



NORGES BANK

3 | 14

SEPTEMBER

MONETARY POLICY REPORT

WITH FINANCIAL
STABILITY ASSESSMENT

Norges Bank

Oslo 2014

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Editor: Øystein Olsen
Design: Brandlab
Printing: 07 Media AS
The text is set in 9.5 pkt Azo Sans Light

ISSN 1894-0242 (print)
ISSN 1894-0250 (online)

Monetary Policy Report with financial stability assessment

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 its meeting on 6 August 2014, the Executive Board discussed relevant themes for the *Report*. At the Executive Board meeting on 3 September 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 17 September 2014 a monetary policy strategy for the period to the publication of the next *Report* on 11 December 2014. 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 on www.norges-bank.no.

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This *Monetary Policy Report* is based on information in the period to 11 September 2014.
The monetary policy strategy was approved by the Executive Board on 17 September 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. 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 3 September and 17 September 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 18 June 2014 and the analysis in the June 2014 *Monetary Policy Report*. The analysis in the June 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 towards the end of the projection period.

In its discussion at the meetings on 3 September and 17 September, the Executive Board placed emphasis on the following developments:

- Growth among Norway's trading partners combined has been slightly lower than expected, and prospects are now somewhat weaker than envisaged in the June *Report*. For trading partners as a whole, growth is projected to pick up from 2% in 2014 to 2½% in the coming years.
- Key policy rates are close to zero in many trading partner countries. In Sweden, the Riksbank reduced its policy rate to 0.25% in July. The European Central Bank lowered its policy rate to 0.05% at the beginning of September and at the same time announced that it will take additional monetary policy measures. Market expectations indicate that an increase in interest rates abroad has again been pushed further out.
- The krone has depreciated. The krone, as measured by the import-weighted exchange rate (I-44), has so far in Q3 been about 1¾% weaker than projected in the June *Report*.
- Bank lending rates have been broadly in line with expectations. Lending rates facing households and enterprises are still considerably higher than the key policy rate.
- Growth in the Norwegian economy was stronger than expected in Q2, as measured in the quarterly national accounts. However, the enterprises in Norges Bank's regional network reported in August that output growth remained moderate. Registered unemployment has been relatively stable and a little lower than expected. Capacity utilisation in the Norwegian economy is still projected to be close to a normal level, and has likely declined a little less than anticipated earlier.
- House prices have picked up broadly in line with that projected in the June *Report*. Household debt accumulation has moderated and been lower than expected earlier.
- Inflation has been higher than projected. Consumer price inflation adjusted for tax changes and excluding energy products (CPI-ATE) was 2.2% in August. Underlying inflation is estimated to run between 2% and 2½%.

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. At the same time, monetary policy takes into account the risk of a build-up of financial imbalances.

The Executive Board noted that the analysis in this *Report* implies little change in the outlook for inflation and output. The analysis implies a key policy rate at the present level in the period to end-2015, followed by a gradual rise. With this path for the key policy rate, inflation will be somewhat below, but close to, 2.5% throughout the projection period. Capacity utilisation may edge down in the coming year, but is expected to increase again to close to a normal level towards the end of the projection period.

The Executive Board pointed to the uncertainty surrounding the growth rate in the Norwegian economy. Growth gained considerable momentum in Q2, but some of the momentum is likely ascribable to temporary conditions, such as unusually high production of electricity and fish. It was noted that the enterprises in Norges Bank's regional network reported moderate growth in production. Petroleum investment is still expected to show a pronounced decline in 2015, and the magnitude of the spillover on the wider economy is uncertain. Moreover, somewhat weaker growth prospects abroad and the conflict between Russia and Ukraine entail greater uncertainty concerning the outlook for Norwegian exporters.

Consumer prices have been somewhat higher than expected. Fluctuations in food prices have resulted in wider-than-normal movements in the CPI through summer. It was pointed out that changes in the calculation methodology may have altered CPI seasonality. Wide monthly variations in inflation increase the uncertainty linked to short-term price developments.

The Executive Board also discussed housing market developments. Turnover in the housing market has

increased, with a decline in the number of unsold homes. Residential construction is on the rise. At the same time, it was pointed out that the price rise so far this year may be a case of prices catching up after the weak developments in the housing market through autumn 2013. If financial imbalances build up further, it will be appropriate to assess the level of the countercyclical capital buffer requirement for banks.

In its assessment of monetary policy in the coming period, the Executive Board gave weight to the fact that the outlook for the Norwegian economy remains broadly unchanged. The forces driving inflation and output ahead are expected to remain moderate. The Executive Board's overall assessment is that the key policy rate should remain at today's level in the coming period.

At its meeting on 17 September, the Executive Board decided to keep the key policy rate unchanged at 1.5%. At the same meeting, the Executive Board decided that the key policy rate should be in the interval 1%-2% in the period to the publication of the next *Report* on 11 December 2014, unless the Norwegian economy is exposed to new major shocks.

Øystein Olsen
Oslo 18 September 2014

1 ECONOMIC SITUATION

The moderate economic upturn is continuing in advanced countries, but the uncertainty surrounding future developments in Europe has increased. US GDP growth picked up rapidly after a drop in activity through winter (see Chart 1.1). Private consumption and investment are growing at a solid pace and the labour market is continuing to improve. In the UK, growth is expected to remain buoyant moving forward. Euro area GDP stagnated in Q2, with the activity level falling in Germany and Italy. In Sweden, growth has also been lower than expected and in Japan GDP fell in the first six months of the year. Improved credit conditions, an easing of fiscal policy and continued accommodative monetary policy may fuel growth in most advanced countries in the coming years.

In China, growth in real estate investment is ebbing, and combined with lower credit growth, this is expected to contribute to lower economic growth in the years ahead. In Russia and Brazil, growth prospects are somewhat lower than expected in the June 2014 *Monetary Policy Report*, while growth prospects for emerging Asian economies are broadly the same as in June. Continued weak domestic demand has resulted in lower imports and improved current account balances in many countries. Looking ahead, increased demand from advanced economies is expected to boost growth in emerging economies.

On the whole, global economic growth is expected to be somewhat lower in 2014 and 2015 compared with the projection in the June *Report* (see Chart 1.2 and Annex Table 3). Growth among Norway's trading partners is projected to move up from 1.4% in 2013 to 2% in 2014. Further out in the projection period, annual growth is projected to reach around 2½%. The global economy is projected to expand by 2¾% in 2014, slightly below the average for the past 30 years (see box on page 34 for further details by region).

Consumer price inflation is low in most advanced countries (see Chart 1.3). Inflation in the euro area was 0.3% in August, while in Sweden inflation was even lower. Long-term inflation expectations have been lowered somewhat in the euro area, while they are stable in the US and the UK. Consumer price inflation among our trading partners as a whole is projected to move up from 1½% in 2014 to 2¼% further out in the projection period (see Annex Table 4).

Chart 1.1 GDP. Seasonally adjusted volume index. 2008 Q1=100. 2008 Q1 – 2014 Q2

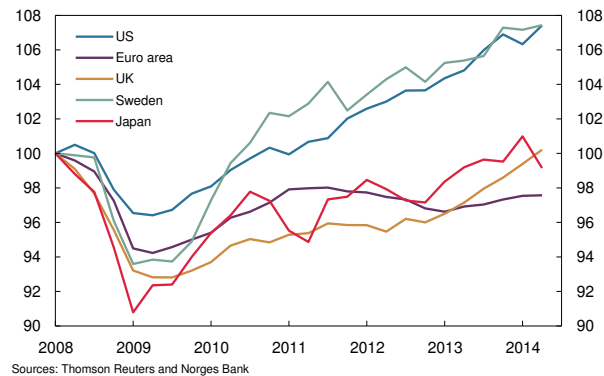


Chart 1.2 GDP for trading partners in MPR 2/14 and MPR 3/14. Volume. Four-quarter change. Percent. 2010 Q1 – 2017 Q4¹⁾

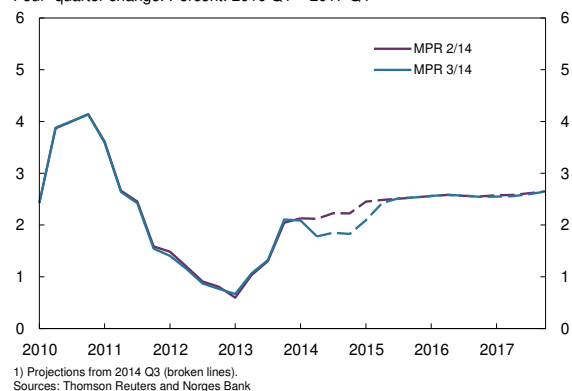


Chart 1.3 Consumer prices. Twelve-month change. Percent. January 2010 – August 2014¹⁾

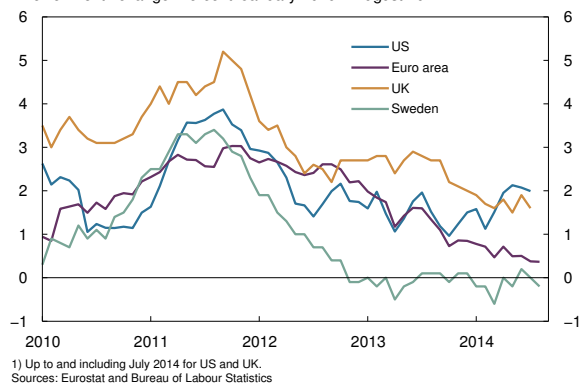
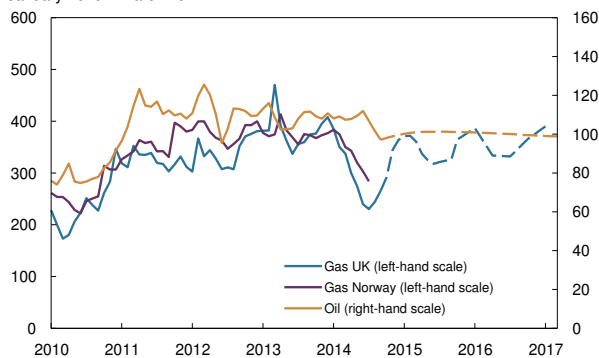


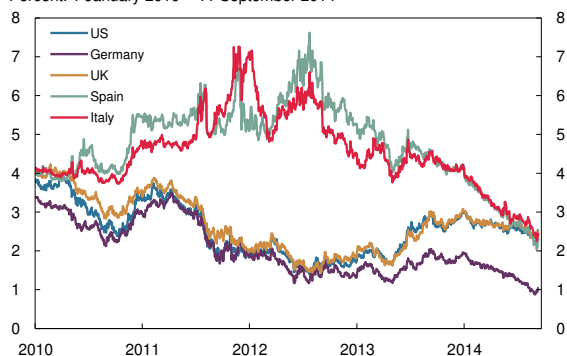
Chart 1.4 Oil and gas prices.¹⁾
January 2010 – March 2017^{2) 3)}



1) USD per barrel for oil and USD per thousand standard cubic metres (Sm³) for gas.
2) The most recent daily observation (11 September 2014) is used for oil and UK gas prices in September 2014.
3) Forward prices from September 2014.
Sources: IMF, Thomson Reuters, Statistics Norway and Norges Bank

Oil prices have dropped by a good USD 10 per barrel since June and are now below USD 100 per barrel. The fall likely reflects lower-than-expected growth in the world economy. Oil production in North America is still rising at a rapid pace. Moreover, the decline in oil production owing to instability in Iraq has been more limited than anticipated by market participants. 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 1.4). Prices of the longest futures contracts for oil have risen since the beginning of 2014 and are now higher than USD 95 per barrel, partly reflecting persistent unrest in the Middle East and fears of a considerably smaller increase in oil production over time than anticipated earlier. Export prices for Norwegian gas have fallen further since the June *Report*. UK gas prices have edged up and futures prices imply a further increase. Metal prices have increased somewhat, for example aluminium prices have risen by 10%, while food prices have declined.

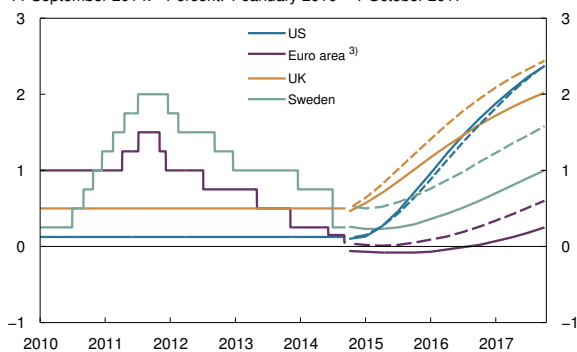
Chart 1.5 Yields on 10-year government bonds.
Percent. 1 January 2010 – 11 September 2014



Source: Bloomberg

International long-term interest rates have fallen since the June *Report* (see Chart 1.5). Weaker growth prospects, heightened geopolitical uncertainty and expectations of a continued loose monetary policy in many countries have probably contributed to the decline in interest rates. Equity prices in Europe have edged down since the previous monetary policy meeting. US stock markets are still close to record-high levels.

Chart 1.6 Key rates and estimated forward rates at 12 June 2014 and 11 September 2014.¹⁾ Percent. 1 January 2010 – 1 October 2017^{2) 3)}



1) Broken lines show estimated forward rates at 12 June 2014. Thin lines show forward rates at 11 September 2014. Forward rates are based on Overnight Index Swap (OIS) rates.
2) Daily data from 1 January 2010 and quarterly data from 2014 Q4.
3) EONIA for the euro area from 2014 Q3.
Sources: Bloomberg and Norges Bank

Policy rates are still close to zero in many countries. The European Central Bank (ECB) reduced its policy rate to 0.05% at the beginning of September. In addition, the ECB announced that it will start purchases of non-financial private sector assets from October. In Sweden, the Riksbank's interest rate cut in July, from 0.75% to 0.25%, has led to lower market key rate expectations (see Chart 1.6). In the UK, the first interest rate hike is expected to occur in the first quarter of 2015. In the US, the first interest rate increase is expected in 2015 Q2. For our trading partners as a whole, market expectations concerning money market rates abroad are lower than at the time of the publication of the June *Report* (see Chart 1.7).

The krone exchange rate has depreciated markedly since the June *Report*. In the following period, several indicators for the Norwegian economy showed

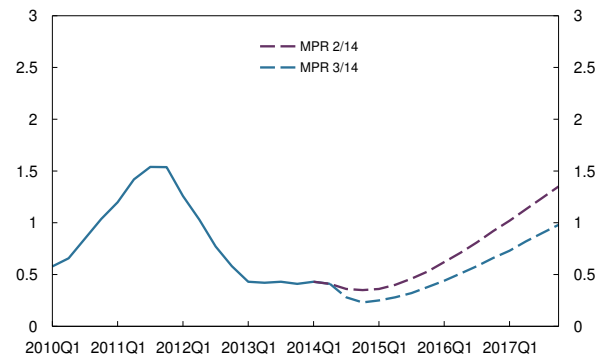
stronger developments than market participants had expected, and the krone appreciated. Recently, some economic indicators have surprised market participants somewhat in the opposite direction, and Norwegian interest rate expectations have fallen. This has contributed to a renewed weakening of the krone. The krone, as measured by the import-weighted krone exchange rate index (I-44), has so far in Q3 been about 1¾% weaker than projected in the June Report (see Chart 1.8).

Norwegian banks have ample access to market funding. The risk premium in Norwegian three-month money market rates has fallen somewhat since the June Report, but is expected to remain around ¼ percentage point in the period ahead. The risk premiums banks pay for new long-term market funding have fallen somewhat since the June Report (see Chart 1.9). In Q2, the banks included in Norges Bank's lending survey reported an increase in household credit demand and a fall in lending margins.

Growth in the Norwegian economy appears to remain moderate. According to quarterly national accounts figures, mainland GDP expanded by 1.2% in 2014 Q2, which was faster than projected in the June Report. High electricity and fish exports were the main drivers pushing up growth. These industries are largely influenced by natural conditions that may result in fairly wide short-term fluctuations in production. Monthly figures for July and August indicate that power production will fall again between Q2 and Q3. GDP figures for Q2 were also lifted by strong growth in some segments of the services sector, which is assessed to be temporary. Overall, this suggests that GDP growth will be relatively low in Q3. Normally, the regional network captures production tendencies quite well, but the variations are smaller than in the national accounts. In August, the enterprises in Norges Bank's regional network reported continued moderate output growth, approximately unchanged on May. Growth in the manufacturing sector slowed a little, while growth in the construction industry picked up somewhat (see Chart 1.10).

