NORGES BANK

Monetary Policy Report

with financial stability assessment

4|13

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Monetary Policy Report

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Norges Bank

Oslo 2013

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Monetary Policy Report

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

At its meeting on 23 October 2013, the Executive Board discussed relevant themes for the *Report*. At the Executive Board meeting on 20 November 2013, 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 4 December a monetary policy strategy for the period to the publication of the next *Report* on 27 March 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 2 December 2013, 12 noon.
The monetary policy strategy was approved by the Executive Board on 4 December 2013.

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.

Financial stability – countercyclical capital buffer

Norges Bank has been assigned primary responsibility for elaborating the decision basis for and issuing advice on the countercyclical capital buffer. The objective of the buffer is to bolster banks' resilience to an impending downturn and counter possible procyclical effects of banks' lending practice. In drawing up the basis, Norges Bank and Finanstilsynet (Financial Supervisory Authority of Norway) exchange relevant information and assessments. The Ministry of Finance sets the buffer.

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

A broad assessment of the structure and vulnerabilities of the Norwegian financial system will be published annually in the fourth quarter in Norges Bank's *Financial Stability Report*.

The Executive Board's assessment

At its meeting on 18 September 2013, the Executive Board decided that the key policy rate should be in the interval 1%–2% in the period to 5 December 2013, unless the Norwegian economy was exposed to new major shocks. In the *Monetary Policy Report* published on 19 September, it was pointed out that growth prospects abroad were moderate and had shown little change since June. Growth had picked up in many advanced economies and markets were expecting policy rates abroad to be raised somewhat earlier than expected previously. Output and employment prospects in Norway had weakened slightly, but capacity utilisation was still close to a normal level. Inflation had risen rapidly to 2.5% and was higher than expected, but some of the increase was assessed to be temporary. The driving forces behind inflation moving forward remained moderate. At the same time, the krone had depreciated. The analysis in the September *Report* implied a key policy rate of 1.5% in the period to summer 2014, followed by a gradual increase towards a more normal level. With that path for the key policy rate, there were prospects that inflation would be slightly below 2½% in the coming years and that capacity utilisation would hold steady at close to a normal level.

In the discussion at its meeting on 23 October 2013, the Executive Board noted that economic growth among Norway's trading partners had been broadly in line with expectations, but that the expected increase in policy rates had again been deferred. Data for the Norwegian economy indicated little change from projected developments. However, household demand appeared to be slightly weaker than projected and house prices had flattened. Consumer price inflation had been lower than projected in September, but the krone had depreciated further. The Executive Board decided to leave the key policy rate unchanged at 1.5%.

In its discussion on 20 November and 4 December, the Executive Board placed emphasis on the following developments:

- Growth among our trading partners remains moderate, but on the whole global growth prospects are slightly weaker than previously projected.
- Policy rates are close to zero in many countries and market expectations concerning policy rates are lower than in September. The European Central Bank (ECB) lowered its key policy rate to 0.25% in November. The first interest rate increases in major advanced economies are now expected in 2015.
- The krone has depreciated. The krone, as measured by the import-weighted krone exchange rate index (I-44), has been about 3.5% weaker so far in the fourth quarter than projected in the September *Report.*
- Bank interest rates on housing loans remained unchanged in Q3.
- Growth in the Norwegian economy is likely to be somewhat lower than projected in the September *Report*. In October, the enterprises in Norges Bank's regional network reported that output growth had slackened more than expected, and they lowered their growth expectations for the period ahead. Registered unemployment has increased slightly more than projected in the September *Report*.
- House prices had declined in the preceding period and had been lower than expected. Growth in household debt remains high.
- In the past few months, consumer price inflation has been somewhat lower than projected. Consumer price inflation adjusted for tax changes and excluding energy products (CPI-ATE) was 1.9% in October.

The point of departure for the Executive Board's assessment of monetary policy is that the key policy rate is set with a view to keeping inflation close to 2.5% over time. The objective of low and stable inflation is weighed against the objective of stable developments in output and employment. Monetary policy also seeks to be robust and take into account the risk of a build-up of financial imbalances. A robust monetary policy also seeks to take into account that the functioning of the economy is not fully known. This normally suggests a gradual approach in interest rate setting.

Policy rates for many of our trading partners are close to zero. In Norway, the key policy rate has been 1.5% since March 2012. The interest rates facing households and enterprises are higher. Underlying inflation is now estimated at between 1¾% and 2¼%. Capacity utilisation is likely close to a normal level.

The Executive Board noted that the analyses in this *Report* imply a key policy rate at today's level in the period to summer 2015, followed by a gradual rise. With this path for the key policy rate, the analysis in this *Report* implies an upward drift in inflation to close to 2½% towards the end of the projection period and capacity utilisation that remains close to a normal level.

In its discussion, the Executive Board pointed out that growth prospects for our trading partners have weakened somewhat. There is still considerable uncertainty surrounding economic developments in Europe. Many countries are implementing structural reforms but it takes time for those reforms to boost growth capacity.

The krone has continued to depreciate through autumn, partly reflecting somewhat weaker key figures for the Norwegian economy. Limited liquidity in the NOK market may have contributed to amplifying the movements in the krone exchange rate. Moreover, expectations concerning monetary policy abroad have influenced the krone exchange rate through autumn. It was noted that foreign-exchange market themes shift rapidly.

The Executive Board focused on housing market developments. House prices and household debt have been rising more than income for a long time. Several indicators point to a decline in housing market activity. The Executive Board noted the uncertainty now associated with future house price developments, pointing out that pronounced changes in house prices could influence household demand.

The Norwegian economy is growing at a moderate pace. The Executive Board noted that growth has slackened in most industries and that the number of enterprises in Norges Bank's regional network reporting capacity constraints has decreased over the past six months. The enterprises have through the year gradually lowered their growth expectations for the period ahead.

The Executive Board discussed factors that have influenced consumer price inflation over the past six months, including method changes. Even if changes in calculation methods may reduce measurement errors over time, during a transitional period it may be more difficult to assess the level of underlying inflation.

In its discussion of monetary policy, the Executive Board gave weight to the fact that inflation has been somewhat lower than projected. At the same time, growth in the Norwegian economy has slowed and house prices have been lower than projected earlier. Capacity utilisation now seems to be close to a normal level, but moving down slightly faster than expected. On the other hand, the krone has depreciated considerably. The Executive Board noted that the analyses in this *Report* imply a somewhat lower forecast for the key policy rate than in the September *Report*.

The Executive Board gave weight to the uncertainty surrounding developments in inflation, output and employment ahead and was of the view that it is thus appropriate to proceed with caution in interest rate setting. It was also pointed out that a reduction in the key policy rate may increase the risk of a renewed build-up of financial imbalances. The Executive Board's overall assessment is that the key policy rate should remain at today's level in the period ahead.

At its meeting on 4 December, 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 27 March 2014, unless the Norwegian economy is exposed to new major shocks.

Øystein Olsen
5 December 2013

1 Monetary policy outlook

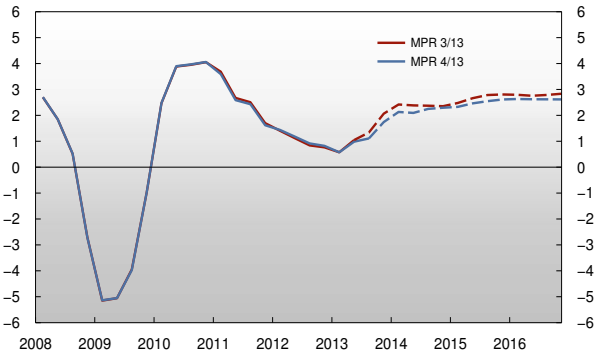
The economic situation

The moderate upturn in the world economy is continuing. Growth in advanced economies appears to be slightly lower than projected earlier. In the US, growth has picked up, but uncertainty surrounding economic policy has put a temporary damper on activity. In Europe, there are signs of improvement, but unemployment remains high. The substantial trade deficits for Spain and Italy have been reduced and government bonds yields are on the decline. Growth in emerging economies has slowed over the past year, but remains higher than for advanced economies. The situation in financial markets in major emerging economies has stabilised since summer and capital inflows have increased somewhat, partly owing to deferred tapering of Federal Reserve bond purchases. Growth among Norway's trading partners is expected to pick up in the coming years, but there are prospects for slightly lower growth than projected in the previous *Monetary Policy Report* published in September (see Chart 1.1 and further discussion in Section 3). Crude oil prices remain broadly unchanged on the level prevailing in September and are now around USD 110 per barrel.

Key policy rates are close to zero in many countries. The European Central Bank (ECB) lowered its policy rate by 0.25 percentage point to 0.25% in November. At the same time, the Federal Reserve is maintaining its bond purchases on the same scale as earlier. As a result, short-term interest rates have declined. Market participants now expect central bank interest rates abroad to stay on hold for even longer than at the time of the September *Report* (see Chart 1.2). In the largest advanced economies, the first interest rate hikes are now expected in the course of 2015. The advance in equity markets may to a large extent be attributable to prospects for a continued expansive monetary stance in many countries. Globally, long-term interest rates have varied widely, but are on the whole somewhat lower than around the September *Report*.

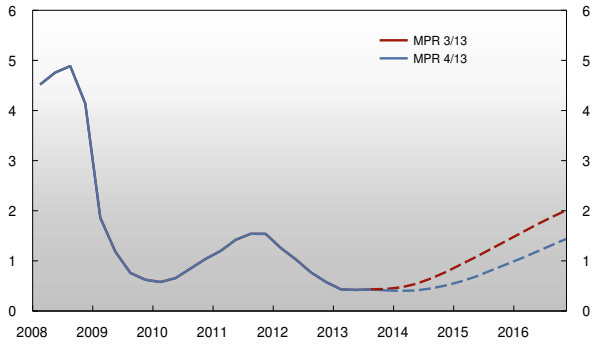
The krone has depreciated since the September *Report*, reflecting a weakening of some key indicators for the Norwegian economy and a fall in market expectations concerning Norges Bank's key policy rate. The movement in the krone is nevertheless considerably larger than the

Chart 1.1 GDP for trading partners in MPR 3/13 and MPR 4/13. Volume. Four–quarter change. Percent. 2008 Q1 – 2016 Q4



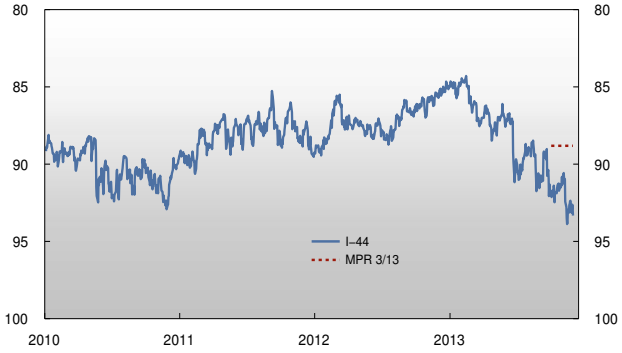
Sources: Thomson Reuters and Norges Bank

Chart 1.2 Money market rates for trading partners[1] in MPR 3/13 and MPR 4/13. Percent. 2008 Q1 – 2016 Q4



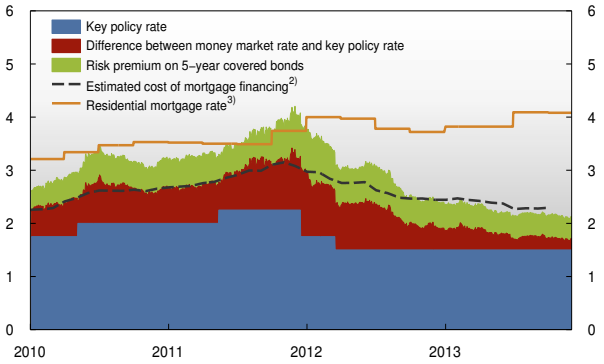
1) Broken red and blue lines show estimated forward rates for trading partners at 12 September 2013 and 29 November 2013. Forward rates are based on Overnight Index Swap (OIS) rates.
Source: Norges Bank

Chart 1.3 Import–weighted exchange rate index (I–44).[1] 1 January 2010 – 29 November 2013



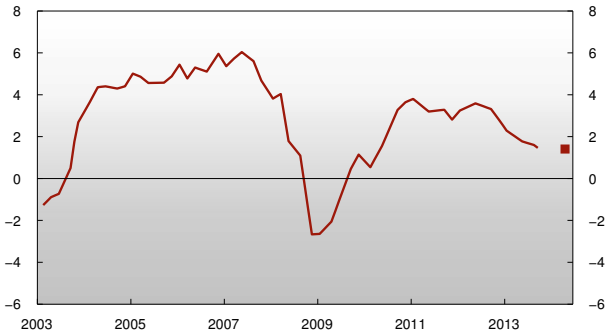
1) A positive slope denotes a stronger krone exchange rate.
Source: Norges Bank

Chart 1.4 Mortgage lending rates[1] and funding costs.
Percent. 1 January 2010 – 29 November 2013



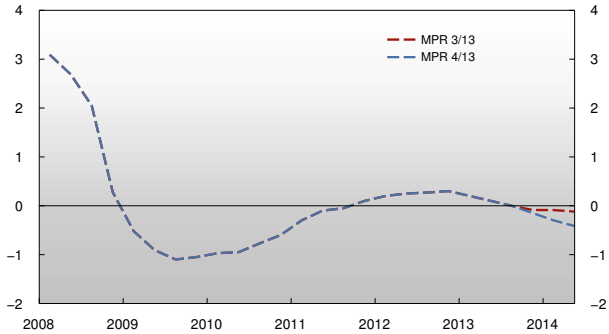
1) The lending rate on lines of credit secured on dwellings provided by all banks and mortgage companies in Norway.
2) Estimated using weighted interest rates on covered bonds outstanding and weighted deposit rates.
3) Credit lines.
Sources: DNB Markets, Statistics Norway and Norges Bank

Chart 1.5 Output growth as reported by the regional network. Aggregate.
Past 3 months and next 6 months. Annualised. Percent. January 2003 – April 2014



Source: Norges Bank

Chart 1.6 Projected output gap[1] in MPR 3/13 and MPR 4/13.
Percent. 2008 Q1 – 2014 Q2



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

interest rate differential against other countries would imply. Limited liquidity in the NOK market may have caused wider-than-normal fluctuations in the krone exchange rate. So far in the fourth quarter, the krone measured by the import-weighted exchange rate index I-44 has been about 3.5% weaker than projected in the September *Report* (see Chart 1.3). The krone is projected to appreciate somewhat in the period ahead.

Norwegian banks still have ample access to wholesale funding. The risk premium in three-month money market rates has fallen to pre-crisis levels. The premium is expected to remain around ¼ percentage point ahead. The risk premium on covered bonds and bank bonds remains virtually unchanged since the September *Report*. Banks' residential mortgage rates remained unchanged in the third quarter at around 4% (see Chart 1.4). Interest rates on household loans that also include loans for purposes other than housing increased slightly. For enterprises, bank lending rates have remained stable. Banks' lending margins have been slightly higher than expected.

