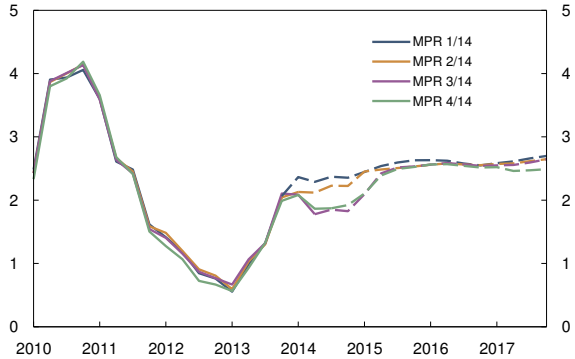
Sources: Thomson Reuters and Norges Bank

Chart 1.2 Crude oil and base metals prices.[1]
January 2010 – December 2017 [2] [3]



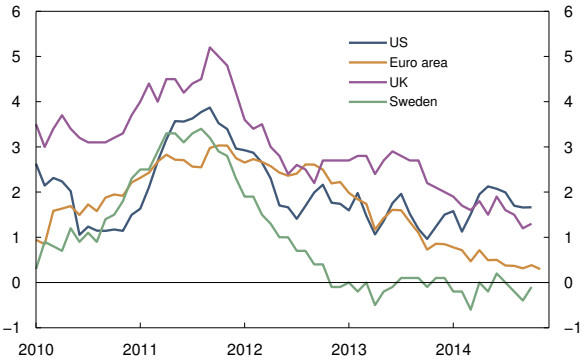
1) USD per barrel for oil and index for base metals.
2) The most recent daily observation (5 December 2014) is used for oil.
3) Forward prices from 5 December 2014.
Sources: Thomson Reuters and Norges Bank

Chart 1.3 GDP for trading partners. Volume.
Four–quarter change. Percent. 2010 Q1 – 2017 Q4[1]



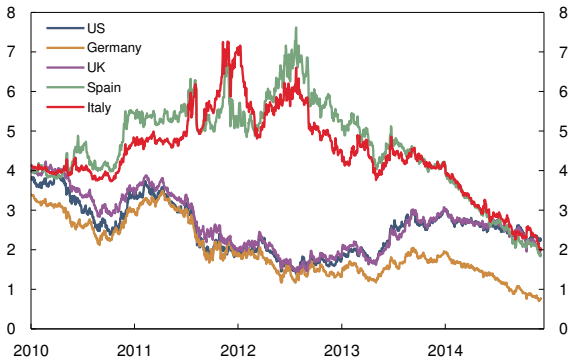
1) Projections at different points in time (broken lines). Projections from 2014 Q4 for MPR 4/14.
Sources: Thomson Reuters and Norges Bank

Chart 1.4 Consumer prices.
Twelve–month change. Percent. January 2010 – November 2014[1)]



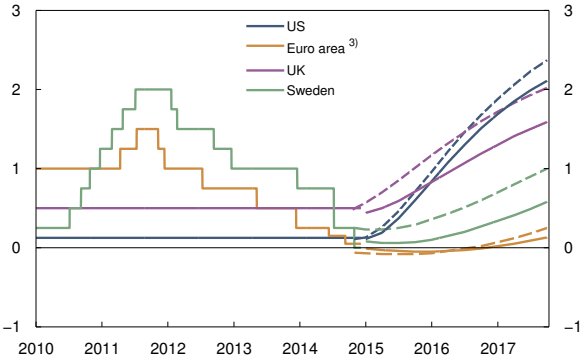
1) To end–October 2014 for US, UK and Sweden.
Sources: Eurostat and Bureau of Labour Statistics

Chart 1.5 Yields on 10–year government bonds.
Percent. 1 January 2010 – 5 December 2014



Source: Bloomberg

Chart 1.6 Policy rates and estimated forward rates at 11 September 2014 and 5 December 2014.[1)] Percent. 1 January 2010 – 1 October 2017[2)]



1) Broken lines show estimated forward rates at 11 September 2014. Thin lines show forward rates at 5 December 2014. Forward rates are based on Overnight Index Swap (OIS) rates.
2) Daily data from 1 January 2010 and quarterly data from 2015 Q1.
3) EONIA for the euro area from 2015 Q1.
Sources: Bloomberg and Norges Bank

purchasing power for consumers and lower energy costs for many firms. For large oil and gas exporters such as Russia and Brazil, on the other hand, growth prospects are considerably lower than in September.

Growth prospects for Norway's trading partners are broadly unchanged from the September *Report*, with GDP growth projected to pick up from 1.3% in 2013 to 2% in 2014 (see Chart 1.3 and Annex Table 3). Further ahead in the projection period, GDP is expected to grow by around 2½% annually. Growth in the global economy as a whole is projected at 2½% in 2014, slightly below the average for the past 30 years (see box on page 40 for further details on developments in specific regions).

Consumer price inflation is low in most advanced economies (see Chart 1.4). In November, euro area inflation was 0.3%, while prices in Sweden were 0.1% lower in October than in the same month one year earlier. Market-based long-term inflation expectations have drifted down in both the US and Europe. Lower oil prices are pulling down inflation projections for 2014 and 2015. Consumer price inflation among Norway's trading partners as a whole is expected to pick up from 1¼% in 2014 to 2% in 2016 (see Annex Table 4).

Long-term international interest rates have fallen further since the September *Report* (see Chart 1.5). Weak growth prospects, geopolitical uncertainty and more expansionary monetary policy in both Japan and the euro area have contributed to the decline. There have been fairly large price movements in equity markets since the publication of the September *Report*. European equity prices are broadly unchanged since September, while prices in US equity markets have surpassed previous peaks.

Policy rates are still close to zero in many countries. In Sweden, the Riksbank lowered its policy rate by 0.25 percentage point to 0% in October. Market prices and Riksbank projections now indicate that the policy rate will be kept unchanged until summer 2016 (see Chart 1.6). The European Central Bank (ECB) has kept its policy rate unchanged at 0.05% since the rate cut at the beginning of September. Market prices indicate that the ECB policy rate will remain unchanged through the projection period. The ECB has also started its

purchases of non-financial private sector assets. Purchases of covered bonds issued by banks started in October, while purchases of asset-backed securities (ABSs) started in November. The ECB has announced that further unconventional monetary policy measures will be implemented if necessary. Market prices indicate that the first policy rate increases in the US and the UK are expected in summer and autumn 2015, respectively. For Norway's trading partners as a whole, market expectations regarding money market rates abroad are somewhat lower than at the time of the September *Report* (see Chart 1.7).

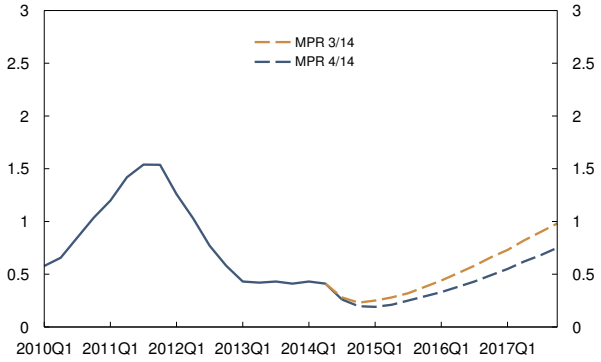
The krone has depreciated markedly since September and is now at the weakest level recorded since 2009, as measured by the import-weighted krone exchange rate index (I-44). Developments in the krone exchange rate must be viewed in the context of falling oil prices. It appears that market participants became more uncertain of the growth prospects for the Norwegian economy when oil prices fell below the levels generally prevailing in recent years (see Chart 1.8). So far in Q4, the krone measured by the I-44 has been a little more than 4% weaker than projected in the September *Report*.

Premiums in Norwegian three-month money market rates are expected to remain at around ¼ percentage point ahead. The cost of funding residential mortgages remains broadly unchanged from the September *Report* (see Chart 1.9). Banks have reduced residential mortgage lending rates.

Growth in the domestic economy appears so far to be broadly in line with the projections in the September *Report*. According to the quarterly national accounts, mainland GDP increased by a seasonally adjusted 0.4% in 2014 Q3. In October, enterprises in Norges Bank's regional network reported fairly moderate output growth, slightly lower than in August. The oil supplier industry reported declining activity. Growth in the export sector and corporate services has edged down, while the construction sector reported higher growth (see Chart 1.10).

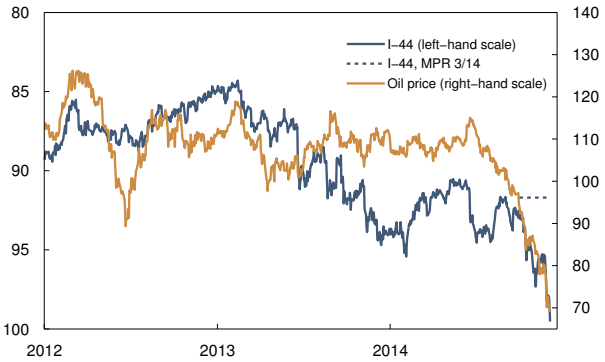
Unemployment has moved approximately in line with the projections in the September *Report*. Registered unemployment in November was 2.8% of the labour force (see Chart 1.11). Employment growth has

Chart 1.7 Money market rates for trading partners in MPR 3/14 and MPR 4/14.[1)]
Percent. 2010 Q1 – 2017 Q4



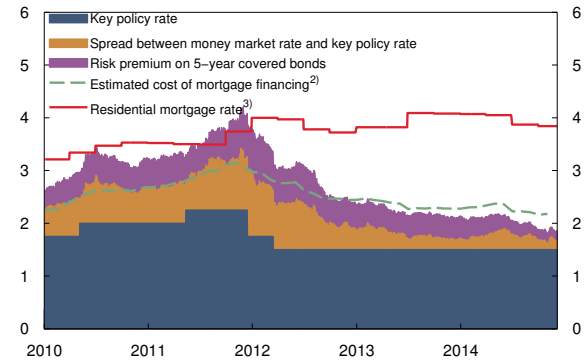
1) Broken blue and yellow lines show estimated forward rates at 5 December 2014 and 11 September 2014, respectively.
Sources: Bloomberg and Norges Bank

Chart 1.8 Oil price and import–weighted exchange rate index (I–44).[1)]
1 January 2012 – 5 December 2014



1) A positive slope denotes a stronger krone exchange rate.
Sources: Thomson Reuters and Norges Bank

Chart 1.9 Residential mortgage lending rates[1)] and funding costs.
Percent. 1 January 2010 – 5 December 2014

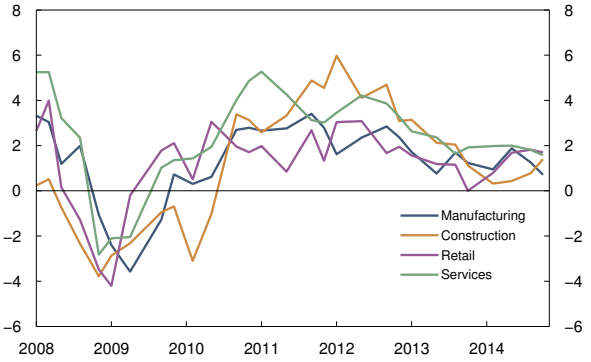


1) The interest rate on lines of credit secured on dwellings provided by all banks and mortgage companies in Norway.
2) Estimated using weighted interest rates on covered bonds outstanding and weighted deposit rates.
3) Credit lines.
Sources: DNB Markets, Statistics Norway and Norges Bank

remained firm. Expectations statistics from Statistics Norway's business tendency survey and from Norges Bank's regional network indicate weaker employment growth ahead. According to the regional network, a number of manufacturing and service enterprises have reduced their workforces over the past year, with an attendant reduction in production capacity. Job vacancy statistics confirm the picture of reduced demand for labour (see Chart 1.12). Labour immigration has declined a little.

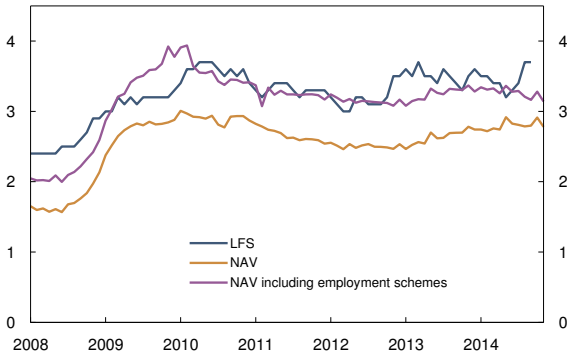
In recent years, household consumption has been moderate and the saving ratio has been on the rise. Growth in goods consumption in particular has been subdued, restrained to some extent by lower growth in consumption of durable goods. After somewhat higher consumption growth in the first half of 2014, growth fell in Q3 and was lower than projected in the September *Report*. At the same time, it appears that saving will remain high (see Chart 1.13). After rising somewhat in recent quarters, consumer confidence indicators now appear to point towards weaker developments in the period ahead (see Chart 1.14). Falling oil prices and heightened uncertainty regarding developments in the Norwegian economy may have contributed to increased pessimism among households. Regional network contacts report

Chart 1.10 Norges Bank's regional network indicator for output growth preceding three months. Annualised. Percent. January 2008 – October 2014



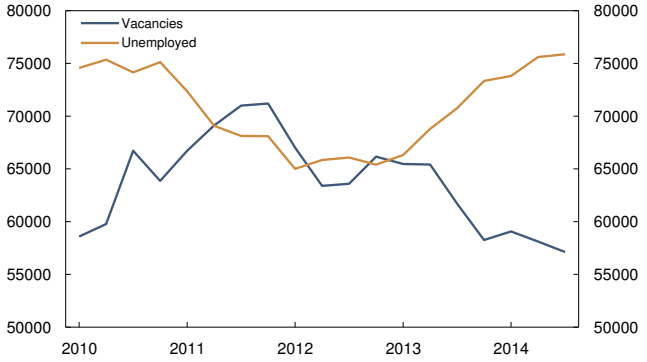
Source: Norges Bank

Chart 1.11 Unemployment rate. LFS[1] and NAV.[2]
Seasonally adjusted. Percent. January 2008 – November 2014



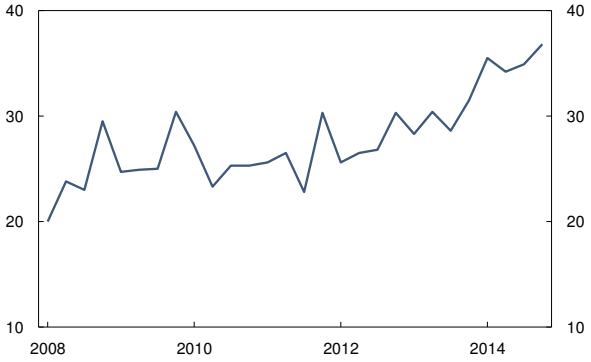
1) Labour Force Survey.
2) Norwegian Labour and Welfare Administration.
Sources: Statistics Norway, NAV and Norges Bank

Chart 1.12 Number of vacancies and number of unemployed[1]. Seasonally adjusted
2010 Q1 – 2014 Q3



1) Registered unemployed.
Sources: Statistics Norway, NAV and Norges Bank

Chart 1.13 TNS Gallup savings indicator
Proportion that will save or repay loans if the financial position of the household improves.
Percent. 2008 Q1 – 2014 Q4



Source: TNS Gallup

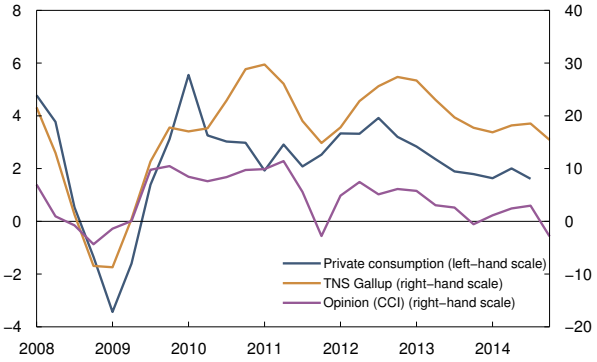
continued moderate growth in household-oriented industries.

House prices and housing market turnover have continued to rise since spring 2014. In recent months, house prices have risen somewhat more than projected in the September *Report*, and were 6.8% higher in November than in the same month in 2013 (see Chart 1.15). Household debt growth has been stable at about 6.5% in recent months, in line with the projections in the September *Report*.

Housing investment has fallen in recent quarters and developments in Q3 were weaker than projected in the September *Report*. New home sales have nevertheless picked up through 2014. In October, enterprises in Norges Bank's regional network reported rising growth in the construction sector. Prospects ahead have also been revised up compared with contacts' expectations in August. Infrastructure projects show the strongest growth.

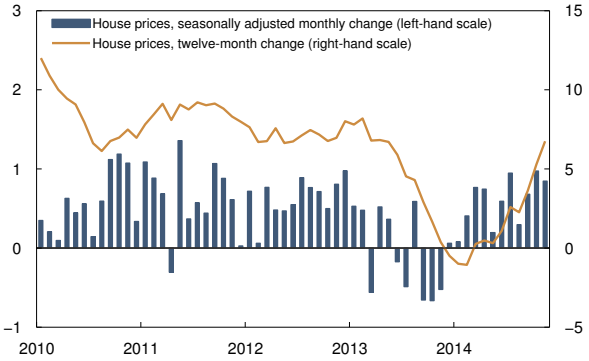
Mainland business investment increased in Q3, by somewhat more than projected in the September *Report*. Regional network contacts reported minor changes in investment activity over the next 12 months (see Chart 1.16).

Chart 1.14 Private consumption and consumer confidence
Private consumption: Four–quarter change. Percent.
TNS Gallup and Opinion[1]: Indices.2008 Q1 – 2014 Q4 [2]



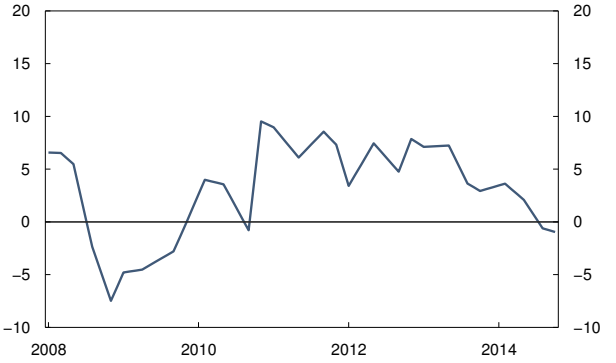
1) TNS Gallup consumer barometer and Opinion CCI.
For CCI the average of monthly figures is used as quarterly figures.
2) To end–2014 Q3 for private consumption and November for CCI
Sources: TNS Gallup, Opinion, Statistics Norway and Norges Bank

Chart 1.15 House prices. Twelve-month change and seasonally adjusted monthly change. Percent. January 2010 – November 2014



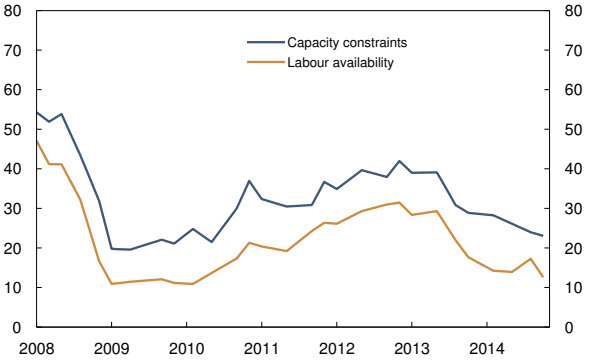
Sources: Eiendom Norge, Eiendomsverdi and Finn.no

Chart 1.16 Investment as reported by Norges Bank's regional network
Percent. Expected growth next 12 months. Aggregated. January 2008 – October 2014



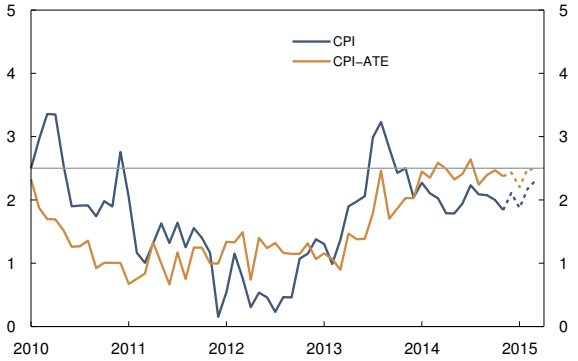
Source: Norges Bank

Chart 1.17 Capacity constraints and labour availability[1] as reported by Norges Bank's regional network. Percent. January 2008 – October 2014



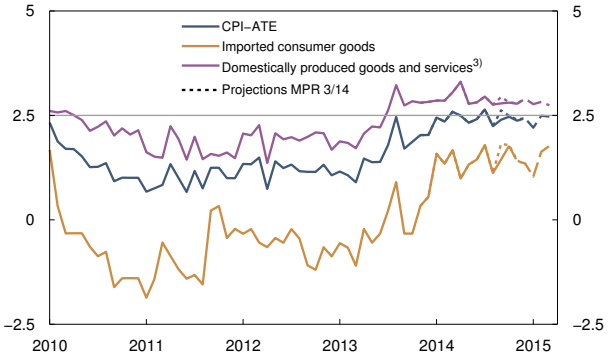
1) Share of contacts that will have some or considerable problems accommodating an increase in demand and the share of contacts where production is constrained by labour supply.
Source: Norges Bank

Chart 1.18 CPI and CPI–ATE.[1] Twelve–month change. Percent. January 2010 – March 2015[2]



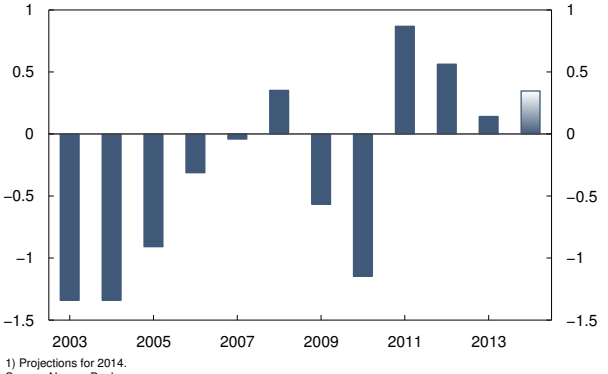
1) CPI adjusted for tax changes and excluding energy products.
2) Projections for November 2014 – March 2015 (broken lines).
Sources: Statistics Norway and Norges Bank

Chart 1.19 CPI–ATE.[1] Total and by supplier sector. Twelve–month change. Percent. January 2010 – March 2015[2]



1) CPI adjusted for tax changes and excluding energy products.
2) Projections for November 2014 – March 2015 (broken lines).
3) Norges Bank's estimates.
Sources: Statistics Norway and Norges Bank

Chart 1.20 Indicator of external price impulses to imported consumer goods measured in foreign currency. Annual change. Percent. 2003 – 2014[1]



1) Projections for 2014.
Source: Norges Bank

Traditional goods and services exports have shown fairly weak developments in recent years, partly as a result of low growth in Norway's export markets and a high cost level in Norway. Export growth has picked up in the past two quarters. This may partly reflect improved competitiveness owing to the depreciation of the krone.