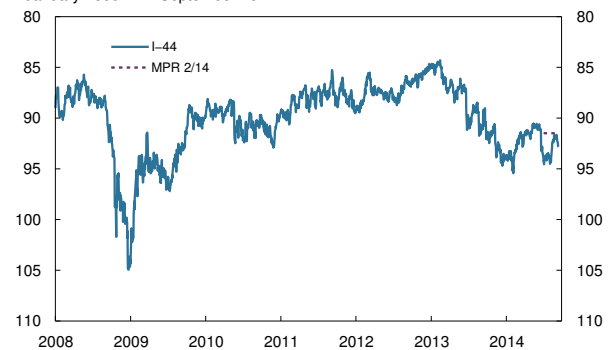
Unemployment has remained stable in recent months (see Chart 1.11). In August, registered unemployment was 2.8% of the labour force, slightly lower than projected in the June Report. Employment has increased

Chart 1.7 Money market rates for trading partners in MPR 2/14 and MPR 3/14.¹⁾ Percent. 2010 Q1 – 2017 Q4



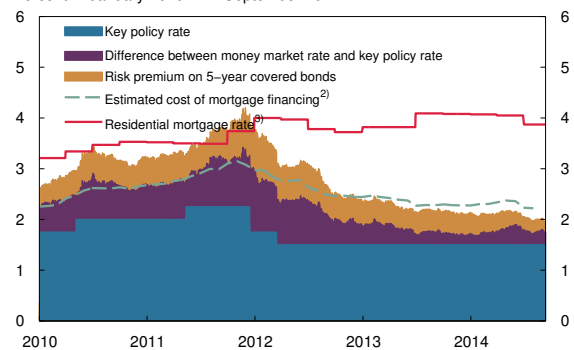
1) Broken blue and purple lines show estimated forward rates at 11 September 2014 and 12 June 2014, respectively.
Sources: Bloomberg and Norges Bank

Chart 1.8 Import-weighted exchange rate index (I-44).¹⁾ 1 January 2008 – 11 September 2014



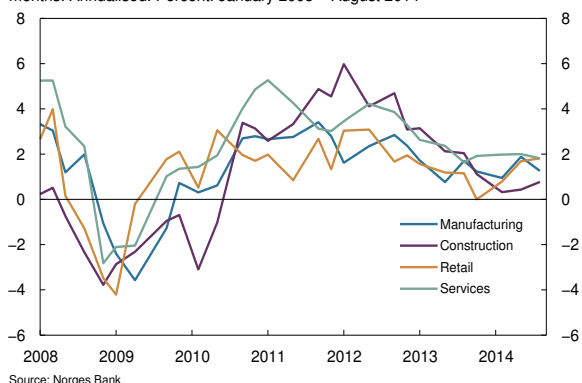
1) A positive slope denotes a stronger krone exchange rate.
Source: Norges Bank

Chart 1.9 Residential mortgage lending rates¹⁾ and funding costs. Percent. 1 January 2010 – 11 September 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

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

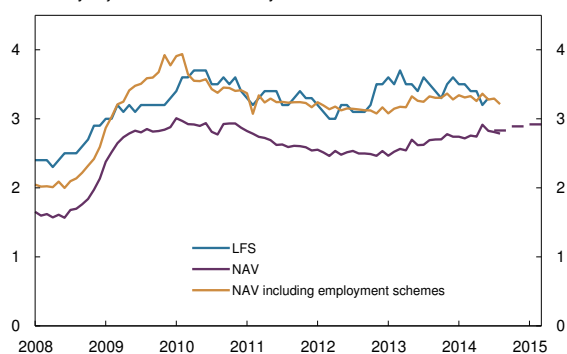


Source: Norges Bank

somewhat more than expected, but there are prospects that employment will grow at a somewhat slower pace ahead. High population growth is likely to contribute to continued growth in the labour force, even though demand for labour may become more moderate. Unemployment is thus expected to show a small increase in the coming quarters.

In recent years, growth in household consumption has been moderate and the saving ratio has been on the rise. Household confidence indicators have improved somewhat, while the enterprises in Norges Bank's regional network reported continued moderate growth in household-oriented industries. The projections for private consumption are broadly unchanged from June, but growth may be slightly higher this year than projected earlier.

Chart 1.11 Unemployment rate. LFS¹⁾ and NAV²⁾. Seasonally adjusted. Percent. January 2008 – March 2015³⁾

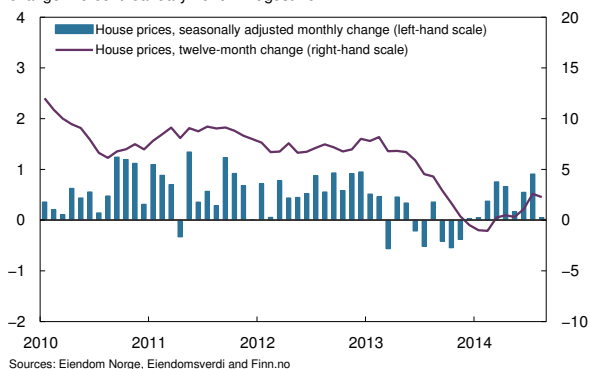


1) Labour Force Survey.
2) Norwegian Labour and Welfare Administration.
3) Projections for September 2014 – March 2015 (broken line).
Sources: Statistics Norway, NAV and Norges Bank

House prices and housing market turnover have picked up again over the past six months. At the same time, the time it takes to sell a dwelling, as measured in the number of days from the first time the dwelling is advertised to the date of sale, is still high compared with the three preceding years. House prices have risen broadly in line with the projections in the June Report, and were 2.3% higher in August than in the same month one year earlier (see Chart 1.12). Household debt growth is just below 7% and is expected to remain at this level ahead.

Growth in housing investment has been weak in recent quarters. New home sales are still moderate. Housing starts have picked up this year. The number of housing starts is expected to stand at a little less than 29 000 this year, down from 30 000 in 2013, albeit higher than projected in the June Report. This suggests that growth in housing investment may pick up somewhat faster than anticipated earlier.

Chart 1.12 House prices. Twelve-month change and seasonally adjusted monthly change. Percent. January 2010 – August 2014



Sources: Eiendom Norge, Eiendomsverdi and Finn.no

Petroleum investment has shown a considerable increase over several years, but has tapered off to a large extent in recent quarters, as expected. The investment intentions survey for petroleum activity indicates somewhat lower investment in 2014 than anticipated earlier and a pronounced decline is still expected in 2015 (see box on page 13). Mainland business investment edged up in 2014 Q2, but has slowed over the past year. On the whole, the projections for business investment are broadly unchanged on the

June Report. Modest growth in Norwegian export markets, combined with high cost growth in Norway, has contributed to sluggish growth in Norwegian exports of traditional goods and services in recent years. Russia's import ban on various food products, including seafood, entails the loss of an export market. The effects on the Norwegian economy are fairly limited, but there are prospects that export growth may be somewhat lower ahead than projected earlier (see box on page 38 for a further discussion on Russian sanctions). However, rising growth abroad is expected to contribute to some pick-up in exports ahead.

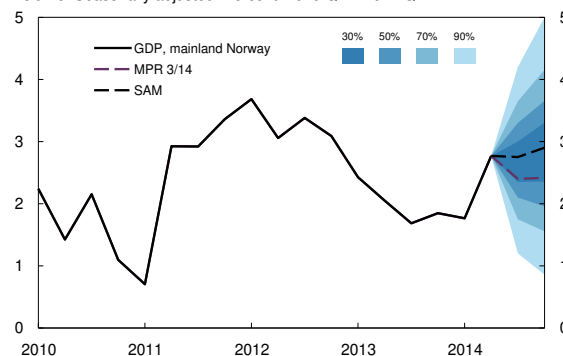
Growth in the Norwegian mainland economy is projected to be low in Q3, but growth is expected to be about ½% per quarter in the following quarters, as projected in the June Report. Housing investment may pick up somewhat faster than previously assumed, while exports of traditional goods and services may be somewhat weaker than projected in the June Report. The projections for mainland GDP are slightly lower than the projections from Norges Bank's System for Averaging short-term Models (SAM) (see Chart 1.13). Weight has been given to the fact that enterprises in Norges Bank's regional network still expect moderate growth in production ahead (see Chart 1.14).

Capacity utilisation in the mainland economy has declined slightly over the past year, but is still assessed to be close to a normal level. According to Norges Bank's regional network, the share of enterprises reporting capacity constraints remains broadly unchanged (see Chart 1.15). Registered unemployment has remained stable at 2.8% and been somewhat lower than projected. Overall capacity utilisation seems to have declined slightly less than anticipated in the June Report.

Wage growth is projected at 3½% in 2014, unchanged compared with the June Report. The projection is consistent with Norges Bank's regional network expectations and the average of expectations of the social partners in the expectations survey conducted by Opinion.

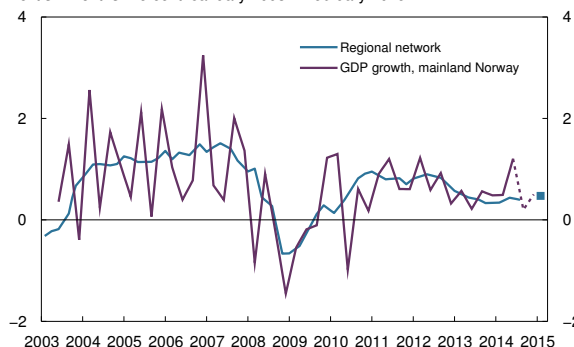
Inflation has been higher than projected in the June Report. In July, the annual rate of increase in con-

Chart 1.13 GDP for mainland Norway. Actual figures, baseline scenario and projections from SAM¹⁾ with fan chart. Four-quarter change. Volume. Seasonally adjusted. Percent. 2010 Q1 – 2014 Q4²⁾



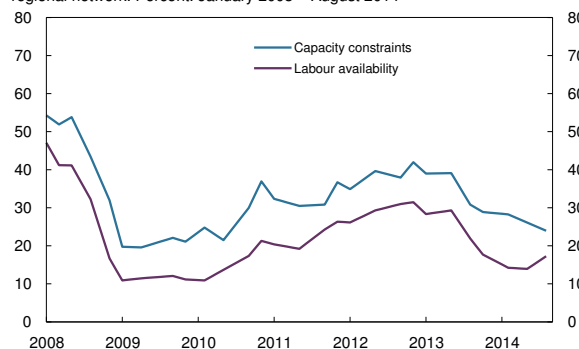
1) System for averaging short-term models.
2) Projections for 2014 Q3 – 2014 Q4 (broken lines).
Sources: Statistics Norway and Norges Bank

Chart 1.14 GDP for mainland Norway¹⁾ and Norges Bank's regional network's indicator of output growth preceding three months and expected output growth next six months. Percent. January 2003 – February 2015²⁾



1) Seasonally adjusted quarterly change. Volume.
2) Latest observation in the regional network is August 2014. Latest GDP observation is 2014 Q2. Projections for 2014 Q3 – 2014 Q4 (broken line).
Sources: Statistics Norway and Norges Bank

Chart 1.15 Capacity constraints and labour availability¹⁾ as reported by Norges Bank's regional network. Percent. January 2008 – August 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

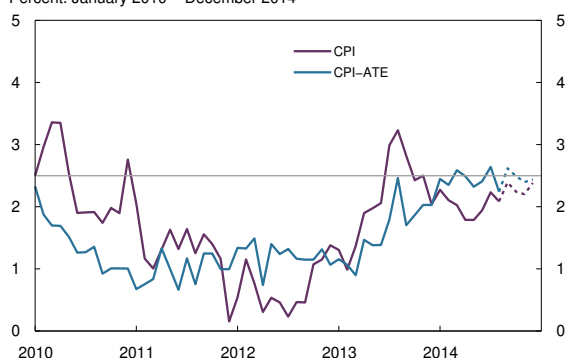
sumer prices (CPI) was 2.2%, while it edged down to 2.1% in August (see Chart 1.16). Adjusted for tax changes and excluding energy products (CPI-ATE), inflation was 2.2% in August, down from 2.6% in July. Underlying inflation is estimated to be between 2% and 2½%.

The rise in prices for domestically produced goods and services in the CPI-ATE has been a little less than 3% so far this year. The rate of increase has been somewhat higher than projected in the June Report (see Chart 1.17). In July, the rapid rise in food prices and non-alcoholic beverages came as a surprise, but the rate of increase edged down again in August. Changes in Statistics Norway's method of calculating prices for food and non-alcoholic beverages in January 2013 may have altered CPI-ATE seasonality and

resulted in higher inflation. The rise in prices for domestically produced goods and services is projected to remain just below 3% in the period ahead.

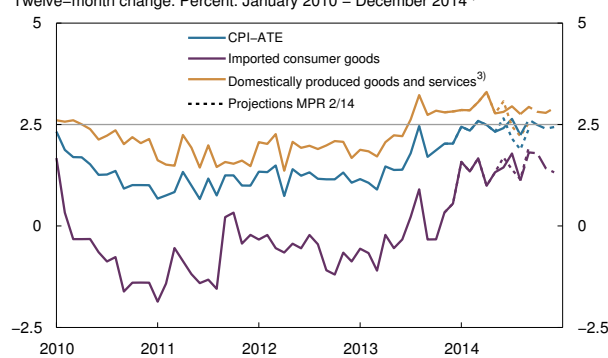
Prices for imported consumer goods rose through 2013 and have remained elevated so far this year. This partly reflects the depreciation of the krone through most of 2013 and in January 2014. The year-on-year rise in prices for imported consumer goods was 1.1% in August, approximately as that projected in the June Report. External price impulses to Norwegian consumer prices are projected to be slightly stronger this year than in 2013 (see Chart 1.18), but the projection is little changed on the June Report. The rise in prices for imported consumer goods is projected to remain fairly steady in the coming months, slowing thereafter as the effect of the krone depreciation unwinds.

Chart 1.16 CPI and CPI-ATE.¹⁾ Twelve-month change. Percent. January 2010 – December 2014²⁾



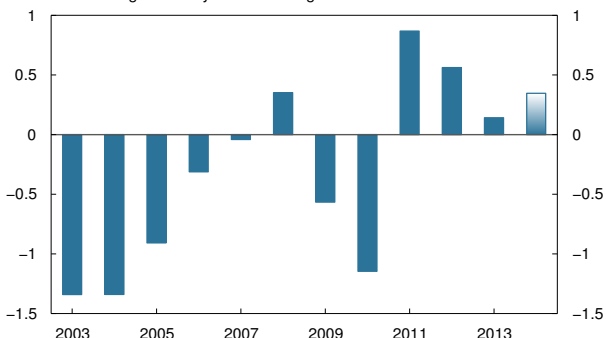
1) CPI adjusted for tax changes and excluding energy products.
2) Projections for September 2014 – December 2014 (broken lines).
Sources: Statistics Norway and Norges Bank

Chart 1.17 CPI-ATE.¹⁾ Total and by supplier sector. Twelve-month change. Percent. January 2010 – December 2014²⁾



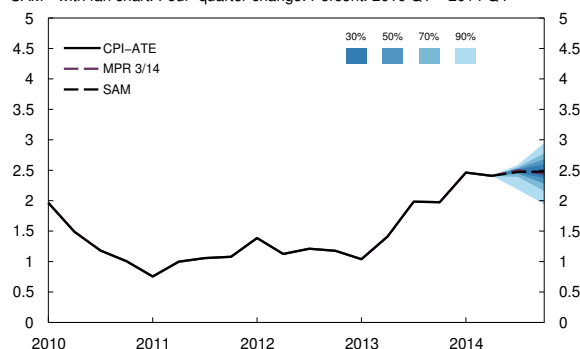
1) CPI adjusted for tax changes and excluding energy products.
2) Projections for September 2014 – December 2014 (broken lines).
3) Norges Bank estimates.
Sources: Statistics Norway and Norges Bank

Chart 1.18 Indicator of external price impulses to imported consumer goods measured in foreign currency. Annual change. Percent. 2003 – 2014¹⁾



1) Projections for 2014.
Source: Norges Bank

Chart 1.19 CPI-ATE¹⁾. Actual figures, baseline scenario and projections from SAM²⁾ with fan chart. Four-quarter change. Percent. 2010 Q1 – 2014 Q4³⁾



1) CPI adjusted for tax changes and excluding energy prices.
2) System for averaging short-term models.
3) Projections for 2014 Q3 – 2014 Q4 (broken lines).
Sources: Statistics Norway and Norges Bank

The year-on-year rise in the CPI-ATE is projected to be somewhat higher in the period ahead than projected earlier (see Chart 1.17). The projections for

CPI-ATE inflation are consistent with the projections from Norges Bank's System for Averaging short-term Models (SAM) (see Chart 1.19).