The Norwegian economy has grown at a slower rate this year. Mainland GDP increased by 0.5% between Q2 and Q3. Growth has slackened in most industries. Growth in private consumption has been sluggish and household saving has been high by historical standards. Low mainland business investment is also having a dampening impact on growth in Norway. Owing to weak growth among trading partners, in conjunction with a high cost level in Norway, export growth has been weak. In October, the enterprises in Norges Bank's regional network reported slightly weaker output growth (see Chart 1.5) and lowered their growth expectations. The share of enterprises reporting capacity constraints has declined somewhat. Weaker output has had little impact on the labour market even though unemployment has increased. In November, registered unemployment stood at 2.8% of the labour force. Unemployment has also shown a somewhat larger increase than projected in the September *Report*. Employment growth has been fairly high, while productivity growth has continued on a weak trend. Capacity utilisation in the Norwegian economy is assessed to be lower, but close to a normal level (see Chart 1.6). Capacity utilisation now seems to be somewhat lower than assumed in the September *Report*.

House prices have declined in recent months and have been lower than projected (see Chart 1.7). Turnover in the housing

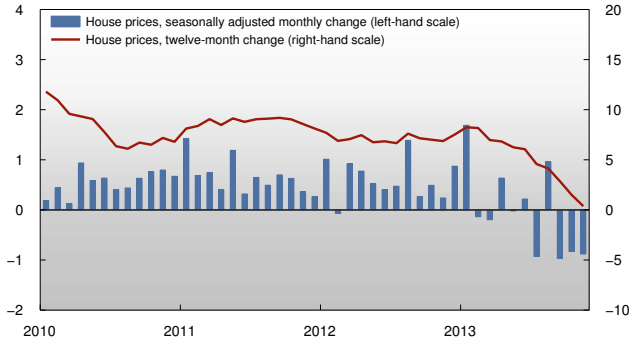
market is lower and transaction times and the number of unsold dwellings have increased. This development must be seen in the context of already high house prices and household indebtedness. Household confidence indicators have dropped and may indicate that households are uncertain about economic developments and personal income growth ahead. Combined with somewhat higher borrowing rates, this may have led to greater caution in the household sector. Debt ratios have nevertheless continued to rise from a high level. It takes time for changes in house prices to feed through to household borrowing behaviour.

Consumer price inflation has varied widely in recent months, partly owing to method changes. Prices are now lower than projected in the September *Report*. The rise in prices for imported consumer goods has slowed after jumping sharply in summer and turning negative in October. The twelve-month rise in consumer prices (CPI) was 2.4% in October. Consumer price inflation adjusted for tax changes and excluding energy products (CPI-ATE) was 1.9% (see Chart 1.8). Underlying inflation is estimated to be between 1¾% and 2¼%.

The outlook ahead

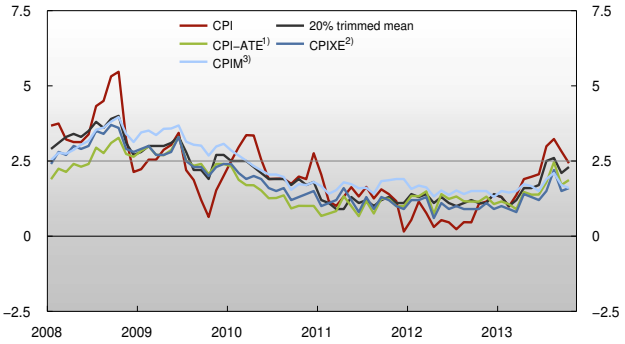
The operational target of monetary policy is low and stable inflation, with annual consumer price inflation of close to 2.5% over time. Over the past 10 years, average inflation has been somewhat below, but close to, 2.5% (see Chart 1.9). Inflation expectations remain close to the inflation target (see Chart 1.10).

Chart 1.7 House prices.[1] Twelve-month change and seasonally adjusted monthly change. Percent. January 2010 – November 2013



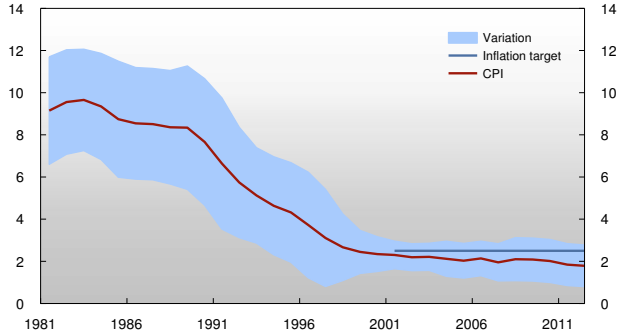
1) House prices in NOK per square metre.
Sources: Eiendomsmeglerforetakenes forening (EFF), Finn.no and Eiendomsverdi

Chart 1.8 Consumer prices. 12–month change. Percent. January 2008 – October 2013



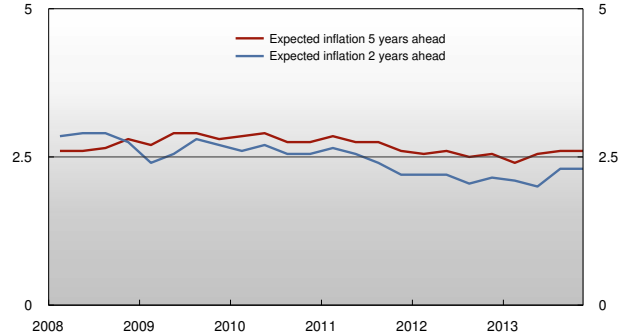
1) CPI adjusted for tax changes and excluding energy products.
2) CPI adjusted for tax changes and excluding temporary changes in energy prices. Real time figures. See Norges Bank *Staff Memo* 7/2008 and 3/2009. From the June–figure 2013, the method for calculating the CPIXE has been changed. For more information see www.norges–bank.no.
3) Model–based indicator of underlying inflation. See Norges Bank *Economic Commentaries* 5/2010.
Sources: Statistics Norway and Norges Bank

Chart 1.9 Inflation. 10–year moving average[1] and variation[2] in CPI. Percent. 1981 – 2012



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

Chart 1.10 Expected consumer price inflation 2 and 5 years ahead.[1] Percent. 2008 Q1 – 2013 Q4



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

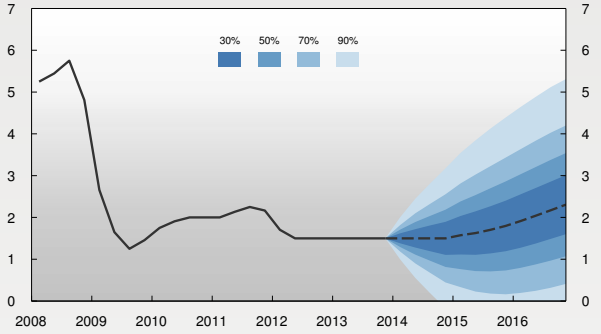
The key policy rate is set with a view to maintaining inflation of close to 2.5% over time without causing excessive fluctuations in output and employment. Monetary policy also seeks to be robust by, among other things, taking into account the risk of a build-up of financial imbalances. A robust monetary policy also seeks to take into account that the functioning of the economy is not fully known (see box on the criteria for an appropriate interest rate path on page 18).

The key policy rate is 1.5%. There is a considerable spread between the key policy rate and the interest rates facing households and enterprises. Residential mortgage rates are around 4% for most households, while the interest rate on bank loans to enterprises is around 4.5%.

In the September *Report*, the key policy rate was projected to remain at the current level to summer 2014, rising gradually thereafter towards a more normal level. With this interest rate forecast, there were prospects that inflation would run just below target throughout the projection period. Capacity utilisation was projected to be close to a normal level over the next years.

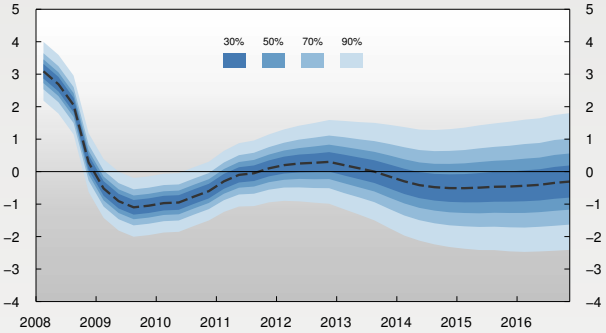
Growth in the Norwegian economy now appears to be slowing somewhat more than envisaged in September. Growth in private consumption is expected to remain low in the period ahead, but may pick up somewhat again as a result of continued solid growth in disposable income. The levelling off of house prices may lead to somewhat slower growth in housing investment further ahead. Business investment is also projected to show weak growth.

Chart 1.11a Projected key policy rate in the baseline scenario with probability distribution. Percent. 2008 Q1 – 2016 Q4



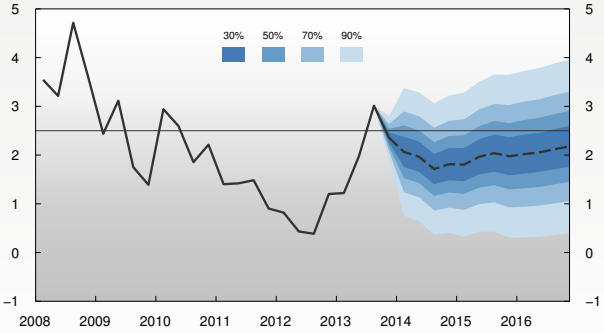
Source: Norges Bank

Chart 1.11b Projected output gap[1)] in the baseline scenario with probability distribution. Percent. 2008 Q1 – 2016 Q4



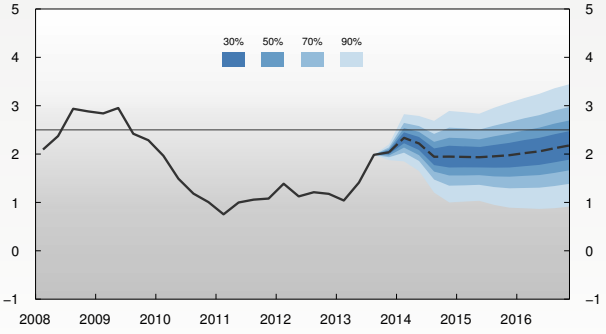
1) The output gap measures the percentage deviation between mainland GDP and projected potential mainland GDP.
Source: Norges Bank

Chart 1.11c Projected CPI in the baseline scenario with probability distribution. Four–quarter change. Percent. 2008 Q1 – 2016 Q4



Sources: Statistics Norway and Norges Bank

Chart 1.11d Projected CPI–ATE[1)] in the baseline scenario with probability distribution. Four–quarter change. Percent. 2008 Q1 – 2016 Q4



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

Exports may increase somewhat faster owing to the depreciation of the krone and higher projected growth abroad over the next years. A high cost level in Norway may, on the other hand, curb activity in many industries. On balance, capacity utilisation in the Norwegian economy is projected to edge down in the period ahead.

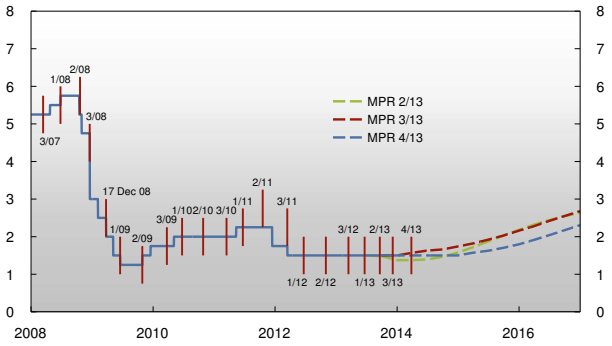
Wage growth is expected to be lower than envisaged in the September *Report*. Wage growth is now projected at 3½% in 2014. Weaker domestic economic developments, in conjunction with low cost growth among our trading partners, may influence wage settlements in the coming years. In addition, high labour immigration is likely to have a dampening impact on wage growth.

Consumer price inflation has been somewhat lower in recent months than projected in the September *Report*. The methods used to measure the rise in prices for rents in the housing market and food and beverages in the consumer price index have been changed. In the short term, this has increased the uncertainty linked to underlying inflation, but has also in isolation resulted in slightly higher inflation. Falling capacity utilisation may dampen the rise in prices for domestically produced goods and services ahead. On the other hand, the krone has depreciated since the September *Report*. In isolation, this results in a slightly higher rise in prices for imported consumer goods ahead. On the whole, there are prospects that inflation may be somewhat lower than previously projected in the period ahead.

Since the September *Report*, the expected upward shift in interest rates abroad has again been deferred further ahead. In Norway, inflation has been lower than projected. At the same time, the Norwegian economy is growing at a slower pace and house price inflation has been lower than projected earlier. Capacity utilisation is still close to a normal level, but seems to be moving down to a further extent than expected. On the other hand, the krone has depreciated considerably. On balance, new information suggests a slightly lower forecast for the key policy rate.

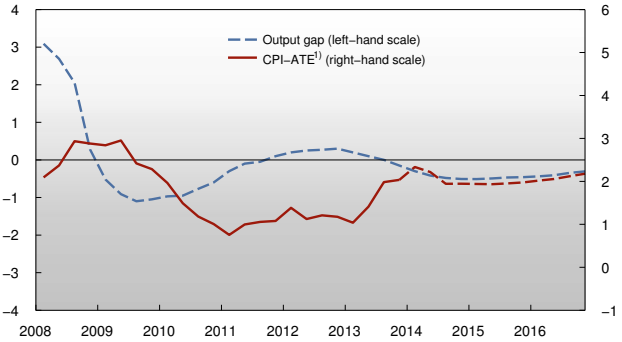
Consumer price inflation has varied considerably since summer and the movement in the krone exchange rate has been pronounced. The uncertainty surrounding developments in inflation, output and employment has heightened. This calls for proceeding with caution in interest rate setting. Even though house price inflation has abated

Chart 1.12 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 2016



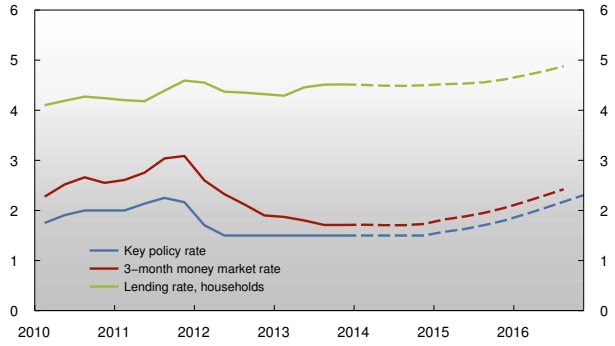
Source: Norges Bank

Chart 1.13 Projected inflation[1)] and output gap in the baseline scenario. Percent. 2008 Q1 – 2016 Q4



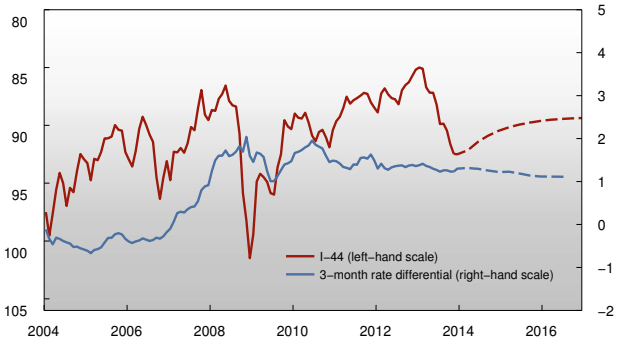
1) CPI adjusted for tax changes and excluding energy products.
Sources: Statistics Norway and Norges Bank

Chart 1.14 Projected key policy rate, 3–month money market rate[1] and interest rate on loans to households[2] in the baseline scenario. Percent. 2010 Q1 – 2016 Q4



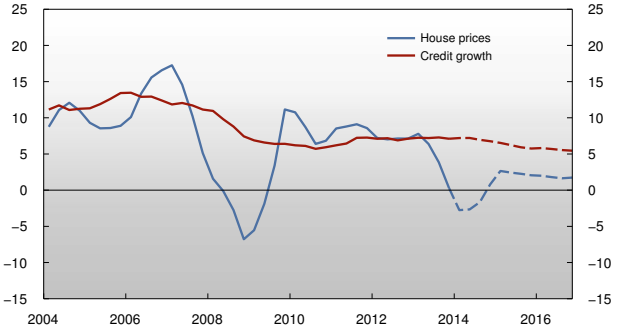
1) Key policy rate in the baseline scenario plus premiums in the Norwegian money market. The calculations are based on the assumption that the announced interest rate changes are priced into the money market.
2) Average interest rate on all loans to households from banks and mortage companies.
Sources: Statistics Norway and Norges Bank

Chart 1.15 Three–month money market rate differential between Norway[1] and trading partners and the import–weighted exchange rate index (I–44)[2]. January 2004 – December 2016



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.
Sources: Thomson Reuters and Norges Bank

Chart 1.16 Household credit[1] and house prices. Four–quarter change. Percent. 2004 Q1 – 2016 Q4



1) From 1 January 2012 the Norwegian standard for institutional sector grouping was changed. For credit growth this implies a break in the series from March 2012.
Sources: Statistics Norway, Eiendomsmeglerforetakenes forening (EFF), Finn.no, Eiendomsverdi and Norges Bank

recently, house prices and debt have risen more than income for a long time. A reduction in the key policy rate may increase the risk of a renewed build-up of financial imbalances.