Capacity utilisation in the mainland economy has declined slightly over the past year. According to Norges Bank's regional network, the share of enterprises reporting capacity constraints has decreased somewhat. Enterprises also report that the supply of qualified labour has improved (see Chart 1.17). Registered unemployment has remained fairly stable and is still close to the average for the past 15 years. Overall, capacity utilisation appears to have declined approximately as projected in the September *Report*.

Wage growth in 2014 is projected at 3½%, unchanged on the September *Report*. The projection is in line with Norges Bank's regional network expectations. For 2015, network contacts expect wage growth of between 3% and 3¼%. The differences across sectors are small.

Inflation has been in line with the projections in the September *Report*. The annual rate of increase in consumer prices (CPI) was 2.0% in October, down from 2.1% in September (see Chart 1.18). Adjusted for tax changes and excluding energy products (CPI-ATE), inflation was 2.5% in October, up from 2.4% in September.

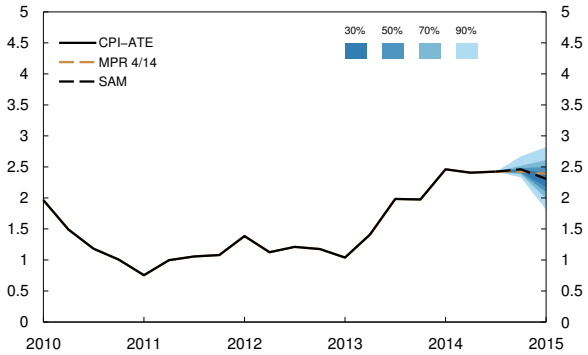
Prices for domestically produced goods and services in the CPI-ATE have risen by a little less than 3% in recent months, in line with the projections in the September *Report* (see Chart 1.19). In October, the year-on-year rise in prices for domestically produced goods and services was 2.8%, unchanged from September. The rise in prices for domestically produced goods and services is projected to remain at about the same level in the coming months.

The rise in prices for imported consumer goods was markedly higher in autumn 2013 and has remained elevated so far this year. The higher rise partly reflects the depreciation of the krone through 2013. The year-on-year rise in prices for imported consumer goods

was 1.4% in September, increasing to 1.8% in October in line with the projections in the September *Report* (see Chart 1.19). External price impulses to Norwegian consumer prices are projected to be slightly stronger this year than in 2013 (see Chart 1.20), and the projection is somewhat higher than in the September *Report*. The krone depreciated again through summer and autumn. The rise in prices for imported consumer goods is therefore expected to remain elevated for somewhat longer than previously projected.

The year-on-year rise in the CPI-ATE is projected to be somewhat higher in the period ahead than projected earlier. The projections for CPI-ATE inflation are consistent with the projections from Norges Bank's System for Averaging short-term Models (SAM) (see Chart 1.21).

Chart 1.21 CPI–ATE[1]. Actual figures, baseline scenario and projections from SAM[2] with fan chart. Four–quarter change. Percent. 2010 Q1 – 2015 Q1[3]



1) CPI adjusted for tax changes and excluding energy prices.
2) System for averaging short–term models.
3) Projections for 2014 Q4 – 2015 Q1 (broken lines).
Sources: Statistics Norway and Norges Bank

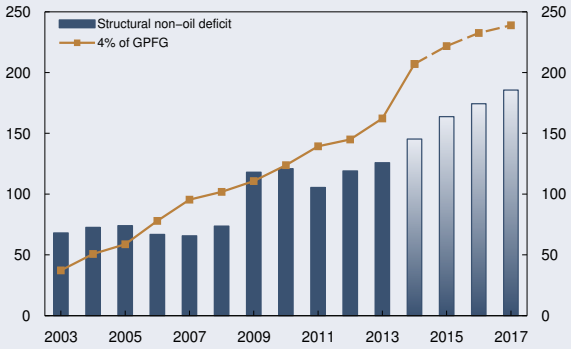
ASSUMPTIONS CONCERNING FISCAL POLICY

The fiscal policy assumptions are based on the National Budget for 2015, the budget compromise in the Storting (Norwegian parliament) and the figures from the Final Budget Bill for 2014. Underlying spending of petroleum revenues is measured by the structural non-oil deficit. For 2014, this deficit is estimated at NOK 141bn. The structural non-oil deficit is estimated to increase to NOK 164bn in 2015. Growth in central government spending in 2015 is close to the average for the past 15 years. At the same time, a number of tax reductions are proposed that will have an impact from 2015.

The change in the structural non-oil deficit as a percentage of trend GDP for mainland Norway in 2014 is used as a simple measure of the effect of the central government budget on demand for goods and services. By that measure, the structural non-oil deficit is projected to increase by 0.6 percentage point between 2013 and 2014. The structural non-oil deficit is projected at 6.4% of trend GDP for mainland Norway in 2015, which is 0.6 percentage point higher than in 2014. The structural deficit, as a measure of spending of capital from the Government Pension Fund Global (GPFG) in 2015, is estimated at 3.0% of the capital in the GPFG at the beginning of 2015.

Petroleum revenue spending is assumed to continue to rise in the coming years (see Chart 1.22). For 2016 and 2017, petroleum revenue spending is projected to increase at about the same pace as that recorded since the fiscal rule was introduced in 2001, which corresponds to an annual increase in the non-oil structural deficit of about 0.3% of trend GDP for mainland Norway.

Chart 1.22 Structural non–oil deficit and 4% of the Government Pension Fund Global. Constant 2015 prices. In billions of NOK. 2003 – 2017[1]



1) Projections for 2014 – 2017.
Sources: Ministry of Finance and Norges Bank

ASSUMPTIONS CONCERNING PETROLEUM INVESTMENT

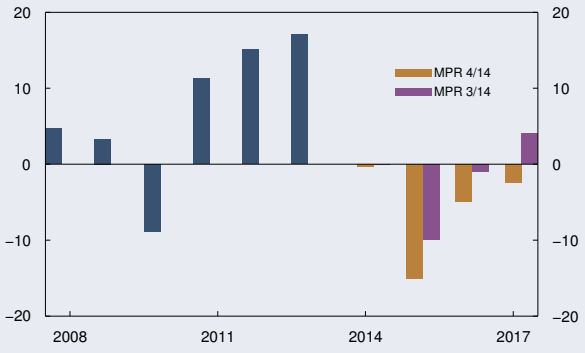
Investment on the Norwegian continental shelf has been expanding rapidly over the past ten years, driven by a sharp rise in oil prices, a substantial portfolio of oil finds and the need to upgrade fields in production. The upswing has led to high costs of Norwegian shelf activities. Weakened profitability has prompted oil companies to postpone a number of projects and to reduce costs. The drop in oil prices from more than USD 100 in summer to below USD 70 is likely to amplify this tendency.

The effects of the decline in oil prices on petroleum investment will depend on the oil price level and the expected persistence of the decline. It is assumed that oil prices will move in line with futures prices, indicating a rebound in oil prices to about USD 80 in 2017, which is clearly lower than assumed in the September *Report* (see Chart 1.2). Lower oil prices imply a decline in oil companies' cash flow and the profitability of investment projects on the Norwegian continental shelf. This may fairly quickly lead to reduced exploration and drilling activity on fields in production. The ongoing field development projects will probably be affected to only a limited extent by the decline in oil prices, but a number of new projects may be deferred or cancelled.

Petroleum investment is projected to level off this year, after rising by more than 10% annually in the preceding three years (see Chart 1.23). Investment is projected to fall by 15% in 2015, 5% in 2016 and 2½% in 2017. The investment projections for 2015–2017 have been revised down since the September *Report* as a result of the recent months' fall in oil spot and futures prices. The drop in oil prices is expected to lead to lower exploration activity and investment in fields in production than projected in the September *Report*. Moreover, it is assumed that some development projects, which were previously expected to start up during the projection period, will be postponed due to the decline in oil prices.

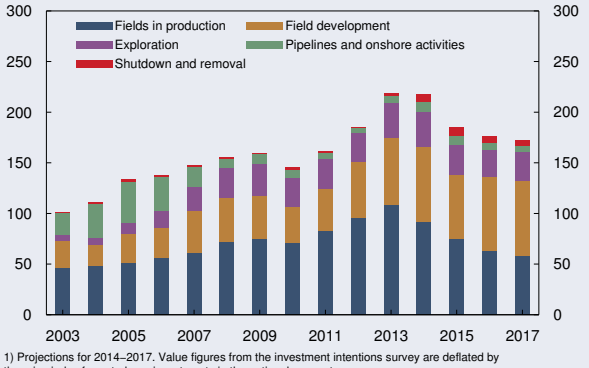
The investment projection for 2015 is lower than implied by the fourth-quarter investment intentions survey and information about projects not included in the survey. The projection for 2015 in the survey is largely based on the budget proposal from the beginning of October so that possible changes in investment plans owing to the recent fall in oil prices are not captured in the investment intentions survey.

Chart 1.23 Petroleum investment.
Volume. Annual change. Percent. 2008 – 2017[1)]



1) Projections for 2014 – 2017
Sources: Statistics Norway and Norges Bank

Chart 1.24 Petroleum investment.
Constant 2014 prices. In billions of NOK. 2003 – 2017[1)]



1) Projections for 2014–2017. Value figures from the investment intentions survey are deflated by the price index for petroleum investments in the national accounts.
Sources: Statistics Norway and Norges Bank

Spending on field development is first included in the investment intentions survey when the plan for development and operation (PDO) has been submitted to the authorities. The projections in this *Report* are based on the assumption that a PDO will be submitted for the Johan Sverdrup field in the first quarter of 2015 and that investment spending on the Johan Sverdrup field for 2015–2017 will be in line with that estimated in the impact assessment. This entails investments of NOK 8bn in 2015, rising to NOK 22bn in 2016 and NOK 28bn in 2017. It is also assumed that development of the Maria field will start in 2015, with investments of NOK 2bn that year.

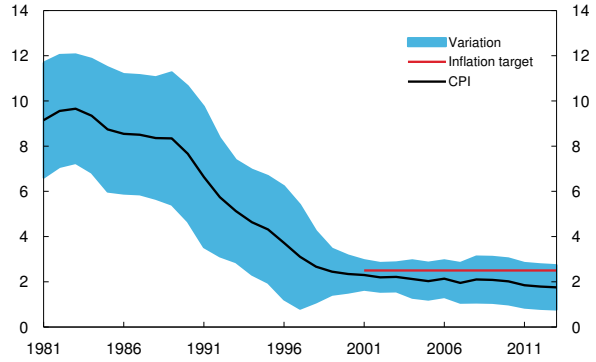
The projected fall in investment between 2014 and 2017 primarily reflects reduced investment in fields in production (see Chart 1.24). Upgrading of older fields has fuelled investment in fields in production in recent years. The need for upgrading will not be on an equal scale ahead. Savings measures undertaken by oil companies will also contribute to lower spending on investment in fields in production in 2014 and the following years. Investment in fields in production is projected to fall by NOK 17bn in both 2014 and 2015, and by a further NOK 11bn in 2016 and NOK 5bn in 2017.

Spending on field development has increased markedly in recent years and is projected to rise by NOK 10bn between 2013 and 2014. The high level of investment reflects a number of large-scale field development projects on the Norwegian shelf. According to plan, the fields under development are expected to start production in the course of the next three years, and spending on the ongoing development projects is expected to decrease by NOK 21bn in 2015 and by NOK 10bn-15bn annually in 2016 and 2017. New development project starts are projected to push up investment by NOK 10bn in 2015, resulting in a fall in overall spending on field development of NOK 11bn. Investment spending on new projects will show a pronounced rise between 2015 and 2016. Some new projects such as Butch and Alfa Sentral will probably start in 2016. The development of Johan Castberg in the Barents Sea has been postponed owing to weak profitability and an uncertain resource base. The recent fall in oil prices has led to a further weakening of the project's profitability. The oil discovery on the Alta Prospect south of Johan Castberg this autumn may boost the profitability of the Johan Castberg project, but additional oil discoveries in the area are probably needed if the development of Johan Castberg with platform and transport to onshore terminals is to be profitable. A simpler development solution with production vessels will probably be profitable if oil prices move as projected in the current *Report*. It is assumed that development of the Johan Castberg field will start in 2017. Overall investment in field development is projected to increase by NOK 9bn in 2016 and by a further NOK 1bn in 2017.

Spending on exploration appears to be edging down this year, after rising sharply in 2013. The savings measures undertaken by oil companies will push down spending on exploration in the years ahead. New solutions have probably led to more efficient exploration at the same time as rigs have been taken out of production. Lower demand for drilling rigs has resulted in a substantial fall in prices for drilling rigs. This will in turn lead to lower drilling prices, which may again lead to a pick-up in exploration activity towards the end of the projection period.

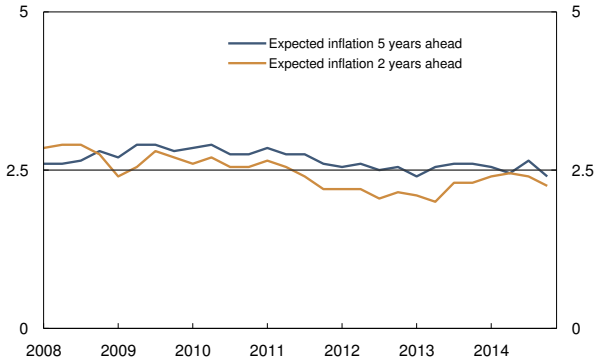
2 MONETARY POLICY OUTLOOK

Chart 2.1 10–year moving average[1] and variation[2] in CPI.
Annual change. Percent. 1981 – 2013



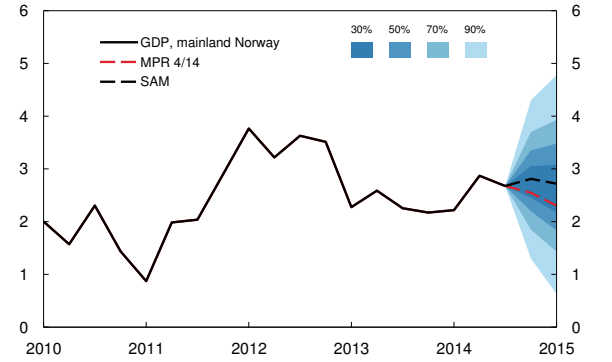
1) The moving average is calculated 10 years back.
2) The band around the CPI is the variation in the CPI in the average period, measured by +/– one standard deviation.
Sources: Statistics Norway and Norges Bank

Chart 2.2 Expected consumer price inflation 2 and 5 years ahead.[1]
Percent. 2008 Q1 – 2014 Q4



1) Average of expectations of employer/employee organisations and economists in the financial industry and academia.
Sources: TNS Gallup and Opinion

Chart 2.3 GDP for mainland Norway. Actual figures, baseline scenario and projections from SAM[1] with fan chart.
Four–quarter change. Volume. Seasonally adjusted. Percent. 2010 Q1 – 2015 Q1[2]



1) System for averaging short–term models.
2) Projections for 2014 Q4 – 2015 Q1 (broken lines).
Sources: Statistics Norway and Norges Bank

The operational target of monetary policy is low and stable inflation, with annual consumer price inflation of close to 2.5% over time. Over the past 10 years, average inflation has been somewhat below, but close to, 2.5% (see Chart 2.1). Inflation expectations, according to expectations surveys, remain close to the inflation target (see Chart 2.2 and box on page 50).

The key policy rate is set with a view to maintaining inflation close to 2.5% over time without causing excessive fluctuations in output and employment. Monetary policy seeks to be robust by taking into account factors such as the uncertainty concerning the current situation, economic driving forces and the functioning of the economy. This normally suggests a gradual approach in interest rate setting. In the event of major shocks, it may be appropriate to implement measures to reduce uncertainty and stave off particularly adverse outcomes. This may imply a more active monetary policy than normal. A robust monetary policy also takes into account the risk of a build-up of financial imbalances (see box on page 24 for further details on the criteria for an appropriate interest rate path).

In the September 2014 *Monetary Policy Report*, the key policy rate was projected to remain at 1.5% to end-2015, rising gradually thereafter. With this interest rate forecast, there were prospects that inflation would remain somewhat below, but close to 2.5%, in the coming years. Capacity utilisation was projected to decline somewhat in the year ahead, but then edge up again to close to a normal level towards the end of the projection period.

A key policy rate of 1.5% is lower than what may be regarded as a normal level. One reason the key policy rate is low is that interest rates abroad are very low. At the same time, there is a wider-than-normal spread between the key policy rate and the interest rates facing households and enterprises. The interest rate on residential mortgages is approximately 3¾% for most households, while the interest rate on bank loans to many enterprises is around 4½%.

The mainland economy is now projected to grow at a quarterly rate of between ¼% and ½% in the period ahead. The projections are slightly lower than those derived from Norges Bank's System for Averaging

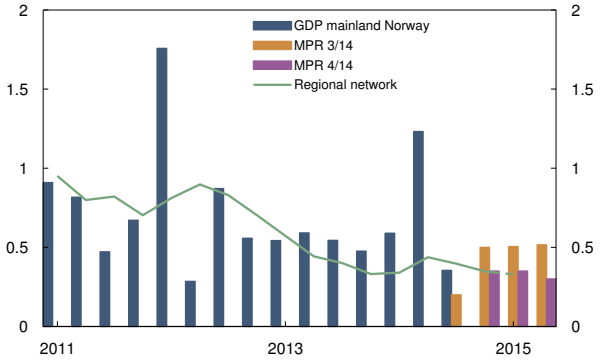
short-term Models (SAM) (see Chart 2.3). SAM indicates approximately unchanged growth ahead, but captures to a limited extent the effects of lower oil prices on the Norwegian economy. Weight has been given to expectations of weaker growth as reported by the enterprises in Norges Bank's regional network (see Chart 2.4).

Growth in the Norwegian economy over the past two years has been moderate and lower than the average for the past 20 years. Household saving has increased and growth in private consumption has been lower than in the years prior to the financial crisis. Growth in mainland exports has been moderate, reflecting weak growth among Norway's trading partners and a high domestic cost level. Growth in the Norwegian economy has been sustained by strong growth in petroleum investment, but this driver of the upswing in the mainland economy has weakened considerably.

Oil prices have fallen markedly and activity in the petroleum sector appears to be lower than previously expected. Lower demand for goods and services from the petroleum sector affects activity and profitability in the oil supplier industry. Many oil companies and suppliers to the petroleum industry have recently announced staff and cost cuts. The sharp decline in oil prices will likely amplify this tendency. According to Norges Bank's regional network, expectations regarding output growth ahead have fallen in most sectors (see Chart 2.5). Expectations have declined in particular in the oil service industry and commercial service sector. Lower demand growth will likely result in weaker earnings for enterprises and reduced demand for labour. This may have a dampening effect on wage growth ahead.