ASSUMPTIONS CONCERNING PETROLEUM INVESTMENT AND FISCAL POLICY

Petroleum investment has increased considerably in recent years, driven by high oil and gas prices. The rise in investment activity also contributed to a sharp increase in cost levels in the Norwegian petroleum sector. High costs, combined with prospects for somewhat lower oil and gas prices, have led to the postponement of a number of projects recently. At the same time, a number of large investment projects will be completed in 2014 and the following years.

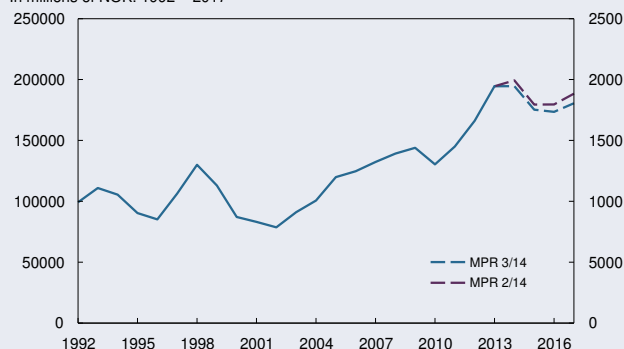
Petroleum investment is projected to remain broadly unchanged from 2013 to 2014 (see Chart 1.20). Investment spending on field development will increase sharply, but will be offset by lower investment in fields in operation. In 2015, investment spending on field development and fields in operation is expected to show a clear decline, but spending on exploration will remain at the current level. Overall, petroleum investment is projected to fall by 10% in 2015 and by a further 1% in 2016. Development of the Johan Sverdrup and Johan Castberg fields is expected to contribute to a pick-up in petroleum investment in 2017.

The fiscal policy assumptions are based on the Revised National Budget for 2014, where petroleum revenue spending, as measured by the structural non-oil deficit, is estimated at NOK 141bn in 2014. This corresponds to 2.8% of the value of the Government Pension Fund Global (GPF) at the beginning of 2014.

The structural non-oil deficit is estimated at 5.8% of trend GDP for mainland Norway in 2014, an increase of 0.7 percentage point on 2013. Since the introduction of the fiscal rule in 2001, the deficit has by this measure increased by an average 0.3 percentage point annually. In the coming years, petroleum revenue spending is assumed to increase at about the same pace as that recorded since 2001, measured as a share of mainland GDP. Based on the current projection of the value of the GPF in the Revised National Budget for 2014, this implies petroleum revenue spending of about 3% of the GPF in 2017 (see Chart 1.21).

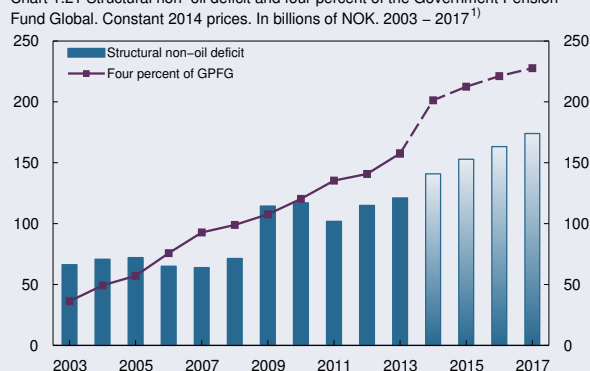
Chart 1.20 Petroleum investment. Constant 2010 prices.

In millions of NOK. 1992 – 2017¹⁾



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

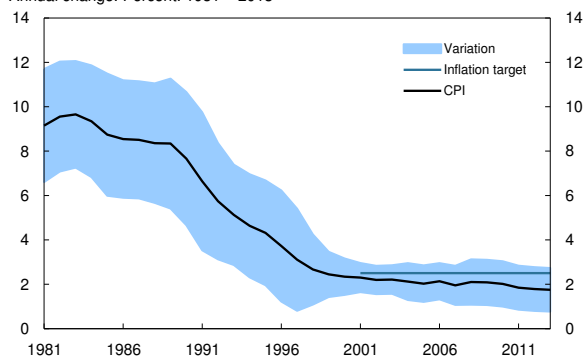
Chart 1.21 Structural non-oil deficit and four percent of the Government Pension Fund Global. Constant 2014 prices. In billions of NOK. 2003 – 2017¹⁾



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

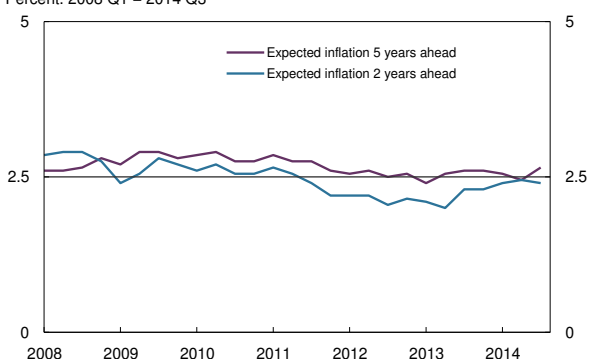
2 MONETARY POLICY OUTLOOK

Chart 2.1 10-year moving average¹⁾ and variation²⁾ 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 \pm 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 Q3



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

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).

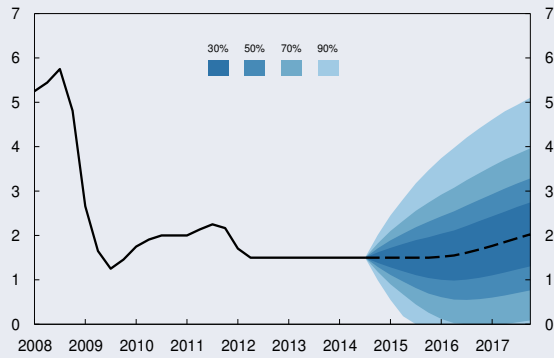
The key policy rate is set with a view to maintaining inflation close to 2.5% over time without causing excessive fluctuations in output and employment. Monetary policy seeks to be robust by taking into account factors such as the uncertainty concerning the current situation, economic driving forces and the functioning of the economy. At the same time, monetary policy seeks to take into account the risk of a build-up of financial imbalances (see box on the criteria for an appropriate interest rate path on page 20).

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 just under 4% for most households, while the interest rate on bank loans to many enterprises is around 4½%.

In the June 2014 *Monetary Policy Report*, the key policy rate was projected to remain approximately at the current level 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% throughout the projection period. Capacity utilisation was projected to decline somewhat in the year ahead, but edge up again to close to a normal level towards the end of the projection period.

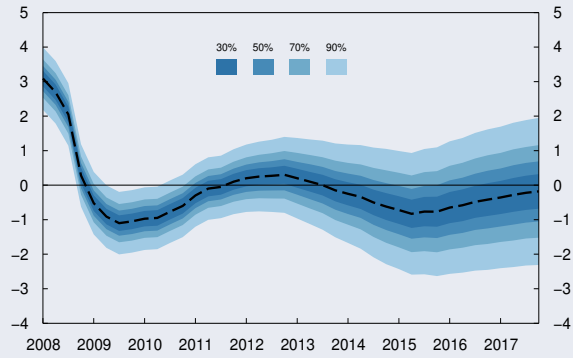
Consumer price inflation has been higher than projected, but underlying inflation is still estimated to be between 2% and 2½%. Inflation is expected to remain somewhat higher than previously projected in the year ahead. The forces driving inflation further ahead are, however, still moderate and prospects for inflation are little changed. Growth in the Norwegian economy in Q2 has been higher than expected, but

Chart 2.3a Projected key policy rate in the baseline scenario with fan chart. Percent. 2008 Q1 – 2017 Q4¹⁾



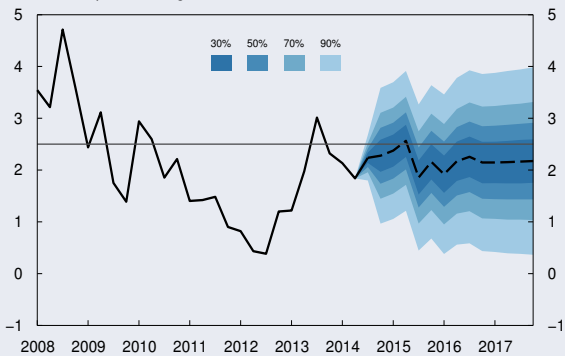
1) Projections for 2014 Q3 – 2017 Q4 (broken line).
Source: Norges Bank

Chart 2.3b Projected output gap¹⁾ in the baseline scenario with fan chart. Percent. 2008 Q1 – 2017 Q4



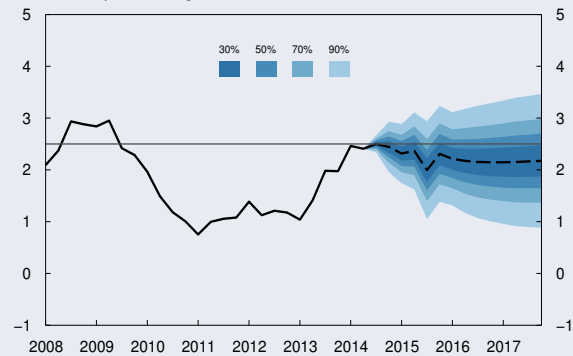
1) The output gap measures the percentage deviation between mainland GDP and projected potential mainland GDP.
Source: Norges Bank

Chart 2.3c Projected CPI in the baseline scenario with fan chart. Four-quarter change. Percent. 2008 Q1 – 2017 Q4¹⁾



1) Projections for 2014 Q3 – 2017 Q4 (broken line).
Sources: Statistics Norway and Norges Bank

Chart 2.3d Projected CPI-ATE¹⁾ in the baseline scenario with fan chart. Four-quarter change. Percent. 2008 Q1 – 2017 Q4²⁾

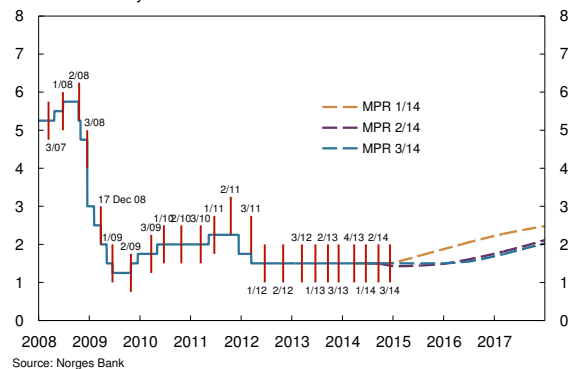


1) CPI adjusted for tax changes and excluding energy products.
2) Projections for 2014 Q3 – 2017 Q4 (broken line).
Sources: Statistics Norway and Norges Bank

this upswing appears to have been temporary. Growth prospects are moderate. Petroleum investment is still expected to show a pronounced decline in 2015. Private consumption has been slightly higher than expected, but is projected to be broadly in line with the projections in the June Report. In addition, it will take time for growth abroad to pick up.

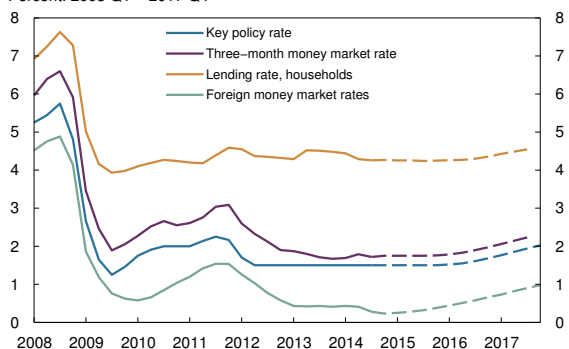
House price inflation has been broadly in line with expectations, while household debt growth has moderated. Recent developments do not suggest a further build-up of financial imbalances (see Section 3 for a more detailed review).

Chart 2.4 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



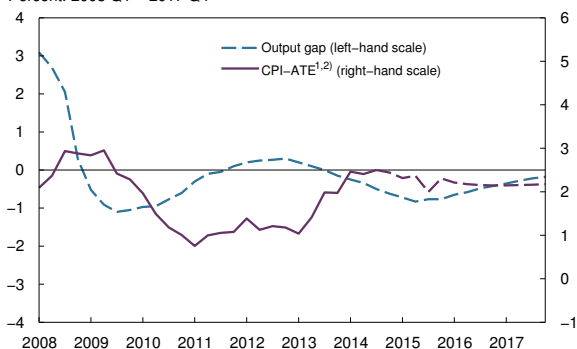
Source: Norges Bank

Chart 2.5 Key policy rate, three-month money market rate¹⁾, interest rate on loans to households²⁾ and foreign money market rates in the baseline scenario. Percent. 2008 Q1 – 2017 Q4³⁾



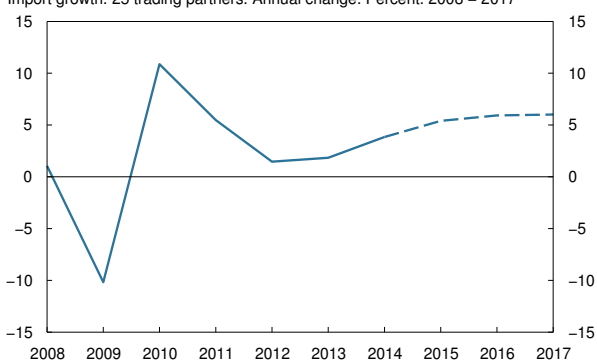
1) Key policy rate in the baseline scenario plus premiums in the Norwegian money market. The calculations are based on the assumption that announced interest rate changes are priced into the money market.
 2) Average interest rate on all loans to households from banks and mortgage companies.
 3) Projections for 2014 Q3 – 2017 Q4 (broken lines).
 Sources: Statistics Norway and Norges Bank

Chart 2.6 Inflation and output gap in the baseline scenario. Percent. 2008 Q1 – 2017 Q4



1) CPI adjusted for tax changes and excluding energy products.
 2) Projections for 2014 Q3 – 2017 Q4 (broken line).
 Sources: Statistics Norway and Norges Bank

Chart 2.7 Export market growth. Import growth. 25 trading partners. Annual change. Percent. 2008 – 2017¹⁾



1) Projections for 2014 – 2017 (broken line).
 Sources: Thomson Reuters and Norges Bank

The projections in this *Report* suggest that the key policy rate should be held at the present level to the end of 2015 and raised gradually thereafter (see Charts 2.3 a-d). Owing to higher inflation and stronger-than-expected activity, the short-term forecast is slightly higher than in the *June Report*. Further ahead, the key policy rate forecast is slightly lower than in June, partly because the expected upward shift in key rates abroad has been pushed further out (see Chart 2.4). A more detailed description of the factors behind the changes in the forecast is provided in a box on page 22. The spread between bank lending rates and the key policy rate is expected to narrow a little through the projection period (see Chart 2.5).

With this path for the key policy rate, there are prospects that inflation will be somewhat below, but close to, 2.5% at the end of the projection period. Capacity utilisation may edge down in the year ahead, but is projected to increase somewhat again to close to a normal level towards the end of the period (see Chart 2.6). Such developments could, in isolation, imply a somewhat lower key policy rate (see box on page 20). A lower key policy rate may, on the other hand, increase the risk of a further build-up of financial imbalances. Uncertainty surrounding the current situation and the functioning of the economy implies proceeding with caution in interest rate setting. By taking such considerations into account, monetary policy may result in an improved path for inflation, output and employment over time.

Growth in the Norwegian economy is expected to be 2¼% in 2014 and 2015 and strengthen to close to 3% towards the end of the projection period. Unemployment may edge up in the year ahead, but then gradually edge down again as economic activity picks up. Growth abroad is expected to pick up and contribute to higher growth in Norwegian exports (see Chart 2.7). At the same time, household saving is expected to edge down (see Chart 2.8). Private consumption growth is projected to pick up from just above 2% in 2014 to around 3% annually for the remainder of the projection period (see Chart 2.9). Petroleum investment is projected to decline by 10% in 2015 and pick up again from 2017.