The analyses in this *Report* imply that the key policy rate should be held at the current level in the period to summer 2015 and be increased gradually thereafter (see Charts 1.11 a-d and Chart 1.12). The forecast for the key policy rate is somewhat lower than in the September *Report* and the upward shift in the key policy rate is projected to occur somewhat later (see box on page 20)

With this projection for the key policy rate, there are prospects that inflation will be around 2% in the period ahead, drifting up to close to 2.5% towards the end of the projection period. Capacity utilisation is projected to remain close to a normal level (see Chart 1.13).

The premium in money market rates is expected to remain around ¼ percentage point ahead. Bank lending rates are expected to track developments in money market rates in the short term, but may rise somewhat less further out in the projection period (see Chart 1.14). The interest rate differential against other countries is expected to be fairly stable. The projections are based on the assumption that the krone will appreciate somewhat in the year ahead, but remain weaker than projected in the September *Report* (see Chart 1.15).

GDP for mainland Norway is projected to grow by about 2% in 2014 and 2½% in 2015. Unemployment is projected to show a small increase. Wage growth is projected to move up to 3¾% in 2015 and 4% in 2016. With this projection for wage growth, household purchasing power rises somewhat less than in the September *Report*. Private consumption is projected to grow by a little less than 2% in 2014, moving up to about 3% annual growth through the remainder of the projection period. The saving ratio remains high, but edges down into the projection period. House prices are projected to weaken to a further extent over the next year than projected in the September *Report* (see Chart 1.16). House prices are projected to rise at a slower pace than household income in the years ahead. Housing investment is expected to grow at a slower pace in the years ahead compared with the past few years. Petroleum investment is expected to grow at a considerably slower pace from next year, but activity in oil-related

industries is expected to remain robust. Growth abroad is projected to improve somewhat, and combined with the depreciation of the krone, this may provide a boost to export growth.

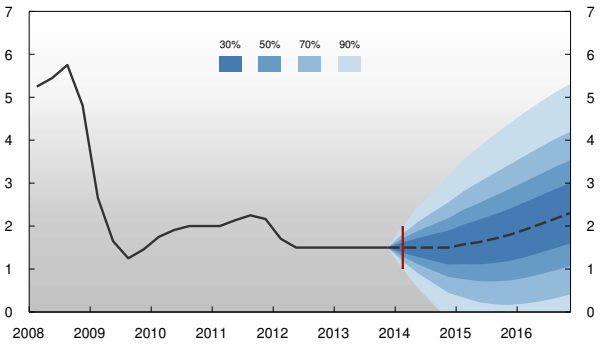
The projections for the key policy rate, inflation, capacity utilisation and other variables are based on Norges Bank's assessment of the economic situation and perception of the functioning of the economy and monetary policy. Monetary policy may respond to changes in the economic outlook, or if the relationships between the interest rate, inflation and the real economy differ from those assumed.

There is uncertainty about future interest rate developments. The uncertainty surrounding Norges Bank's projections is illustrated using fan charts (see Charts 1.11 a-d). The width of the fan reflects historical uncertainty. Chart 1.17 shows there is a high probability that the key policy rate will be within the interval approved by the Executive Board in the period to 27 March 2014. However, there is also some probability that the key policy rate will be set higher or lower than indicated by the interval. In autumn 2008, the Norwegian economy was exposed to major shocks as a consequence of the international financial crisis, and the key policy rate was set below the lower limit of the interval (see Chart 1.12).

The projections in this *Report* imply that capacity utilisation in the Norwegian economy will remain close to a normal level. The possibility that the slowdown in the economy will be more pronounced cannot be ruled out. A greater-than-expected fall in house prices may weigh down further on consumption and activity. Unemployment may then be higher than projected and wage growth lower. This will have a dampening effect on inflation. Should the outlook for inflation or growth in output and employment be substantially lower than projected, the key policy rate may be set lower than projected in this *Report*.

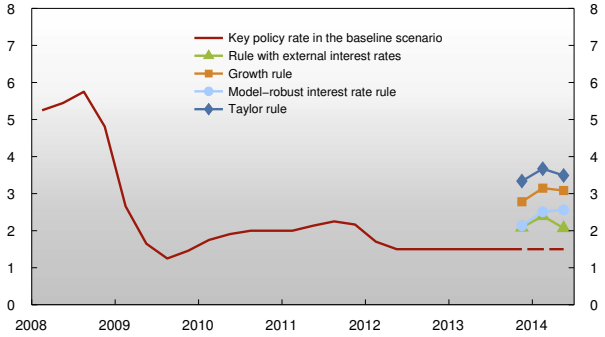
The key policy rate may also be increased more quickly than projected in this *Report*. It cannot be ruled out that the underlying driving forces of inflation are stronger than assumed. Low productivity growth, among other things, may have a greater impact on business costs than expected. The krone may also prove to be weaker than projected and push up inflation ahead. The upward shift in interest rates may then occur earlier than in the baseline scenario.

Chart 1.17 Projected key policy rate in the baseline scenario and strategy interval with probability distribution. Percent. 2008 Q1 – 2016 Q4



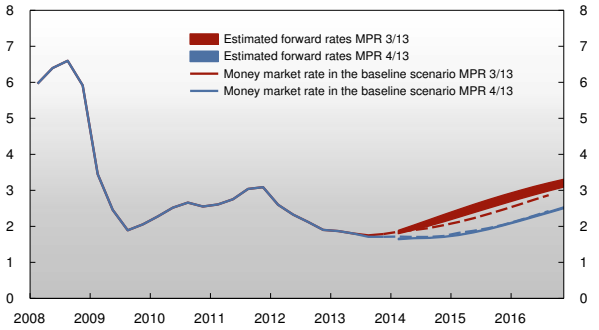
Source: Norges Bank

Chart 1.18 Key policy rate and calculations based on simple monetary policy rules.[1] Percent. 2008 Q1 – 2014 Q2



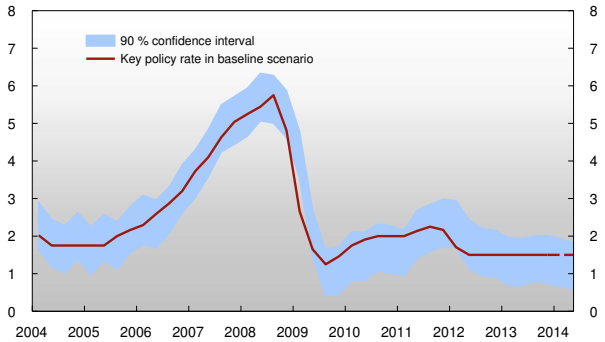
1) The calculations are based on Norges Bank's projections for the output gap, growth gap, consumer prices (CPI–ATE) and 3–month money market rates for trading partners. To ensure comparability with the key policy rate, the simple rules are adjusted for risk premiums in 3–month money market rates.
Source: Norges Bank

Chart 1.19 Three–month money market rate in the baseline scenario[1] and estimated forward rates[2]. Percent. 2008 Q1 – 2016 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 blue and red bands show the highest and lowest forward rates in the period 18 November – 29 November 2013 and 30 August – 12 September 2013.
Sources: Thomson Reuters and Norges Bank

Chart 1.20 Key policy rate and interest rate developments that follow from Norges Bank's average pattern of interest rate setting.[1] Percent. 2004 Q1 – 2014 Q2



1) Interest rate movements are explained by developments in inflation, mainland GDP growth, wage growth and 3–month money market rates among trading partners. The equation is estimated over the period 1999 Q1 – 2013 Q3. See Norges Bank *Staff Memo* 3/2008 for further discussion.
Source: Norges Bank

Cross-checks of the interest rate forecast

Simple monetary policy rules can prescribe 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. The rule with external interest rates also takes into account that changes in the interest rate level among our trading partners may result in changes in the exchange rate and hence influence the inflation outlook. The model-robust rule[1] is based on calculations using different models for the Norwegian economy. This rule gives greater weight to the output gap and inflation than the Taylor rule. In addition, it gives weight to the interest rate in the preceding period.

The simple rules imply a key policy rate that is higher than our forecast in the coming period (see Chart 1.18). The rules are based on information on observations of inflation. The temporary high level of inflation thus has an impact, while the more moderate inflation level ahead is only captured to a limited extent by the rules. Nor do these rules capture a considerably wider difference between the money market rate and bank lending rates than earlier.

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* for the entire projection period (see Chart 1.19).

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 1.20 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 important. The parameters in this model are estimated using 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.

1 For a further analysis of this and other simple monetary policy rules, see Norges Bank *Staff Memo* 16/2012 and 17/2012

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.

Moreover, Norges Bank 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 occur that are difficult to foresee. 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.

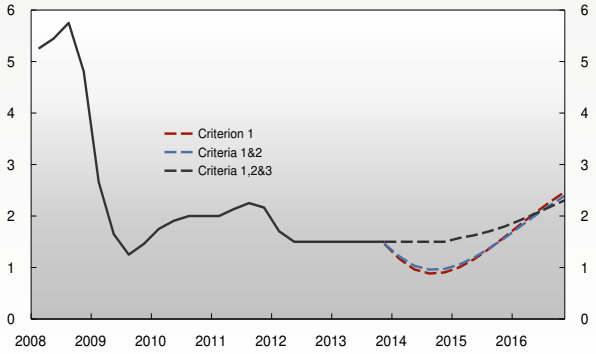
The following set of criteria can serve as a guideline for an appropriate interest rate path:

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.

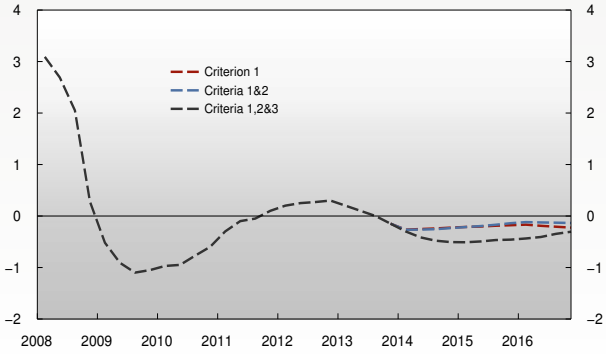
3. ***Monetary policy is robust:***
   The interest rate should be set so that monetary policy mitigates the risk of a build-up of financial imbalances, and so that acceptable developments in inflation and output are also likely under alternative assumptions about the functioning of the economy.

Chart 1.21a Key policy rate. Percent. 2008 Q1 – 2016 Q4



Source: Norges Bank

Chart 1.21b Output gap. Percent. 2008 Q1 – 2016 Q4



Source: Norges Bank

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.

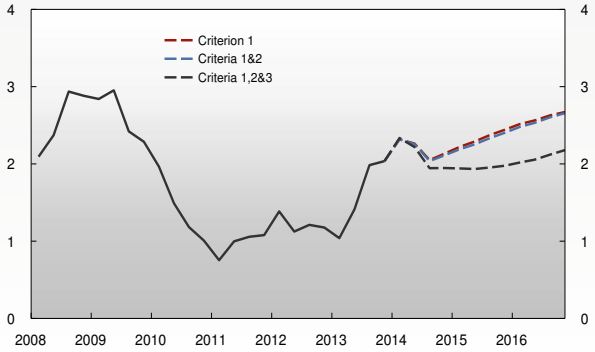
Charts 1.21 a-c illustrate the forecasts for the key policy rate, output gap and inflation when the various criteria are taken into account.

If the sole objective of monetary policy were to maintain inflation at target, the key policy rate would, according to a technical model-based analysis, quickly be lowered towards 1% (see red line in the charts).[1] Inflation would then move up to 2.5% at the beginning of 2016. According to the technical model-based analysis, the key policy rate will follow a fairly similar path when account is taken of the consideration that monetary policy should not lead to excessive fluctuations in output and employment (see blue line). This reflects that these considerations are now pulling in the same direction.

Monetary policy also seeks to be robust, among other things by taking into account the risk of a build-up of financial imbalances. A reduction in the key policy rate at present may increase the risk of a renewed build-up of financial imbalances. A robust monetary policy also 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. The robustness consideration pushes up the interest rate path. In the baseline scenario (see black line), the key policy rate is therefore higher than implied by a technical model-based analysis that does not take robustness into consideration.

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

Chart 1.21c CPI–ATE.[1)] Four–quarter change. Percent. 2008 Q1 – 2016 Q4



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

Changes in the projections since *Monetary Policy Report* 3/13

The interest rate forecast in this *Monetary Policy Report* is slightly lower than the forecast in the September 2013 *Report* (see Chart 1.22). The projections are based on the criteria for an appropriate interest rate path (see box on page 18), an overall assessment of the situation in the Norwegian and global economy, and Norges Bank's perception of the functioning of the economy.

Chart 1.23 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 compared with the September *Report* is shown by the black line.

The krone has depreciated and is weaker than projected in the September *Report*. The depreciation of the krone is more pronounced than developments in interest rate differentials against other countries would imply. A weaker krone contributes in isolation to both higher inflation and higher economic activity. This suggests a higher key policy rate (see black bars).

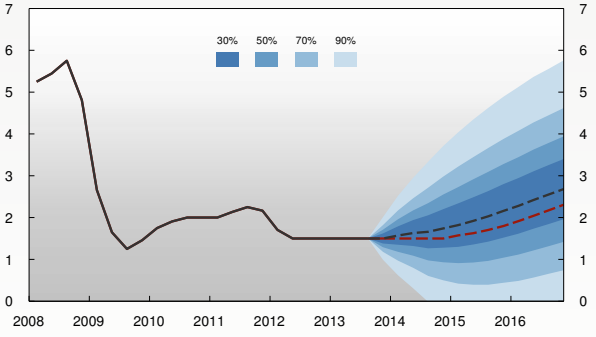
Prospects for economic growth abroad have weakened somewhat since the September *Report*. This suggests a somewhat lower key policy rate in Norway (see orange bars).