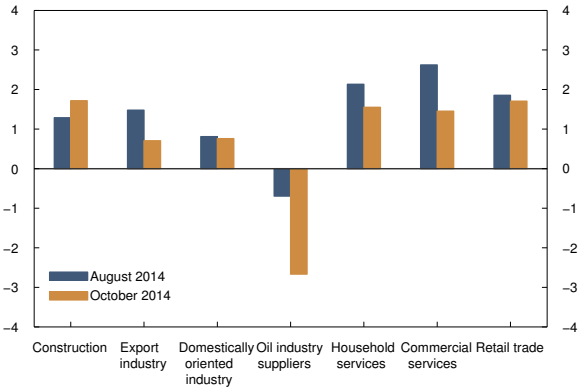
Lower oil prices and increased uncertainty surrounding developments in the Norwegian economy have likely caused households to exercise greater restraint. Private consumption has been somewhat lower than expected and household confidence indicators have recently declined. Combined with the prospect of weaker real wage growth, this may imply weaker growth in private consumption than previously projected. Weaker growth prospects and increased uncertainty surrounding economic developments may also induce enterprises to exercise greater caution in their investment decisions. Business investment may thus

Chart 2.4 GDP mainland Norway[1] and Norges Bank's regional network's indicator for output growth past three months and expected output growth next six months. Percent. 2011 Q1 – 2015 Q2[2]



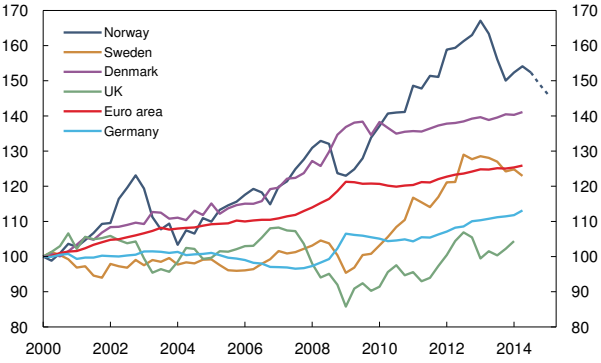
1) Seasonally adjusted quarterly change. Volume.
2) Last observation regional network is October 2014. Last observation for GDP growth is 2014 Q3.
Sources: Statistics Norway and Norges Bank

Chart 2.5 Expected output growth next six months in Norges Bank's regional network Annualised. Percent



Source: Norges Bank

Chart 2.6 Unit labour costs in common currency[1] 2000 Q1=100. 2000 Q1 – 2015 Q1[2]



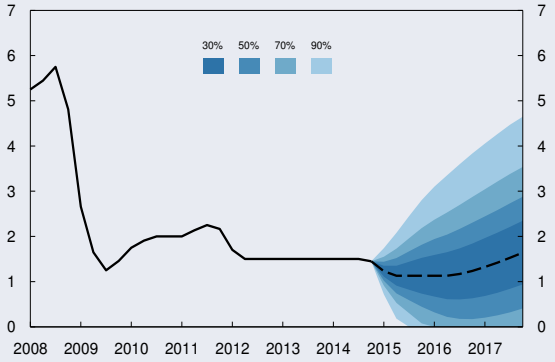
1) The euro is used as common currency in the calculations.
2) Projections 2014 Q4 – 2015 Q1 (broken lines). The euro is assumed to move in line with assumptions regarding the I–44 in MPR 4/14.
Sources: OECD, Statistics Norway and Norges Bank

be somewhat weaker than projected in the September *Report* (see box on page 46 for further details on the effects of lower oil prices on the Norwegian economy).

The krone has depreciated markedly since September, reflecting lower oil prices and weaker prospects for the Norwegian economy. A weaker krone increases the profitability of Norwegian export firms and Norwegian import-competing industries. At the same time, cost competitiveness remains relatively weak (see Chart 2.6). Weaker developments in global offshore investment may also have a dampening impact on exports from the oil supplier industry.

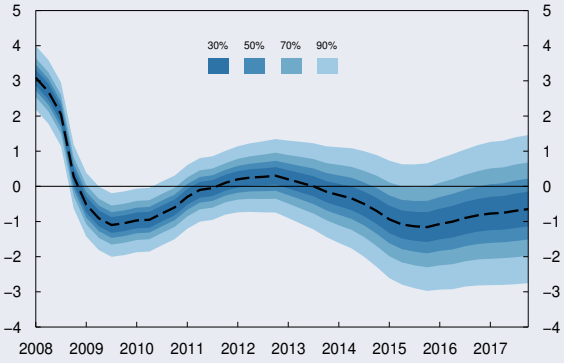
The overall outlook for the Norwegian economy is weaker than previously envisaged. Unemployment may edge up ahead and capacity utilisation is likely to fall back to a further extent than projected earlier. The depreciation of the krone will likely contribute to underpinning inflation. With inflation close to 2.5%, the aim of stable developments in output and employment suggests a lower key policy rate. A lower key policy rate may, in isolation, contribute to keeping the rise in house prices and household debt at

Chart 2.7a Projected key policy rate in the baseline scenario with fan chart. Percent. 2008 Q1 – 2017 Q4[1)]



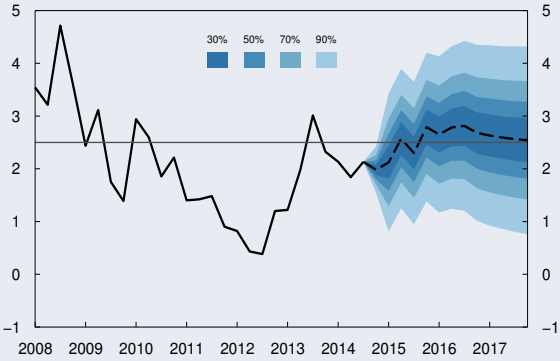
1) Projections for 2014 Q4 – 2017 Q4 (broken line).
Source: Norges Bank

Chart 2.7b Projected output gap[1)] in the baseline scenario with fan chart. Percent. 2008 Q1 – 2017 Q4



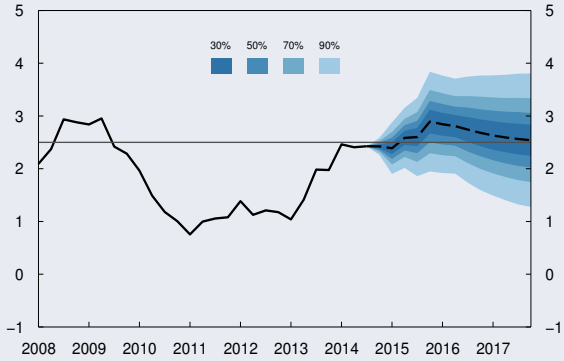
1) The output gap measures the percentage deviation between mainland GDP and projected potential mainland GDP.
Source: Norges Bank

Chart 2.7c Projected CPI in the baseline scenario with fan chart. Four–quarter change. Percent. 2008 Q1 – 2017 Q4[1)]



1) Projections for 2014 Q4 – 2017 Q4 (broken line).
Sources: Statistics Norway and Norges Bank

Chart 2.7d Projected CPI–ATE[1)] in the baseline scenario with fan chart. Four–quarter change. Percent. 2008 Q1 – 2017 Q4[2)]



1) CPI adjusted for tax changes and excluding energy products.
2) Projections for 2014 Q4 – 2017 Q4 (broken line).
Sources: Statistics Norway and Norges Bank

a higher rate than household income. On the other hand, oil prices have fallen sharply and the outlook for the Norwegian economy has weakened.

The projections in this *Report* suggest that the key policy rate should remain at 1¼%, or somewhat lower, in the period towards the end of 2016. The key policy rate is projected to rise somewhat through 2017 (see Charts 2.7 a–d). The key policy rate forecast is lower than in the September *Report* throughout the projection period (see Chart 2.8). The factors behind the changes in the forecast are described in greater detail in the box on page 26. Bank lending rates are projected to follow developments in the key policy rate in the period ahead, but may rise somewhat less later in the projection period (see Chart 2.9).

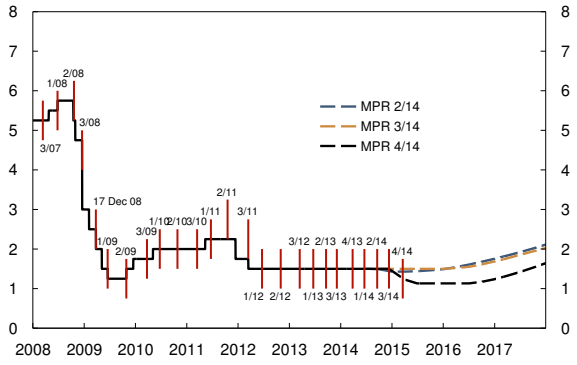
With this path for the key policy rate, there are prospects that inflation will be close to 2½% throughout the projection period. Capacity utilisation will probably decline to a further extent than projected in September, but is expected to increase again towards the end of the projection period (see Chart 2.10).

Growth in the Norwegian economy is expected to decline from 2½% in 2014 to 1½% in 2015. Growth is projected to drift up to around 2½% towards the end of the projection period. Employment growth is expected to slow in pace with the slowdown in output growth. A flexible supply of labour is expected to curb rise in unemployment. Registered unemployment is projected to increase from 2¾% in 2014 to 3¼% in 2016 Further out in the projection period, unemployment is projected to fall back somewhat as activity gradually picks up.

Productivity growth in the mainland economy is low and is projected to hover around 1¼% through the projection period. The projection for productivity growth is somewhat lower than in the September *Report*. Labour immigration is still expected to be relatively high so that population growth will continue to push up potential output ahead.

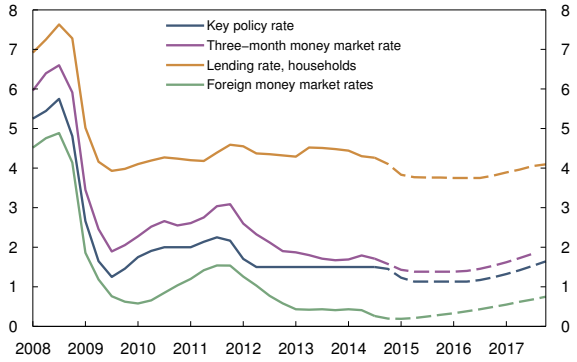
Lower profitability and reduced demand for labour in the oil supplier industry will likely restrain wage growth in the wider economy, partly because the industry is one of the leading sectors in wage settlements. Lower activity in the petroleum sector may

Chart 2.8 Interval for the key policy rate at the end of each strategy period, actual developments and projected key policy rate in the baseline scenario. Percent. 1 January 2008 – 31 December 2017



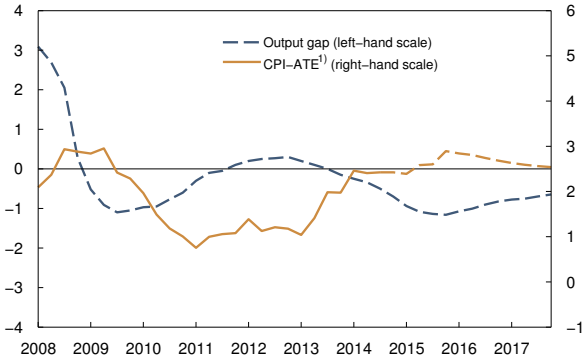
Source: Norges Bank

Chart 2.9 Key policy rate, three–month money market rate[1], interest rate on loans to households[2] and foreign money market rates in the baseline scenario. Percent. 2008 Q1 – 2017 Q4[3]



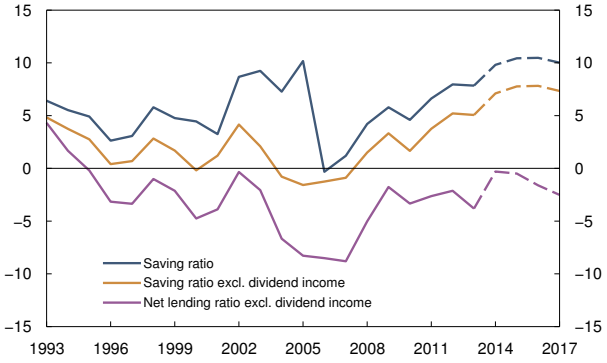
1) Key policy rate in the baseline scenario plus premiums in the Norwegian money market. The calculations are based on the assumption that announced interest rate changes are priced into the money market.
2) Average interest rate on all loans to households from banks and mortgage companies.
3) Projections for 2014 Q4 – 2017 Q4 (broken lines).
Sources: Statistics Norway and Norges Bank

Chart 2.10 Inflation and output gap in the baseline scenario. Percent. 2008 Q1 – 2017 Q4



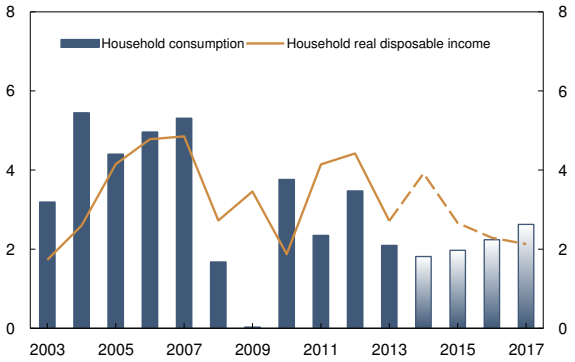
1) CPI adjusted for tax changes and excluding energy products. Projections for 2014 Q4 – 2017 Q4 (broken line).
Sources: Statistics Norway and Norges Bank

Chart 2.11 Household saving and net lending as a share of disposable income. Percent. 1993 – 2017[1)]



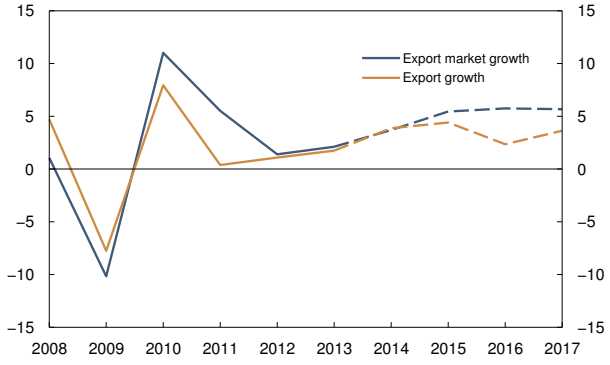
1) Projections for 2014 – 2017 (broken lines).
Sources: Statistics Norway and Norges Bank

Chart 2.12 Household consumption[1)] and real disposable income[2)]. Annual change. Percent. 2003 – 2017[3)]



1) Includes consumption for non–profit organisations. Volume.
2) Excluding dividend income. Including income for non–profit organisations.
3) Projections for 2014 – 2017.
Sources: Statistics Norway and Norges Bank

Chart 2.13 Export market growth[1)] and growth in Norwegian mainland exports. Annual change. Percent. 2008 – 2017[2)]



1) Export market growth is calculated as import growth among 25 trading partners
2) Projections for 2014 – 2017 (broken lines).
Sources: Thomson Reuters and Norges Bank

make it easier for other industries to obtain qualified labour. Wage growth is expected to drift down from 3½% in 2014 to 3¼% in 2015. The projection is in line with the expectations of enterprises in Norges Bank's regional network. Further out in the projection period, wage growth may pick up somewhat again partly owing to increased capacity utilisation.

Lower real wage growth, higher unemployment and increased uncertainty surrounding developments ahead will likely curb growth in private consumption. Lower interest rates may stimulate growth in consumer spending, but household saving is projected to remain fairly stable in the coming years (see Chart 2.11). Growth in private consumption is projected to move up from 1¾% in 2014 to 2% in 2015. Growth is projected at 2¼% in 2016 and 2¾% in 2017 (see Chart 2.12). In the coming year, business investment is expected to be lower than previously projected, reflecting lower capacity utilisation and increased uncertainty surrounding economic developments. Oil investment is expected to fall by 15% in 2015, 5% in 2016 and 2½% 2017. Housing investment, however, is expected to pick up again in the coming years owing to continued house price inflation and high population growth.

Growth in mainland exports is projected to increase from 3¾% in 2014 to 4½% in 2015, reflecting the recent krone depreciation and somewhat higher growth abroad. Further out in the projection period, exports are expected to increase on average by around 3% annually (see Chart 2.13). As the krone depreciation is phased out and global offshore investment declines, export growth may become somewhat lower than export market growth. Mainland exports will remain at higher levels than projected in the September *Report* throughout the period.

House price inflation is projected to drift down through the projection period (see Chart 2.14), in the light of prospects for lower income growth and somewhat higher unemployment. Household debt growth is expected to remain fairly stable in the coming years. Hence, there are prospects that household debt-to-income ratios will increase somewhat ahead (see Chart 2.15). Household interest burdens are expected to decline slightly in the coming year, but are then expected to increase somewhat again.

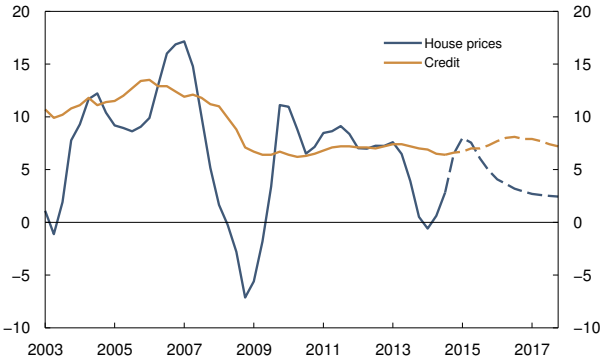
The interest rate differential against other countries is projected to narrow slightly in the coming year, but is expected to widen somewhat towards the end of the projection period. The projections are based on the assumption that the krone will appreciate somewhat further ahead (see Chart 2.16).

Consumer price inflation is projected to remain close to 2½% throughout the projection period. The depreciation of the krone through autumn 2014 may sustain the rise in prices for imported consumer goods in the coming period. Further ahead, continued low inflation abroad and a moderate appreciation of the krone may dampen the rise in prices for imported consumer goods. The rise in prices for domestically produced goods and services is expected to edge down in the coming year, and then increase somewhat again as wage growth gradually picks up.

The projections for the key policy rate, inflation, capacity utilisation and other variables are based on Norges Bank's assessment of the economic situation and of the functioning of the economy and monetary policy. There is uncertainty surrounding the projections. Monetary policy can respond to changes in the economic outlook and if relationships between the interest rate level, inflation and the real economy differ from those assumed. Hence, there is uncertainty about future interest rate developments. The uncertainty surrounding Norges Bank's projections is illustrated using fan charts (see Charts 2.7 a–d). The width of the fans reflects historical uncertainty.

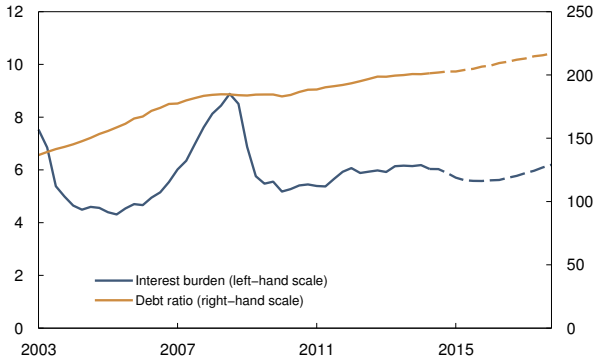
Growth in the Norwegian economy may prove to be weaker than currently envisaged. There is considerable uncertainty concerning the magnitude of the effect of lower oil prices and reduced activity in the petroleum sector on the mainland economy. Demand from the petroleum industry may decline faster than currently envisaged. This situation may materialise if oil prices stabilise at current levels or fall further. Should petroleum investment fall substantially more than currently projected, growth prospects for the Norwegian economy may weaken considerably and lead to a higher-than-projected rise in unemployment. If consumer uncertainty increases at the same time, the effects on house prices and private consumption may be substantial. Recently, the krone exchange rate has depreciated with falling oil prices, curbing

Chart 2.14 Household debt[1] and house prices.
Four–quarter change. Percent. 2003 Q1 – 2017 Q4[2]



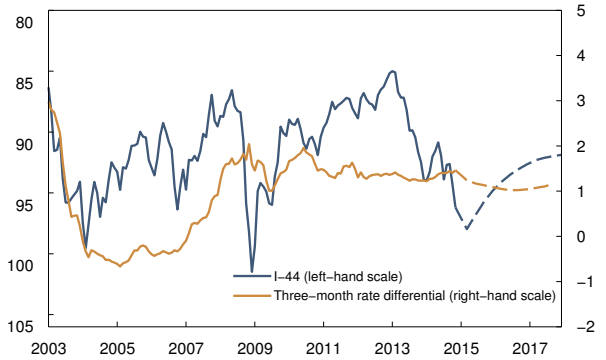
1) Domestic credit to households (C2).
2) Projections for 2014 Q4 – 2017 Q4 (broken lines).
Sources: Statistics Norway, Eiendom Norge, Eiendomsverdi, Finn.no and Norges Bank

Chart 2.15 Household debt ratio[1] and interest burden.[2]
Percent. 2003 Q1 – 2017 Q4[3]



1) Loan debt as a percentage of disposable income adjusted for estimated reinvested dividend income for 2003 – 2005 and redemption/reduction of equity capital for 2006 Q1 – 2012 Q3.
2) Interest expenses as a percentage of disposable income adjusted for estimated reinvested dividend income for 2003 – 2005 and redemption/reduction of equity capital for 2006 – 2012 Q3 plus interest expenses.
3) Projections for 2014 Q3 – 2017 Q4 (broken lines).
Sources: Statistics Norway and Norges Bank

Chart 2.16 Three–month money market rate differential between Norway[1] and trading partners and import–weighted exchange rate index (I–44).[2]
January 2003 – December 2017[3]



1) Key policy rate in the baseline scenario plus premiums in the Norwegian money market. The calculations are based on the assumption that announced interest rate changes are priced into the money market.
2) A positive slope denotes a stronger krone exchange rate.
3) Projections 2015 Q1 – 2017 Q4 (broken lines).
Sources: Thomson Reuters and Norges Bank

the effects of lower oil prices. If the krone appreciates to a considerable extent, both output and inflation will be lower than projected in this *Report*.