House prices are projected to rise by about 4% annually in the years ahead. This implies that house price

inflation will be lower than growth in household income ahead. Debt is expected to grow at a somewhat slower pace ahead (see Chart 2.10). There are nevertheless prospects that household debt ratios and interest burdens will continue to drift up over the coming years (see Chart 2.11).

Growth in potential mainland output is projected to pick up somewhat through the period. Productivity growth is currently low, but is projected to move up to about 1½% in the course of the projection period. Labour immigration is still projected to be relatively high so that population growth will continue to make a contribution to growth in potential output ahead.

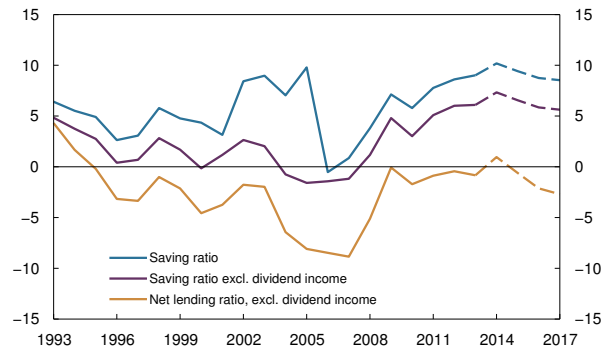
The interest rate differential against other countries is expected to be fairly stable ahead, although slightly higher than in the *June Report*. The projections are based on the assumption that the krone will appreciate somewhat further out from a level that is currently lower than projected in the *June Report* (see Chart 2.12).

Consumer price inflation is projected at 2½% in 2014 and 2¼% in 2015. Continued low inflation abroad and a moderate appreciation of the krone will likely dampen the rise in prices for imported consumer goods further ahead.

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, 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 2.3 a-d). The width of the fans reflects historical uncertainty.

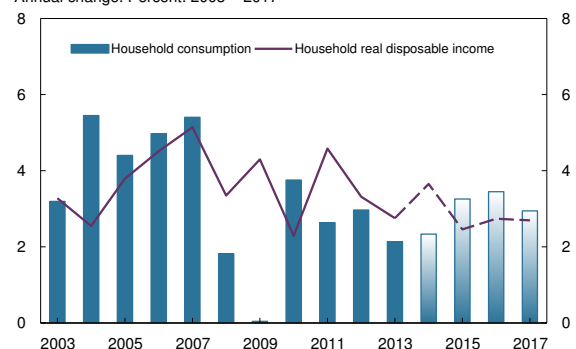
Growth in the Norwegian economy may be weaker than currently envisaged. Global growth in the first half of 2014 was lower than previously assumed. It may prove to take even longer for growth abroad to pick up, with particular uncertainty surrounding the outlook for Europe. The geopolitical situation may

Chart 2.8 Household saving and net lending as a share of disposable income. Percent. 1993 – 2017¹⁾



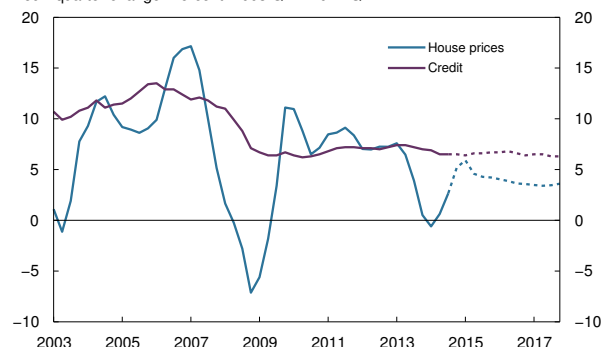
1) Projections for 2014 – 2017 (broken lines).
Sources: Statistics Norway and Norges Bank

Chart 2.9 Household consumption¹⁾ and real disposable income²⁾. Annual change. Percent. 2003 – 2017³⁾



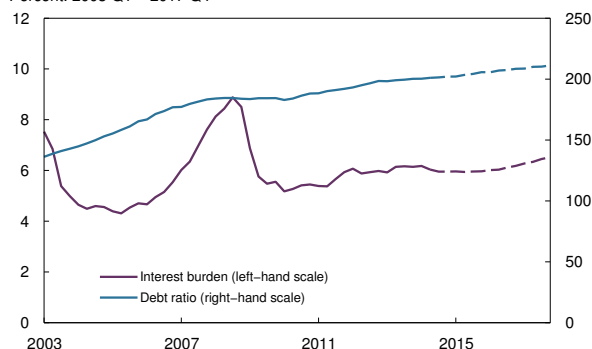
1) Includes consumption for non-profit organisations. Volume.
2) Excluding dividend income. Including income for non-profit organisations.
3) Projections for 2014 – 2017.
Sources: Statistics Norway and Norges Bank

Chart 2.10 Household credit¹⁾ and house prices. Four-quarter change. Percent. 2003 Q1 – 2017 Q4²⁾



1) Domestic credit to households.
2) Projections for 2014 Q3 – 2017 Q4 (broken lines).
Sources: Statistics Norway, Eiendomsverdi, Finn.no and Norges Bank

Chart 2.11 Household debt ratio¹⁾ and interest burden.²⁾
Percent. 2003 Q1 – 2017 Q4³⁾



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 – 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 Q2 – 2017 Q4 (broken lines).
Sources: Statistics Norway and Norges Bank

also influence business and consumer confidence and have a negative impact on consumption and investment. Trade sanctions against Russia may also lead to weaker developments in the Norwegian export industry than currently envisaged.

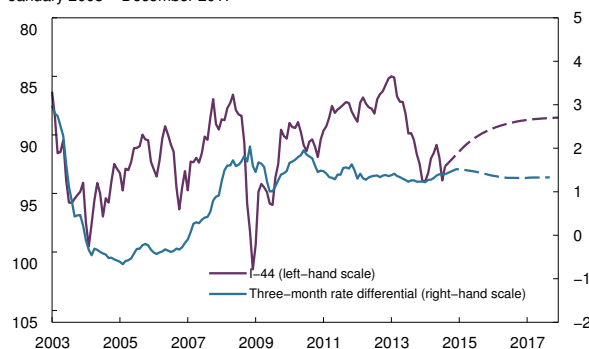
Growth in the Norwegian economy has been higher than projected in Q2, but is likely to be transitory. Growth may, however, continue at a high rate. Reduced uncertainty concerning developments in the Norwegian economy may boost business and consumer confidence. Growth in the Norwegian economy may then be higher than currently projected.

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 around 3.5% (see blue and orange lines in Chart 2.13). The model-robust rule¹ 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 that is somewhat higher than the forecast in this *Report* (see purple line in Chart 2.13). A simple rule giving considerable weight to changes in the interest rate differential against other countries implies a key policy rate now of around 2%. This rule implies a key policy rate ahead converging towards the interest rate in the baseline scenario (see green line).

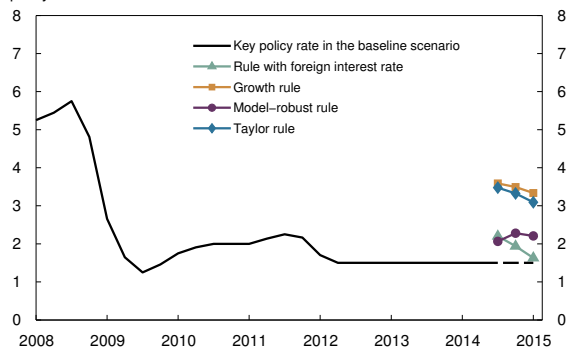
Such simple rules can be used as a cross-check of actual interest rate setting, but do not necessarily capture all the factors that are relevant for monetary policy. The Taylor rule, the growth rule and the model-robust rule do not, for example, take into account that key rates among many of Norway's trading partners

Chart 2.12 Three-month money market rate differential between Norway¹⁾ and trading partners and import-weighted exchange rate index (I-44).²⁾
January 2003 – December 2017³⁾



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 September 2014 – December 2017 (broken lines).
Sources: Thomson Reuters and Norges Bank

Chart 2.13 Key policy rate and calculations based on simple monetary policy rules.¹⁾ Percent. 2008 Q1 – 2015 Q1



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

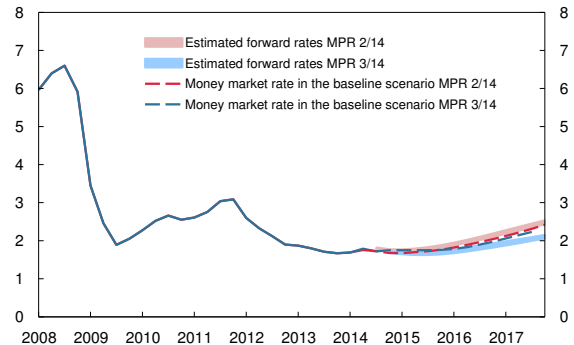
1 For a further analysis of this rule and other simple monetary policy rules, see Maria Brunborg Hoen, "The golden interest rule", *Norges Bank Staff Memo 16/2012* and Mathias Mæhlum, "Robustifying optimal monetary policy in Norway", *Norges Bank Staff Memo 17/2012*.

are close to zero. These rules respond to the recent increase in inflation and level of activity, but this increase is probably temporary. None of the simple rules captures the wider-than-normal spread between bank lending rates and money market rates (see Chart 2.5).

Forward money and bond market rates 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* throughout the projection period (see Chart 2.14).

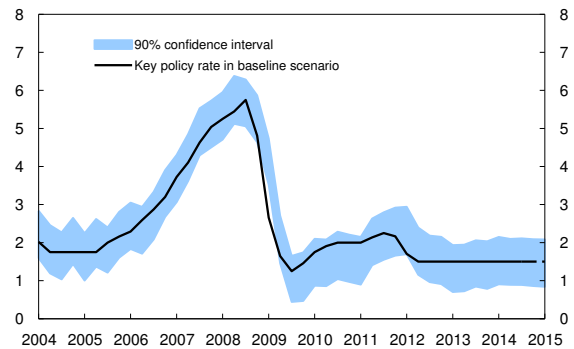
A simple rule based on Norges Bank's previous interest rate setting can also serve as a cross-check for the interest rate in the baseline scenario. Chart 2.15 shows such a rule, where the key policy rate is determined by developments in inflation, wage growth, mainland GDP and external interest rates. 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 underlying variables 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 2.14 Three-month money market rate in the baseline scenario¹⁾ 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 30 May – 12 June 2014 and 29 August – 11 September 2014.
Sources: Thomson Reuters and Norges Bank

Chart 2.15 Key policy rate and interest rate developments that follow from Norges Bank's average pattern for interest rate setting.¹⁾ Percent. 2004 Q1 – 2015 Q1



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 previous period. The equation is estimated over the period 1999 Q1 – 2014 Q2. 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 economic situation. In addition, events will often occur that are difficult to foresee. At the same time, monetary policy also seeks to mitigate the risk of a build-up of financial imbalances. A prolonged rise 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.

Chart 2.16a Key policy rate. Percent. 2008 Q1 – 2017 Q4

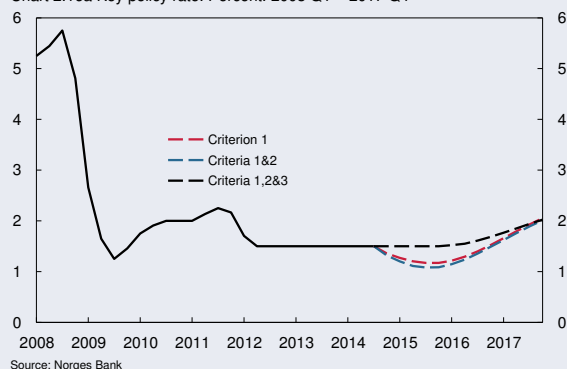
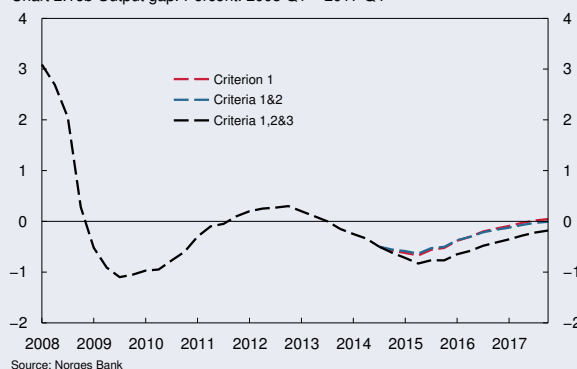


Chart 2.16b Output gap. Percent. 2008 Q1 – 2017 Q4



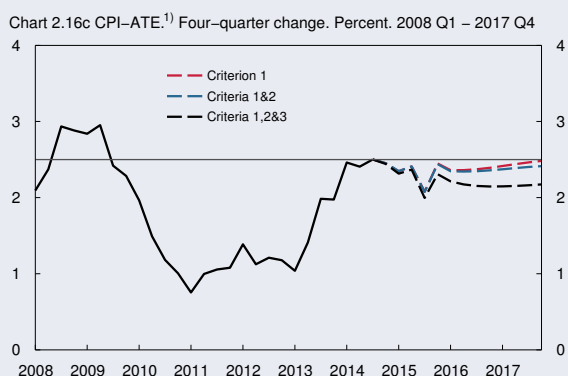
The various considerations expressed in the criteria are weighed against each other. The first two criteria reflect the flexible inflation targeting regime. The consideration of robustness is not an objective in itself, but is included because in an uncertain world taking robustness into consideration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

Charts 2.16 a-c illustrate how different monetary policy strategies could affect the outcome for the key policy rate, the output gap and inflation. The different paths for the key policy rate deviate when different monetary policy considerations must be weighed against each other. The distance between the different paths for the key policy rate will therefore depend on the economic situation, 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 economic situation 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.

If the sole objective of monetary policy were to maintain inflation at target, the key policy rate would, according to a model-based analysis, quickly be lowered by approximately ½ percentage point before being raised gradually in subsequent years (see red line in the charts).¹ According to the model-based analysis, the key policy rate will be kept low somewhat longer when account is also taken of the consideration that monetary policy should not lead to excessive fluctuations in output and employment (see blue line).

The robustness consideration pushes up the interest rate path. A robust monetary policy seeks to take into account that the functioning of the economy is not fully known. This normally suggests a gradualist approach in interest rate setting. A reduction in the key policy rate at this time may increase the risk of a surge in debt and house prices and a further build-up of financial imbalances. In the baseline scenario (see black line), the key policy rate is somewhat higher than implied by a model-based analysis that does not take robustness into consideration.



¹ Norges Bank's macroeconomic model NEMO has been used in this model analysis.

CHANGES IN THE PROJECTIONS SINCE MONETARY POLICY REPORT 2/14

The interest rate forecast in this *Monetary Policy Report* is broadly unchanged from the forecast in the June 2014 *Report* (see Chart 2.17). The projections are based on the criteria for an appropriate interest rate path (see box on page 20), an overall assessment of the situation in the Norwegian and global economy and Norges Bank's perception of the functioning of the economy.

Chart 2.18 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 March *Report* is shown by the black line.

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

Global growth prospects have weakened slightly since the June *Report*. This points towards a slightly lower key policy rate (see green bars).

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 June *Report*, primarily driven by lower interest rate expectations in the euro area and in Sweden. Lower interest rates abroad suggest that the key policy rate will also remain low in Norway for longer (see dark blue bars).

The krone has on average been somewhat weaker than projected in the June *Report*. In isolation, a weaker krone contributes to both slightly higher inflation and slightly higher activity in the economy. This points towards a higher key policy rate (see light blue bars).