Market participants now expect central bank interest rates abroad to stay on hold for even longer than at the time of publication of the September *Report*. Lower interest rates abroad point towards a lower key policy rate also in Norway (see light blue bars).

Capacity utilisation appears to be edging down and is expected to remain lower than projected in the September *Report*. Prospects for lower capacity utilisation point towards a lower key policy rate (see red bars).

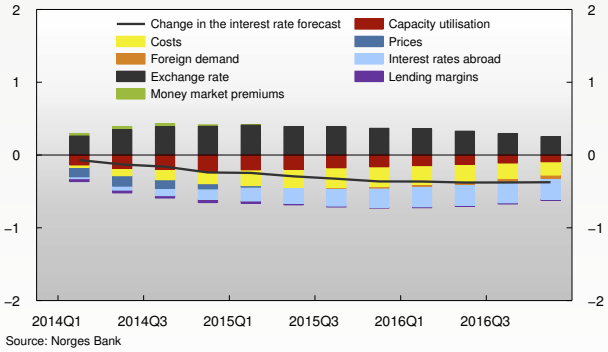
Consumer price inflation has been lower than expected since the September *Report*. This suggests a lower key policy rate (see blue bars). Wage growth is expected to be somewhat lower than projected in September. The downward revision is somewhat larger than implied by lower-than-projected inflation and somewhat lower capacity utilisation than expected in the September *Report*. Prospects for lower wage growth push in the direction of a lower key policy rate (see yellow bars).

Chart 1.22 Key policy rate in the baseline scenario in MPR 3/13 with probability distribution and key policy rate in the baseline scenario in MPR 4/13 (red line). Percent. 2008 Q1 – 2016 Q4



Source: Norges Bank

Chart 1.23 Factors behind changes in the interest rate forecast since MPR 3/13. Cumulative contribution. Percentage points. 2014 Q1 – 2016 Q4



Source: Norges Bank

Bank lending margins have been slightly higher than projected in the September *Report*. Lending margins are expected to remain marginally higher ahead than previously projected. This suggests a lower key policy rate (see purple bars).

Money market premiums have been slightly lower than projected in the September *Report*. This pushes in the direction of a higher key policy rate (see green bars). As in the September *Report*, premiums ahead are projected to be around ¼%.

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

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

Table 1 Projections for macroeconomic aggregates in *Monetary Policy Report* 4/13. Percentage change from previous year (unless otherwise stated). Change from projections in *Monetary Policy Report* 3/13 in brackets

	2013	2014	2015	2016
CPI	2¼ (0)	2 (-¼)	2 (0)	2 (0)
CPI-ATE[1)]	1½ (-¼)	2 (-¼)	2 (0)	2 (0)
Annual wages[2)]	3½ (0)	3½ (-½)	3¾ (-½)	4 (-¼)
Mainland demand[3)]	2¼ (0)	2 (-¾)	3 (0)	3 (¼)
GDP, mainland Norway	1¾ (0)	2 (-¼)	2½ (-¼)	3 (¼)
Output gap, mainland Norway (level)[4)]	0 (0)	-½ (-¼)	-½ (-¼)	-¼ (0)
Employment, persons, QNA	1¼ (0)	1 (0)	1 (0)	1 (0)
Registered unemployment (rate, level)	2¾ (0)	3 (¼)	3 (0)	3 (0)
Level				
Key policy rate[5)]	1½ (0)	1½ (-¼)	1¾ (-¼)	2 (-½)
Import-weighted exchange rate (I-44)[6)]	89 (1)	91¼ (3¼)	89¾ (2)	89½ (1¾)
Money market rates, trading partners[7)]	½ (0)	½ (0)	¾ (-½)	1¼ (-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

2 Decision basis for the countercyclical capital buffer

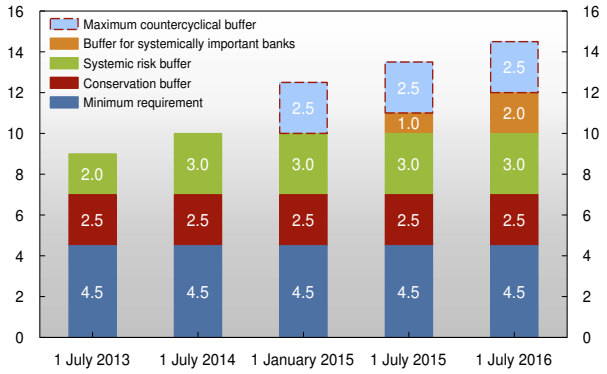
In October, the Government issued the Regulation on the Countercyclical Capital Buffer for banks (see box on page 29). The countercyclical capital buffer is one of several elements of the new capital adequacy regulation adopted by the Storting (Norwegian parliament) in June (see Chart 2.1). The buffer rate shall ordinarily be between 0 and 2.5 percent of banks' risk-weighted assets. The rate will apply to all banks operating in Norway, and will be applicable to branches of foreign banks further ahead.[1] The Ministry of Finance will set the level of the countercyclical capital buffer on a quarterly basis. The Government has assigned responsibility to Norges Bank for preparing a decision basis and providing advice to the Ministry regarding the level of the buffer. Norges Bank's advice on the level of the countercyclical capital buffer and a summary of the basis for its advice will be sent to the Ministry of Finance in connection with the publication of this *Report*. The advice will be made public when the Ministry has made its decision.

Norges Bank has formulated three criteria for an appropriate countercyclical capital buffer (see box on page 30). Banks should build and hold a countercyclical capital buffer when financial imbalances are building up or have built up over a period. Banks will be allowed to draw on the buffer 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. When the buffer is increased in good times, it may also contribute to dampening high credit growth and to reducing the build-up of systemic risk.

Norges Bank has taken note of four indicators for the build-up of financial imbalances: i) the ratio of total credit (C2 households and C3 enterprises mainland Norway) to mainland GDP, ii) the ratio of house prices to household disposable income, iii) commercial property prices, and iv) the

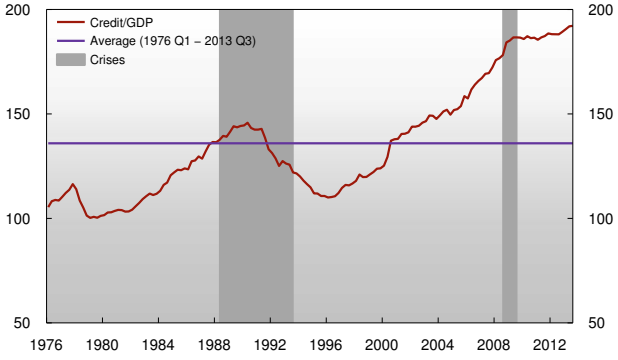
1 The buffer will not apply with certainty to branches of foreign banks in Norway until 2016, and will then be implemented gradually. It is up to the supervisory authorities in these banks' home countries to decide whether the buffer should apply before 2016.

Chart 2.1 Common Equity Tier 1 capital ratio requirements in the new regulatory framework. Percent. 1 July 2013 – 1 July 2016



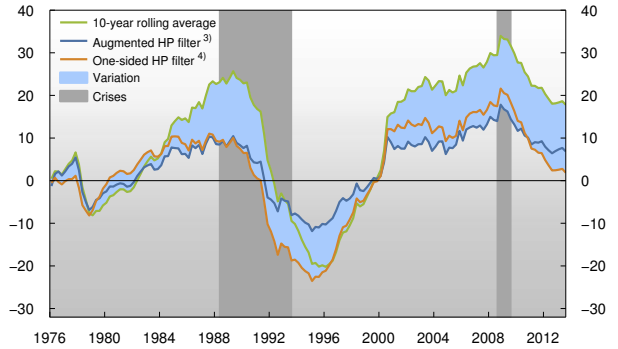
Sources: Ministry of Finance and Norges Bank

Chart 2.2 Total credit[1] mainland Norway as a percentage of mainland GDP. Percent. 1976 Q1 – 2013 Q3[2]



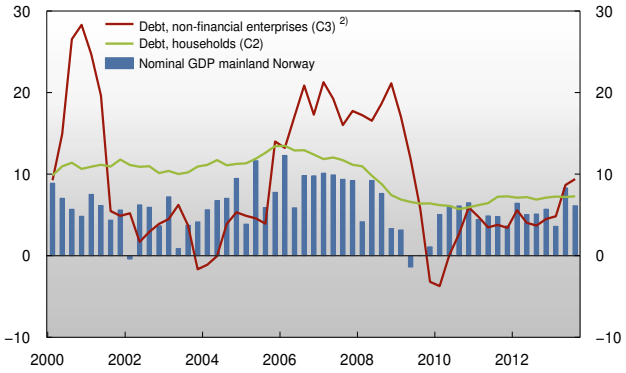
1) The sum of C3 non-financial enterprises in mainland Norway (total economy pre-1995) and C2 households.
2) Projection for September of non-financial enterprises' foreign debt in mainland Norway.
Sources: Statistics Norway, IMF and Norges Bank

Chart 2.3 Credit gap. Total credit[1] mainland Norway as a percentage of mainland GDP. Deviation from estimated trends. Percentage points. 1976 Q1 – 2013 Q3[2]



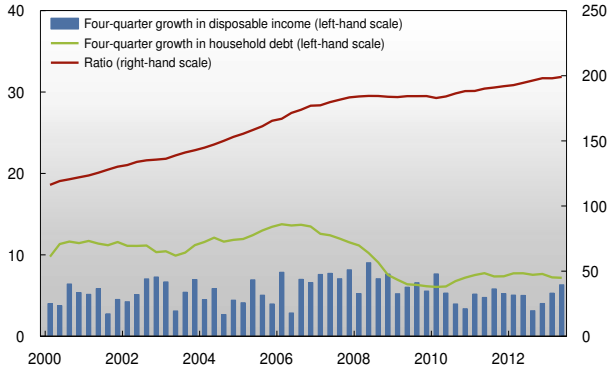
1) The sum of C3 non-financial enterprises in mainland Norway (total economy pre-1995) and C2 households.
2) Projection for September of non-financial enterprises' foreign debt in mainland Norway.
3) One-sided Hodrick-Prescott filter estimated on data augmented with a simple projection. Lambda = 400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

Chart 2.4 Credit to households and non-financial enterprises, and mainland GDP. Four-quarter growth. Percent. 2000 Q1 – 2013 Q3[1)]



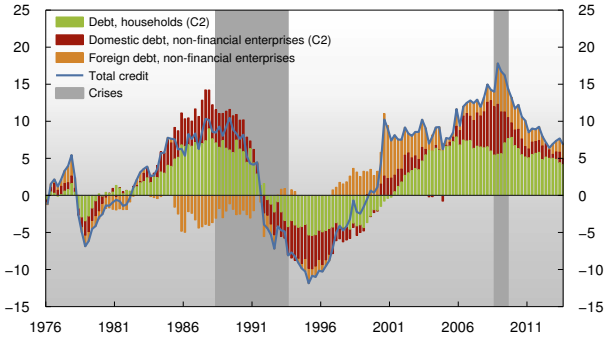
1) Projection for September of non-financial enterprises' foreign debt in mainland Norway.
2) Sum of C2 non-financial enterprises and foreign debt in mainland Norway.
Sources: Statistics Norway and Norges Bank

Chart 2.5 Household debt to disposable income ratio.[1)] Percent. 2000 Q1 – 2013 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.
Sources: Statistics Norway and Norges Bank

Chart 2.6 Decomposed credit gap. Total credit[1)] mainland Norway as a percentage of mainland GDP. Deviation from estimated trend[2)]. Percentage points. 1976 Q1 – 2013 Q3 [3)]



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

wholesale funding ratio of Norwegian credit institutions. As a basis for its advice on the capital buffer, Norges Bank will assess the levels of the indicators and compare the current situation with historical trends.[2] The trends can give an indication of the sustainable level of an indicator. The difference between indicators and trends can thus serve as a measure of financial imbalances. The advice on the countercyclical capital buffer will not rely mechanically on developments in individual indicators. As experience and insights are gained, the set of indicators can be developed further. Norges Bank's advice will also build on EU recommendations from the European Systemic Risk Board (ESRB) (see box on page 32). The ESRB is expected to issue its first recommendations in the course of 2014.

From the mid-1990s until 2008, total household and corporate debt in the mainland economy grew markedly faster than GDP (see Chart 2.2). Previous financial crises in Norway and other countries show that both banks and borrowers often take on considerable risk in periods of strong credit growth. Since the latest financial crisis, credit growth has slowed somewhat and is more in line with growth in the mainland economy. The ratio of total credit to mainland GDP is nonetheless at a historically high level. The indicator is also higher than the estimated historical trends (see Chart 2.3), although the gaps between the indicator and trends have narrowed in recent years.

Overall debt growth since the financial crisis has primarily been fuelled by household borrowing (see Chart 2.4). Household debt continues to rise faster than income and hence the ratio of debt to disposable income is still rising (see Chart 2.5). When debt-to-income ratios increase, households become more vulnerable to a loss of income or higher interest rates. It will take time for lower house price inflation to feed through into lower household debt growth. As house prices have been rising for a long period, dwellings sold now will on average require a larger mortgage than when they were last transacted. Thus, there are prospects that household debt-to-income ratios will increase ahead.

Household saving has been high in recent years. Holding assets that can be easily drawn on makes a household more robust. But assets are not evenly distributed, and

2 Norges Bank has so far used three methods to calculate the trends: a one-sided Hodrick-Prescott filter as applied by the Basel Committee, a Hodrick-Prescott filter augmented with a simple projection, and an estimated average. For further discussion, see box «Measuring financial imbalances» in *Monetary Policy Report* 2/13.

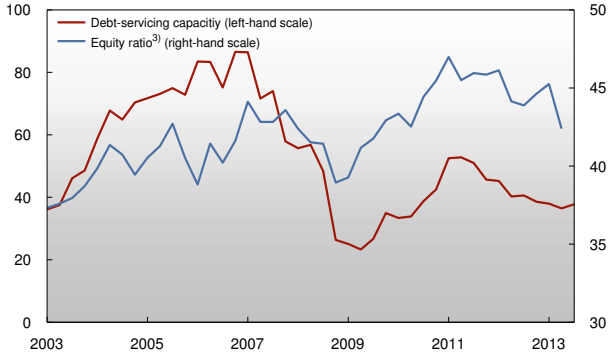
only households with low debt-to-income ratios have increased their financial assets relative to debt. The ratio of financial assets to debt is stable for groups with high and middle debt-to-income ratios.

Growth in non-financial corporate debt in mainland Norway was very high in the years prior to the financial crisis, but slowed to a more moderate level following the crisis (see Chart 2.4). Growth has edged up in recent quarters, and total mainland corporate debt increased by 9% between August 2012 and August 2013. Corporate credit is still making a positive contribution to the overall credit gap (see Chart 2.6). From a historical perspective, Norwegian enterprises are highly leveraged, requiring sound future earnings to service the debt. The debt-servicing capacity and equity capital ratio of listed enterprises have fallen in recent years (see Chart 2.7). Lower debt-servicing capacity has previously been followed by an increase in delinquent loans and loan losses in banks.

Banks' total lending to enterprises has remained virtually unchanged over the past year (see Chart 2.8), but bank credit is still enterprises' most important source of funding. Growth in borrowing in the Norwegian bond market is high, but has slowed somewhat compared with the first half of 2013. Bond financing is primarily an alternative for larger companies. Borrowing from foreign sources has increased sharply over the last year. Growth in debt from foreign sources has historically varied widely.