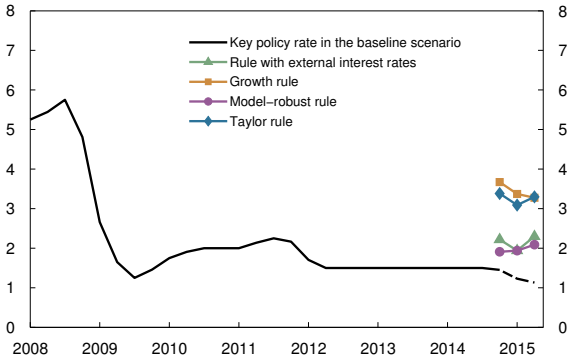
Growth in the Norwegian economy may also be stronger than currently projected. Developments in the oil market are uncertain. Should oil prices increase faster and more than futures prices indicate, petroleum investment may be higher than currently projected. Reduced uncertainty concerning developments in the Norwegian economy may boost business and consumer confidence, contributing to a faster upswing in investment and private consumption than projected in the current *Report*.

CROSS-CHECKS OF THE INTEREST RATE FORECAST

Simple monetary policy rules can describe an interest rate setting that is robust to different assumptions about the functioning of the economy. The Taylor rule is based on projections for inflation, the output gap, money market premiums and the normal interest rate level. In the growth rule, the output gap is replaced by a growth gap. Both these rules imply a key policy rate of between 3½% and 3% (see blue and orange lines in Chart 2.17). The model-robust rule[1] is based on calculations using different models for the Norwegian economy. This rule gives greater weight to the output gap and inflation than the Taylor rule. In addition, it gives weight to the interest rate in the preceding period. This rule implies a key policy rate ahead of around 2% (see purple line in Chart 2.17). A simple rule giving considerable weight to changes in the interest rate differential against other countries now implies a key policy rate of around 2% (see green line).

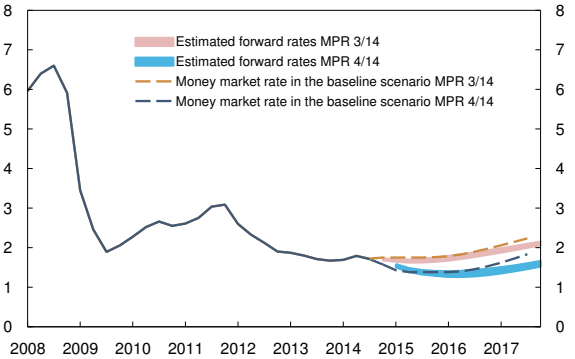
Such simple rules can be used as a cross-check of actual interest rate setting, but do not necessarily capture all the factors that are relevant for monetary policy. The Taylor rule, the growth rule and the model-robust rule do not, for example, take into account that key rates among many of Norway's trading partners are close to zero. These rules respond to the recent increase in inflation and level of activity. None of the rules captures the weaker outlook for the Norwegian

Chart 2.17 Key policy rate and interest rates based on simple monetary policy rules.[1)] Percent. 2008 Q1 – 2015 Q2



1) The calculations are based on Norges Bank's projections for the output gap, growth gap, consumer prices (CPI–ATE) and three–month money market rates for trading partners. To ensure comparability with the key policy rate, the simple rules are adjusted for risk premiums in three–month money market rates.
Source: Norges Bank

Chart 2.18 Three–month money market rate in the baseline scenario[1)] and estimated forward rates.[2)] Percent. 2008 Q1 – 2017 Q4



1) Key policy rate in the baseline scenario plus premiums in the Norwegian money market. The calculations are based on the assumption that announced interest rate changes are priced into the money market.
2) Forward rates are based on money market rates and interest rate swaps. The red and blue bands show the highest and lowest rates in the period 29 August – 11 September 2014 and 24 November – 05 December 2014.
Sources: Thomson Reuters and Norges Bank

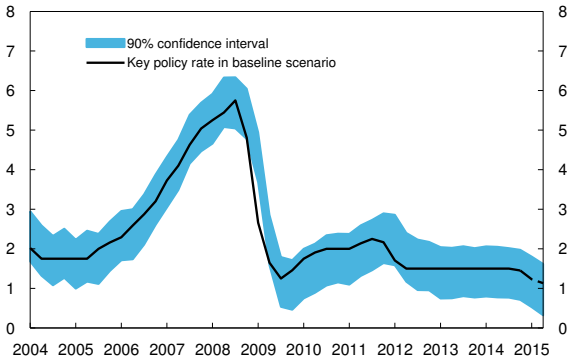
1 For a further analysis of this rule and other simple monetary policy rules, see Maria Brunborg Hoen, "The golden interest rule", *Norges Bank Staff Memo* 16/2012 and Mathias Mæhlum, "Robustifying optimal monetary policy in Norway", *Norges Bank Staff Memo* 17/2012.

economy owing to the fall in oil prices and lower activity in the petroleum sector. The difference between the interest rate path and the rate implied by the simple rules also reflects the wider-than-normal spread between bank lending rates and money market rates, which is not captured by the simple rules (see Chart 2.9).

Forward rates in the money and bond markets are another cross-check for the interest rate forecast. Estimated forward rates are in line with the forecast for the money market rate in this *Report* for the coming year. Further out in the projection period, estimated forward rates suggest that market participants expect somewhat lower money market rates than currently projected (see Chart 2.18).

A simple rule based on Norges Bank's previous interest rate setting can also serve as a cross-check for the interest rate in the baseline scenario. Chart 2.19 shows such a rule, where the key policy rate is determined by developments in inflation, wage growth, mainland GDP and external interest rates. The interest rate in the previous period is also taken into account. The parameters in this model are estimated on historical relationships. The projections are based on the estimates for the variables included in this *Report*. The uncertainty in this model is expressed by the blue band. The chart shows that the interest rate in the baseline scenario is close to the middle of this band.

Chart 2.19 Key policy rate and interest rate developments that follow from Norges Bank's average pattern of interest rate setting.[1)]
Percent. 2004 Q1 – 2015 Q2



1) Interest rate movements are explained by developments in inflation, mainland GDP growth, wage growth and three–month money market rates among trading partners, as well as the interest rate in the preciding period. The equation is estimated over the period 1999 Q1 – 2014 Q3. See *Norges Bank Staff Memo* 3/2008 for further discussion.
Source: Norges Bank

CRITERIA FOR AN APPROPRIATE INTEREST RATE PATH

Over time, Norges Bank seeks to maintain inflation close to 2.5%. In its conduct of monetary policy, Norges Bank operates a flexible inflation targeting regime so that weight is given to both variability in inflation and variability in output and employment when setting the key policy rate. This flexible inflation targeting regime builds a bridge between the long-term objective of monetary policy, which is to anchor expectations of low and stable inflation, and the more short-term consideration of stabilising the economy.

Norges Bank also emphasises the importance of a robust monetary policy. The functioning of the economy is not fully known, and there may be uncertainty regarding the state of the economy. This normally suggests a gradual approach in interest rate setting. In the event of major shocks, it may be appropriate to implement measures to reduce uncertainty and stave off particularly adverse outcomes. It may then be appropriate to pursue a more active monetary policy than normal. A robust monetary policy also takes into account the risk of a build-up of financial imbalances. Rapid growth in credit and asset prices increases the risk that financial imbalances may trigger or amplify an economic downturn.

The following set of criteria can serve as a guideline for an appropriate interest rate path:

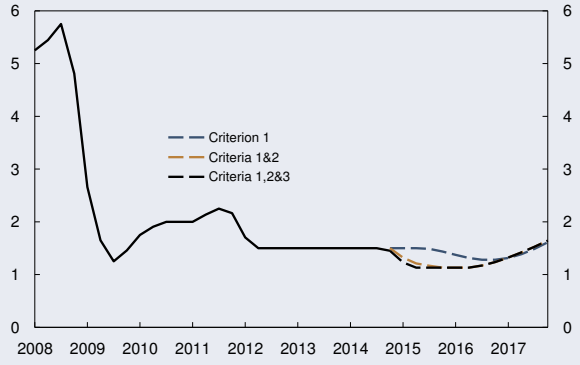
1. *The inflation target is achieved:*
   The interest rate should be set with a view to stabilising inflation at target or bringing it back to target after a deviation has occurred.

2. *The inflation targeting regime is flexible:*
   The interest rate path should provide a reasonable balance between the path for inflation and the path for overall capacity utilisation in the economy.

3. *Monetary policy is robust:*
   The interest rate should be set so that monetary policy mitigates the risk of a build-up of financial imbalances, and so that acceptable developments in inflation and output are also likely under alternative assumptions about the functioning of the economy.

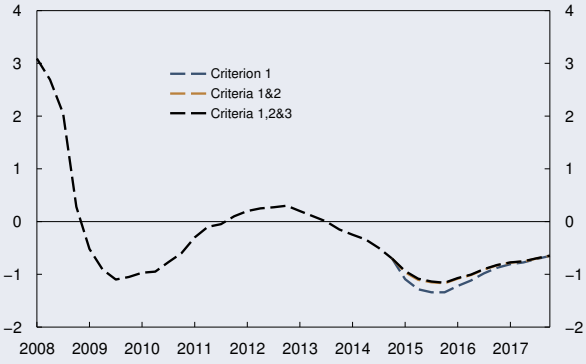
The various considerations expressed in the criteria are weighed against each other. The first two criteria reflect the flexible inflation targeting regime. The consideration of robustness is not an objective in itself, but is included because in an uncertain world taking robustness into consideration may yield improved performance in terms of inflation, output and employment over time.

Chart 2.20a Key policy rate. Percent. 2008 Q1 – 2017 Q4



Source: Norges Bank

Chart 2.20b Output gap. Percent. 2008 Q1 – 2017 Q4



Source: Norges Bank

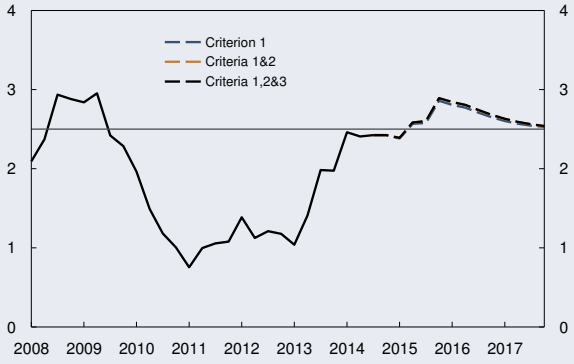
Charts 2.20 a–c illustrate how different monetary policy strategies could affect the outcome for the key policy rate, the output gap and inflation. The paths for the key policy rate that follow from the different strategies will only deviate when different monetary policy considerations are weighed against each other. The distance between the different paths for the key policy rate will therefore depend on the state of the economy, but also on the shocks to which the economy is exposed. The monetary policy response to a given shock will depend on the monetary policy strategy. For example, a central bank that focuses solely on inflation will change the policy rate more in response to higher inflation than a central bank that also gives weight to other considerations. Both the state of the economy and the shocks affecting the economy will change over time. Thus, the distance between the different policy rate paths may also change, even if the weight given to the different considerations remains the same.

Inflation is close to 2.5% and the depreciation of the krone will underpin inflation in the period ahead. If the sole objective of monetary policy were to maintain inflation at target, the key policy rate would, according to a technical model-based analysis, be kept around 1½% in the period ahead (see blue line in Chart 2.20).[1] When account is also taken of the projections for output and employment, the path for the key policy rate is lower (see orange line). This will contribute to a more stable path for output and employment.

Monetary policy should also be robust. On the one hand, a lower key policy rate may contribute to keeping the rise in house prices and household debt at a higher rate than household income. On the other hand, oil prices have fallen sharply and the growth outlook for the Norwegian economy has weakened. A lower key policy rate can counter the risk of a pronounced downturn in the Norwegian economy. In the event of major, adverse shocks, an early reduction of the key policy rate may be appropriate. On the whole, the criterion of a robust monetary policy now suggests that the baseline path should lie near the key policy rate path that follows from criteria 1 and 2 (see black line in Chart 2.20).

1 If the monetary policy response pattern is changed so that the central bank gives weight solely to keeping inflation close to the target, economic agents' inflation expectations in the model will be influenced. This alone may contribute to a change in the path of inflation. The key policy rate path that follows from criterion 1 is also assumed to result in a path for the krone exchange rate that follows developments in the interest rate differential against other countries consistent with the hypothesis of uncovered interest rate parity. It cannot be ruled out that the foreign exchange market might have reacted differently. The key policy rate path that follows from such a technical model-based calculation must thus be viewed as an illustration.

Chart 2.20c CPI–ATE.[1)] Four–quarter change. Percent. 2008 Q1 – 2017 Q4



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

CHANGES IN THE PROJECTIONS SINCE *MONETARY POLICY REPORT* 3/14

The interest rate forecast in this *Monetary Policy Report* has been revised down since the September *Report* (see Chart 2.21). The projections are based on the criteria for an appropriate interest rate path (see box on page 24), an overall assessment of the situation in the Norwegian and global economy and Norges Bank's perception of the functioning of the economy.

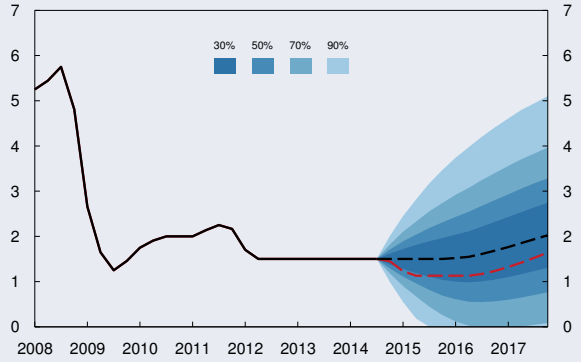
Chart 2.22 illustrates how news and new assessments have affected the interest rate forecast through their impact on the outlook for inflation, output and employment.[1] The isolated contributions of the different factors are shown by the bars in the chart. The overall change in the interest rate forecast from the September *Report* is shown by the black line.

Policy rates are close to zero among several of Norway's trading partners. Market expectations concerning policy rates ahead are a little lower than projected in the September *Report*. Lower interest rates abroad suggest that the key policy rate will also remain low in Norway for a longer period (see purple bars).

Oil prices have fallen sharply. The prospects for the Norwegian economy are therefore notably weaker than in September (see box on page 46 for further details on the effects of lower oil prices). It appears that petroleum sector activity will be lower than previously expected. Exports from the oil supplier industry may also lose momentum due to weak growth in the offshore oil industry worldwide. Employment growth will probably slow and unemployment edge up ahead. Heightened uncertainty surrounding economic developments may also restrain private consumption and business investment. Lower growth in demand will probably lead to weaker corporate earnings and reduced labour demand. As a result, wage growth in the years ahead may be lower than previously projected. Lower demand and lower wage growth point towards a lower key policy rate (see green and red bars).

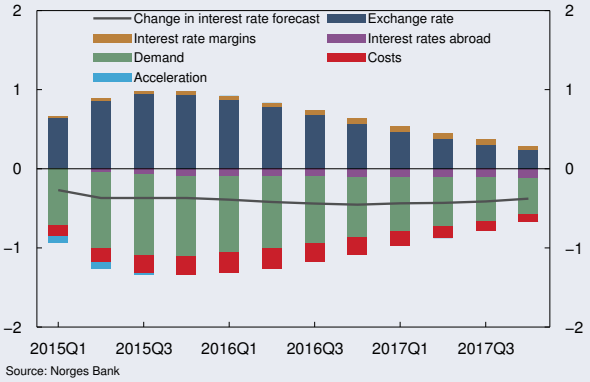
1 Illustrated using the macroeconomic model NEMO and based on the criteria for an appropriate interest rate path.

Chart 2.21 Key policy rate in the baseline scenario in MPR 3/14 with fan chart and key policy rate in the baseline scenario in MPR 4/14 (red line). Percent. 2008 Q1 – 2017 Q4



Source: Norges Bank

Chart 2.22 Factors behind changes in the interest rate forecast since MPR 3/14. Cumulative contribution. Percentage points. 2015 Q1 – 2017 Q4



Source: Norges Bank

The krone is now markedly weaker than projected in the September *Report*, reflecting in part the fall in oil prices. In isolation, a weaker krone pushes up inflation and curbs the effects of lower oil prices on the Norwegian economy. The krone depreciation points towards a higher key policy rate (see dark blue bars).

Banks have reduced residential mortgage lending rates. Bank lending margins, the spread between lending rates and money market rates, are expected to remain slighly lower than projected in the September *Report*. This suggests a higher key policy rate (see orange bars).

Developments in the Norwegian economy ahead are shrouded in uncertainty. There is a risk that developments will be considerably weaker than currently envisaged. An early reduction in the key policy rate could reduce the level of uncertainty and counteract the risk of a pronounced downturn in the Norwegian economy. This robustness consideration suggests a lower key policy rate at the beginning of the forecast period (see light blue bars).

A summary of changes in the projections of other key variables is provided in Table 1.

TABLE 1 Projections for macroeconomic aggregates in *Monetary Policy Report* 4/14. Percentage change from previous year (unless otherwise stated). Change from projections in *Monetary Policy Report* 3/14 in brackets

	2014	2015	2016	2017
CPI	2 (0)	2½ (¼)	2¾ (¾)	2½ (¼)
CPI-ATE[1]	2½ (0)	2½ (¼)	2¾ (½)	2½ (¼)
Annual wages[2]	3½ (0)	3¼ (-¼)	3½ (-½)	4 (0)
Mainland demand[3]	2¼ (¼)	2¼ (-1)	3 (-¼)	2¾ (0)
GDP, mainland Norway	2½ (¼)	1½ (-¾)	2¼ (-½)	2½ (-¼)
Output gap, mainland Norway (level)[4]	-½ (0)	-1 (-¼)	-1 (-½)	-¾ (-½)
Employment, persons, QNA	1¼ (¼)	½ (-¼)	¾ (-¼)	1¼ (0)
Registered unemployment (rate, level)	2¾ (0)	3 (0)	3¼ (¼)	3 (¼)
Level				
Key policy rate[5]	1½ (0)	1¼ (-¼)	1¼ (-¼)	1½ (-½)
Import-weighted exchange rate (I-44)[6]	93½ (1¼)	96¼ (6)	93¼ (4¼)	92 (3½)
Money market rates, trading partners[7]	¼ (0)	¼ (0)	½ (0)	¾ (0)

1 CPI-ATE: CPI adjusted for tax changes and excluding energy products.
2 Annual wage growth is based on the Technical Reporting Committee on Income Settlements' definitions and calculations.
3 Private and public consumption and mainland gross fixed investment.
4 The output gap measures the percentage deviation between mainland GDP and projected potential mainland GDP.
5 The key policy rate is the interest rate on banks' deposits in Norges Bank.
6 The weights are estimated on the basis of imports from 44 countries, which comprise 97% of total imports.
7 Market rates are based on money market rates and interest rate swaps.
Source: Norges Bank

3 DECISION BASIS FOR THE COUNTERCYCLICAL CAPITAL BUFFER

Norges Bank is responsible for preparing a decision basis and providing advice to the Ministry of Finance regarding the level of the countercyclical capital buffer four times a year. The buffer rate is set at 1%, effective from 30 June 2015 (see box below).

Norges Bank has formulated three criteria for an appropriate countercyclical capital buffer (see box on page 35). Banks should build and hold a countercyclical capital buffer when financial imbalances are building up or have built up. The buffer rate should be considered in the light of other requirements applying to banks, particularly when new requirements are introduced. In the event of an economic downturn and large bank losses, the buffer rate can be reduced to mitigate the procyclical effects of tighter bank lending.

The countercyclical capital buffer is one of several instruments that can prevent and mitigate systemic risk (see box on page 48).

DEVELOPMENTS IN CREDIT AND PROPERTY PRICES

From the mid-1990s to 2008, total household and corporate debt in the mainland economy grew markedly faster than GDP (see Chart 3.1). Since the financial crisis, credit growth has slowed somewhat and the credit indicator has remained fairly stable.