Chart 2.17 Key policy rate in the baseline scenario in MPR 2/14 with fan chart and key policy rate in the baseline scenario in MPR 3/14 (purple line). Percent. 2008 Q1 – 2017 Q4

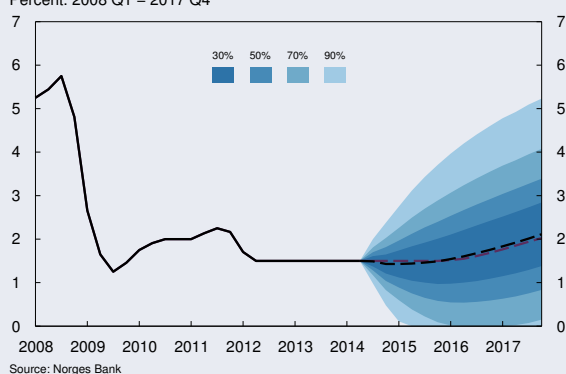
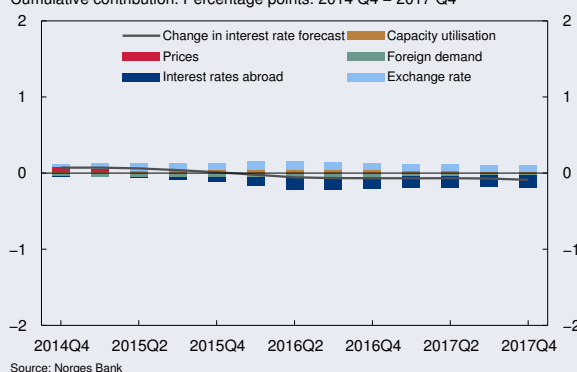


Chart 2.18 Factors behind changes in the interest rate forecast since MPR 2/14. Cumulative contribution. Percentage points. 2014 Q4 – 2017 Q4



Consumer price inflation has been a little higher than expected since the *June Report*. The forces driving inflation ahead are expected to remain moderate. Slightly higher inflation suggests a marginally higher interest rate in the quarters ahead (see red bars).

Growth in the Norwegian economy has been stronger and unemployment somewhat lower than projected in the *June Report*. Capacity utilisation is still assessed

to be close to a normal level and has likely declined a little less than previously assumed. The driving forces ahead are nevertheless assessed to be little changed from the previous *Report*. Slightly higher-than-expected capacity utilisation suggests a slightly higher key policy rate (see orange 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 3/14. Percentage change from previous year (unless otherwise stated). Change from projections in Monetary Policy Report 2/14 in brackets

	2014	2015	2016	2017
CPI	2 (0)	2¼ (¼)	2 (-¼)	2¼ (0)
CPI-ATE ¹	2½ (¼)	2¼ (¼)	2¼ (0)	2¼ (0)
Annual wages ²	3½ (0)	3½ (0)	4 (0)	4 (0)
Mainland demand ³	2 (¼)	3¼ (0)	3¼ (0)	2¾ (0)
GDP, mainland Norway	2¼ (¼)	2¼ (0)	2¾ (0)	2¾ (-¼)
Output gap, mainland Norway (level) ⁴	-½ (0)	-¾ (0)	-½ (0)	-¼ (0)
Employment, persons, QNA	1 (0)	¾ (0)	1 (0)	1¼ (0)
Registered unemployment (rate, level)	2¾ (0)	3 (0)	3 (0)	2¾ (0)
Level				
Key policy rate ⁵	1½ (0)	1½ (0)	1½ (-¼)	2 (0)
Import-weighted exchange rate (I-44) ⁶	92¼ (¾)	90¼ (¼)	89 (-¼)	88½ (-½)
Money market rates, trading partners ⁷	¼ (-¼)	¼ (-¼)	½ (-¼)	¾ (-½)

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 32). Banks should build and hold a countercyclical capital buffer when financial imbalances are building up or have built up over a period. 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.

INDICATORS OF FINANCIAL IMBALANCES

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 finan-

cial crisis, growth in both household and corporate credit has slowed somewhat (see Chart 3.2). The credit indicator has remained fairly stable over the past few years.

Growth in household debt has slowed slightly in recent quarters, possibly reflecting the slowdown in house price inflation through 2013. Nevertheless, growth in household debt is still higher than income growth (see Chart 3.3). High and rising household debt-to-income ratios increase household vulnerability to a loss of income, interest rate increases and a fall in house prices.

The banks in Norges Bank's lending survey reported higher household credit demand in the first half of 2014 (see Chart 3.4). There are signs that banks are easing credit standards for the household sector. Lately, some banks have announced lower residential mortgage rates for selected groups of borrowers.

For a long time, house prices rose faster than household disposable income (see Chart 3.5). House prices

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.

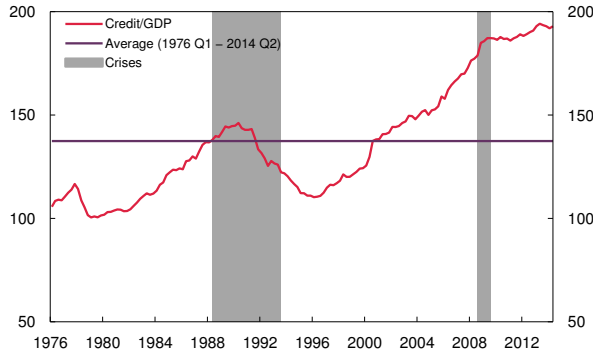
Section 3

This regulation enters into force immediately."

In a letter to the Ministry of Finance on 18 June 2014, Norges Bank assessed 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. On 27 June, the Ministry of Finance decided to keep the buffer rate unchanged.

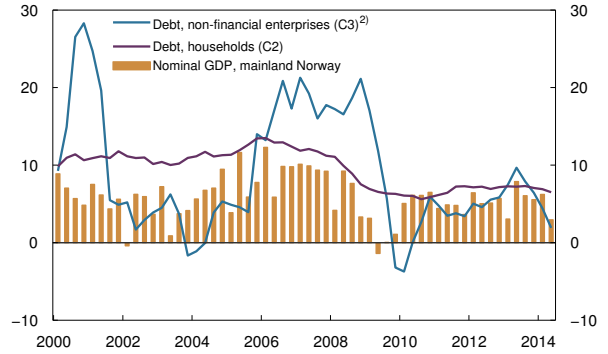
¹ See "Advice on the countercyclical capital buffer, 2014 Q2", Norges Bank 27 June 2014.

Chart 3.1 Total credit¹⁾ mainland Norway as a share of mainland GDP. Percent. 1976 Q1 – 2014 Q2



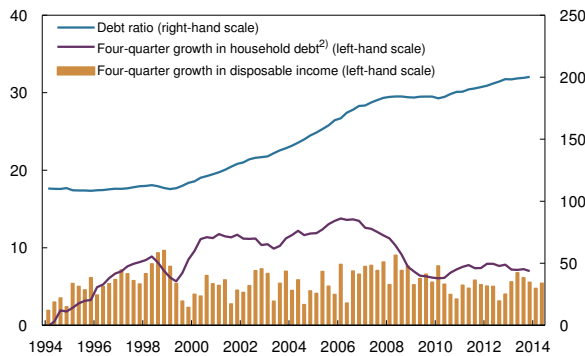
1) The sum of C2 households and C3 non-financial enterprises in mainland Norway (all non-financial enterprises pre-1995). C3 comprises C2 and foreign debt.
Sources: Statistics Norway, IMF and Norges Bank

Chart 3.2 Credit to households and non-financial enterprises and mainland GDP. Four-quarter growth.¹⁾ Percent. 2000 Q1 – 2014 Q2



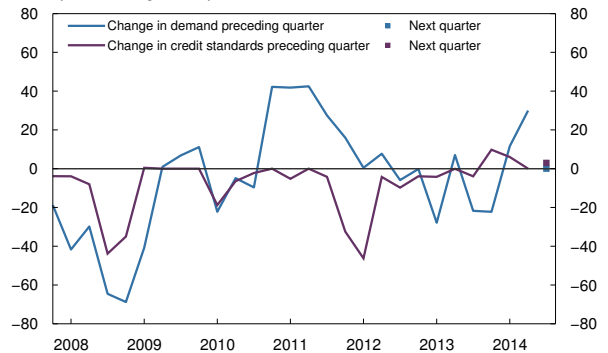
1) Change in stocks at the end of the quarter.
2) Sum of C2 non-financial enterprises and foreign debt in mainland Norway.
Sources: Statistics Norway and Norges Bank

Chart 3.3 Household debt-to-disposable income ratio.¹⁾ Percent. 1994 Q1 – 2014 Q2



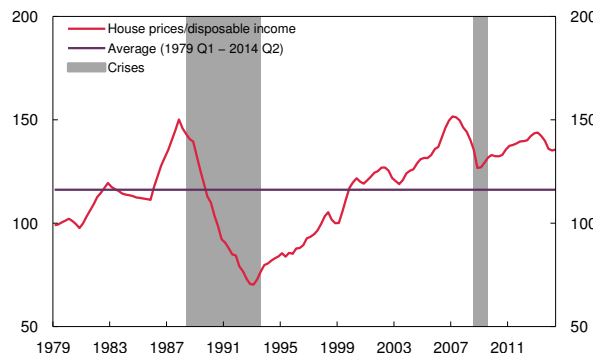
1) Loan debt as a percentage of disposable income, adjusted for estimated reinvested dividend income for 2000 – 2005 and redemption/reduction of equity capital for 2006 Q1 – 2012 Q3.
2) Change in stocks at the end of the quarter. Last observation on 2013 Q4.
Sources: Statistics Norway and Norges Bank

Chart 3.4 Changes in credit demand and banks' credit standards preceding quarter, and expected change next quarter.¹⁾ Households. Percent. 2007 Q4 – 2014 Q3



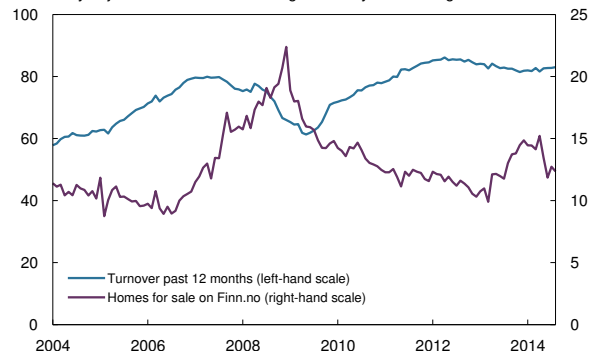
1) Negative figures denote lower demand or tighter credit standards.
Source: Norges Bank

Chart 3.5 House prices¹⁾ relative to disposable income²⁾. Indexed. 1998 Q4 = 100. 1979 Q1 – 2014 Q2



1) Quarterly figures pre-1990 are calculated by linear interpolation of annual figures. House price index last quarter. Up to and including MPR 2/14, the house price indicator was calculated as an average of the house price index over the previous four quarters.
2) Adjusted for estimated reinvested dividend income for 2000 – 2005 and redemption/reduction of equity capital for 2006 Q1 – 2012 Q3.
Sources: Statistics Norway, Eiendom Norge, Norwegian Association of Real Estate Agents (NEF), Finn.no, Eiendomsverdi and Norges Bank

Chart 3.6 Turnover and homes for sale. Seasonally adjusted. In 1000s of dwellings. January 2004 – August 2014



Sources: Eiendom Norge, Finn.no and Eiendomsverdi

fell in autumn 2013, but have risen again since November. Since the start of 2014, house prices have risen at approximately the same pace as household income. Housing market turnover has picked up in the past six months, and the stock of homes for sale has edged down in recent months (see Chart 3.6).

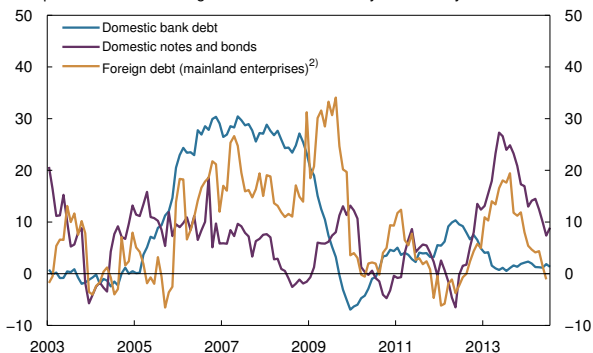
Mainland corporate debt has grown at a moderate pace over the past year (see Chart 3.2). Growth in bank lending, which is the primary credit source for enterprises, has been low (see Chart 3.7). The banks in Norges Bank's lending survey reported unchanged credit standards and a slight increase in demand for

corporate loans in the first half of 2014 (see Chart 3.8). Large enterprises have ample access to funding through the bond market. Growth in bond debt has been high in recent years, but has slowed somewhat in recent quarters.

Norwegian listed companies' debt-servicing capacity has risen recently, but is still lower than in the years prior to the financial crisis (see Chart 3.9).

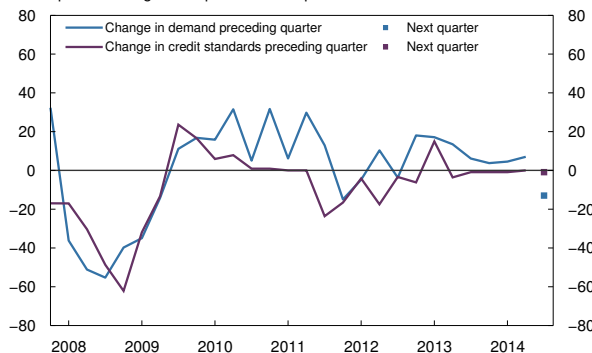
Norwegian banks' largest credit exposure is to the commercial property market. Bank lending to the commercial property sector has continued to grow

Chart 3.7 Credit from selected funding sources to Norwegian non-financial enterprises. Twelve-month growth¹⁾ Percent. January 2003 – July 2014



1) Change in stocks.
2) To end-June 2014.
Sources: Statistics Norway and Norges Bank

Chart 3.8 Changes in credit demand and banks' credit standards preceding quarter, and expected change next quarter.¹⁾ Enterprises. Percent. 2007 Q4 – 2014 Q3



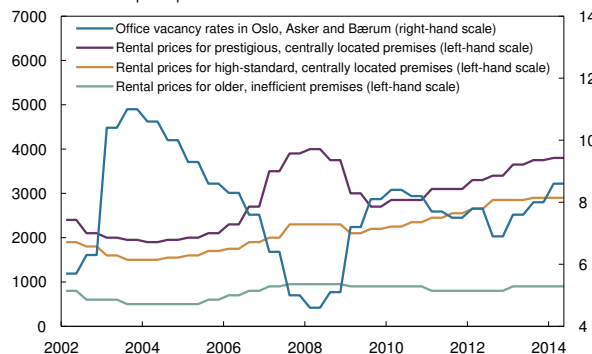
1) Negative figures denote lower demand or tighter credit standards.
Source: Norges Bank

Chart 3.9 Debt-servicing capacity¹⁾ of listed companies. Percent. 2003 Q1 – 2014 Q2



1) Pre-tax profit plus depreciation and amortisation for the previous four quarters as a percentage of interest-bearing debt for non-financial companies included in the OBX index (excluding Statoil).
Sources: Bloomberg, Statistics Norway and Norges Bank

Chart 3.10 Vacancy rates¹⁾ and rental prices for office premises in Oslo. Percent and NOK per square metre. 2002 H1 – 2014 H1



1) Number of square metres of vacant office premises as a percentage of total number of square metres.
Sources: DNB Næringsmegling, OPAK, Dagens Næringsliv and Norges Bank

in recent years. The increase in bond financing has also been particularly strong in this sector compared with most other sectors.

Commercial property values are partly dependent on rental prices. Historically, rental prices have been volatile and can react rapidly to changes in market conditions. Rental prices for attractive centrally located office premises in Oslo have risen in recent years. Rental prices for low-standard office premises have remained broadly unchanged (see Chart 3.10).

Since the financial crisis, the vacancy rate for office space in Oslo has been around 8% (see Chart 3.10). Market participants expect a broadly unchanged or somewhat lower vacancy rate ahead, which may hold rental prices at their current level or contribute to some increase.

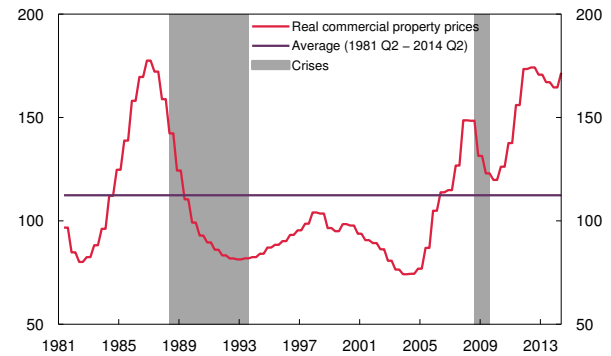
The price indicator for commercial property, which is based on estimated market prices for high-standard office premises in Oslo, has risen over the past six months (see Chart 3.11). The indicator is at a high level.

Norwegian banks were dependent on market funding to finance strong lending growth in the years prior to the financial crisis (see Chart 3.12). In recent years, high deposit growth, combined with moderate lending growth, has had a stabilising effect on the share of market funding in the banking sector. Bond debt in NOK and foreign currency has accounted for an increasing share of market funding in the banking sector (see Chart 3.13).