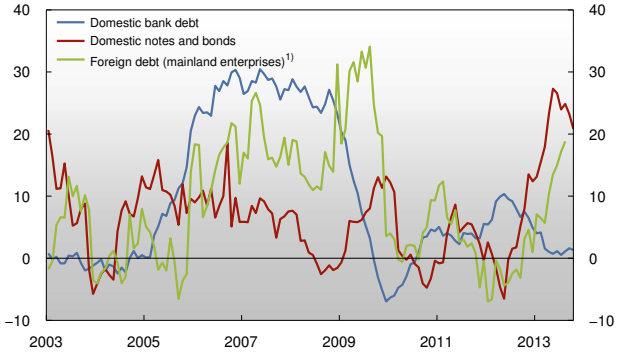
In Norges Bank's October 2013 lending survey, banks reported that they would ease credit standards somewhat for enterprises in the fourth quarter. They also reported that they would reduce lending margins. In the same

Chart 2.7 Debt-servicing capacity[1)] and equity ratio[2)] for listed enterprises. Percent. 2003 Q1 – 2013 Q3



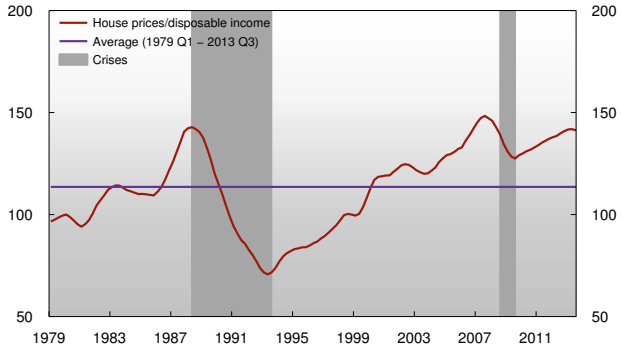
1) Pre-tax profit plus depreciation and amortisation for the previous four quarters as a percentage of interest-bearing debt for non-financial enterprises included in the OBX index, excluding Statoil.
2) Equity as a percentage of assets for non-financial enterprises on Oslo Børs.
3) To 2013 Q2.
Sources: Bloomberg, Statistics Norway and Norges Bank

Chart 2.8 Credit from selected funding sources to Norwegian non-financial enterprises. Twelve-month growth. Percent. January 2003 – October 2013



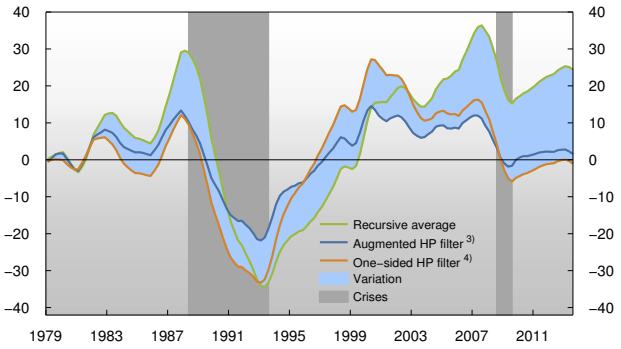
1) To August 2013.
Sources: Statistics Norway and Norges Bank

Chart 2.9 House prices[1)] relative to disposable income[2)]. Indexed. 1998 Q4 = 100. 1979 Q1 – 2013 Q3



1) Quarterly figures pre-1990 are calculated by linear interpolation of annual figures.
2) Adjusted for estimated reinvested dividend income for 2000 – 2005 and redemption/reduction of equity capital for 2006 Q1 – 2012 Q3.
Sources: Statistics Norway, Norwegian Association of Real Estate Agents (NEF), Eiendomsmegler-foretakenes forening (EFF), Finn.no, Eiendomsverdi and Norges Bank

Chart 2.10 House price gap. House prices[1)] as a percentage of disposable income[2)] as deviation from estimated trends. Percent. 1979 Q1 – 2013 Q3

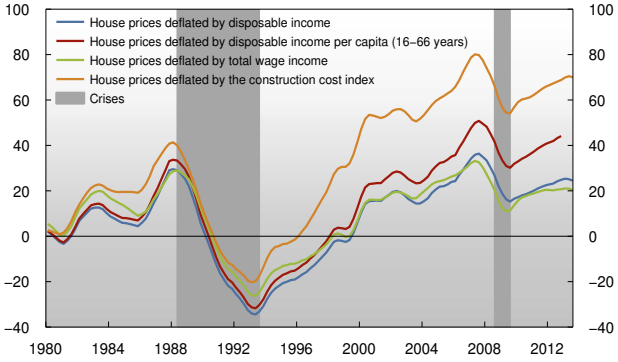


1) Quarterly pre-1990 figures are calculated with linear interpolation of annual figures.
2) Adjusted for estimated reinvested dividend income for 2000 – 2005 and redemption/reduction of equity capital for 2006 Q1 – 2012 Q3.
3) One-sided Hodrick-Prescott filter estimated on data augmented with a simple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

survey, banks responded that they expected somewhat lower credit demand from enterprises in the fourth quarter. In the fourth-quarter NHO (Confederation of Norwegian Enterprise) survey among member companies, one quarter of the companies report that investment projects are being postponed partly owing to the situation in banks and financial markets. This is a small rise compared with previous surveys, but reduced access to credit and funding is still ranked lowest of a number of obstacles to investment. Enterprises in Norges Bank's regional network have also been asked if they perceive any tightening in bank credit standards. Of the enterprises responding that this question was applicable, 24% reported that credit standards were tighter, 17% that standards had eased and 58% that standards had remained unchanged over the previous six months. Recent strong growth in corporate debt indicates that enterprises on the whole have ample access to credit. However, access varies across different types of firms. Because growth in bank lending is low, some enterprises that do not have access to bond market or foreign funding may have perceived a reduction in the supply of credit.

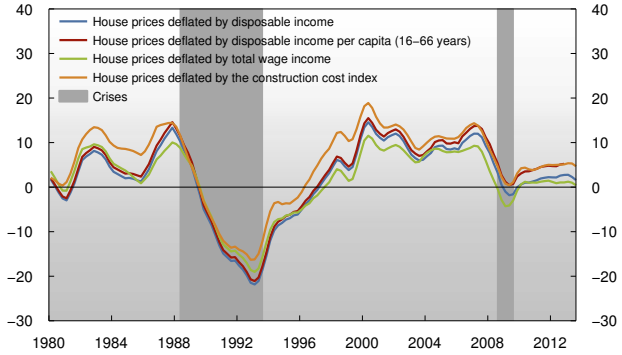
Property plays a role as both asset and collateral, and house prices influence households' desire to borrow and their access to credit. Interaction between household credit and house prices can contribute to the build-up of imbalances and to amplifying an economic downturn. House prices have been growing faster than household disposable income for a long period (see Chart 2.9). The house price indicator has recently levelled off, and the gap between the indicator and estimated historical trends has narrowed (see Chart 2.10). A comparison between house prices and various income and cost measures

Chart 2.11 Alternative house price indicators as deviation from a recursive average.
Percent. 1980 Q1 – 2013 Q3



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

Chart 2.12 Alternative house price indicators as deviation from augmented HP trend[1].
Percent. 1980 Q1 – 2013 Q3



1) One-sided Hodrick-Prescott filter estimated on data augmented with a simple projection. Lambda = 400 000.
Sources: Statistics Norway, Norwegian Association of Real Estate Agents (NEF), Eiendomsmegler-foretakenes forening (EFF), Finn.no, Eiendomsverdi and Norges Bank

Chart 2.13 Seasonally adjusted house prices.
NOK 1000 per square metre. January 2012 – November 2013

Sources: Eiendomsmeglerforetakenes forening (EFF), Eiendomsverdi and Finn.no

Chart 2.14 Turnover, unsold houses and transaction times.[1]
January 2003 – November 2013

1) Number of sales and turnover (seasonally adjusted) in 1000s of properties. Transaction times (seasonally adjusted) in days.
Sources: Eiendomsmeglerforetakenes forening (EFF), Finn.no, Eiendomsverdi

shows that house prices are still higher than historical trends (see Charts 2.11 and 2.12). The gaps indicate that house price inflation in recent years may have exceeded the level that is sustainable over time.

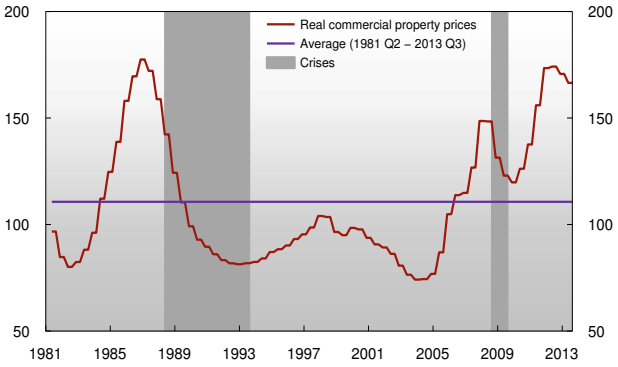
House price inflation slowed last winter and prices have fallen since summer (see Chart 2.13). At the same time, turnover in the housing market is lower, and transaction times and the number of unsold houses have increased (see Chart 2.14). The cooling in the housing market must be viewed in the context of the rapid rise in house prices over a long period to their current high levels. Somewhat weaker developments in the Norwegian economy, lower consumer confidence and higher bank lending rates have probably also curbed house price inflation.

If house prices continue to rise more slowly than income, the gaps in Chart 2.10 will close. A moderation in house prices may reduce the imbalances in the housing market further ahead. A rapid and sharp fall in house prices may, however, trigger or amplify a downturn in the Norwegian economy and lead to higher losses for banks.

After rising for several years, the commercial property prices indicator has fallen slightly in the past year (see Chart 2.15). The indicator is still considerably higher than the estimated historical trends (see Chart 2.16). Norwegian banks' corporate loan exposure is highest in the commercial property market, particularly the office and retail segment. Prices across different segments and regions vary widely. The commercial property prices indicator is based on estimated market prices for high-standard office space in Oslo, a segment where the rise in prices has been high for several years. In the past six months, the office vacancy rate in the Oslo region has edged up (see Chart 2.17), primarily as a result of new office building completions. Weaker developments in the Norwegian economy may dampen business sector demand for commercial property. Higher capacity and reduced demand could curb the rise in prices ahead.

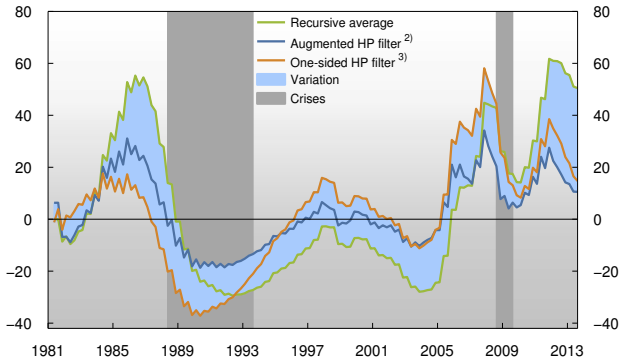
The share of Norwegian banks' and mortgage companies' activities funded by borrowing in money and credit markets increased sharply between 2005 and 2008 (see Chart 2.18). With ample access to market funding, banking groups were able to grow and meet high demand for credit from enterprises and households. Rapid growth contributed to the build-up of risk in the financial system.

Chart 2.15 Real commercial property prices.[1)]
Indexed. 1998 = 100. 1981 Q2 – 2013 Q3



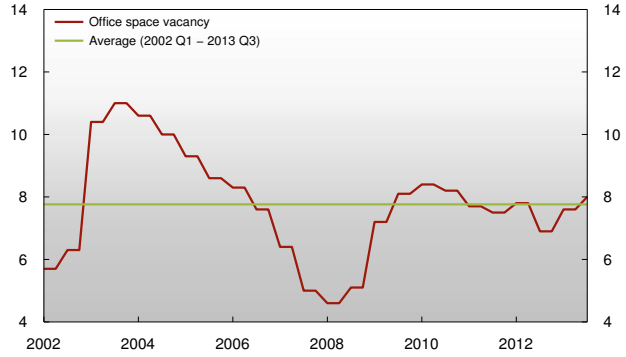
1) Estimated market prices for office premises in Oslo deflated by the GDP deflator for mainland Norway.
Sources: Dagens Næringsliv, OPAK, Statistics Norway and Norges Bank

Chart 2.16 Real commercial property price gap. Real commercial property prices[1)] as deviations from estimated trends. Percent. 1981 Q2 – 2013 Q3



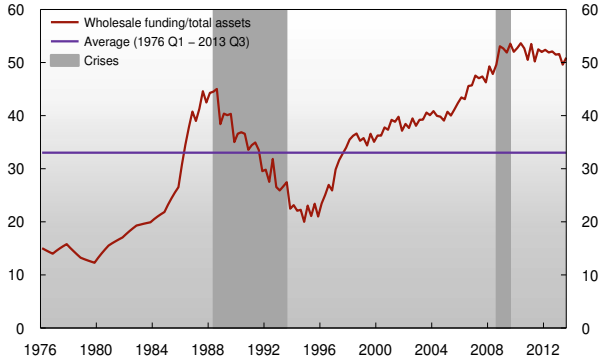
1) Estimated market prices for office premises in Oslo deflated by the GDP deflator for mainland Norway.
2) One-sided Hodrick-Prescott filter estimated on data augmented with a simple projection. Lambda = 400 000.
3) One-sided Hodrick-Prescott filter. Lambda = 400 000.
Sources: Dagens Næringsliv, OPAK,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

Chart 2.17 Office space vacancy in Oslo, Asker and Bærum.[1)]
Percent. 2002 Q1 – 2013 Q3



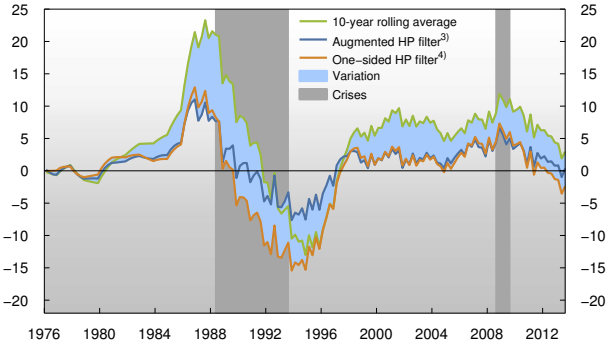
1) Vacancy in square meters as a percentage of total property mass. Semiannual figures.
Source: DNB Næringsmegling

Chart 2.18 Banks'[1] wholesale funding as a percentage of total assets.[2]
Percent. 1976 Q1 – 2013 Q3



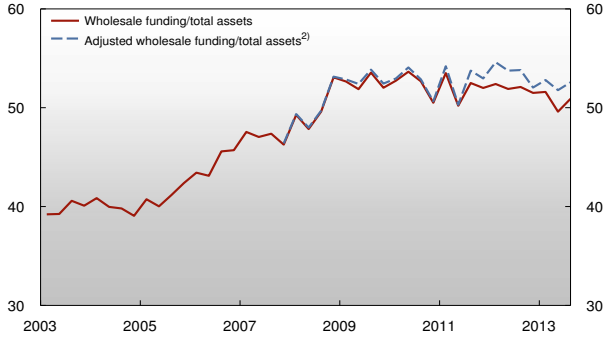
1) All banks and covered bond mortgage companies excluding branches and subsidiaries of foreign banks in Norway.
2) Quarterly figures pre-1989 are calculated by linear interpolation of annual figures.
Source: Norges Bank

Chart 2.19 Wholesale funding gap. Banks'[1] wholesale funding as a percentage of total assets as deviations from estimated trends.[2] Percentage points. 1976 Q1 – 2013 Q3



1) All banks and covered bond mortgage companies 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

Chart 2.20 Banks'[1] wholesale funding as a percentage of total assets.
Percent. 2003 Q1 – 2013 Q3



1) All banks and covered bond mortgage companies excluding branches and subsidiaries of foreign banks in Norway.
2) Deposits from foreign "other financial enterprises" are classified as market funding.
Source: Norges Bank

Solid deposit growth, combined with moderate lending growth, is currently limiting the need for an increase in wholesale funding, and in recent years the indicator has levelled off and fallen somewhat. This has reduced the gap between the indicator and the estimated historical trends (see Chart 2.19). A considerable portion of deposit growth in recent years derives from foreign sources, including money market funds. Such deposits can be unstable. If deposits from foreign money market funds are classified as market funding, the fall in the indicator is less pronounced (see Chart 2.20).