Growth in household debt was around 7% in the years following the financial crisis. Over the past year, debt growth has slowed slightly, but debt continues to rise faster than household income (see Charts 3.2 and 3.3). High and rising debt-to-income ratios increase household vulnerability to a loss of income, interest rate increases and a fall in house prices.

After falling in autumn 2013, house prices have picked up through 2014. The house price indicator edged up in Q3 (see Chart 3.4). House price inflation was particularly high in some of the summer and autumn months, and higher than the rise in household income

DECISION ON THE COUNTERCYCLICAL CAPITAL BUFFER

The level of the countercyclical capital buffer was laid down in the Regulation on the Level of the Countercyclical Capital Buffer of 12 December 2013:

"Section 1
Banks, financial undertakings and parent companies of a financial group that is not an insurance group shall as from 30 June 2015 hold a countercyclical capital buffer comprising Common Equity Tier 1 capital amounting to one (1) percentage point.

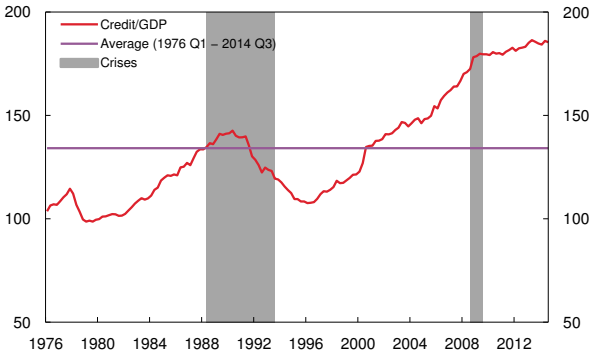
Section 2
The countercyclical capital buffer shall be calculated using the same risk-weighted assets as for the minimum regulatory capital requirement.

Section 3
This regulation enters into force immediately."

In its letter to the Ministry of Finance of 17 September 2014, Norges Bank concluded that the decision basis did not warrant a change in the buffer rate.[1] Finanstilsynet (Financial Supervisory Authority of Norway) concurred with Norges Bank's advice. The Ministry of Finance decided on 26 September to keep the buffer rate unchanged.

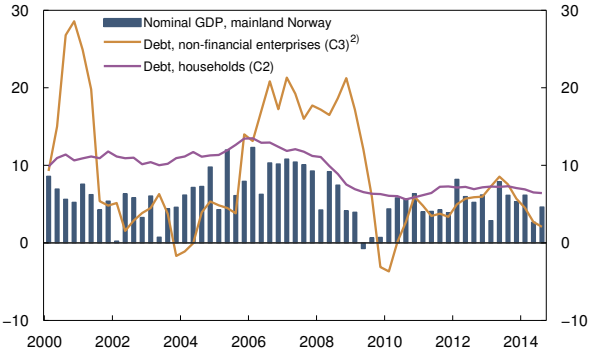
1 See "Advice on the countercyclical capital buffer, 2014 Q3", Norges Bank.

Chart 3.1 Total credit[1] mainland Norway as a share of mainland GDP.[2]
Percent. 1976 Q1 – 2014 Q3



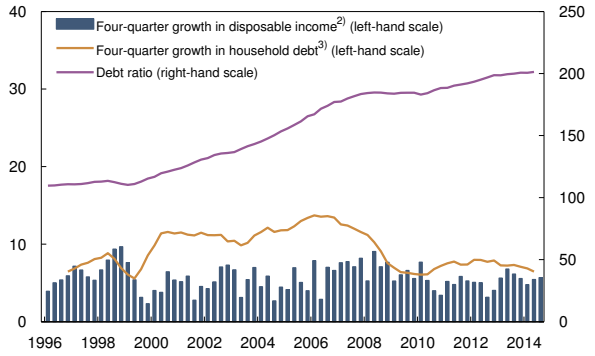
1) The sum of C2 households and C3 non-financial enterprises in mainland Norway (all non-financial enterprises pre-1995). C3 comprises C2 and foreign debt.
2) The main revision of the national accounts was published at the same time as the figures for 2014 Q3. This entails an upward revision of mainland GDP for the period 1995 Q1 – 2014 Q2. Foreign debt has also been revised up for the period 2012 Q2 – 2014 Q2. The series have been break-adjusted.
Sources: Statistics Norway, IMF and Norges Bank

Chart 3.2 Debt held by households and non-financial enterprises and mainland GDP.
Four-quarter growth.[1] Percent. 2000 Q1 – 2014 Q3



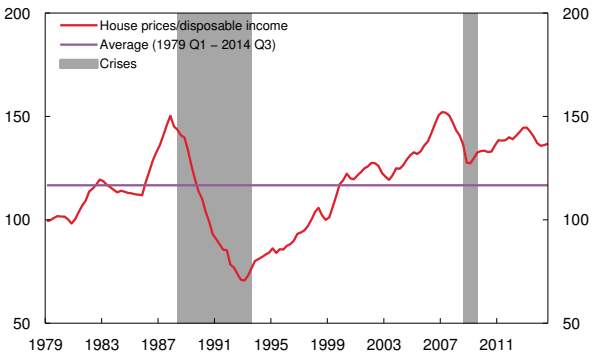
1) Change in stock of debt at the end of the quarter.
2) Sum of C2 non-financial enterprises and foreign debt in mainland Norway.
Sources: Statistics Norway and Norges Bank

Chart 3.3 Ratio of household debt to disposable income.[1]
Percent. 1996 Q1 – 2014 Q3



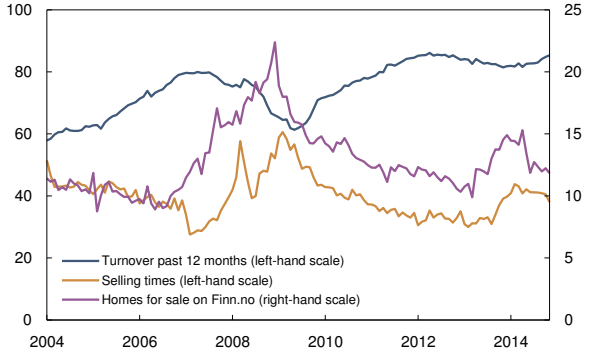
1) Loan debt for households and non-profit organisations as a percentage of disposable income, adjusted for estimated reinvested dividend income for 2000 – 2005 and redemption/reduction of equity capital for 2006 Q1 – 2012 Q3.
2) Figures for 2014 Q3 have been estimated on the basis of four-quarter growth in disposable income after Statistics Norway's main revision. Historical data have not been revised.
3) Change in stock of debt at the end of the quarter. Last observation 2014 Q2.
Sources: Statistics Norway and Norges Bank

Chart 3.4 House prices[1] relative to disposable income[2].
Indexed. 1998 Q4 = 100. 1979 Q1 – 2014 Q3



1) Quarterly figures pre-1990 are calculated by linear interpolation of annual figures.
2) Adjusted for estimated reinvested dividend income for 2000 – 2005 and redemption/reduction of equity capital for 2006 Q1 – 2012 Q3. Figures for 2014 Q3 have been estimated on the basis of four-quarter growth in disposable income after Statistics Norway's main revision. Historical data have not been revised.
Sources: Statistics Norway, Eiendom Norge, Norwegian Association of Real Estate Agents (NEF), Finn.no, Eiendomsverdi and Norges Bank

Chart 3.5 Housing turnover and homes for sale in 1000s of dwellings.
Selling times in days. Seasonally adjusted. January 2004 – November 2014



Sources: Eiendom Norge, Finn.no and Eiendomsverdi

Chart 3.6 New home sales. Four-quarter growth. Percent. 2010 Q1 – 2014 Q3

Source: Norwegian Home Builders' Association

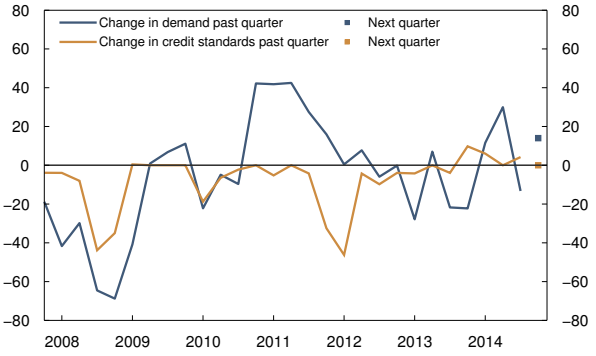
(see Chart 1.15 in Section 1). Sales of both new and existing homes have picked up (see Charts 3.5 and 3.6). At the same time, the time it takes to sell a home has decreased and the stock of unsold homes at the end of the month has fallen.

Several banks have lowered their residential mortgage lending rates this autumn. According to Finanstilsynet (Financial Supervisory Authority of Norway), the share of new mortgages with loan-to-value ratios above the recommended limit of 85% has risen in 2014. More interest-only loans are also being issued. The banks in Norges Bank's lending survey expect unchanged credit standards for the household sector in 2014 Q4 (see Chart 3.7).

Over the past year, growth in corporate debt has fallen sharply (see Chart 3.2). Growth in bank lending, which is the primary credit source for enterprises, began to decline in 2012 (see Chart 3.8). At the same time, growth in bond and note debt picked up. This contributed to sustaining overall growth in corporate debt. Growth in bond debt has slowed through 2014, without a corresponding increase in bank lending.

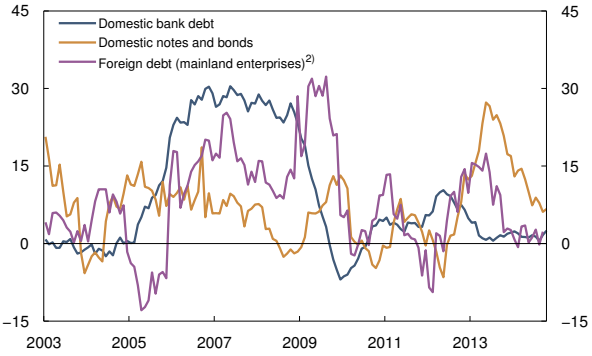
Banks' adjustments to higher capital requirements may have led enterprises to obtain more financing in the bond market. Declining risk premiums may also have contributed. In recent months, risk premiums have risen and the volume of bond issues has fallen, especially for low-grade corporate bonds. Bond and note debt now accounts for about 14% of the domestic

Chart 3.7 Changes in credit demand and banks' credit standards past quarter, and expected change next quarter.[1] Households. Percent. 2007 Q4 – 2014 Q4



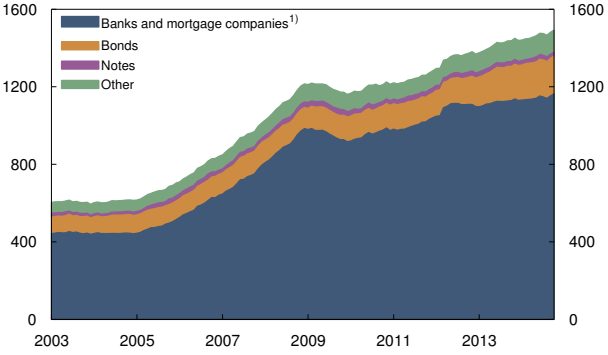
1) Negative figures denote lower demand or tighter credit standards.
Source: Norges Bank

Chart 3.8 Credit from selected funding sources to Norwegian non-financial enterprises. Twelve-month growth.[1] Percent. January 2003 – October 2014



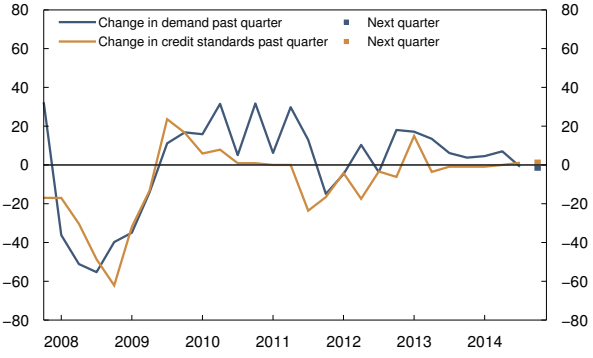
1) Change in stock of debt.
2) Growth based on transactions. To end-September 2014.
Sources: Statistics Norway and Norges Bank

Chart 3.9 Domestic credit to Norwegian non-financial enterprises (C2). Stocks of debt. In billions of NOK. January 2003 – October 2014



1) In Statistics Norway's statistics Export Credit Norway is classified as "other sources" and Eksportfinans under "mortgage companies". The classification in the chart has been changed to include both Eksportfinans and Export Credit Norway as mortgage companies.
Sources: Statistics Norway and Norges Bank

Chart 3.10 Changes in credit demand and banks' credit standards past quarter, and expected change next quarter.[1] Enterprises. Percent. 2007 Q4 – 2014 Q4



1) Negative figures denote lower demand or tighter credit standards.
Source: Norges Bank

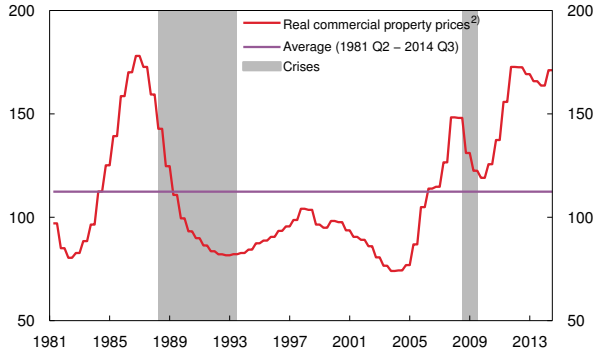
debt of Norwegian non-financial enterprises (see Chart 3.9).

The banks included in Norges Bank's lending survey expect unchanged corporate credit demand in 2014 Q4 (see Chart 3.10). Enterprises in Norges Bank's regional network expect little investment growth in the coming period. This may indicate that corporate debt growth will remain low ahead.

Norwegian banks' largest corporate credit exposure is to the commercial property market. The commercial property sector has contributed to sustaining growth in bank lending to enterprises. Recently, growth in lending to this sector has edged up.

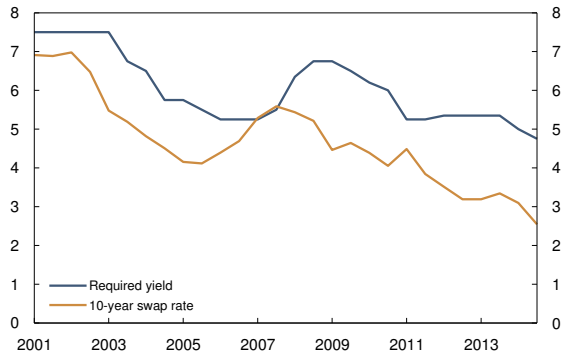
Commercial property values are dependent on net rental income and investors' required rate of return. The commercial property price indicator is based on OPAK's estimated market prices for centrally located high-standard office premises in Oslo (see Chart 3.11). According to OPAK, these prices have risen considerably since the financial crisis. OPAK's estimates are based on information from Dagens Næringsliv's (Norwegian financial daily) commercial property panel. The panel uses information about transactions and recently concluded rental contracts. According to the panel, rental prices have been fairly stable over the past year, while required yields on commercial property have declined. Lower required yields may reflect the decline in market interest rates (see Chart 3.12).

Chart 3.11 Real commercial property prices.[1)]
Indexed. 1998 = 100. 1981 Q2 – 2014 Q3



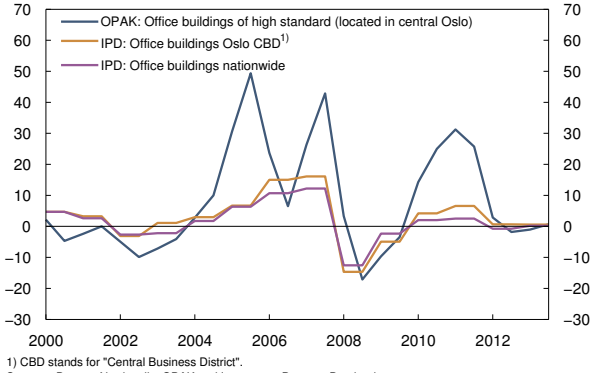
1) Estimated market prices for centrally located high-standard office premises in Oslo deflated by the GDP deflator for mainland Norway.
2) The main revision of the national accounts for the period 1995 Q1 – 2014 Q2 was published at the same time as the figures for 2014 Q3. The GDP deflator has been break-adjusted.
Sources: Dagens Næringsliv, OPAK, Statistics Norway and Norges Bank

Chart 3.12 Required yield[1)] for prime office space in Oslo and 10-year swap rate[2)].
Percent. 2001 H1 – 2014 H2



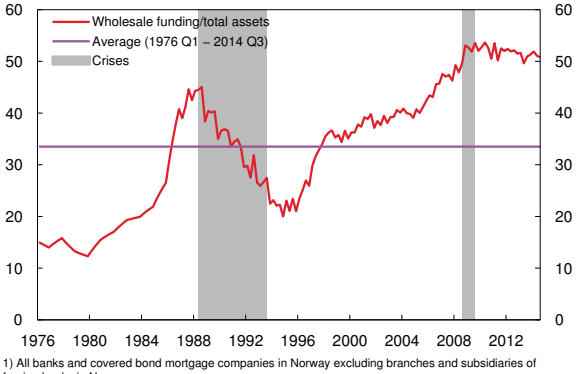
1) Yield is defined as net rental income as a percentage of a property's market price. Based on assessments by Dagens Næringsliv's expert panel for commercial property.
2) Semi-annual swap rate is calculated as an average of daily rates. The swap rate for 2014 H2 is the average of the daily rates in the period 1 July – 5 December 2014.
Sources: Dagens Næringsliv and Bloomberg

Chart 3.13 Growth in commercial property values based on different calculation methods. Annual growth. 2000 H1 – 2013 H2



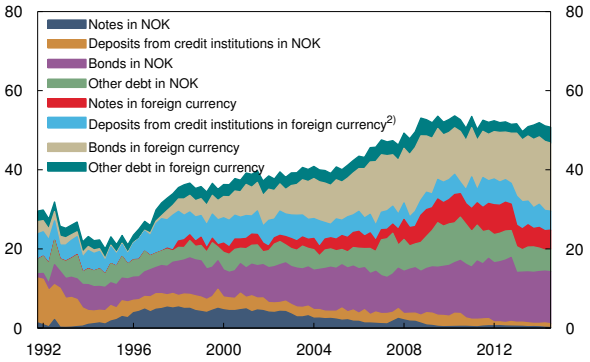
1) CBD stands for "Central Business District".
Sources: Dagens Næringsliv, OPAK and Investment Property Databank

Chart 3.14 Banks'[1)] wholesale funding as a share of total assets.[2)]
Percent. 1976 Q1 – 2014 Q3



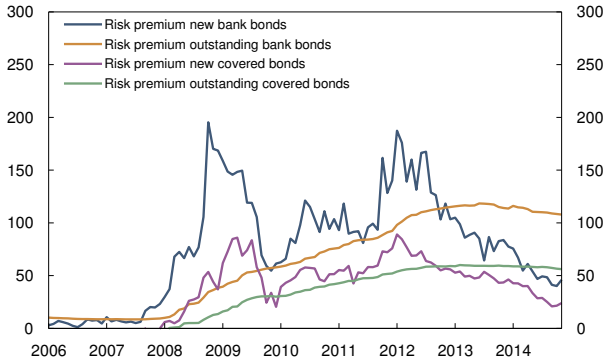
1) All banks and covered bond mortgage companies in Norway excluding branches and subsidiaries of foreign banks in Norway.
2) Quarterly figures pre-1989 are calculated by linear interpolation of annual figures.
Source: Norges Bank

Chart 3.15 Decomposition of banks'[1] wholesale funding share.
As a percentage of total assets. 1991 Q4 – 2014 Q3



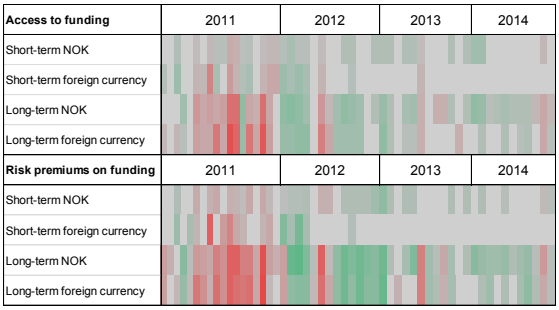
1) All banks and covered bond mortgage companies in Norway excluding branches and subsidiaries of foreign banks in Norway.
2) Deposits from credit institutions include deposits from central banks.
Source: Norges Bank

Chart 3.16 Average risk premiums[1] on new and outstanding bond debt for Norwegian banks. Basis points. January 2006 – November 2014



1) Difference against 3-month NIBOR.
Sources: Bloomberg, Stamdata, DNB Markets and Norges Bank

Chart 3.17 Banks' qualitative assessment of access to and premiums on wholesale funding.[1] January 2011 – November 2014



1) Average of reporting banks in Norges Bank's liquidity survey. For short-term funding in foreign currency, only banks active in these markets are included. Red indicates reduced access and higher premiums, grey indicators unchanged, green indicates increased access and lower premiums.
Source: Norges Bank

The Investment Property Databank (IPD) estimates property values on the basis of assessments obtained from property companies' financial statements. IPD does not differentiate between properties on the basis of standard. Property value estimates based on accounting figures have historically shown more stable developments (see Chart 3.13).