The four indicators of financial imbalances are at historically high levels (see Charts 3.1, 3.5, 3.11 and 3.12). They are also higher than most of the estimated long-term trends (see box on page 30). This indicates that financial imbalances that may trigger or amplify an economic downturn have built up. Recent developments do not suggest that financial imbalances are building up further. Should house prices rise markedly faster than household income ahead and credit growth rise, financial imbalances may increase again.

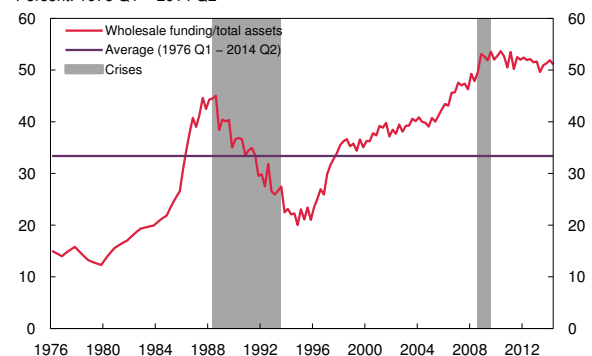
A method for early warning of financial crises using information from several indicators is described in the box on page 40.

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



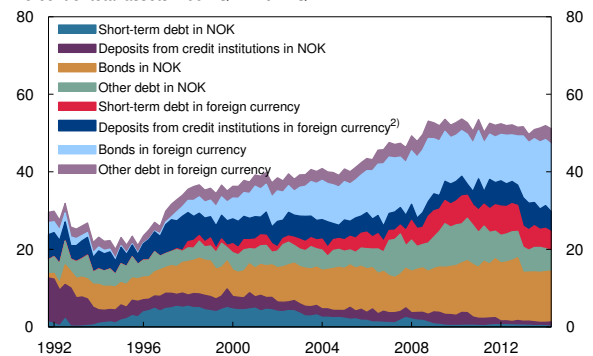
1) Estimated market prices for office premises in Oslo deflated by the GDP deflator for mainland Norway.
Sources: Dagens Næringsliv, OPAK, Statistics Norway and Norges Bank

Chart 3.12 Banks¹⁾ wholesale funding as a share of total assets.²⁾
Percent, 1976 Q1 – 2014 Q2



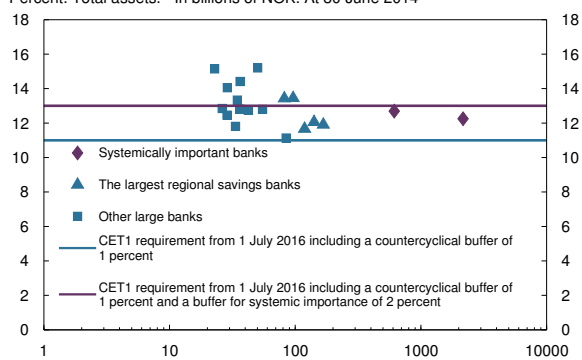
1) All banks and covered bond mortgage companies in Norway excluding branches and subsidiaries of foreign banks in Norway.
2) Quarterly figures pre-1989 are calculated by linear interpolation of annual figures.
Source: Norges Bank

Chart 3.13 Decomposition of banks¹⁾ wholesale funding share.
Percent of total assets, 1991 Q4 – 2014 Q2



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 3.14 Banking groups¹⁾ Common Equity Tier 1 (CET1) capital ratios. Percent. Total assets.²⁾ In billions of NOK. At 30 June 2014³⁾



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 for 2014 H1 are added in full to CET1 capital.
 Sources: Banking groups' quarterly reports and Norges Bank

BANKS' ADJUSTMENT PROCESS

At the end of Q2, all large Norwegian banking groups satisfied the required CET1 ratio of 10% as from 1 July 2014 by an ample margin (see Chart 3.14). Banks posted solid earnings in the first half of 2014. The largest banks¹ combined have a CET1 ratio of 12.4% if the profits for the first half of the year are added in full to CET1.

Developments over the past couple of years indicate that banks can increase their CET1 ratios by around 1 percentage point per year by means of profit retention. Equity issues are a means for banks to rapidly meet increased capital requirements without having to restrict lending capacity. Banks can also choose to sell assets or curb new lending in order to increase their capital ratios more rapidly.

New regulations for the calculation of residential mortgage risk weights were introduced in 2014, (see box on Norwegian capital adequacy regulations on page 29). The new regulations result in an increase in risk weights, but the effect on capital ratios will depend on whether banks are bound by the transitional rule. The Ministry of Finance has also recently issued regulations to implement several of the remaining provisions of the EU capital adequacy legislation, pending their inclusion in the EEA Agreement. The effect of changes in risk weights and the latest regulatory changes on CET1 ratios may vary across banks. CET1 ratios may increase for some banks, while CET1 ratios for most banks probably will be unchanged or somewhat lower.

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.

CHANGES TO NORWEGIAN CAPITAL ADEQUACY REGULATIONS

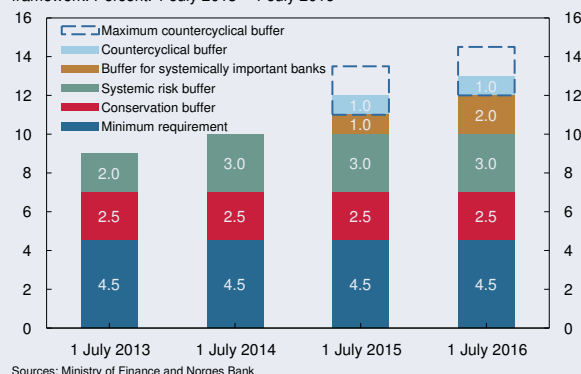
EU capital adequacy legislation (CRD IV/CRR) entered into force on 1 January 2014. The legislation will eventually apply in Norway through the EEA Agreement. The capital and buffer requirements in the legislation entered into force in Norway on 1 July 2013. Chart 3.15 presents the timetable for the phasing-in of the requirements in the period to 1 July 2016.

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. The regulatory amendments may, in isolation, result in higher CET1 ratios for some banks and lower for others. 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 made clear that the systemic risk buffer requirement will apply to both the domestic and foreign exposures of Norwegian systemically important banks.

With effect from 1 July 2014, the CET1 capital requirement for Norwegian financial institutions is 10%. On top of this, a countercyclical capital buffer of 1% is required as from 1 July 2015. 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. On 12 May 2014, the Ministry of Finance designated DNB ASA, Nordea Bank Norge ASA and Kommunalbanken AS¹ as systemically important. 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 risk weights for residential mortgages. 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 loan 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 rule⁴. For IRB banks that are still bound, 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.

Chart 3.15 Common Equity Tier 1 capital requirements in the new regulatory framework. Percent. 1 July 2013 – 1 July 2016



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.

TREND CALCULATION AND BUFFER GUIDE¹

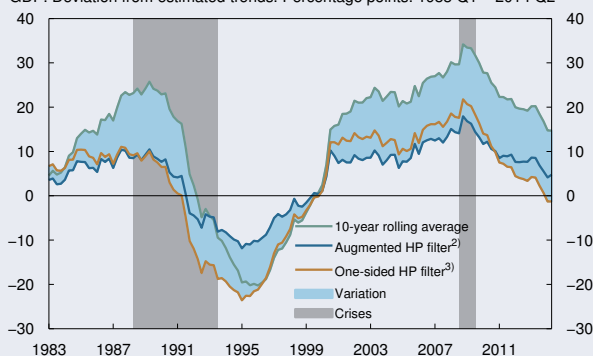
Norges Bank analyses developments in four key indicators and compares the current situation with long-term trends. There is considerable uncertainty related to trend calculations and hence to measures of financial imbalances. Given this uncertainty, different methods of calculating trends have been considered.

Norges Bank has so far used three methods to calculate trends²: a one-sided Hodrick-Prescott (HP) filter as applied by the Basel Committee on Banking Supervision, a one-sided HP filter 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 period. For credit relative to GDP and

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

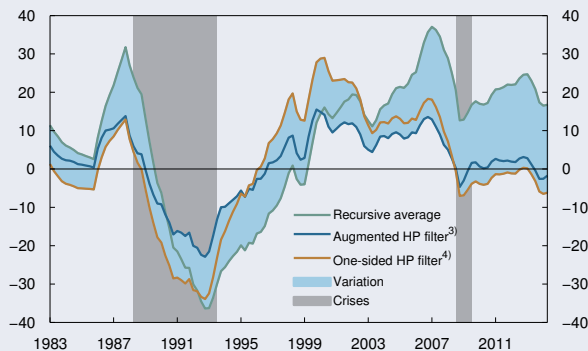
2 For further details, see box on measuring financial imbalances on page 30 in *Monetary Policy Report* 2/2013.

Chart 3.16a Credit gap. Total credit¹⁾ mainland Norway as a share of mainland GDP. Deviation from estimated trends. Percentage points. 1983 Q1 – 2014 Q2



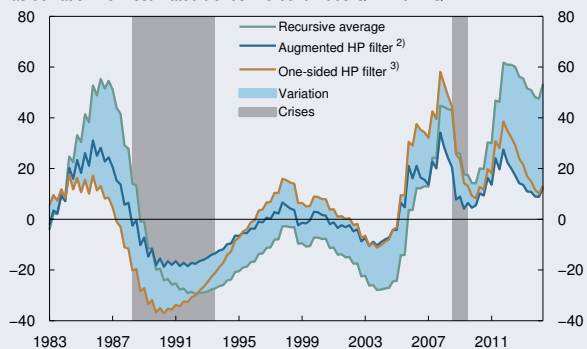
1) The sum of C2 households and C3 non-financial enterprises in mainland Norway (all non-financial enterprises pre-1995). C3 comprises C2 and foreign debt.
2) One-sided Hodrick-Prescott filter estimated on data augmented with a simple projection. Lambda = 400 000.
3) One-sided Hodrick-Prescott filter.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

Chart 3.16b House price gap. House prices¹⁾ relative to disposable income²⁾. Deviation from estimated trends. Percent. 1983 Q1 – 2014 Q2



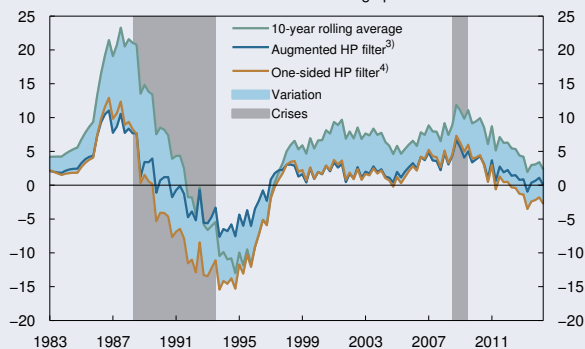
1) Quarterly pre-1990 figures are calculated by linear interpolation of annual figures.
2) Adjusted for estimated reinvested dividend income for 2000 – 2005 and redemption/reduction of equity capital for 2006 Q1 – 2012 Q3.
3) One-sided Hodrick-Prescott filter estimated on data augmented with a simple 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 3.16c Commercial property price gap. Real commercial property prices¹⁾ as deviation from estimated trends. Percent. 1983 Q1 – 2014 Q2



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 3.16d Wholesale funding gap. Banks¹⁾ wholesale funding as a share of total assets.²⁾ Deviation from estimated trends. Percentage points. 1983 Q1 – 2014 Q2



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

banks' share of market funding, a 10-year rolling average is used.

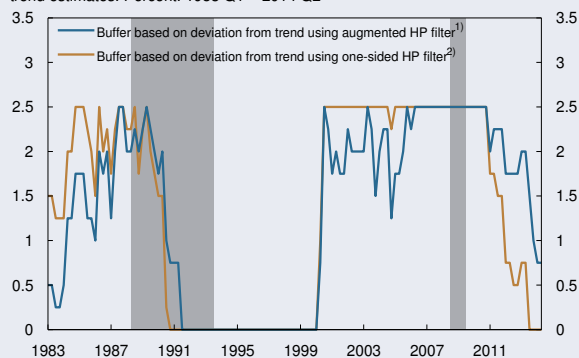
Chart 3.16 a shows the credit indicator as deviation from the estimated trends. The gaps between indicator and trends have narrowed in recent years, but the indicator is still higher than two out of three trends. While the credit indicator was fairly stable in the years following the financial crisis, the trend calculated using the one-sided HP filter has continued to rise rapidly. If the pre-financial crisis rate of increase 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 3.16 b-d show developments in the other key indicators as deviations from calculated trends. All the indicators are at high levels. In recent years, the deviations between indicators and trends have narrowed, but most of the gaps are positive.

The Basel Committee has proposed a simple rule for calculating a reference rate for the 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 Q2 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 ¾% (see Chart 3.17).

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

Chart 3.17 Reference rates for the countercyclical capital buffer under alternative trend estimates. Percent. 1983 Q1 – 2014 Q2



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

CRITERIA FOR AN APPROPRIATE COUNTERCYCLICAL CAPITAL BUFFER¹

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 commercial 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 30). 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 on a quarterly basis calculate a buffer guide as a reference in setting the countercyclical buffer rate.

There will not be a mechanical relationship between the indicators, the gaps or recommendations from the ESRB³ 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 into account other factors. 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 whether 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.

BOXES

International economy – developments in different regions and countries

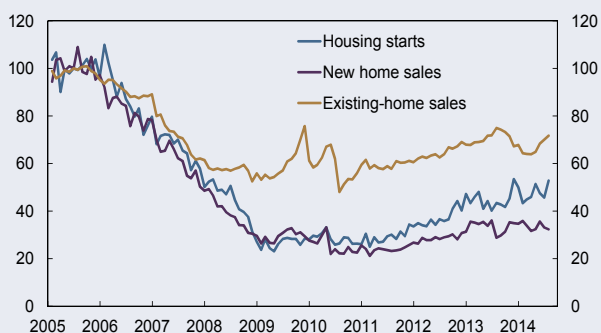
Effect of economic sanctions between Russia, the US and Europe

Early warning models for financial crises

INTERNATIONAL ECONOMY – DEVELOPMENTS IN DIFFERENT REGIONS AND COUNTRIES

GDP growth in the US picked up strongly in 2014 Q2 after a very weak start to the year. Both private consumption and investment contributed to the pace of growth, although inventories also showed a substantial increase. Developments were in line with the projections in the June 2014 *Monetary Policy Report*. Activity indicators point to solid growth through summer, but there are signs that the pace of growth slowed somewhat compared with spring. The composite PMI for manufacturing and services edged down in July and August, but is still high, and manufacturing output has remained solid. Household confidence is also high, but growth in retail trade has softened in recent months. Developments in the housing market are still uneven. While sales of existing homes have been driven to some extent by investors purchasing residential property in forced sales and/or at reduced prices, housing starts have been highly volatile and sales of new homes have stagnated (see Chart 1). GDP growth is projected to be about 2% in 2014, picking up thereafter to around 3% for the remainder of the projection period (see Annex, Table 3). It is assumed that household demand will pick up further, stimulated by increased income growth, expansionary monetary policy and reduced fiscal tightening. At the same time, favourable funding conditions and higher demand will support investment.

Chart 1 US housing market. Index. June 2005 = 100. January 2005 – July 2014

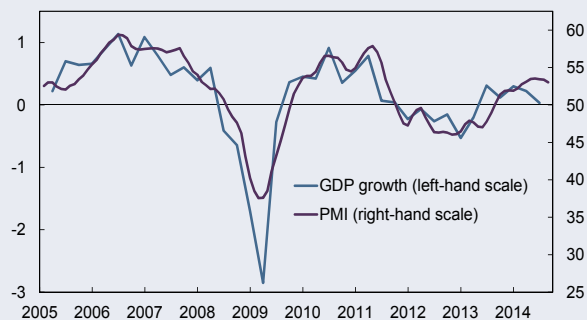


Source: Thomson Reuters

After several years of low inflation in the US, the pace of inflation picked up in Q2, driven in particular by prices for services. Inflation is expected to rise further towards 2¼% through the projection period, in line with the increase in capacity utilisation.