In recent years, the largest banks have placed substantial deposits in foreign central banks. Such deposits are safe and easily accessible. The short-term wholesale funding matched by these deposits has little impact on credit growth and the build-up of risk. Norwegian banks have improved their funding structures and reduced their liquidity risk since the financial crisis.

The four indicators of financial imbalances are at historically high levels. Recently, the gaps between the indicators and the estimated historical trends have levelled off or fallen. Banks' adjustments to stricter capital requirements, including expectations of a counter-cyclical capital buffer, may have contributed. The analyses nonetheless indicate that there is still a risk that financial imbalances may trigger or amplify an economic down-turn. The first criterion for an appropriate countercyclical capital buffer thus implies that banks should hold such a buffer.

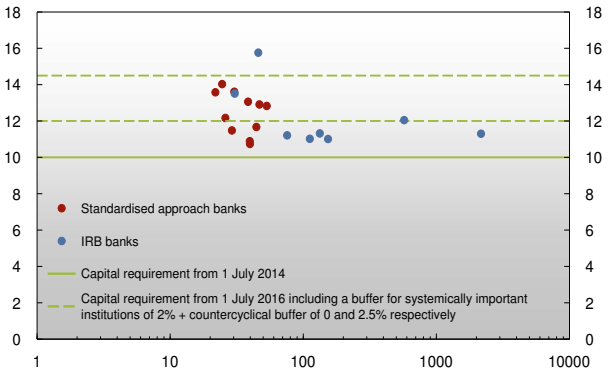
The second criterion for an appropriate countercyclical capital buffer is that the buffer should be considered in the light of other requirements for banks, particularly when new requirements are introduced. In the short term, higher capital requirements may curb growth in credit and GDP. When credit growth is strong, a higher buffer may restrain the build-up of financial imbalances. If capital requirements are raised too quickly, the result may be substantial credit tightening.

In the years ahead, banks' capital requirements will be increased irrespective of the level of the countercyclical buffer (see Chart 2.1). Most of the largest banks will have to increase their capital ratios in order to satisfy the new capital requirements (see Chart 2.21). Banks are well on the way to adjusting to the new requirements. If profits

for the first three quarters of 2013 were added in full to Tier 1 capital, the largest banks' CET1 capital ratios would on average have increased by 0.9 percentage point (see Chart 2.22).[3] The results so far this year suggest that banks can increase their CET1 capital ratios by more than 1 percentage point annually through their normal operations. Owing to higher lending margins, banks' results have improved through the year.

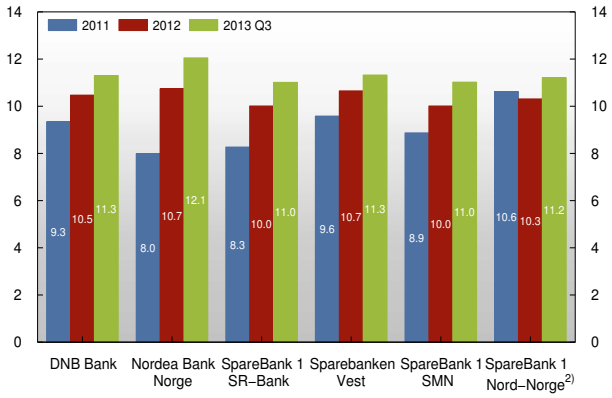
If the countercyclical capital buffer is fully applied, in addition to a buffer for systemically important institutions of 2%, a number of banks will have to make further adjustments. Equity issuance makes it possible for banks to rapidly satisfy increased capital requirements without having to reduce lending. So far in 2013, SpareBank 1 Nord-Norge and Sparebanken Møre have issued equity certificates. Banks can also sell assets or restrict new lending in order to raise capital ratios more rapidly. If banks choose to restrict credit growth, they may have most to gain from reducing growth in lending to enterprises as corporate loans at the margin have higher risk weights than household loans. Tighter bank credit for enterprises could make obtaining loans more difficult for enterprises whose only source of funding is banks.

Chart 2.21 Banking groups[1] Common Equity Tier 1 capital ratios.[2]
Percent. Total assets[3]. In billions of NOK. At 30 September 2013



1) Banking groups with total assets in excess of NOK 20bn, excluding branches of foreign banks in Norway.
2) With total result at end-Q3 added.
3) Logarithmic scale.
Sources: Banking groups' quarterly reports and Norges Bank

Chart 2.22 Common Equity Tier 1 capital ratio for large Norwegian banks.
Percent. End of period. 2011 – 2012 and 2013 Q3[1]



1) Including the results at 30 September.
2) The effect of the equity issue is not included in the number for 2013 Q3.
Sources: Banking groups' annual and interim reports and Norges Bank

3 This is an estimate as interim profits minus dividend payments are not included in CET1 capital until the end of the year.

Regulation on the Countercyclical Capital Buffer[1]

Section 1
The purpose of the countercyclical capital buffer is to strengthen the financial soundness of banks and their resilience to loan losses in a future downturn and mitigate the risk that banks will amplify a downturn by reducing their lending.

Sections 1- 4 of the regulation pertain to the competent authorities' work on the countercyclical capital buffer. Section 5 pertains to financial institutions that are subject to the countercyclical capital buffer requirement under Section 2-9 e of the Financial Institutions Act.

Section 2
The Ministry of Finance shall set the level of the countercyclical capital buffer. The countercyclical capital buffer shall consist of Common Equity Tier 1 capital. The level shall ordinarily be between 0 and 2.5 percent. In special cases, the level may be set higher than 2.5 percent.

A decision on the level of the countercyclical capital buffer shall be made each quarter. The first decision on the level of the buffer and a decision to increase the level shall normally enter into force no earlier than 12 months after the decision has been made. In special cases, an earlier entry into force can be decided. A decision to reduce the level of the buffer may enter into force immediately. The level shall be changed in increments of 0.25 percentage point or multiples thereof.

Section 3
Each quarter, Norges Bank shall draw up a basis for the decision on the level of the countercyclical capital buffer. In drawing up the basis, Norges Bank shall exchange relevant information and assessments with Finanstilsynet (Financial Supervisory Authority of Norway). The decision basis shall contain an overview of the credit-to-GDP ratio and the extent to which it deviates from the long-term trend, as well as other indicators, and Norges Bank's assessment of systemic risk that is building up or has built up over time.

Four times a year, and no later than at the end of each quarter, Norges Bank shall provide advice to the Ministry of Finance regarding the decision on the level of the countercyclical capital buffer, including advice on the extent to which Norwegian financial institutions should meet the countercyclical capital buffer requirement for that portion of their activities carried out in another state. The advice shall be based on Norges Bank's decision basis and any guidance from the European Systemic Risk Board (ESRB).

If Norges Bank issues advice to reduce the buffer, the decision basis shall also contain an estimate of when Norges Bank will issue advice to increase the buffer.

Section 4
The Ministry of Finance shall determine the extent to which Norwegian financial institutions shall meet the countercyclical capital buffer requirement set by the competent authorities in another state for that portion of their activities carried out in the state concerned, as well as any buffer requirement for activities carried out in states where the competent authorities have not set a buffer requirement.

Section 5
Unless otherwise laid down in regulation or in connection with setting the level of the buffer, the countercyclical capital buffer shall be calculated using the same risk-weighted assets as for the minimum regulatory capital requirement.

A financial institution subject to the countercyclical capital buffer requirement shall, when the level of the buffer has been set, calculate its institution-specific countercyclical capital buffer. Finanstilsynet may lay down further rules concerning financial institutions' calculation of the institution-specific countercyclical capital buffer.

Section 6
This regulation enters into force on 15 October 2013.

1 Laid down by Royal Decree of 4 October 2013

Criteria for an appropriate countercyclical capital buffer[1]

The countercyclical capital buffer 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 over a period. 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.

In an upturn, credit that rises faster than mainland GDP will signal a build-up of imbalances. Rising house and property prices tend to go hand in hand with increasing debt growth. When banks change their behaviour and obtain a larger share of their funding directly in the financial market, they grow faster and systemic risk increases.

Norges Bank's advice to build up a countercyclical capital buffer will primarily be based on four key indicators: i) the ratio of total credit (C2 households and C3 mainland enterprises) to mainland GDP, ii) the ratio of house prices to household disposable income, iii) commercial property prices[2] and iv) the wholesale funding ratio of Norwegian credit institutions. In combination, the four indicators provide early warning signals of vulnerabilities and financial imbalances.[3] Historically, they have 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. The gap between the indicators and their estimated trends can serve as a measure of financial imbalances. When actual developments deviate substantially from trend, it may indicate that developments are not sustainable over time. This may signal future financial crises. At the same time, there is considerable uncertainty linked to trend calculations and hence to measures of financial imbalances. Statistical methods and economic theory may be of help, but do not provide an unequivocal answer. Given this uncertainty, different methods for calculating trends are used. Moreover, Norges Bank's advice will be based on

recommendations from the European Systemic Risk Board (ESRB). The ESRB is expected to issue its first recommendations in the course of 2014.

There will not be a mechanical relationship between changes in the indicators, the gaps or recommendations from the ESRB and 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.

The size of the buffer will be viewed in the light of other requirements applying to banks, particularly when new requirements are introduced. Higher capital requirements may induce banks to tighten credit to households and enterprises. In periods of high credit growth, this may contribute to dampening the build-up of imbalances. The overall increase in capital requirements should not limit the supply of credit to the extent that it leads to a downturn in the Norwegian economy.

The countercyclical capital buffer is not an instrument for fine-tuning the economy. In the interest of robustness, the buffer should not be reduced automatically even if there are signs that financial imbalances are receding. In long periods of low losses and rising asset prices and credit growth, banks should normally hold a countercyclical buffer. Banks will be allowed to draw on the buffer 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 key indicators are not well suited to signalling whether the buffer should be reduced. Other information, such as market turbulence and loss prospects for the banking sector, will then be more relevant. If Norges Bank's assessment suggests an abrupt tightening of bank lending owing to the capital requirements, the Bank would issue advice that banks should be allowed to draw on the buffer. The buffer will not be released to alleviate isolated problems in some banks.

1 See also *Norges Bank Papers* 1/2013: Criteria for an appropriate countercyclical capital buffer.
2 The indicator is based on selling prices for office premises in Oslo calculated by OPAK using *Dagens Næringsliv*'s (Norwegian financial daily) commercial property price index.
3 As experience and insights are gained, the set of indicators can be developed further.

The buffer guide – a benchmark rate for the countercyclical capital buffer

According to the EU Capital Requirements Directive (CRD IV)[1], national authorities shall calculate a benchmark rate (a "buffer guide") for the countercyclical capital buffer on a quarterly basis. The buffer guide shall be based on the credit gap, i.e. the deviation of the credit-to-GDP ratio from its estimated long-term trend. Under the Directive, the buffer guide shall also take into account specificities of the national economy.

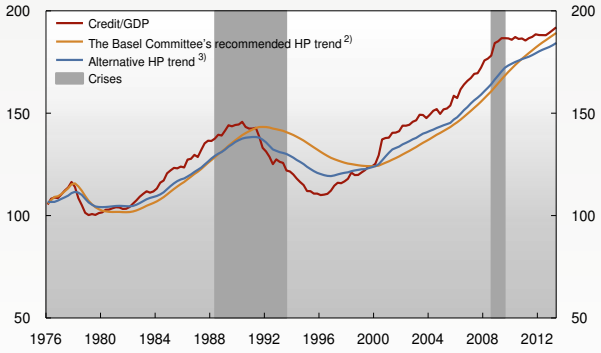
In 2010, the Basel Committee on Banking Supervision proposed a methodology for calculating this buffer guide.[2] The basis is the credit gap calculated by a one-sided Hodrick-Prescott (HP) filter using a smoothing parameter equal to 400 000. This version of the credit gap was chosen because it has historically provided early warning signals of financial crises in a sample of 24 countries[3]. Chart 2.23 shows developments in credit as a percentage of nominal GDP for the mainland economy and the trend calculated using the Basel Committee's methodology.

Under the rule proposed by the Basel Committee, the buffer will become active when the credit gap exceeds 2 percentage points. When the credit gap is between 2 and 10 percentage points, the buffer will vary linearly between 0% and 2.5%. When the credit gap is 10 percentage points or more, the buffer guide will be 2.5%. The lower threshold has been chosen so that banks start to build up capital about 2–3 years before a potential crisis, and the upper threshold has been chosen so that the buffer is at its maximum level before a severe banking crisis materialises.

The Basel Committee's rule generates a buffer guide for Norway of ¼% in 2013 Q2 (see Chart 2.24). According to the Basel Committee's rule, Norwegian banks should also have built up capital buffers prior to the banking crisis in 1988–1993 and prior to the financial crisis in 2008–2009.

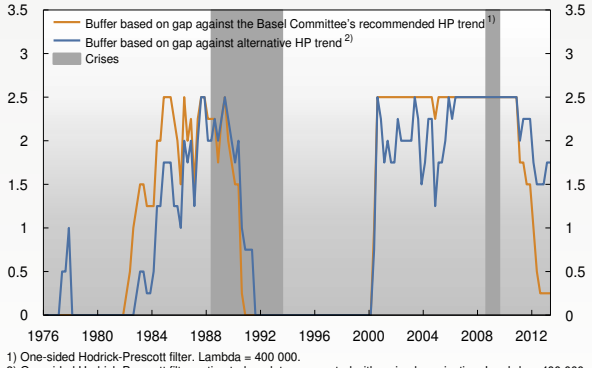
It is clearly stated in CRD IV that the buffer guide is only intended as guidance. This was also the Basel Committee's view.[4] The thresholds under the Basel Committee's rule are based on a sample of countries that is not necessarily representative of Norway. There are several reasons why there should not be a mechanical relationship between the credit gap and the buffer requirement.

Chart 2.23 Total credit[1)] mainland Norway as a percentage of mainland GDP and estimated trends. Percent. 1976 Q1 – 2013 Q2



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

Chart 2.24 Benchmark rates for the countercyclical capital buffer under alternative calculations of the trend. Percent. 1976 Q1 – 2013 Q2



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

There is ample uncertainty related to estimating the long-term trend of the credit-to-GDP ratio, and hence the credit gap.[5] While the credit indicator has levelled off at a historically high level since the financial crisis, the trend calculated using the Basel Committee recommendation has continued to rise rapidly. The trend development indicates that the pre-financial crisis growth rate of credit-to-GDP is sustainable. If the growth rate is not sustainable, however, the credit gap and the appurtenant buffer guide will underestimate financial imbalances and the need for a countercyclical buffer.