Ample access to wholesale funding made it easier for Norwegian banks to finance strong lending growth in the years prior to the financial crisis. In recent years, high deposit growth, combined with moderate lending growth, has had a stabilising effect on the share of wholesale funding in the banking sector (see Chart 3.14). Bond debt, primarily in the form of covered bonds, has accounted for an increasing share of wholesale funding (see Chart 3.15). Risk premiums on banks' long-term wholesale funding have generally declined in recent years (see Chart 3.16). The banks in Norges Bank's liquidity survey have recently reported somewhat more limited access to and slightly higher premiums on long-term wholesale funding (see Chart 3.17).

The four indicators of developments in credit and property prices are at historically high levels (see Charts 3.1, 3.4, 3.11 and 3.14). They are also higher than most of the estimated long-term trends (see box on page 36). This indicates that financial imbalances have built up. The gap between the indicators and the estimated trends has narrowed in recent years, but the trend estimates are uncertain. Norges Bank's early warning models show that the probabilities of a crisis increased markedly in the years prior to the financial crisis, but that they have declined since then (see Chart 3.21).

The analyses suggest that financial imbalances as a whole are no longer building up. Recent housing market developments and changes in bank credit standards may increase household vulnerability. Should house prices continue to rise markedly faster than household income, financial imbalances may increase again.

THE BANKING SECTOR

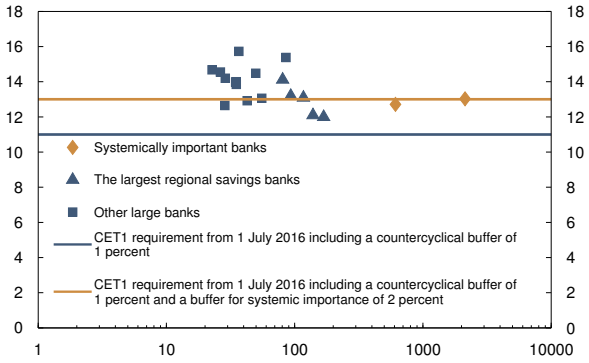
The largest Norwegian banks[1] posted solid earnings for 2014 Q3. High net interest income and low loan losses have contributed to sound profitability. Return on equity was 14.2% in Q3, compared with 12.6% in Q2. Over the past 20 years, return on equity has averaged around 13%.[2]

Banks have strengthened their capital ratios over the past year. The largest Norwegian banks combined have a CET1 ratio of 12.9% if profits from the first three quarters of the year are added in full to CET1. This represents an increase of 1.4 percentage points since 2013 Q3.

Since 1 July 2014, the required CET1 ratio for Norwegian financial institutions is 10%. Under the measures now adopted, banks will be required to hold a countercyclical capital buffer of 1% as from 1 July 2015. Systemically important banks will face an additional requirement of 1% as from 1 July 2015 and 2% as from 1 July 2016. The total requirement for systemically important banks will be 12% in 2015 and 13% in 2016. Most of the elements of the new capital adequacy regulations are now in place (see box on page 34).

At the end of Q3, all large Norwegian banking groups satisfied the required CET1 ratio by an ample margin (see Chart 3.18). Banks are also well positioned to meet future requirements.

Chart 3.18 Banking groups'[1)] Common Equity Tier 1 (CET1) capital ratios. Percent. Total assets.[2)] In billions of NOK. At 30 September 2014[3)]



1) Banking groups with total assets in excess of NOK 20bn, excluding branches of foreign banks in Norway.
2) Logarithmic scale.
3) Assuming that profits to and including 2014 Q3 are added in full to CET1 capital.
Sources: Banking groups' quarterly reports and Norges Bank

1 The seven largest Norwegian banking groups: DNB Bank, Nordea Bank Norge, SpareBank 1 SR-Bank, Sparebanken Vest, SpareBank 1 SMN, Sparebanken Sør and SpareBank 1 Nord-Norge.

2 See Per Atle Aronsen, Monique Erard, Kjell Bjørn Nordal and Lars-Tore Turtveit (2014): "Norwegian banks' adjustment to stricter capital and liquidity regulation", *Staff Memo* 18/2014, Norges Bank.

CHANGES TO NORWEGIAN CAPITAL ADEQUACY REGULATIONS

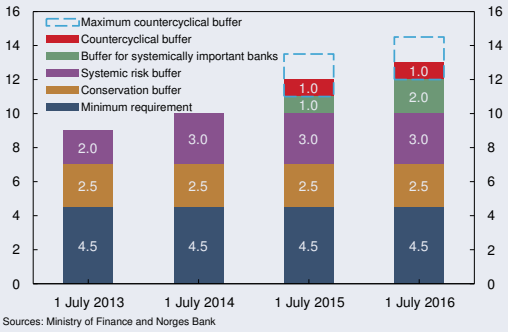
EU capital adequacy legislation (CRD IV/CRR) entered into force on 1 January 2014. The legislation will eventually apply in Norway through the EEA Agreement. The capital and buffer requirements in the legislation entered into force in Norway on 1 July 2013 (see the timetable for the phasing-in of the requirements in Chart 3.19). Subsequently, a number of clarifications have been issued regarding the capital adequacy regulations Norwegian banks are facing.

On 12 May 2014, the Ministry of Finance designated DNB ASA, Nordea Bank Norge ASA and Kommunalbanken AS[1] as systemically important. For systemically important financial institutions, the required CET1 ratio will be raised by an additional 1 percentage point as from 1 July 2015 and 2 percentage points as from 1 July 2016. Finanstilsynet (Financial Supervisory Authority of Norway) will by the end of the first quarter each year provide advice to the Ministry of Finance as to which banks should be designated as systemically important. Financial institutions with total assets of at least 10% of mainland GDP and/or at least a 5% market share of the lending market in Norway are, as a main rule, to be designated as systemically important.[2]

This year, new rules have also been introduced for calculating residential mortgage risk weights. Banks using the Internal Ratings Based (IRB) approach were required as from 1 January 2014 to use a minimum loss-given-default (LGD) rate of 20%. This resulted in an increase in residential mortgage risk weights for all Norwegian IRB banks. On 1 July, Finanstilsynet announced new requirements for calculating probability-of-default (PD).[3] These changes must be incorporated into banks' models over the course of the second half of 2014 and will be reflected in banks' reported capital ratios for 2015 Q1. According to Finanstilsynet, the risk weights on residential mortgage portfolios will increase from 10%–15% at the end of 2013 to 20%–25% as a result of the changes in IRB models. The impact on banks' capital ratios will depend on the extent to which they are bound by the transitional rule.[4] For IRB banks that are still bound by the rule, the increase in residential mortgage weights does not entail a change in capital ratios. For banks that are not bound by the transitional rule, the increase in residential mortgage weights will result in higher risk-weighted assets and hence lower capital ratios.

On 22 August 2014, the Ministry of Finance issued regulations for the implementation of several of the remaining provisions of the EU capital adequacy legislation pending their incorporation into the EEA Agreement. Implementation will then have to be reassessed. At the same time, the Ministry of Finance decided that the SME discount, whereby banks are not required to hold a capital conservation buffer for loans to small and medium-sized enterprises, will not be included in Norwegian regulations. It was also decided that the systemic risk buffer requirement will apply to both the domestic and foreign exposures of Norwegian systemically important banks.

Chart 3.19 Common Equity Tier 1 capital requirements in the new regulatory framework. Percent. 1 July 2013 – 1 July 2016



Sources: Ministry of Finance and Norges Bank

1 Kommunalbanken AS is a wholly state-owned limited company that provides loans to the municipal sector in Norway.
2 See *Forskrift om identifisering av systemviktige finansinstitusjoner* (Regulation on the designation of systemically important financial institutions), Ministry of Finance 2014 (Norwegian only).
3 See Finanstilsynet's press release 22/2014.
4 Under the transitional rule, the sum of risk-weighted assets for IRB banks must be at least 80% of the level that would have applied under Basel I. Under CRD IV, the transitional rule will continue to apply until 2017.

CRITERIA FOR AN APPROPRIATE COUNTERCYCLICAL CAPITAL BUFFER[1]

The countercyclical capital buffer requirement should satisfy the following criteria:

1. *Banks should become more resilient during an upturn*

2. *The size of the buffer should be viewed in the light of other requirements applying to banks*

3. *Stress in the financial system should be alleviated*

The countercyclical capital buffer should be increased when financial imbalances are building up or have built up. This will strengthen the resilience of the banking sector to an impending downturn and strengthen the financial system. Moreover, a countercyclical capital buffer may curb high credit growth and mitigate the risk that financial imbalances trigger or amplify an economic downturn.

Experience from previous financial crises in Norway and other countries shows that both banks and borrowers often take on considerable risk in periods of strong credit growth. In an upturn, credit that rises faster than GDP will signal a build-up of imbalances. Rising house and property prices tend to go hand in hand with increasing debt growth. When banks grow rapidly and fund new loans directly in the financial market, systemic risk may increase.

Norges Bank's advice to increase the countercyclical capital buffer will primarily be based on four key indicators: i) the ratio of total credit (C2 households and C3 mainland non-financial enterprises) to mainland GDP, ii) the ratio of house prices to household disposable income, iii) commercial property prices and iv) the wholesale funding ratio of Norwegian credit institutions.[2] The four indicators have historically risen ahead of periods of financial instability.

As part of the basis for advice on the countercyclical capital buffer, Norges Bank will analyse developments in the key indicators and compare the current situation with historical trends (see box on page 36). Norges Bank's advice will also build on recommendations from the European Systemic Risk Board (ESRB). Under the EU Capital Requirements Directive (CRD IV), national authorities shall calculate a reference rate (a buffer guide) for the countercyclical buffer on a quarterly basis.

There will not be a mechanical relationship between the indicators, the gaps or recommendations from the ESRB[3] and Norges Bank's advice on the countercyclical capital buffer. The advice will be based on the Bank's professional judgement, which will also take other factors into account. Other requirements applying to banks will be a part of the assessment, particularly when new requirements are introduced.

The countercyclical capital buffer is not an instrument for fine-tuning the economy. The buffer rate should not be reduced automatically even if there are signs that financial imbalances are receding. In long periods of low loan losses, rising asset prices and credit growth, banks should normally hold a countercyclical buffer.

The buffer rate can be reduced in the event of an economic downturn and large bank losses. If the buffer functions as intended, banks will tighten lending to a lesser extent in a downturn than would otherwise be the case. This may mitigate the procyclical effects of tighter bank lending. The buffer rate will not be reduced to alleviate isolated problems in individual banks.

The key indicators are not well suited to signalling when the buffer rate should be reduced. Other information, such as market turbulence and loss prospects for the banking sector, will then be more relevant.

1 See also "Criteria for an appropriate countercyclical capital buffer", *Norges Bank Papers* 1/2013.

2 As experience and insights are gained, the set of indicators can be developed further.

3 *ESRB Recommendation on guidance for setting countercyclical buffer rates* was published on 30 June 2014.

MEASURING FINANCIAL IMBALANCES AND BUFFER GUIDE[1]

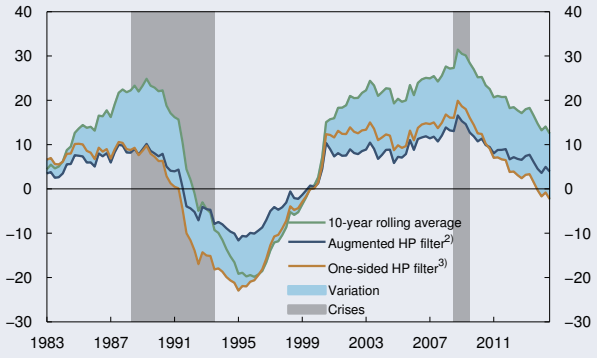
Norges Bank analyses developments in four key indicators and compares the current situation with long-term trends. There is considerable uncertainty related to trend calculations and hence to measures of financial imbalances. Given this uncertainty, different methods of calculating trends have been considered.

Norges Bank has so far used three methods to calculate trends[2]: a one-sided Hodrick-Prescott (HP) filter as applied by the Basel Committee on Banking Supervision, a one-sided HP filter estimated on data augmented with a simple projection, and historical averages. For house prices relative to disposable income and real commercial property prices, the average is calculated recursively throughout the

1 See also "Criteria for an appropriate countercyclical capital buffer", *Norges Bank Papers* 1/2013.

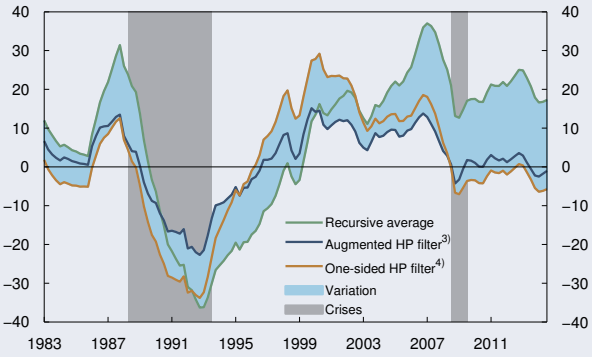
2 For further details, see box on measuring financial imbalances on page 30 in *Monetary Policy Report* 2/2013.

Chart 3.20a Credit gap. Total credit[1)] mainland Norway as a share of mainland GDP. Deviation from estimated trends. Percentage points. 1983 Q1 – 2014 Q3



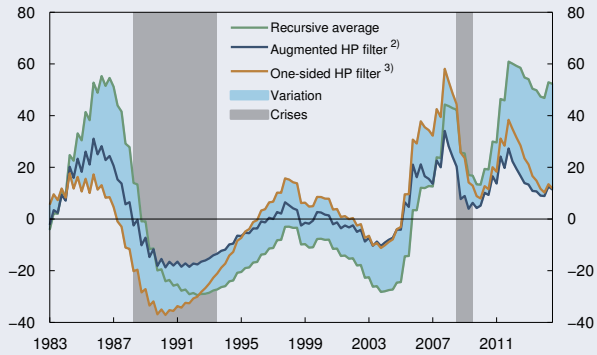
1) The sum of C2 households and C3 non-financial enterprises in mainland Norway (all non-financial enterprises pre-1995). C3 comprises C2 and foreign debt.
2) One-sided Hodrick-Prescott filter estimated on data augmented with a simple projection. Lambda = 400 000.
3) One-sided Hodrick-Prescott filter. Lambda = 400 000.
Sources: Statistics Norway, IMF and Norges Bank

Chart 3.20b House price gap. House prices[1)] relative to disposable income[2)]. Deviation from estimated trends. Percent. 1983 Q1 – 2014 Q3



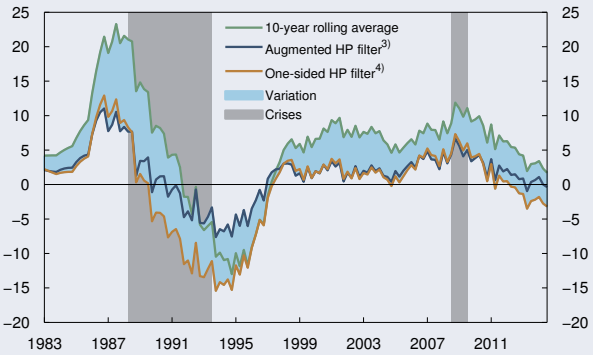
1) Quarterly pre-1990 figures are calculated by linear interpolation of annual figures.
2) Adjusted for estimated reinvested dividend income for 2000 – 2005 and redemption/reduction of equity capital for 2006 Q1 – 2012 Q3.
3) One-sided Hodrick-Prescott filter estimated on data augmented with a simple projection. Lambda = 400 000.
4) One-sided Hodrick-Prescott filter. Lambda = 400 000.
Sources: Statistics Norway, Eiendom Norge, Norwegian Association of Real Estate Agents (NEF), Finn.no, Eiendomsverdi and Norges Bank

Chart 3.20c Commercial property price gap. Real commercial property prices[1)] as deviation from estimated trends. Percent. 1983 Q1 – 2014 Q3



1) Estimated market prices for office premises in Oslo deflated by the GDP deflator for mainland Norway.
2) One-sided Hodrick-Prescott filter estimated on data augmented with a simple projection. Lambda = 400 000.
3) One-sided Hodrick-Prescott filter. Lambda = 400 000.
Sources: Dagens Næringsliv, OPAK, Statistics Norway and Norges Bank

Chart 3.20d Wholesale funding gap. Banks[1)] wholesale funding as a share of total assets.[2)] Deviation from estimated trends. Percentage points. 1983 Q1 – 2014 Q3



1) All banks and covered bond mortgage companies in Norway excluding branches and subsidiaries of foreign banks in Norway.
2) Quarterly figures pre-1989 are calculated by linear interpolation of annual figures.
3) One-sided Hodrick-Prescott filter estimated on data augmented with a simple projection. Lambda = 400 000.
4) One-sided Hodrick-Prescott filter. Lambda = 400 000.
Source: Norges Bank

period. For credit relative to GDP and banks' share of wholesale funding, a 10-year rolling average is used.

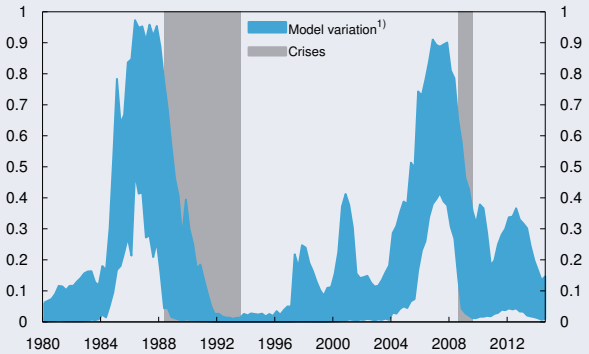
Chart 3.20 a shows the credit indicator as deviation from the estimated trends. The gaps between indicator and trends have narrowed in recent years, but the indicator is still higher than two out of three trends. While the credit indicator was fairly stable in the years following the financial crisis, the trend calculated using the one-sided HP filter has continued to rise rapidly. If the rate of growth prevailing prior to the financial crisis is not sustainable, this method may underestimate financial imbalances. Experience shows that the credit gap is a better leading indicator of crises when the trend is based on an augmented HP filter. Charts 3.20 b–d show developments in the other key indicators as deviations from calculated trends.

Norges Bank has developed early warning models for financial crises based on the indicators for developments in credit and property prices (see box on page 40 of *Monetary Policy Report* 3/2014). The blue area in Chart 3.21 shows estimated crisis probabilities based on a large number of combinations of explanatory variables and trend estimation methods. The chart shows that estimated crisis probabilities have declined since the financial crisis, but that the spread between the predictions is considerable.

The Basel Committee has proposed a simple rule for calculating a reference rate for the countercyclical capital buffer based on the credit-to-GDP ratio.[3] Under the rule, the buffer will be activated when the credit gap exceeds 2 percentage points. When the credit gap is between 2 and 10 percentage points, the reference rate for the buffer requirement will vary linearly between 0% and 2.5%. When the credit gap is 10 percentage points or more, the reference rate will be 2.5%. The reference rate for the buffer requirement is 0% in 2014 Q3 when the trend is calculated using a one-sided HP filter. When the trend calculation is based on an augmented HP filter, the reference rate is ½% (see Chart 3.22).

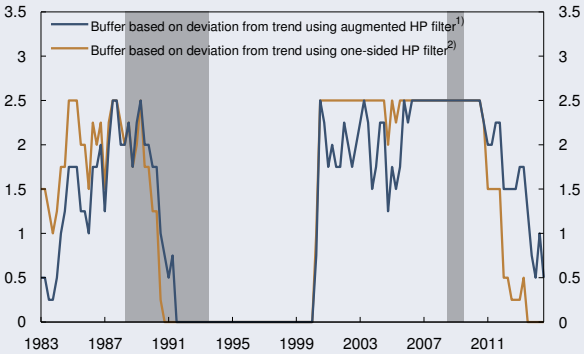
3 See *Guidance for national authorities operating the countercyclical capital buffer*, Basel Committee on Banking Supervision (2010), Bank for International Settlements.