The gradual recovery in the euro area seems to be continuing, in spite of weaker-than-expected developments in spring. GDP in Q2 was unchanged on the previous quarter. Private consumption and net exports made a positive contribution, while investment and destocking dragged down economic growth. The level of manufacturing output fell in both May and June. The decline in May can partly be explained by the timing of public holidays, but weak developments in June have contributed to elevated uncertainty about the pace of economic growth at the beginning of Q3. However, solid growth in output and new orders in Germany's manufacturing sector in July points towards a recovery in manufacturing output in Q3. Annual growth in retail trade excluding food and fuel remained firm in July, and the level of household confidence indicates that growth will continue. Manufacturing survey indicators have fallen, but still point towards higher underlying growth than implied by GDP figures for Q2 (see Chart 2). Thus, the overall pace of growth is expected to pick up some-

Chart 2 Euro area: Quarterly GDP growth. Percent. 2005 Q1 – 2014 Q2. PMI Composite Output, three-month average. Diffusion index centred around 50. January 2005 – August 2014



Source: Thomson Reuters

what in the second half of the year, although growth in 2014 will be lower than projected in the *June Report*.

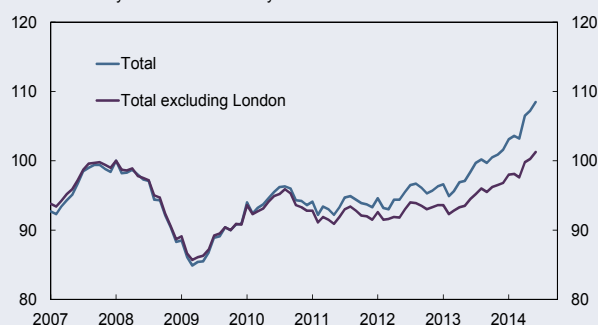
The most recent measures by the European Central Bank (ECB), a gradual improvement in funding conditions and less contractionary fiscal policy will contribute to supporting euro area demand. Exports are expected to increase in pace with global demand and the growth contribution of net exports is expected to be slightly positive as from 2015. At the same time, the need to deleverage in the private and public sector will continue to weigh on growth ahead. The pace of deleveraging has, however, fallen since summer 2013, and the ECB Q2 bank lending survey reported that lending conditions had eased for both households and enterprises. It is uncertain to what extent the conflict in Ukraine will dampen household consumption and business investment, but given the euro area's modest export exposure to Russia, the overall impact on growth is expected to be limited (for further discussion, see box on page 38 and *Economic Commentaries 6/14*).

Consumer price inflation in the euro area has been somewhat lower than assumed in the *June Report*, primarily reflecting an unexpectedly low rise in energy prices. Twelve-month HICP (Harmonised Consumer Price Index) inflation is expected to remain just below

½% through summer and autumn before gradually picking up towards the end of the year. The recent depreciation of the euro will contribute to pushing up imported price inflation.

In the UK, the favourable developments continued into Q2, with solid growth in both the services and manufacturing sectors. Q2 growth was in line with the projections in the *June Report*. The upswing has contributed to further improvement in the labour market, with higher employment and falling unemployment. Wage growth is, at the same time, surprisingly low, and real wages have fallen consistently since 2009. Some of the decrease is probably the result of structural changes in the labour market, including new pension and benefit reforms and labour immigration, which has increased the supply of labour. In addition, productivity growth has been low, which may be the result of low investment rates in the years following the crisis, reducing capital intensity. Over the past six months, however, business investment has edged up and further growth is expected through the projection period. The housing market still poses a risk. House price inflation has slowed somewhat in recent months, but is still at high levels, particularly in and around London (see Chart 3). Robust growth in private consumption is expected ahead, underpinned by solid developments in the

Chart 3 UK house prices.
Index. January 2008 = 100. January 2007 – June 2014



Source: Office for National Statistics

labour market and some improvement in purchasing power. Nevertheless, GDP is expected to grow at a somewhat slower pace in the years ahead as the economy approaches full capacity utilisation. A vote in the Scottish referendum to leave the United Kingdom may in the short term lead to turbulence in global financial markets. However, the effects on the real economy both in an independent Scotland and in the rest of the United Kingdom in the event of a 'yes' vote are highly uncertain.

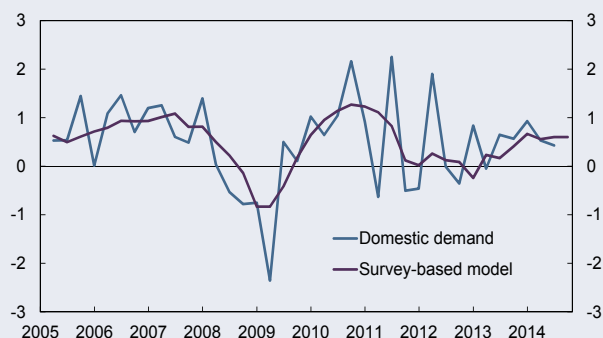
UK inflation is still low. Temporary conditions contributed to a jump in consumer price inflation in June, but this was reversed in July. Owing to the previous appreciation of the exchange rate and moderate wage growth, consumer price inflation is not expected to reach 2% until the end of the projection period.

The recovery in Sweden has so far been driven by rising household demand. GDP growth was lower than expected in Q2, particularly because exports showed weaker-than-expected developments. The growth contribution from domestic demand, however, rose on the previous quarter, and survey indicators suggest that demand growth remains firm in the current quarter (see Chart 4). A low interest rate

level, rising employment and income tax cuts have supported income growth. Over the next couple of years, a falling saving ratio is also expected to contribute to relatively solid growth in private consumption. At the same time, the Swedish authorities have warned that the high debt ratio in the household sector may threaten the stability of the financial system. The Swedish financial supervisory authority has issued guidelines with the aim of curbing debt growth. The measures may also have a dampening effect on private consumption and housing investment. Growth in business investment is expected to pick up in the wake of increased activity in the export sector. Although higher global demand and rising export orders point to an upswing in exports, the unrest in Ukraine poses a downside risk. Overall, the contribution of net exports to growth is expected to be slightly negative in 2014 and 2015.

Consumer price inflation in Sweden is unusually low. For 2014 as a whole, CPI inflation is expected to be zero. Mortgage interest expenses are included in the CPI, and low inflation is in part a direct result of the Riksbank's lowering of the policy rate. However, underlying inflation is also low, reflecting low imported price inflation, relatively low capacity utilisation,

Chart 4 Sweden: Quarterly growth in domestic demand¹⁾. Percent. 2005 Q1 – 2014 Q2. Survey-based model²⁾. 2005 Q1 – 2014 Q3



1) Consumption, investment and change in inventories.
 2) The survey-based model estimates trend growth in domestic demand based on developments in the ETI, PMI and ESI.
 Sources: Thomson Reuters and Norges Bank

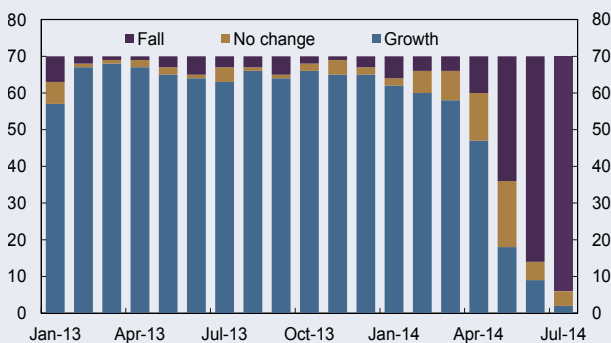
tion and probably also reductions in corporate margins. Price pressures in the Swedish economy appear to be lower than previously assumed. Inflation is therefore expected to rise at a somewhat slower pace than anticipated earlier.

GDP in China grew by 7.4% in the first half of 2014 compared with the same period in 2013. GDP grew by 7.8% in the second half of 2013. The decrease in growth can be related to a clear decline in the property market. Through summer, home sales have been under 10% lower than in 2013 and prices are now falling in most cities (see Chart 5). Growth in real estate investment has slowed, which has also contributed to lower growth in some manufacturing segments and in the services sector. GDP growth picked up slightly between Q1 and Q2 as a result of higher growth in exports and infrastructure investment, but weak macroeconomic data at the beginning of Q3 suggest that the pace of growth may slow again through autumn. Investment growth in the private real estate market is expected to decline further in the period ahead, while credit growth will be weaker than earlier. Lending by non-bank financial entities, so-called shadow banks, has grown at a particularly rapid pace in recent years. So far this year, credit

growth has slowed considerably, and overall outstanding credit from shadow banks fell in July. GDP growth in 2014 is projected, as in the *June Report*, at 7¼%, with the pace of growth gradually slowing further from 2015.

Growth prospects for other emerging economies have weakened somewhat since the *June Report*, primarily owing to developments in Russia and Brazil. In Russia, sanctions and elevated uncertainty with regard to the situation in Ukraine are expected to drag down growth in the second half of the year. Import restrictions on food may also contribute to rising inflationary pressures ahead. In Brazil, GDP has fallen through two consecutive quarters, driven by lower domestic demand. High inventory levels in manufacturing and reduced business and consumer confidence point towards continued low growth ahead. Growth prospects for emerging Asian economies are approximately in line with the June projections. Continued weak domestic demand has led to lower imports and an improvement in current account balances in several countries (see Chart 6). Growth is expected to pick up gradually ahead, initially as a result of increased demand from advanced economies.

Chart 5 China: House price developments for private dwellings in 70 cities. Number of cities with growth, no change or fall in prices from previous month. January 2013 – July 2014



Source: CEIC

Chart 6 Exports and imports in emerging markets¹⁾. Four-quarter change. Percent. 2005 Q1 – 2014 Q1



1) Brazil, Chile, Hungary, India, Indonesia, Mexico, Poland, South Africa and Turkey. GDP weights. Sources: Thomson Reuters, IMF and Norges Bank

EFFECT OF ECONOMIC SANCTIONS BETWEEN RUSSIA, THE US AND EUROPE

The EU and the US have introduced a range of economic sanctions against Russia in response to the conflict between Russia and Ukraine. Norway supports a large number of the sanctions. Russia has responded by imposing counter-sanctions in the form of an import ban on a number of agricultural products, fish and food products from Norway, the US, Canada, the EU and Australia. This box discusses possible effect of these measures targeting Norwegian and international exports.

The direct trade effect of sanctions against Norwegian exports is probably limited, but may have some impact on exports of fish and oil-related products.

In 2013, Norway exports of seafood to Russia came to NOK 6.5bn. If seafood exports from Norway are reduced by the total volume exported to Russia in 2013 in the period to the end of this year, growth in mainland exports may fall by around half a percentage point in 2014. However, Norwegian seafood exporters are likely to compensate to some extent by finding other markets for their products.

In 2013, Norway exported goods largely consisting of oil-related products to Russia in an amount of NOK 500m, i.e. 0.1% of total exports from mainland Norway. In addition, services exports to Russia came to about NOK 2bn. A portion of those services are not affected by the sanctions.

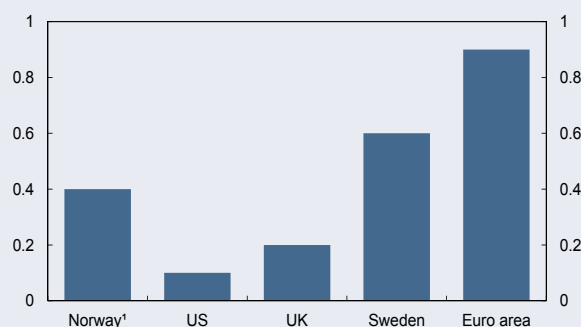
The sanctions will also likely have marginal direct effects on economic activity in other western coun-

tries. The US has little direct trade with Russia (see Chart 1). As regards Europe, the effects of Russia's import ban on food and agricultural products has received particular attention, but Europe's export exposure to Russia is also fairly limited. Sanctioned food products account for less than 4% of total EU exports to Russia. The export share of food is somewhat higher for the Baltic countries, Poland, Cyprus, Greece and Denmark.

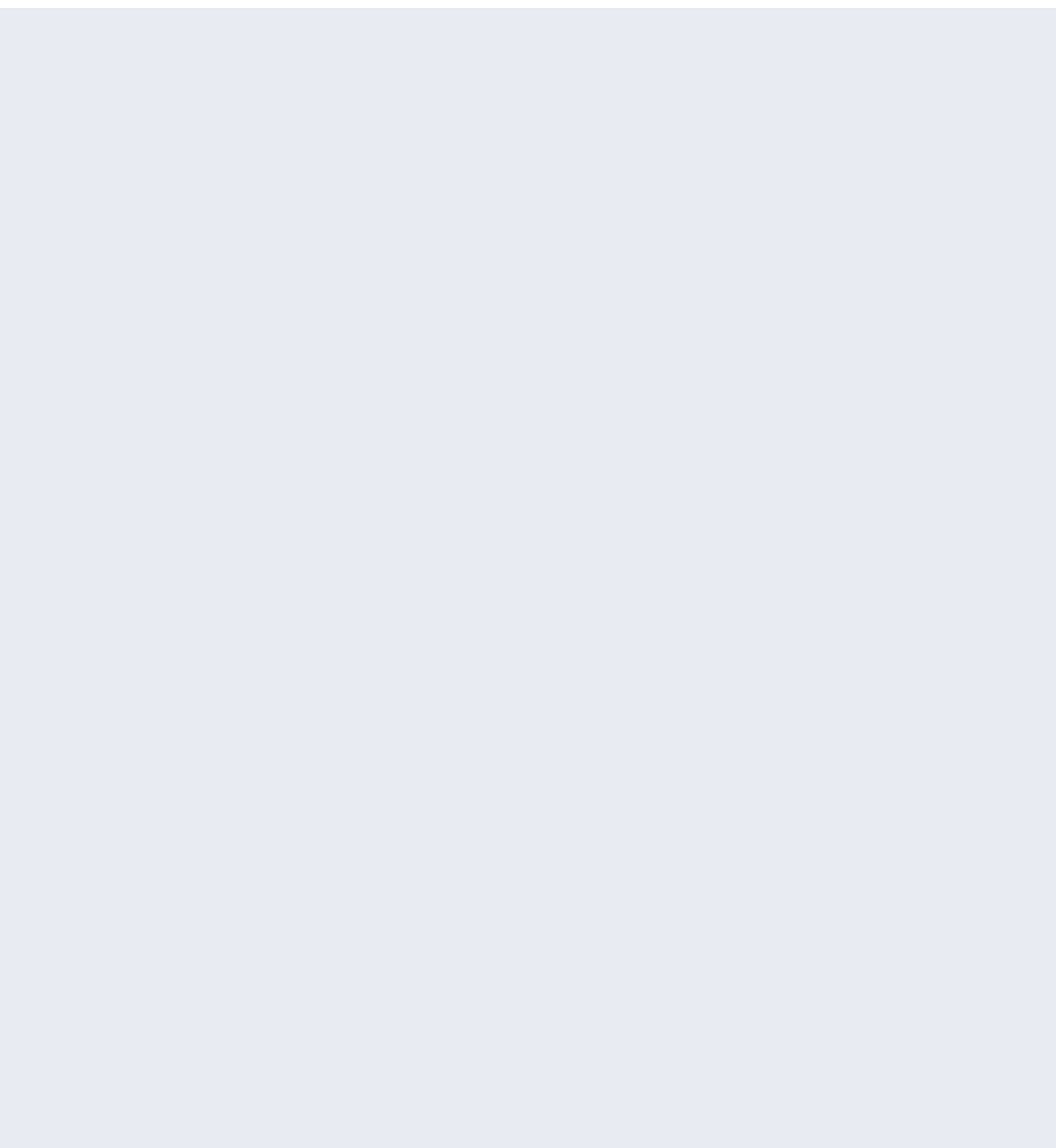
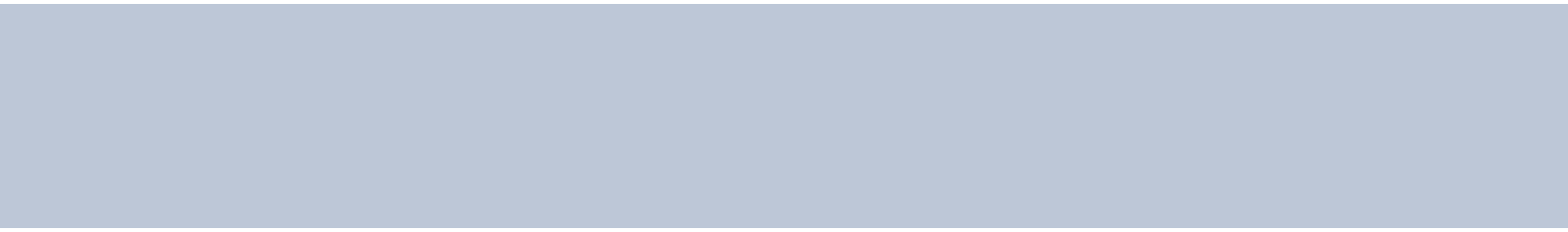
Western companies will also feel the effects of sanctions against exports of arms-related and oil-related goods and services. The data are insufficient to determine the exact share of the countries' exports that will be affected. An approximation can be arrived at by looking at exports of machinery and transport equipment, even though this category also comprises goods that are not directly affected by the sanctions. Exports of machinery and transport equipment are more evenly spread across EU countries than food exports. Total EU exports of machinery and transport equipment account for 0.4% of total GDP. The effects via this direct trade channel can thus be expected to be minimal.