As is well known, end-of-sample uncertainty related to trend estimates is high when using an HP-filter. In other contexts where trend estimates are used, such as analyses of output and employment, Norges Bank has exercised caution in giving excessive weight to such uncertain estimates and has sought to improve the method.[6] Uncertainty in trend estimates can be reduced by augmenting the data series with a simple projection before applying the HP-filter (see Chart 2.23).[7] The credit gap measured as the deviation from this trend has historically been a more reliable predictor of future crises and yields a buffer guide of 1¾ % in 2013 Q2 (see Chart 2.24).

The credit-to-GDP ratio alone will not be sufficient to assess whether systemic risk is building up or has built up over time. Under CRD IV, national authorities may also consider other indicators of the build-up of systemic risk in setting the countercyclical capital buffer. This is also provided for in the Regulation on the Countercyclical Capital Buffer.

Economic relationships are too complex to be captured by simple indicators. Norges Bank's advice on the level of the capital buffer will be based on the Bank's professional judgement, which will also take into account other factors. Moreover, the credit gap and the other key indicators are not well suited to signalling when the buffer should be reduced.[8] One reason is that the credit gap tends to continue to widen after a crisis has occurred. In such cases, market turbulence and loss prospects for the banking sector will be more relevant.

According to the Regulation, Norges Bank shall take into consideration guidance from the European Systemic Risk Board (ESRB). The ESRB is currently working to develop guidelines for setting the buffer rate. Once the guidelines are in place, recommendations from the ESRB on methodologies and the calculation of the buffer guide will be included in the basis for the buffer decision.

1 Article 136(2), CRD IV.
2 Basel Committee on Banking Supervision (2010): "Guidance for national authorities operating the countercyclical capital buffer", Bank for International Settlements.
3 Argentina, Australia, Belgium, Brazil, Canada, China, France, Germany, India, Indonesia, Italy, Japan, Korea, Mexico, Netherlands, Russia, Saudi Arabia, South Africa, Spain, Sweden, Switzerland, Turkey, the UK and the US.
4 The Basel Committee on Banking Supervision (2010) also writes: "*The guide does not always work well in all jurisdictions at all times. ... Rather than rely mechanistically on the credit/GDP guide, authorities are expected to apply judgment in the setting of the buffer in their jurisdiction after using the best information available to gauge the build-up of system-wide risk.*"
5 See *Norges Bank Papers* 1/2013 and box in *Monetary Policy Report* 2/2013 for further information.
6 See for example Hagelund, K. and M. Sturød (2012): "Norges Bank's output gap estimates", Norges Bank *Staff Memo* 7/2012.
7 See Gerdrup, K., A. Kvinlog and E. Schaanning (2013): "Key indicators for a countercyclical capital buffer in Norway – Trends and uncertainty", Norges Bank *Staff Memo* 13/2013.
8 According to CRD IV, the ESRB shall also issue guidance on variables, including qualitative criteria, that indicate whether the buffer should be maintained, reduced or fully released.

3 The projections

The global economy

The moderate global upturn is expected to continue, but there are prospects of slightly lower growth among Norway's trading partners than projected in the September 2013 *Monetary Policy Report*. In the US, uncertainty regarding economic policy will likely weigh on growth in the period ahead. In the euro area, growth is expected to pick up gradually, but considerable uncertainty remains. In emerging economies, it appears that growth in 2013 will be as projected in September, but in the coming years, growth will be slightly lower than envisaged in the September *Report*.

Growth among Norway's trading partners is expected to increase from 1% in 2013 to 2½% towards the end of the projection period. The projections for annual growth have been revised down by ¼ percentage point from 2013 (see Table 3.1). Global growth is projected at 2¼% in 2013, somewhat below the average for the past 30 years.

Global long-term interest rates have varied substantially in the period since the September *Report* (see Chart 3.1). After the Federal Open Market Committee (FOMC) meeting in September, global long-term interest rates fell sharply as market participants were taken by surprise by the Federal Reserve decision not to scale back bond purchases. US government bond yields later showed a small increase again on news of higher employment growth in the US and signals from the Federal Reserve after the October FOMC meeting. Ten-year government bond yields among Norway's other main trading partners have also edged down since the September *Report*. One reason for this decline is that developments in the real economy in a number of European core countries have been less positive than in summer. In Italy and Spain, long-term yields have continued to fall. Market participants appear to be acting on the assumption that the risk of default by these countries has abated.

In the US, the Federal Reserve's decision to continue its bond-purchasing programme on the same scale has led to a marked decline in short-term rates. Market pricing now indicates that the first rate increase in the US will occur in 2015 Q3. The European Central Bank (ECB) decided at its monetary policy meeting on 7 November

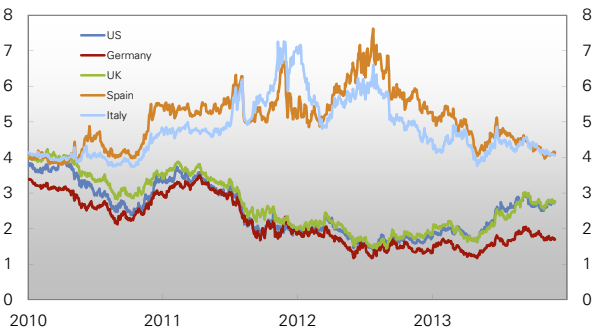
Table 3.1 Projections for GDP growth in other countries. Change from previous year. Percent. Change from projections in *Monetary Policy Report* 3/13 in brackets

	Share of world GDP[1] (percent)	2013	2014	2015 – 2016[2]
US	23	1¾ (0)	2¾ (-¼)	3¼ (0)
Euro area	20	-½ (-¼)	1 (0)	1½ (-¼)
UK	4	1½ (¼)	2½ (¼)	2½ (¼)
Sweden	0.7	1 (-½)	2½ (0)	2¾ (0)
China	9	7½ (0)	7¼ (-¼)	7 (-¼)
Emerging economies[3]	12	3¼ (0)	3¾ (-¼)	4½ (-¼)
Trading partners[4]	78	1 (-¼)	2¼ (-¼)	2½ (-¼)
World (PPP)[5]	100	3 (0)	3¾ (0)	4 (-¼)
World (market exchange rates)[5]	100	2¼ (-¼)	3¼ (0)	3½ (-¼)

1) Country's share of global output measured in a common currency (market exchange rate). Average 2009–2011.
2) Average annual growth.
3) Emerging economies in the trading partner aggregate excluding China: Brazil, India, Indonesia, Russia, Turkey, Poland and Thailand. GDP weights.
4) Export weights, 25 main trading partners.
5) GDP weights. Norges Bank's estimates for 25 trading partners, other estimates from IMF.

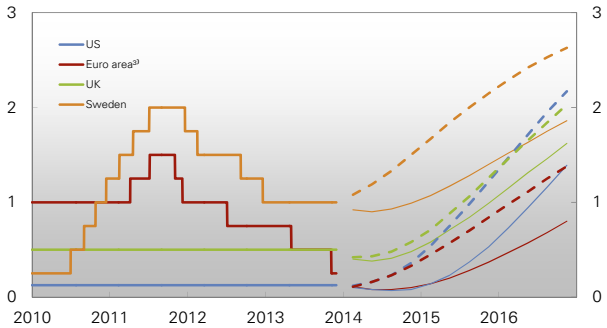
Sources: IMF, Eurostat and Norges Bank

Chart 3.1 Yields on 10-year government bonds. Percent. 1 January 2010 – 29 November 2013



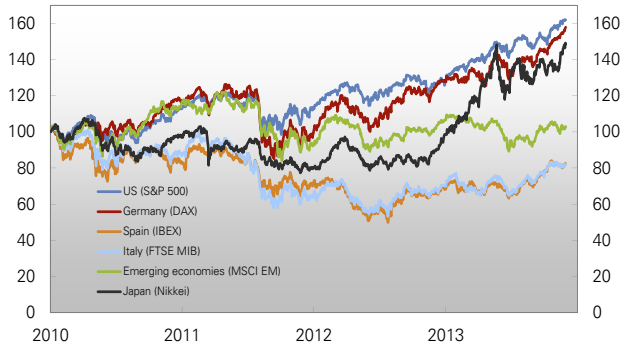
Source: Bloomberg

Chart 3.2 Key rates and estimated forward rates at 12 September 2013 and 29 November 2013.[1] Percent. 1 January 2010 – 31 December 2016[2]



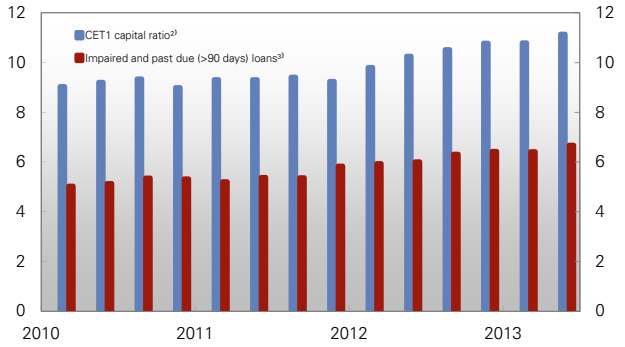
1) Broken lines show estimated forward rates at 12 September 2013. Thin lines show forward rates at 29 November 2013. Forward rates are based on Overnight Index Swap (OIS) rates.
2) Daily data from 1 January 2010 and quarterly data from 2014 Q1.
3) EONIA for the euro area from 2014 Q1.
Sources: Bloomberg and Norges Bank

Chart 3.3 Developments in equity markets.
Index. 1 January 2010 = 100. 1 January 2010 – 29 November 2013



Source: Bloomberg

Chart 3.4 Common Equity Tier 1 (CET1) capital and impaired and past due loans in European banks.[1] 2010 Q1 – 2013 Q2



1) Based on data from 56 large EEA banks.
2) CET1 capital (excluding hybrid instruments) in percent of risk-weighted assets.
3) In percent of total loans.
Source: European Banking Authority (EBA) Risk Dashboard

Chart 3.5 US housing market. Housing starts and existing and new home sales.
Index. January 2005 = 100. January 2005 – October 2013

Source: Thomson Reuters

to lower its policy rate by 0.25 percentage point to 0.25%, mainly because inflation was lower than projected by the ECB. At the same time, the ECB reiterated that policy rates will remain at current or lower levels for an extended period. The ECB decision, along with the impact of US rates, has sent European and UK interest rates markedly lower. The first rate increases by the Bank of England and the ECB have been moved further out in time and are now expected in 2015 Q2 and 2015 Q4, respectively (see Chart 3.2). Swedish rates have also followed global developments. Combined with weaker developments in inflation, the first rate increase by Sveriges Riksbank is now expected to occur in spring 2015.

Developments in equity markets have been positive since the September *Report* (see Chart 3.3). The advance in global equity markets may to a large extent be attributable to prospects for a continued loose monetary stance in many countries.

The global financial stability outlook is virtually unchanged on the previous quarter. The financial stability outlook in the US has improved with the continued upturn in the US economy. However, a less expansive monetary stance in the US may result in reduced capital flows to emerging economies and a period of increased financial market volatility. Banks in Europe have raised their capital ratios in a period of weak economic growth (see Chart 3.4). The return on equity for European banks is under 4%. Banks' non-performing and problem loans are still on the rise, dampening the prospects for higher earnings in a number of countries. European authorities' planned review of banks' assets may bolster confidence in banks. However, what the effects will be remains uncertain as long as it is unclear how additional capital will be supplied if this should prove necessary.

Growth prospects for regions and countries

The moderate upturn in the US economy is still underway. GDP growth in Q3 was in line with the projection in the September *Report*. However, developments in recent months have been marked by uncertainty regarding monetary and fiscal policy. Even though the monetary stance remains expansive, long-term rates are higher than in the first half of 2013. The result has been that segments of the housing market have cooled off (see Chart 3.5). At the same time, there has been turmoil surrounding fiscal policy, related to both the current fiscal year's budget and

the federal debt ceiling, which set limits for federal government borrowing. The parties have not reached agreement on a more long-term solution to budgetary and debt problems. Greater uncertainty is expected to result in somewhat lower growth ahead than previously envisaged.

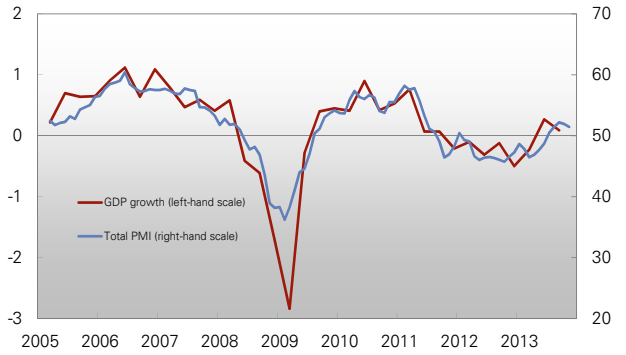
Euro area GDP rose for the second consecutive quarter in 2013 Q3. Growth was approximately as expected in the September *Report*. However, new figures for the first half of 2013 show that growth in the period to summer was somewhat lower than previously assumed. Activity indicators up to and including November indicate a moderate increase in the pace of growth towards year-end (see Chart 3.6).

In the light of new assessments of potential growth and capacity utilisation, GDP growth for the euro area has been revised down somewhat for 2015 and 2016. Since the financial crisis, the economic growth potential for the euro area has been restrained by low productivity growth and a decline in the supply of labour. Investment and employment are expected to pick up gradually, but potential growth is likely to remain lower than in pre-crisis years (see *Economic Commentaries* 7/2013 for a further discussion of the outlook for potential growth in the euro area). At the same time, owing to sluggish demand growth in the face of low income growth and continued private and public sector deleveraging, capacity utilisation will remain below a normal level until the end of the forecast period (see Chart 3.7).

In the UK, growth picked up further in Q3. Developments were more favourable than projected in the September *Report*. The upturn is driven in part by further improvement in the housing market, with high activity levels in the construction sector, but growth has also improved in the manufacturing and services sectors. Annual GDP growth is expected to pick up in 2014, driven by an expansive monetary stance and higher activity among important trading partners.

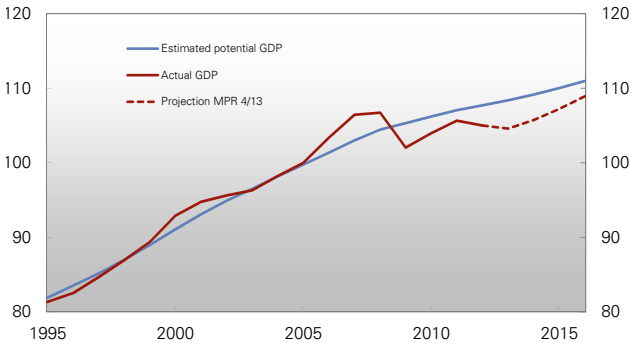
In Sweden, growth has been weaker than expected. New figures show that GDP was broadly unchanged between 2013 Q1 and Q3. The pace of growth is expected to pick up ahead, in line with that projected earlier. Household and business confidence continued to strengthen through autumn (see Chart 3.8). Along with rising global growth, this is expected to provide impetus to the Swedish economy.