Chart 3.21 Estimated crisis probabilities from various model specifications. 1980 Q1 – 2014 Q3



1) Model variation is represented by the highest and lowest crisis probability based on different model specifications and trend calculations.
Source: Norges Bank

Chart 3.22 Reference rates for the countercyclical capital buffer under alternative trend estimates. Percent. 1983 Q1 – 2014 Q3



1) One-sided Hodrick-Prescott filter estimated on data augmented with a simple projection. Lambda = 400 000.
2) One-sided Hodrick-Prescott filter. Lambda = 400 000.
Sources: Statistics Norway, IMF and Norges Bank

BOXES

INTERNATIONAL ECONOMY – DEVELOPMENTS IN DIFFERENT REGIONS AND COUNTRIES

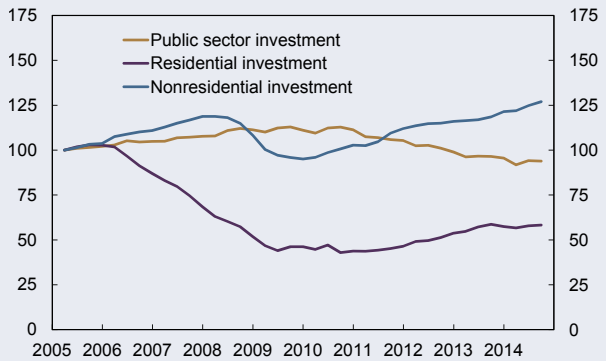
The US economy is still showing solid growth. Increased business investment has contributed to sustaining the pace of growth over the past year, while developments in both housing and public investment have been weak (see Chart 1). Some of the improvement in business investment probably reflects strong growth in shale gas and oil production, which has made a positive contribution to the US economy, both directly through demand growth and indirectly through lower energy costs for domestic manufacturing firms. Lower oil prices contribute to higher growth projections for private consumption compared with the September *Report*. Looking ahead, GDP is expected to pick up further in the years ahead, against the background of favourable labour market conditions, continued strengthening of household finances and somewhat higher contributions to growth from the public sector (see Annex Table 3).

The recovery in the euro area appears to be weaker than previously expected, partly reflecting lower growth rates in the second half of 2014, but also somewhat weaker growth prospects for the beginning of 2015. However, revised figures show that growth in the first half of 2014 was somewhat stronger than previously projected. Overall, growth in 2014 is projected at ¾%, as in the September *Report*.

For the euro area as a whole, GDP rose by 0.2% in Q3, and current indicators suggest that the pace of growth will remain approximately unchanged into Q4. Of the large euro area countries, growth is highest in Spain (see Chart 2). The pace of recovery over the past year has been considerably faster than expected and growth projections for 2014 and 2015 have been revised up. While unexpectedly solid growth in domestic demand has driven the upward revision for Spain, developments in Germany, France and Italy have moved in the opposite direction. In the latter countries, growth projections for private consumption and investment have been revised down through the past year. In addition, export growth in 2014 has been lower than previously expected for all the large euro area countries. For Germany, the pace of growth is expected to remain approximately unchanged between 2014 and 2015. For France and Italy, growth is expected to remain low in 2015, despite a small improvement from 2014.

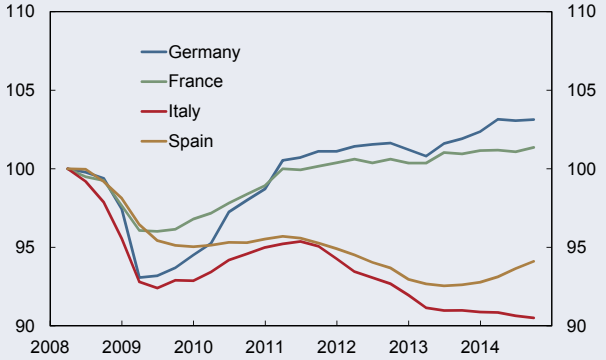
For the euro area as a whole, it appears that growth in 2015 will be somewhat lower than previously projected. The downward revision primarily reflects lower-than-expected investment growth. Growth in private consumption, on the other hand, appears to be continuing at a sustained pace, supported by a gradual improvement in employment and real income

Chart 1 US. Public sector, residential and nonresidential investment. Index. 2005 Q1 = 100. 2005 Q1 – 2014 Q3



Source: Thomson Reuters

Chart 2 GDP in some euro area countries. Index. 2008 Q1 = 100. 2008 Q1 – 2014 Q3



Source: Thomson Reuters

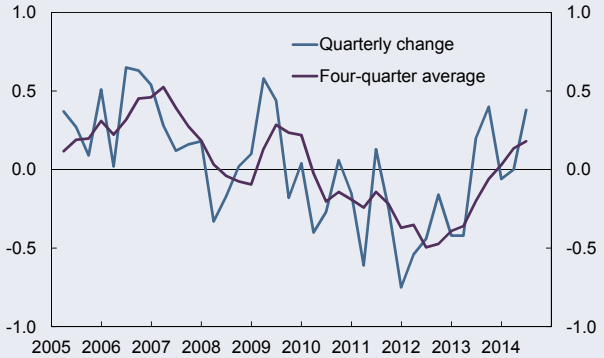
growth (see Chart 3). Lower oil prices will make a positive contribution to consumer purchasing power and will also curb cost inflation in the business sector.

Looking ahead, the most recent measures taken by the European Central Bank (ECB), a gradual improvement in funding conditions and less contractionary fiscal policy will contribute to sustaining demand in the euro area (see Chart 4). On the other hand, continued high unemployment and the need for deleveraging in the public and private sector will continue to dampen the pace of growth. Exports are expected to rise as a result of higher global demand growth and a weaker euro. The growth contribution from net exports is expected to remain positive, but smaller than in previous years.

Since 2009 growth in euro area investment has been considerably weaker than normal following a downturn (see Chart 5). An unusually high level of uncertainty regarding the economic situation, weak developments in the housing market in many countries and high debt ratios in the business sector are probably important factors behind the low willingness to invest. In a number of countries, the fiscal crisis also contributed to higher costs and reduced access to funding for the banking sector. This led to tighter credit conditions for enterprises. However, the pace of corporate deleveraging has now fallen, and the ECB bank lending survey for Q3 reported rising credit demand and an easing of banks' credit standards. In addition, the completion of the combined stress test and asset quality review of the banking sector conducted by the ECB and the European Banking Authority (EBA) may have a positive effect on lending growth ahead. Banks may have made balance sheet adjustments before the review, and increased confidence in the financial strength of the banking sector may push down bank funding costs.

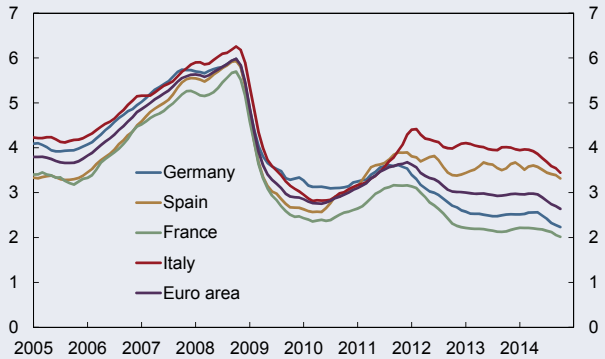
The UK economy has shown solid growth for seven consecutive quarters. Revised national accounts figures show that GDP is now higher than before the crisis. The service sector is still the main driver of growth, but activity has also picked up in manufacturing. The labour market has continued to improve with a further fall in unemployment and solid growth in employment. Wage growth has picked up in recent months, but is still no higher than 1¼% in spite of the fact that unemployment has fallen for the past three years. Higher investment is expected to pull up productivity growth ahead. The UK economy is expected to grow solidly, albeit at a somewhat slower pace as capacity utilisation picks up, monetary policy is tightened and planned fiscal cuts are implemented by the government.

Chart 3 Euro area. Real gross disposable income of households.
Percentage change from previous quarter. 2005 Q1 – 2014 Q2



Source: Thomson Reuters

Chart 4 Euro area. Borrowing costs for enterprises.
Three-month moving average of ECB's cost-of-borrowing indicator for non-financial corporations. January 2005 – October 2014



Sources: ECB and Norges Bank

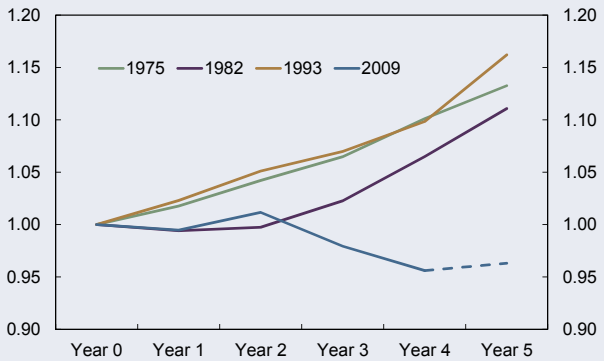
Revised figures show that GDP growth in Sweden was stronger in the first half of 2014 than previously projected. However, the pace of growth slowed somewhat in the second half of the year. The recovery continues to be driven by solid growth in private consumption and housing investment. Persistently low growth among Sweden's main trading partners has contributed to weak developments in manufacturing output and business investment. Overall, GDP growth is expected to be somewhat higher in 2014 than envisaged in the September *Report*. Household demand is expected to continue to be the main driver of economic growth. Since the publication of the September *Report*, the Riksbank has reduced its policy rate to zero. Low interest rates, falling oil prices and prospects for solid income and employment growth are boosting the purchasing power of consumers. Population growth and housing shortages will, combined with low interest rates, probably contribute to a continued rise in house prices and solid growth in housing investment. On the other hand, growth in business investment is set to be lower than anticipated in the September *Report*, primarily as a result of weaker demand from surrounding trading partners in Europe. Although this effect is being counteracted to some extent by the fall in oil prices and a weaker exchange rate, net exports are expected to make a negative contribution to growth in both 2014 and 2015. Overall, GDP growth is expected to be 3% in 2015, as in the September *Report*.

Consumer price inflation in the US and Europe has been lower than projected in the September *Report,* primarily reflecting lower energy and food prices. The fall in oil spot and futures prices has also pulled down inflation projections for 2015 (see Annex Table 4). In Sweden, inflation has been surprisingly low across many product groups, indicating that price pressures in the Swedish economy are lower than previously assumed. Combined with prospects for continued low inflation internationally, this contributes to a considerable downward revision of Norges Bank's inflation projections for Sweden for the next two years.

GDP in Japan has fallen for two consecutive quarters. Private consumption growth has been even weaker than expected after the sales tax increase in April, and private investment fell in both Q2 and Q3. The inflation outlook has deteriorated somewhat recently and the Bank of Japan has taken further monetary policy measures. Monetary policy easing, combined with lower oil prices, is expected to make a positive contribution to growth in Japan ahead.

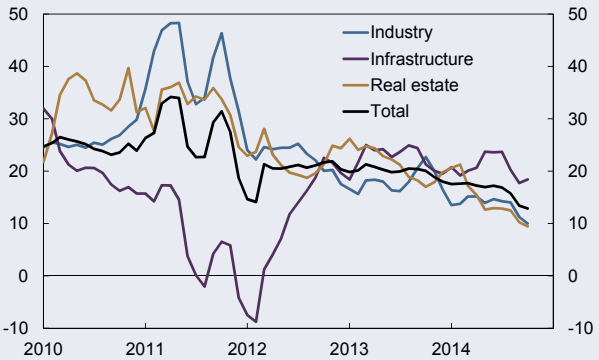
Four-quarter GDP growth in China was 7.3% in Q3, down from 7.5% in Q2. The contribution to growth

Chart 5 Euro area. Level of investment around recessions. Index. Set at 1 at trough of business cycle[1]. Norges Bank's projections for 2014



1) CEPR has dated the most recent peak at 2011 Q3. The most recent trough has yet to be identified.
Sources: CEPR, Eurostat and Norges Bank

Chart 6 Fixed asset investment in China. Value. Three-month moving average.



Sources: CEIC and Norges Bank

from investment so far this year is the lowest since the beginning of the 2000s. This reflects lower growth in housing investment after several years of rapidly growing residential construction following the financial crisis (see Chart 6). House prices have continued to fall in recent months, while home sales and housing starts have increased somewhat as a result of measures implemented by the authorities, including easing home purchase restrictions. Housing starts have nonetheless been 10% lower so far this year than in the same period in 2013, contributing to lower growth also in manufacturing segments. Real growth in retail trade has remained robust, at an annual rate of about 10% in recent months. Exports have picked up and have in recent months been more than 10% higher than in the same period in 2013. In particular, exports have risen to the US, Europe and Asia excluding Japan. Looking ahead, growth in export-oriented manufacturing is expected to continue, while the negative spillovers from the slowdown in the housing sector will recede. China is also one of the countries that will benefit from the fall in oil prices. Overall, this contributes to an upward revision in projected GDP growth for China of ¼ percentage point to 7% in 2015. In the longer term, the pace of growth is expected to slow to below 7% as a result of lower growth in the urban labour force and a further decline in the pace of investment.

Growth has also slowed somewhat in other emerging economies. Both manufacturing output and private consumption have shown lower growth in recent months. The softening in private consumption must be viewed in the context of moderating wage growth in several countries (see Chart 7). Many firms need to cut costs after a build-up of excess capacity. Low capacity utilisation is reflected in falling producer prices in most major Asian economies. Bank lending surveys show that demand for new loans is now softening after several years of rapid debt growth in the business sector. Net oil-importing countries will benefit from considerable terms of trade gains due to lower oil prices. Among countries with above-target inflation, the fall in oil prices will also provide monetary policy leeway. Growth prospects for Brazil and Russia have deteriorated further, while exchange rate depreciation is pushing up inflation (see Chart 8). Central bank policy rates have been raised in both countries. In Russia, oil accounts for more than half of exports. Even though some of the decrease in income is being counteracted by a weaker exchange rate, profits, wages and oil tax revenues are expected to fall. The downward revision of growth prospects for Russia and Brazil entails a downward revision of the projection for emerging economies in the years ahead.

Chart 7 Emerging markets. Real wage growth. Four-quarter change. Four-quarter moving average. Percent. 2005 Q1 – 2014 Q3

1) Brazil, Russia, Indonesia, Thailand, Hong Kong and Singapore. GDP-weighted.
Sources: CEIC, Thomson Reuters and Norges Bank

Chart 8 Brazil and Russia. Annualised quarterly GDP growth. Three-quarter moving average. Twelve-month rise in consumer prices. Percent. January 2010 – November 2014

Sources: CEIC and Norges Bank

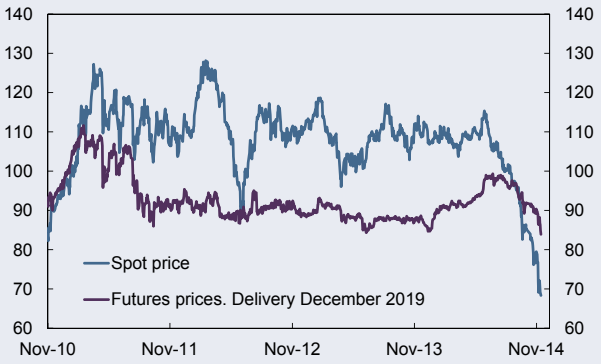
THE FALL IN OIL PRICES

Oil prices have declined by around 35% from an average of USD 109 in the first half of 2014, to around USD 70 at the beginning of December. The fall in futures prices has been less pronounced (see Chart 1). The decline in oil prices in krone terms is also considerably smaller owing to a 16% depreciation of the Norwegian krone against the US dollar.

The drop in oil prices reflects both demand-side and supply-side factors in the oil market. Weaker global economic developments have curbed growth in oil demand in recent years. At the same time, non-OPEC production of oil, particularly in the US, has risen sharply. This was offset for a long time by unplanned oil production outages in both OPEC and non-OPEC countries owing to military conflicts, sanctions and technical problems, etc. (see Chart 2). Uncertainty surrounding developments in a number of oil-producing countries, particularly in the Middle East and North Africa, has probably engendered an additional oil price premium. Oil prices thus remained firm to summer, while non-oil commodity prices, such as base metals, started to fall already in 2011 (see Chart 3).

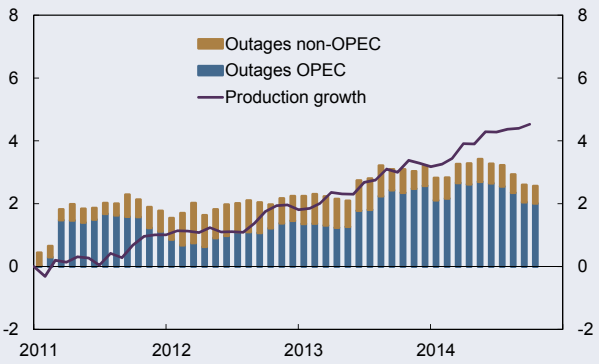
Since summer, growth in non-OPEC oil supply has again been surprisingly high and production in some OPEC countries, such as Libya, rebounded unexpectedly. The Islamic State militant group's failure to gain a foothold in southern Iraq, where a large share of oil production is concentrated, may also have contributed to the fall in oil prices.

Chart 1 Spot and futures prices for oil. USD per barrel Brent Blend. 22 November 2010 – 5 December 2014



Source: Thomson Reuters

Chart 2 Global oil production outages. Accumulated growth in US oil production. Million barrels per day. January 2011 – October 2014

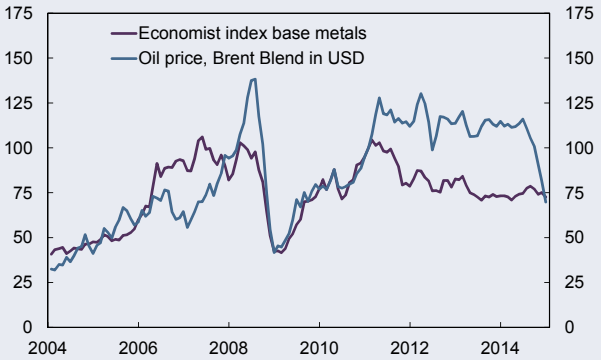


Sources: EIA and Norges Bank

A marked appreciation of the US dollar has also played a part. Historically, a stronger dollar tends to result in lower oil prices in US dollar terms. Large shifts in financial investors' position in the oil futures market may also have had a temporary influence on oil prices.

A decisive factor that affected oil prices was the shift in expectations in autumn as to OPEC's policy with regard to supporting oil prices. It was widely expected that OPEC would aim at keeping oil prices at USD 100 per barrel. This no longer seems to be the case, at least not in the short term. At its meeting on 27 November, OPEC decided to maintain unchanged production quotas. OPEC stated that the market was now extremely well-supplied and that the projected increase in non-OPEC supply next year is higher than projected growth in global oil demand. Even if OPEC produces in line with the quotas – a modest reduction in relation to actual production in recent months – the excess supply of oil may still prevail for an extended period. Over time, the balance in the oil market could improve as implied by futures prices. On the other hand, the situation in a number of major oil-exporting countries remains highly unstable. Oil price developments ahead are therefore shrouded in uncertainty.

Chart 3 Price for crude oil and base metals.
Index. January 2011 = 100. January 2004 – December 2014



Source: Thomson Reuters

THE EFFECT OF LOWER OIL PRICES ON THE NORWEGIAN ECONOMY

A sharp fall in oil prices may reduce activity in the Norwegian economy through several channels:

- lower petroleum investment and reduced mainland supplies to oil companies
- lower real wage growth owing to lower demand for labour and reduced profitability of oil-related activities
- reduced business investment and higher household saving owing to lower income expectations and greater uncertainty surrounding developments ahead

The overall impact of lower oil prices on the Norwegian economy will depend on the factors behind the price decline, the effect on the krone exchange rate, the duration of the price decline and the oil price level.

A drop in oil prices caused by supply-side factors will in isolation stimulate activity in net oil-importing countries and hence boost demand for other Norwegian export goods. Should the krone show a marked depreciation, the effects on the mainland economy will also be more moderate. If the drop in oil prices is caused by lower global demand, the Norwegian economy will be adversely affected by both lower oil prices and lower growth among its trading partners.

The adverse effects of persistently lower oil prices will be more pronounced than a more temporary decline. Persistently lower oil prices are likely to have a greater impact on the profitability of possible new development projects on the Norwegian shelf and hence have greater effects on oil investment. Futures prices provide an indication of how long the price decline is expected to last, but experience shows that oil prices are difficult to predict.

The effects of a drop in oil prices on oil investment will also depend on the level of oil prices. A survey of the contacts in Norges Bank's regional network from 2012[1] indicates that oil price swings between USD 90–120 per barrel will have little impact on the Norwegian economy, while an oil price of USD 70–80 per barrel will have relatively substantial consequences. Since that survey was conducted, production costs in the petroleum industry have risen.

The projections in this *Report* are based on an oil price that moves in line with futures prices. This implies some rise in oil prices further out in the projection period, but prices will be considerably lower than envisaged in the September *Report*. It is assumed that the price decline is due to both higher oil supply and weaker growth in global oil demand (see box on page 44). At the end of the projection period, oil

1 See "The effect of a fall in oil prices on the turnover of Norwegian enterprises", *Economic Commentaries* 2013/4.

investment is now projected to be around NOK 33bn below the level projected in the September *Report*. Already in summer, oil companies announced cost reductions and postponement of investment plans. The sharp fall in oil prices is expected to increase the need to cut costs and reduce investments in fields in production. Lower oil investment will have direct effects on employment in the oil service sector and engender spillovers on other supplier sectors.