In addition to the trade channel, the Russian economy may have a direct impact on the global economy via tourism, capital flows and energy supplies, and indirectly via confidence and risk willingness in global financial markets (see Economic Commentaries 6/2014).

Chart 1 Goods exports to Russia as a percentage of GDP. 2013



¹) Mainland exports as a percentage of mainland GDP.
Sources: Thomson Reuters, Statistics Norway and Norges Bank



EARLY WARNING MODELS FOR FINANCIAL CRISES

The experience of Norway and other countries suggests that there are common features of developments in credit, asset prices and bank behaviour in periods leading up to financial crises. The four key indicators of financial imbalances, which form the basis for assessing the countercyclical capital buffer, have increased ahead of periods of financial instability in Norway.

Norges Bank has explored whether the key indicators and other selected variables have shown a systematic pattern around financial crises in other countries as well.¹ The analysis uses data from 16 OECD countries in the period 1970 to 2013 Q2.² The dates of the financial crises are set based on international studies.³ The dataset covers a total of 27 banking crises, of which 11 are associated with the financial crisis in 2008.

Charts 1–4 show growth in credit to households, credit to non-financial corporations, house prices and

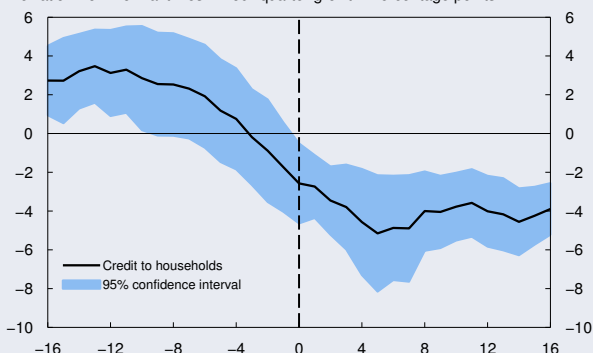
banks' wholesale funding share in a period of four years prior to and after the onset of the financial crises included in the study. The charts show growth minus average growth in normal periods.⁴ As shown in Chart 1, growth in credit to households peaks about 3–4 years prior to a crisis. Growth in credit to non-financial corporations reaches its peak somewhat later, about 1–2 years before a crisis. Credit growth is significantly higher than in normal periods as early as 3–4 years prior to a crisis. House price inflation is also high prior to crises and hits a peak about 2 years ahead of a crisis. The same applies to the quarterly change in banks' wholesale funding share.

The next step of the analysis combines variables that have shown properties as leading indicators in empirical models.⁵ The model-based prediction can be interpreted as the probability that an economy is in a pre-crisis period. The pre-crisis period is defined here as 1–3 years before the crisis. Model specifica-

1 The analysis will be documented in a forthcoming *Norges Bank Staff Memo* by Anundsen et al. (2014). Technically, the models used are logit-type models.
 2 Australia, Belgium, Canada, Finland, France, Germany, Italy, Japan, Korea, Netherlands, Norway, Spain, Sweden, Switzerland, UK and US. In order to capture structural differences across countries, constant country-specific factors are included.
 3 See, inter alia, Laeven and Valencia (2012): «Systemic Banking Crises Database: An Update», IMF Working Paper, No. 163.

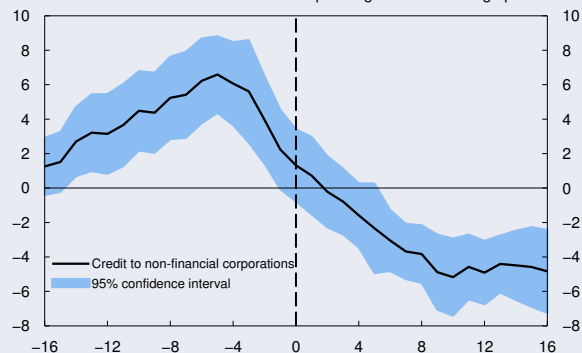
4 The method is described further in Gourinchas, P.-O. and M. Obstfeld (2012): «Stories of the twentieth century for the twenty-first», *American Economic Journal - Macroeconomics* 4 (4).
 5 This is in line with European Systemic Risk Board (ESRB) recommendations. See Detken et al. (2014): Operationalising the countercyclical capital buffer: indicator selection, threshold identification and calibration options. ESRB Occasional Paper Series, No. 5/June 2014.

Chart 1 Event history for household credit growth¹⁾ around financial crises. Deviation from normal times.²⁾ Four-quarter growth. Percentage points



1) Credit is deflated by the consumer price index.
 2) The chart shows average developments sixteen quarters before and sixteen quarters after a financial crisis relative to "normal times". Normal times are defined as all periods outside the window of the chart.
 Source: Norges Bank

Chart 2 Event history for growth in credit¹⁾ to non-financial corporations around financial crises. Deviation from normal times.²⁾ Four-quarter growth. Percentage points



1) Credit is deflated by the consumer price index.
 2) The chart shows average developments sixteen quarters before and sixteen quarters after a financial crisis relative to "normal times". Normal times are defined as all periods outside the window of the chart.
 Source: Norges Bank

tions using various combinations of the explanatory variables are tested. The explanatory variables are incorporated in growth form or as deviations from estimated long-term trends, so-called gaps.⁶

The credit gap for both households and non-financial corporations is significant in the models and contributes to raising the estimated probability of a crisis. In addition, credit growth has an independent significance. House prices that rise faster than household income so that the house price gap increases also push up the probability of a crisis. A strong comovement between house prices and household credit growth makes it difficult to decouple the effects. Banks' wholesale funding share is also given weight in the models.

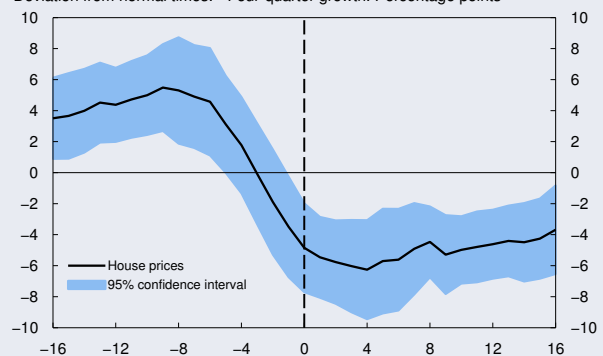
All total, the empirical results confirm that Norges Bank's key indicators of financial imbalances are useful early warning indicators of crises, also in other countries. Furthermore, the results show that low equity capital in banks can be a warning sign of future financial instability.

The blue area in Chart 5 shows estimated crisis probabilities based on a large number of combinations of explanatory variables and trend estimation methods. The crisis probabilities showed a pronounced increase in the years ahead of the banking crisis in 1988–1993 and the financial crisis in 2008–2009⁷. Both these periods were marked by rapid growth in credit and real estate prices, combined with a surge in banks' wholesale funding share. The chart shows that the estimated crisis probabilities have declined since the financial crisis, but that the spread between the predictions is considerable. The models have strong non-linear effects. Should house prices again increase

6 Deviations from trend are estimated using a one-sided, augmented Hodrick-Prescott filter (lambda=400 000). Credit to households and non-financial corporations is measured as a percentage of GDP. House prices are measured relative to household disposable income. The models also comprise the growth rate of house prices and total credit, as well as developments in GDP.

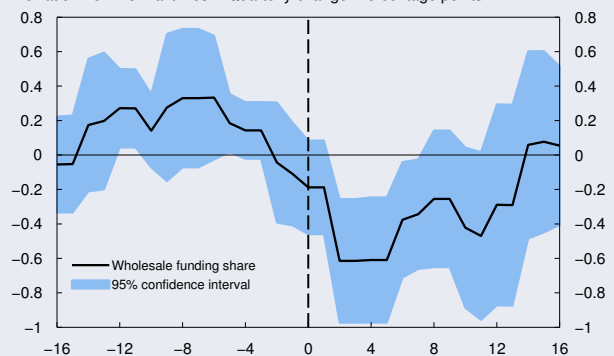
7 Although the financial crisis was not triggered by domestic conditions, this analysis indicates that the financial system was vulnerable prior to the crisis. The Norwegian authorities decided to implement measures to improve access to funding and strengthen banks' financial position.

Chart 3 Event history for growth in house prices¹⁾ around financial crises. Deviation from normal times.²⁾ Four-quarter growth. Percentage points



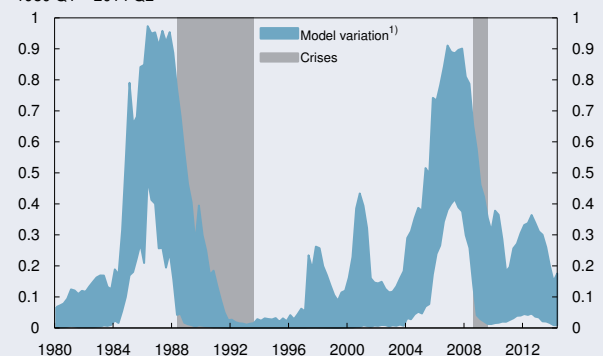
1) House prices are deflated by the consumer price index.
2) The chart shows average developments sixteen quarters before and sixteen quarters after a financial crisis relative to "normal times". Normal times are defined as all periods outside the window of the chart.
Source: Norges Bank

Chart 4 Event history for banks' wholesale funding share around financial crises. Deviation from normal times.¹⁾ Quarterly change. Percentage points



1) The chart shows average developments sixteen quarters before and sixteen quarters after a financial crisis relative to "normal times". Normal times are defined as all periods outside the window of the chart.
Source: Norges Bank

Chart 5 Estimated crisis probabilities from various model specifications. 1980 Q1 – 2014 Q2



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

faster than household income and debt growth rise, the estimated crisis probabilities may quickly increase.

The models provide estimates of the probability of a financial crisis a few years ahead. An overall risk assessment must include an analysis of both probability and consequence. If the costs associated with a crisis are sufficiently large, the systemic risk may be considerable even if the probability seems small. Experience shows that a probability of more than 10%–20% must be viewed as high.

Empirical models can be used to support systemic risk assessments. Systemic risk can also stem from other sources than those captured by the models. Norges Bank therefore looks at a number of indicators and exercises professional judgment in its assessments.

ANNEX

Monetary policy meetings
Tables and detailed projections

MONETARY POLICY MEETINGS WITH CHANGES IN THE KEY POLICY RATE

Date	Key policy rate ¹	Change
10 December 2014		
22 October 2014		
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
12 August 2009	1.25	0
17 June 2009	1.25	-0.25

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	Main-land GDP	Private consumption	Public consumption	Main-land fixed investment	Petroleum investment ¹	Mainland exports ²	Imports
2008	0.1	1.5	1.8	2.7	-1.3	5.2	4.5	3.9
2009	-1.6	-1.6	0.0	4.3	-13.2	3.4	-8.4	-12.5
2010	0.5	1.7	3.8	1.3	-4.5	-9.5	7.5	9.0
2011	1.3	2.6	2.6	1.1	6.3	11.3	1.0	3.8
2012	2.9	3.4	3.0	1.8	4.5	14.6	1.1	2.3
2013	0.6	2.0	2.1	1.8	4.4	17.1	1.9	2.9
2013 ³ Q3	0.8	0.6	0.0	0.3	-0.2	6.2	1.3	3.4
Q4	-0.2	0.5	0.4	0.7	1.0	-3.1	0.4	-0.4
2014 Q1	0.2	0.5	0.9	0.7	-2.1	-1.5	-1.1	-2.4
Q2	0.9	1.2	0.8	0.6	1.3	0.0	4.6	0.9
2013 level, in billions of NOK	3 011	2 314	1 234	658	441	208	478	848

1 Extraction and pipeline transport.

2 Traditional goods, travel 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
2007	0.8	1.4	1.9	0.5	1.6	0.7
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

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 <i>Monetary Policy Report 2/14</i> in brackets	Share of world GDP		Change from previous year. Percent.				
	PPP	Market exchange rates ¹	2013	2014	2015	2016	2017
US	20	23	2.2	2 (-1/4)	3 (0)	3 1/4 (0)	2 3/4 (-1/2)
Euro area	14	18	-0.4	3/4 (-1/4)	1 1/4 (-1/4)	1 1/2 (0)	1 3/4 (0)
UK	3	4	1.7	3 (0)	2 1/2 (0)	2 1/2 (0)	2 1/2 (0)
Sweden	1/2	3/4	1.6	1 3/4 (-3/4)	3 (0)	2 3/4 (0)	2 1/2 (0)
China	15	10	7.7	7 1/4 (0)	6 3/4 (0)	6 3/4 (0)	6 1/2 (0)
Emerging economies ²	16	12	3.2	2 1/4 (-1/2)	3 1/4 (-1/4)	4 1/4 (0)	4 1/4 (0)
Trading partners ³	74	78	1.4	2 (-1/4)	2 1/2 (0)	2 1/2 (0)	2 1/2 (0)
World (PPP) ⁴	100	100	3	3 1/4 (-1/4)	3 3/4 (0)	4 (0)	4 (0)
World (market exchange rates) ⁴	100	100	2 1/2	2 3/4 (-1/4)	3 1/4 (0)	3 1/2 (0)	3 1/2 (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 <i>Monetary Policy Report 2/14</i> in brackets	Change from previous year. Percent.				
	2013	2014	2015	2016	2017
US	1.5	2 (1/4)	2 (0)	2 (0)	2 1/4 (0)
Euro area	1.4	1/2 (0)	1 (0)	1 1/2 (0)	1 3/4 (0)
UK	2.6	1 3/4 (0)	1 3/4 (-1/4)	2 (0)	2 (0)
Sweden	0	0 (0)	1 1/2 (-1/4)	2 1/2 (0)	2 1/4 (0)
China	2.6	2 1/2 (-1/4)	2 3/4 (-1/4)	3 (0)	3 (0)
Emerging economies ¹	6.5	6 1/2 (1/2)	5 3/4 (1/4)	5 1/4 (0)	5 1/4 (0)
Trading partners ²	1.7	1 1/2 (0)	1 3/4 (-1/4)	2 1/4 (0)	2 1/4 (0)
Oil price Brent Blend. USD per barrel ³	109	105	102	100	99

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	2¼	2	2¼
CPI-ATE ¹		1.6	2½	2¼	2¼	2¼
Annual wages ²		3.9	3½	3½	4	4
Real economy						
GDP	3011	0.6	1¾	1¾	2¼	2½
GDP, mainland Norway	2314	2.0	2¼	2¼	2¾	2¾
Output gap, mainland Norway (level) ³		0.0	-½	-¾	-½	-¼
Employment, persons, QNA		1.2	1	¾	1	1¼
Labour force, LFS		1.0	1	1	1	1
LFS unemployment (rate, level)		3.5	3¼	3½	3½	3¼
Registered unemployment (rate, level)		2.6	2¾	3	3	2¾
Demand						
Mainland demand ⁴	2333	2.5	2	3¼	3¼	2¾
- Private consumption	1234	2.1	2¼	3¼	3½	3
- Public consumption	658	1.8	2¼	2¼	-	-
- Fixed investment, mainland Norway	441	4.4	½	5	-	-
Petroleum investment ⁵	208	17.1	0	-10	-1	4
Mainland exports ⁶	478	1.9	3	1¾	2¾	4
Imports	848	2.9	1¼	4¾	-	-
Interest rate and exchange rate						
Key policy rate (level) ⁷		1.5	1½	1½	1½	2
Import-weighted exchange rate (I-44) ⁸		89.0	92¼	90¼	89	88½

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 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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