Lower activity in the oil sector and in the wider economy will weigh down on wage growth. This may to some extent be offset by slightly higher inflation in the short term and improved profitability in the non-oil export industry as a result of a clearly weaker krone. At the same time, wage shares in many non-oil sectors are already at fairly high levels. The projections for nominal wage growth have been revised down slightly since the September *Report*.

Uncertainty about developments in the Norwegian economy and the prospect of lower income growth are likely to push down on growth in consumption ahead. Saving, which has increased somewhat in recent years, is likely to remain elevated longer than previously anticipated. Growth in private consumption in the period 2015–2017 has been revised down by 2¾% since the September *Report*. Owing in part to greater uncertainty, the projection for business investment has also been revised down somewhat. Import growth is also projected to slow, partly reflecting slower growth in domestic demand, with higher internal demand for domestically produced goods and services owing to a weaker krone.

The pronounced weakening of the krone is boosting profitability and improving competitiveness in the export industry. The projections for mainland exports have been revised up since the September *Report*. Export growth may, however, be restrained by a decline in global oil investment as a result of lower oil prices. Some Norwegian oil service companies have become major international niche operators.

Compared with the September *Report*, the projections for mainland GDP growth have been revised down by about ¾ percentage point in 2015 and ½ percentage point in 2016. A markedly weaker krone and a lower key policy rate path will limit the effects of the fall in oil prices on output and employment. A flexible labour supply is also expected to reduce the impact of unemployment.

SYSTEMIC RISK AND MACROPRUDENTIAL POLICY

The objective of macroprudential policy is to promote financial stability by preventing and mitigating systemic risk. The European Systemic Risk Board (ESRB) defines systemic risk as the risk of disruption in the financial system with the potential to have serious negative consequences for the real economy.

The ESRB distinguishes between four categories of systemic risk[1] that are particularly relevant for macroprudential policy (see Table 1). The first category is related to excessive credit growth and leverage. Financial crises often occur in the wake of periods of rapid credit growth, and high leverage can amplify a downturn. The second category is the risk associated with excessive maturity mismatch and market illiquidity. If funding is no longer available, banks with small liquidity reserves may be forced to sell other assets, with a resulting potential for considerable contagion and a reduction in the value of other institutions' assets. A third category of systemic risk is concentration risk. In a closely interconnected system, the contagious consequences of disruptions in one market or problems in one bank can be considerable. A fourth category is systemic risk associated with misaligned incentives, particularly related to systemically important institutions that assume higher risk because of the perception of an implicit government guarantee.

The different forms of systemic risk may stem from the same basic market failure and may be mutually reinforcing.[2] Systemic risk can vary over time or be of a more structural nature. *Time-varying* systemic risk is closely associated with procyclical mechanisms in the financial system and is linked to the first two categories in the ESRB classification. A high degree of concentration in the financial system and systemically important institutions can give rise to high *structural* risk.

Table 1 also lists the instruments that can be used to reduce systemic risk. The instruments operate through different channels. Capital and liquidity requirements primarily operate by increasing the resilience of the financial system, while LTV and LTI limits have a more direct effect on credit growth and thereby on the build-up of systemic risk.

Countries that have introduced macroprudential policies have selected different combinations of instruments. In Norway, capital buffer requirements have been augmented by a countercyclical capital buffer, a systemic risk buffer and a capital buffer for systemically important banks. Finanstilsynet (Financial Supervisory Authority of Norway) has imposed stricter requirements on banks' internal risk models, leading to increased residential mortgage risk weights. Finanstilsynet has also issued stricter guidelines for prudent residential mortgage lending.

New international bank funding and liquidity requirements will be introduced in both the EU and Norway (see *Financial Stability Report* 2014 for more details). The liquidity coverage ratio (LCR) requirement is to be phased in across the EU as from 2015, while the net stable funding ratio (NSFR) requirement is expected to be introduced by 2018.

1 See ESRB Recommendation of 4 April 2013 on intermediate objectives and instruments of macro-prudential policy (ESRB/2013/1).
2 See Henrik Borchgrevink, Sigmund Ellingsrud and Frank Hansen: "Macroprudential regulation – what, why and how?», *Staff Memo* 13/2014, Norges Bank.

The countercyclical capital buffer is the only instrument in the international macroprudential policy framework explicitly defined as time-varying. According to the framework, the buffer rate must be set each quarter. More specifically, the countercyclical capital buffer is intended to address the time-varying risk related to excessive credit growth and leverage.[3]

In Norges Bank's reports, the term *financial imbalances* is used to refer to such systemic risk. The assessment of financial imbalances is based on a comparison of credit and property price indicators with estimated long-term trends. The risk associated with a persistently high *level* of debt can be addressed using other, more permanent, requirements than the countercyclical capital buffer.

3 According to the Regulation of 4 October 2013, the decision basis for the countercyclical capital buffer shall include «Norges Bank's assessment of systemic risk that is building up or has built up over time».

TABLE 1 Macroprudential instruments[1] classified according to the ESRB's four risk categories

Risk category	Instrument
Excessive credit growth and leverage[2]	Countercyclical capital buffer
	Sectoral capital requirements and risk weights
	Systemic risk buffer
	Leverage ratio
	Limits on loan-to-value (LTV) ratios
	Limits on loan-to-income (LTI) and/or debt-service-to-income (DSTI) ratios
Excessive maturity mismatch and market illiquidity	Liquidity coverage ratio (LCR)[3]
	Net stable funding ratio (NSFR)[4]
	Other liquidity and funding requirements
Excessive exposure concentrations in the financial system[2]	Systemic risk buffer
	Stricter limits on large exposures
	Stricter requirements related to intra-financial sector exposures
Misaligned incentives, particularly in systemically important institutions[2]	Systemic risk buffer
	Additional buffers for systemically important institutions

1 The list of instruments is non-exhaustive.
2 Additional capital may be required (e.g. by supervisory authorities under Pillar 2) and the capital conservation buffer may be increased to more than 2.5 percent to mitigate risk related to this risk category.
3 Liquidity Coverage Ratio (LCR): Requirement for banks to hold sufficient high-quality liquid assets to meet their payment obligations over a 30-day period of financial market stress.
4 Net Stable Funding Ratio (NSFR): Requirement for banks to fund less liquid assets with long-term funding.

Source: Table 8.1 (p. 164) in *The ESRB Handbook on Operationalising Macro-prudential Policy in the Banking Sector*, European Systemic Risk Board, 2014

CAN PRICE DEVELOPMENTS IN "STICKY PRICE" SECTORS PROVIDE INFORMATION ABOUT INFLATION EXPECTATIONS?

When setting a price, firms usually take into account both the current situation and expected future inflation. It is likely that the longer the period to which the price applies, the greater the weight that is given to expectations about inflation in the future when setting the price. Price developments in sectors that change prices infrequently ("sticky price" sectors) may thus contain more information regarding firms' inflation expectations than other prices.[1]

Chart 1 shows aggregate inflation rates in sectors that change prices relatively infrequently and relatively often[2] together with the consumer price index excluding energy products (CPI-AE).[3] Inflation in sticky price sectors (yellow line) has been higher than inflation in sectors that change prices often, i.e. "flexible price" sectors (blue line). This may be due to differences in pricing strategy, but also to the higher weighting of services, for which inflation has been higher than for goods, in the sticky price series.

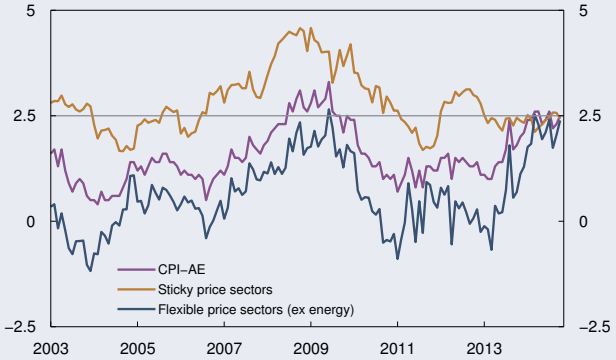
The two series have shown similar developments in some periods. In recent years, however, the annual inflation rate for sticky price sectors has remained stable at around 2.5%, while inflation in flexible price sectors has risen markedly. The increase may be related to the depreciation of the krone, which has pushed up inflation for many of the imported goods in the flexible price category. A change in the calculation method for food and non-alcoholic beverages in the CPI has probably contributed in the same direction.

Simple empirical analyses indicate that price developments in sticky price sectors can provide information regarding economic agents' inflation expectations somewhat further ahead. Chart 2 shows four-quarter changes in the two frequency-based price indices along with the expected annual rise in the CPI one and two years ahead among business leaders, economists and employee/employer organisations (grey band). Inflation in sticky price sectors (yellow line) is generally at the same level as these expectations. Changes in this price series are also highly correlated with changes in inflation expectations.

Indicators that capture inflation expectations can help to provide more precise inflation projections. A regression analysis indicates that the price series for sticky price sectors have significant explanatory power for changes in the CPI-AE 12 to 18 months ahead.

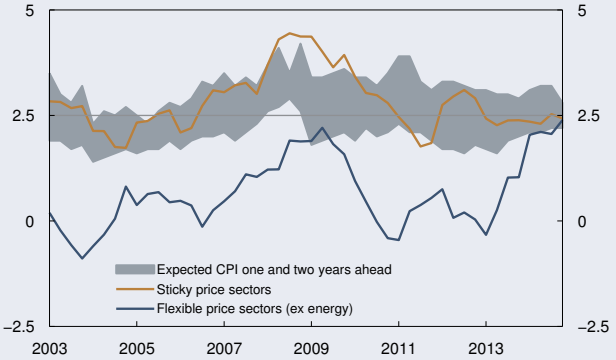
1 See M. F. Bryan and B. Meyer, "Are Some Prices in the CPI More Forward Looking Than Others? We Think So", *Federal Reserve Bank of Cleveland Economic Commentary*, No. 2/2010.
2 See S. K. Erlandsen, "Sticky prices and inflation expectations in Norway", *Norges Bank Staff Memo* 15/2014, for details on the calculation and analysis of the indices.
3 The frequency-based price indices are constructed using many CPI sub-components. The series in the charts exclude energy products and hence we compare the series with CPI-AE.

Chart 1 CPI–AE[1] and frequency–based price indices.
Twelve–month change. Percent. January 2003 – October 2014



1) CPI excluding energy products.
Sources: Statistics Norway and Norges Bank

Chart 2 Expected annual change in CPI one and two years ahead[1] and frequency–based price indices (four–quarter change) Percent. 2003 Q1 – 2014 Q4[2]



1) The grey band shows the interval between the highest and lowest expectations of annual change in CPI one and two years ahead of business leaders, employer/employee organizations and economists in the financial industry and academia
2) October 2014 is the latest observation for the frequency–based price indices.
Sources: Opinion and Norges Bank

ANNEX

MONETARY POLICY MEETINGS WITH CHANGES IN THE KEY POLICY RATE

Date	Key policy rate[1]	Change
6 May 2015		
18 March 2015		
10 December 2014	**1.25**	**-0.25**
22 October 2014	1.50	0
17 September 2014	1.50	0
18 June 2014	1.50	0
7 May 2014	1.50	0
26 March 2014	1.50	0
4 December 2013	1.50	0
23 October 2013	1.50	0
18 September 2013	1.50	0
19 June 2013	1.50	0
8 May 2013	1.50	0
13 March 2013	1.50	0
19 December 2012	1.50	0
31 October 2012	1.50	0
29 August 2012	1.50	0
20 June 2012	1.50	0
10 May 2012	1.50	0
14 March 2012	1.50	-0.25
14 December 2011	1.75	-0.50
19 October 2011	2.25	0
21 September 2011	2.25	0
10 August 2011	2.25	0
22 June 2011	2.25	0
12 May 2011	2.25	+0.25
16 March 2011	2.00	0
26 January 2011	2.00	0
15 December 2010	2.00	0
27 October 2010	2.00	0
22 September 2010	2.00	0
11 August 2010	2.00	0
23 June 2010	2.00	0
5 May 2010	2.00	+0.25
24 March 2010	1.75	0
3 February 2010	1.75	0
16 December 2009	1.75	+0.25
28 October 2009	1.50	+0.25
23 September 2009	1.25	0

1 The key policy rate is the interest rate on banks' sight deposits in Norges Bank. This interest rate forms a floor for money market rates. By managing banks' access to liquidity, Norges Bank ensures that short-term money market rates are normally slightly higher than the key policy rate.

TABLE 1 MAIN MACROECONOMIC AGGREGATES

Percentage change from previous year/quarter		GDP	Mainland GDP	Private consumption	Public consumption	Mainland fixed investment	Petroleum investment[1]	Mainland exports[2]	Imports
2008		0.4	1.7	1.7	2.4	0.9	4.7	4.7	3.2
2009		-1.6	-1.6	0.0	4.1	-10.4	3.3	-7.8	-10.0
2010		0.6	1.8	3.8	2.2	-6.4	-8.9	7.9	8.3
2011		1.0	1.9	2.3	1.0	5.0	11.3	0.4	4.0
2012		2.7	3.8	3.5	1.6	7.4	15.1	1.1	3.1
2013		0.7	2.3	2.1	1.7	2.9	17.1	1.7	4.3
2013[3]	Q4	-0.1	0.5	0.3	1.1	2.7	-2.0	1.9	1.5
2014	Q1	0.5	0.6	0.8	0.8	0.1	-2.9	-0.5	-1.4
	Q2	1.1	1.2	0.7	1.0	0.4	-0.5	2.4	-0.3
	Q3	0.5	0.4	-0.1	0.6	-0.6	0.2	1.4	2.2
2013 level, in billions of NOK		3 069	2 423	1 235	653	505	212	503	878

1 Extraction and pipeline transport.
2 Traditional goods, travel, petroleum services and exports of other services from mainland Norway.
3 Seasonally adjusted quarterly data.

Sources: Statistics Norway and Norges Bank

TABLE 2 CONSUMER PRICES

Annual change/twelve-month change. Per cent		CPI	CPI-ATE[1]	CPIXE[2]	CPI-AT[3]	CPI-AE[4]	HICP[5]
2008		3.8	2.6	3.1	3.9	2.5	3.4
2009		2.1	2.6	2.6	2.1	2.7	2.3
2010		2.5	1.4	1.7	2.4	1.4	2.3
2011		1.2	0.9	1.1	1.1	1.1	1.2
2012		0.8	1.2	1.0	0.6	1.4	0.4
2013		2.1	1.6	1.4	2.1	1.6	2.0
2014	Jan	2.3	2.4	2.2	2.3	2.4	2.1
	Feb	2.1	2.4	2.1	2.1	2.4	1.9
	Mar	2.0	2.6	2.4	2.0	2.6	1.8
	Apr	1.8	2.5	2.3	1.8	2.6	1.5
	May	1.8	2.3	2.2	1.8	2.3	1.6
	June	1.9	2.4	2.3	1.8	2.4	1.8
	July	2.2	2.6	2.6	2.2	2.6	2.2
	Aug	2.1	2.2	2.2	2.1	2.2	1.9
	Sep	2.1	2.4	2.4	2.1	2.3	2.1
	Okt	2.0	2.5	2.4	2.1	2.5	1.9

1 CPI-ATE: CPI adjusted for tax changes and excluding energy products.
2 CPIXE: CPI adjusted for tax changes and excluding temporary changes in energy prices. See *Norges Bank Staff Memo* 7/2008 and 3/2009 for a description of the CPIXE.
3 CPI-AT: CPI adjusted for tax changes.
4 CPI-AE: CPI excluding energy products.
5 HICP: Harmonised Index of Consumer Prices. The index is based on international criteria drawn up by Eurostat.

Sources: Statistics Norway and Norges Bank

TABLE 3 PROJECTIONS FOR GDP GROWTH IN OTHER COUNTRIES

Change from projections in *Monetary Policy Report* 3/14 in brackets	Share of world GDP		Change from previous year. Percent.				
	PPP	Market exchange rates[1]	2013	2014	2015	2016	2017
US	16	22	2,2	2¼ (¼)	3½ (½)	3½ (¼)	2¾ (0)
Euro area	12	18	-0,4	¾ (0)	1 (-¼)	1½ (0)	1¾ (0)
UK	2	3	1,7	3 (0)	2¾ (¼)	2¾ (¼)	2½ (0)
Sweden	½	¾	1,3	2 (¼)	3 (0)	3 (¼)	2¾ (¼)
China	16	10	7,7	7¼ (0)	7 (¼)	6¾ (0)	6½ (0)
Emerging economies[2]	19	12	3,2	2¼ (0)	2¾ (-½)	3¾ (-½)	4 (-¼)
Trading partners[3]	72	78	1,3	2 (0)	2½ (0)	2½ (0)	2½ (0)
World (PPP)[4]	100	100	3¼	3¼ (0)	3¾ (0)	4 (0)	4 (0)
World (market exchange rates)[4]	100	100	2½	2½ (-¼)	3¼ (0)	3½ (0)	3½ (0)

1 Country's share of global output measured in a common currency (market exchange rate). Average 2010–2012.
2 Emerging economies in the trading partner aggregate excluding China: Brazil, India, Indonesia, Russia, Turkey, Poland and Thailand. GDP weights.
3 Export weights, 25 main trading partners.
4 GDP weights. Norges Bank's estimates for 25 trading partners, other estimates from IMF.

Sources: IMF, Thomson Reuters and Norges Bank

TABLE 4 PROJECTIONS FOR CONSUMER PRICES IN OTHER COUNTRIES

Change from projections in *Monetary Policy Report* 3/14 in brackets	Change from previous year. Percent.				
	2013	2014	2015	2016	2017
US	1.5	1¾ (-¼)	1½ (-½)	1¾ (-¼)	2¼ (0)
Euro area	1.4	½ (0)	½ (-½)	1¼ (-¼)	1½ (-¼)
UK	2.6	1½ (-¼)	1½ (-¼)	1¾ (-¼)	2 (0)
Sweden	0	-¼ (-¼)	¼ (-1¼)	1¾ (-¾)	3 (¾)
China	2.6	2 (-½)	2½ (-¼)	2¾ (-¼)	3 (0)
Emerging economies[1]	6.5	6½ (0)	6 (¼)	5½ (¼)	5¼ (0)
Trading partners[2]	1.7	1¼ (-¼)	1½ (-¼)	2 (-¼)	2½ (¼)
Oil price Brent Blend. USD per barrel[3]	109	100	73	78	81

1 Emerging economies in the trading partner aggregate excluding China: Brazil, India, Indonesia, Russia, Turkey, Poland and Thailand. GDP weights.
2 Import weights, 25 main trading partners.
3 Futures prices (average for the past five trading days). For 2014, an average of spot prices so far this year and futures prices for the rest of the year is used.

Sources: IMF, Thomson Reuters and Norges Bank

TABLE 5 PROJECTIONS FOR MAIN ECONOMIC AGGREGATES

	In billions of NOK	Percentage change from previous year (unless otherwise stated) Projections				
	2013	2013	2014	2015	2016	2017
Prices and wages						
CPI		2.1	2	2½	2¾	2½
CPI-ATE[1]		1.6	2½	2½	2¾	2½
Annual wages[2]		3.9	3½	3¼	3½	4
Real economy						
GDP	3069	0.7	2	1¼	1¾	2¼
GDP, mainland Norway	2423	2.3	2½	1½	2¼	2½
Output gap, mainland Norway (level)[3]		0.0	-½	-1	-1	-¾
Employment, persons, QNA		1.3	1¼	½	¾	1¼
Labour force, LFS		1.0	1	¾	¾	1
LFS unemployment (rate, level)		3.5	3½	3¾	4	3¾
Registered unemployment (rate, level)		2.6	2¾	3	3¼	3
Demand						
Mainland demand[4]	2393	2.1	2¼	2¼	3	2¾
- Private consumption	1235	2.1	1¾	2	2¼	2¾
- Public consumption	653	1.7	3¼	2½	-	-
- Fixed investment, mainland Norway	505	2.9	2	3	-	-
Petroleum investment[5]	212	17.1	-¼	-15	-5	-2½
Mainland exports[6]	503	1.7	3¾	4½	2¼	3½
Imports	878	4.3	1¼	2	-	-
Interest rate and exchange rate						
Key policy rate (level)[7]		1.5	1½	1¼	1¼	1½
Import-weighted exchange rate (I-44)[8]		89.0	93½	96¼	93¼	92

1 CPI-ATE: CPI adjusted for tax changes and excluding energy products.
2 Annual wage growth is based on the Technical Reporting Committee on Income Settlements' definitions and calculations.
3 The output gap measures the percentage deviation between mainland GDP and projected potential mainland GDP.
4 Private and public consumption and mainland gross fixed investment.
5 Extraction and pipeline transport.
6 Traditional goods, travel, petroleum services and exports of other services from mainland Norway.
7 The key policy rate is the interest rate on banks' deposits in Norges Bank.
8 Level. The weights are estimated on the basis of imports from 44 countries. which comprise 97% of total imports.

- Not available

Sources: Statistics Norway. Technical Reporting Committee on Income Settlements. Norwegian Labour and Welfare Administration and Norges Bank

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