Chart 3.6 Euro area: Quarterly GDP growth and total PMI.[1)]
GDP: 2005 Q1 – 2013 Q3. PMI: March 2005 – November 2013



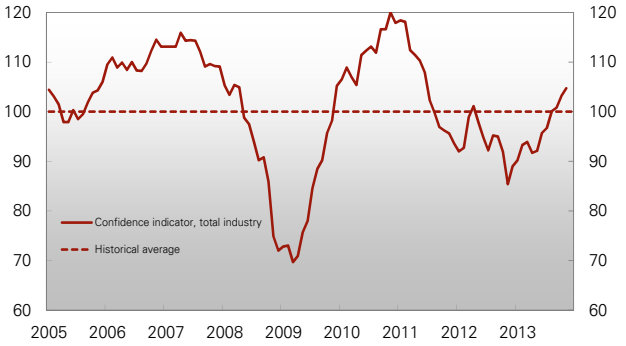
1) GDP: Volume change in percent. PMI: Diffusion index centred around 50.
Source: Thomson Reuters

Chart 3.7 Euro area: Estimated potential GDP and GDP at constant prices.
Index. 2005 = 100. 1995 – 2016



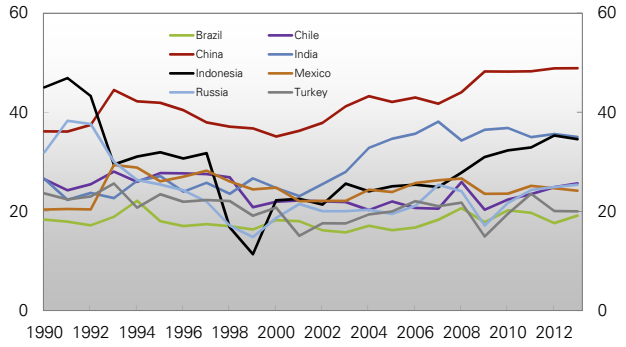
Sources: IMF, OECD, Thomson Reuters and Norges Bank

Chart 3.8 Sweden: Confidence indicator for total industry.
Diffusion index. January 2005 – November 2013



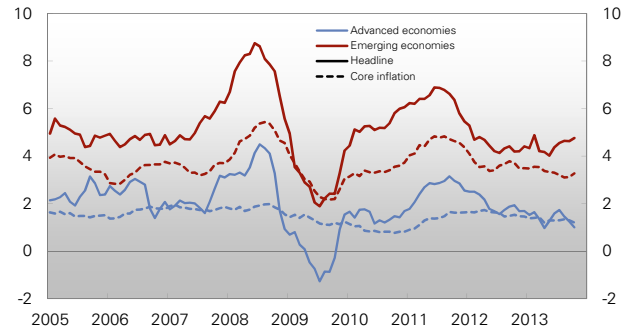
Source: Swedish National Institute of Economic Research

Chart 3.9 Investment as a share of GDP.
Percent. 1990 – 2012. IMF forecast for 2013



Source: IMF

Chart 3.10 Consumer prices in advanced and emerging economies.[1)]
12-month change. Percent. January 2005 – October 2013



1) GDP-weighted (PPP). Advanced economies: Australia, Canada, euro area, Japan, UK and US. Emerging economies: Argentina, Brazil, India, Indonesia, China, Mexico, Russia, South Africa, South Korea and Turkey.
Sources: Thomson Reuters and Norges Bank

Table 3.2. Projections for consumer prices in other countries (change from previous year, percent) and oil price. Change from projections in *Monetary Policy Report* 3/13 in brackets

	2013	2014	2015–16[1)]
US	1½ (0)	1¾ (-¼)	2¼ (0)
Euro area[2)]	1½ (0)	1¼ (-¼)	1½ (-¼)
UK	2½ (0)	2¼ (0)	2 (0)
Sweden	0 (0)	1¼ (-¼)	2½ (0)
China	2¾ (0)	3¼ (0)	3¼ (0)
Emerging economies[3)]	6¼ (0)	5¾ (0)	5¼ (-¼)
Trading partners[4)]	1¾ (0)	2 (-¼)	2¼ (-¼)
Oil price Brent Blend[5)]	109	109	100

1) Average annual rise.
2) Weights from Eurostat (each country's share of euro area consumption).
3) Emerging economies in the trading partner aggregate excluding China: Brazil, India, Indonesia, Russia, Turkey, Poland and Thailand. GDP weights.
4) Import weights, 25 main trading partners.
5) Futures prices (average for the past five trading days). USD per barrel. For 2013, an average of spot prices so far this year and futures prices for the rest of the year is used.
Sources: Eurostat, Thomson Reuters and Norges Bank

A high saving ratio, solid income growth and expansive economic policies will lay the groundwork for strong consumption growth in the coming years.

In China, GDP growth picked up as expected in Q3, but economic indicators suggest a somewhat lower pace of growth in autumn. Increased investment so far this year has accounted for over half of the growth. This is a larger share than in the two previous years. In recent years, the pace of growth in China has slowed, while investment levels have remained very high. The persistent high level of investment has resulted in substantial overcapacity in parts of the manufacturing sector, and the authorities have signalled reforms to boost domestic demand, especially among households. Developments are expected to meet the authorities' goals, but readjustments are likely to be somewhat more of a challenge than previously envisaged. In view of lower credit growth and signals of economic policy tightening, GDP growth in China is expected to be somewhat lower than previously projected.

In other emerging economies, macroeconomic indicators have recently shown a slight improvement. In tandem with the FOMC decision not to scale back monthly bond purchases, this has led to a stabilisation of financial markets. Weaker foreign exchange rates and somewhat higher demand in advanced economies have contributed to an improvement in current account balances in recent months. Over several years, growth in domestic demand has been very high, driven by expansive economic policies, brisk credit growth and high net capital inflows. In recent years, growth has declined, while inflation and current account deficits have risen in a number of countries. One reason is the lack of structural reforms, which has resulted in supply-side constraints in large economies such as India, Indonesia and Brazil. In India, Indonesia and Turkey, the labour force is growing quickly, but low investment levels will likely constrain potential growth (see Chart 3.9). Growth projections for emerging economies excluding China have been revised down by ¼ percentage point per year from 2014.

Prices

Consumer price inflation is moderate in both advanced and emerging economies (see Chart 3.10). Inflation in the euro area and the US has been lower than expected in the September *Report*. Long-term inflation expectations appear firmly anchored in both the US and Europe.

Consumer price inflation among our trading partners as a whole is projected to increase from 1¾% in 2013 to 2¼% towards the end of the forecast period, in line with improved growth abroad (see Table 3.2).

The price of oil is around USD 110 per barrel, approximately unchanged from the September *Report*. The projections in this *Report* are based on the assumption that the oil price moves in line with futures prices (see Table 3.2). These prices imply a decline in the oil price ahead. Prospects of lower growth than previously assumed in emerging economies may dampen growth in global oil demand, while oil production, especially in the US, appears to have the capacity to rise further.

Norwegian gas export prices remain high owing to continued high prices for oil and UK gas (see Chart 3.11). A lower oil price ahead is expected over time to result in some decline in Norwegian gas export prices.

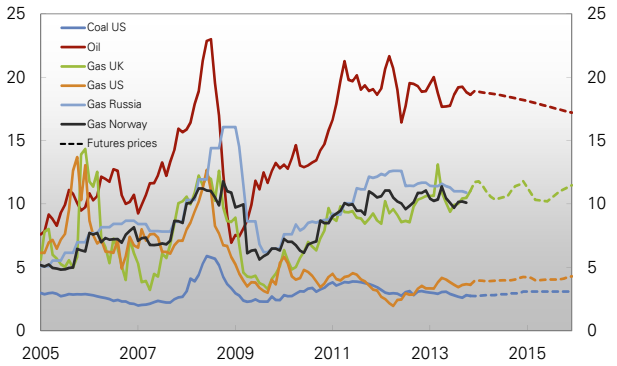
The Economist commodity-price index is approximately unchanged from the September *Report* (see Chart 3.12).

Foreign exchange markets

Through autumn, foreign exchange markets have been marked by expectations concerning the monetary stance in major economies. The US dollar has fluctuated in response to market expectations as to how long the Federal Reserve will continue its programme of asset purchases. Favourable developments in some key indicators have contributed to a stronger US dollar than at the time of the September *Report*. In October, the euro exchange rate was at its strongest level since 2011. Lower inflation and an unexpected ECB rate cut have since contributed to weakening the euro. On balance, there have been minor changes in the exchange rate since the September *Report*. In the UK, there are signs that economic growth is gradually picking up and sterling has appreciated somewhat during the period.

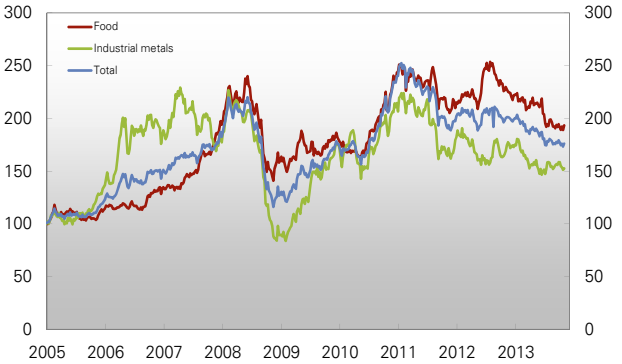
In Norway, a weakening of some key indicators and lower key policy rate expectations have contributed to a depreciation of the krone since the September *Report*. Limited market liquidity has resulted in wider-than-normal fluctuations in the krone exchange rate. Measured by the import-weighted exchange rate index (I-44), the krone has depreciated by approximately 9% since the

Chart 3.11 Prices for coal, crude oil and natural gas.
USD per MMBtu[1]. January 2005 – December 2015



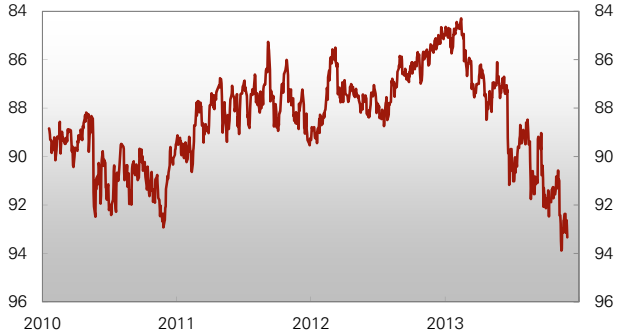
1) Million British thermal units
Sources: IMF, Thomson Reuters, Statistics Norway, Ministry of Finance and Norges Bank

Chart 3.12 The Economist commodity–price index.
7 January 2005 = 100. 7 January 2005 – 29 November 2013



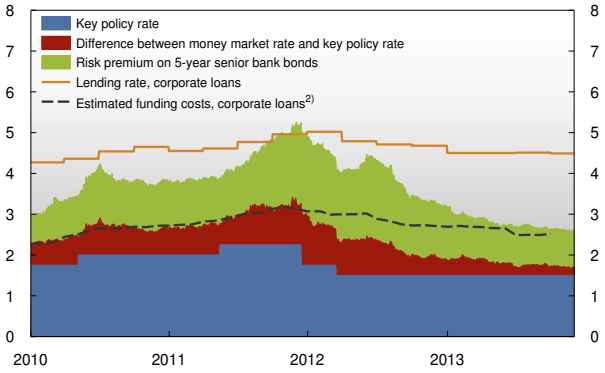
Source: Thomson Reuters

Chart 3.13 Developments in the krone exchange rate. Import-weighted exchange rate index (I-44)[1]. 1 January 2006 – 29 November 2013



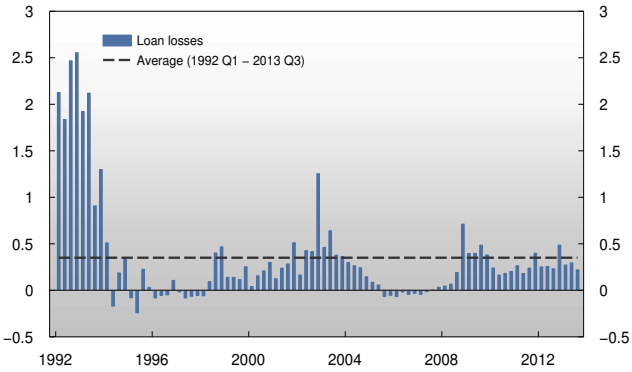
1) A positive slope denotes a stronger krone exchange rate
Source: Norges Bank

Chart 3.14 Lending rate on corporate loans[1)] and funding costs.
Percent. 1 January 2010 – 29 November 2013



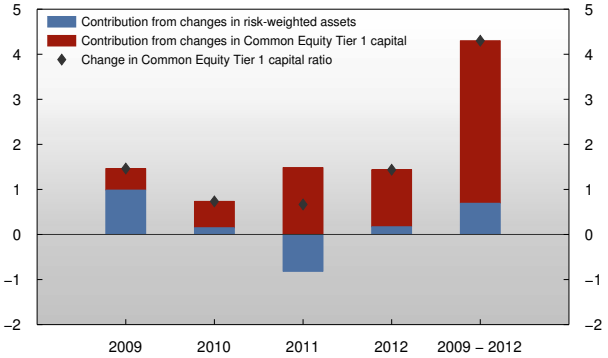
1) All banks and mortgage companies in Norway.
2) Estimated using weighted interest rate on senior bank bonds outstanding and weighted deposit rate.
Sources: DNB Markets, Statistics Norway and Norges Bank

Chart 3.15 Banks'[1)] loan losses as a percentage of gross loans to customers.
Percent. 1992 Q1 – 2013 Q3



1) All banks and covered bond mortgage companies in Norway, excluding branches of foreign banks in Norway.
Source: Norges Bank

Chart 3.16 Contribution to changes in banks'[1)] Common Equity Tier 1 capital ratio.
Percentage points. 2009 – 2012



1) Weighted average for the six largest Norwegian banking groups: DNB Bank, Nordea Bank Norge, SpareBank 1 SR-Bank, Sparebanken Vest, SpareBank 1 SMN og SpareBank 1 Nord-Norge.

beginning of the year (see Chart 3.13). So far in Q4, the krone has, on average, been around 3.5% weaker than projected in the September *Report*. The depreciation of the krone has been more pronounced than the historical relationship with the interest rate differential against other countries and oil prices would imply. The krone exchange rate is projected to strengthen somewhat in the coming quarters.

Norwegian banks

Banks performed well in 2013 Q3. The return on equity for the largest banking groups[1] was 14.1%, rising from 12.7% in 2012 Q3. The improvement primarily reflects higher interest margins as a result of the increase in residential mortgage rates in spring. Residential mortgage rates remained unchanged in Q3 (see Chart 1.4). Household lending rates that also include loans for other purposes than housing increased slightly. So far in 2013 corporate lending rates have been stable (see Chart 3.14). Further ahead, lending rates are expected to rise less than the money market rate and the key policy rate (see Chart 1.14), narrowing the lending margins against the money market rate. Increased cost efficiency and low losses also boosted bank earnings. Loan losses as a share of lending to customers fell in Q3 and are now lower than a historical average (see Chart 3.15).

The minimum Common Equity Tier 1 (CET1) requirement will be 10.0% and the minimum capital adequacy requirement will be 13.5% as from 1 July 2014. At the end of 2013 Q3, all large Norwegian banking groups satisfied the CET1 requirement by a considerable margin (see Chart 2.21). If total earnings for the first three quarters are added to Tier 1 capital, the CET1 ratio for the largest banking groups is increased by 0.9 percentage point to 11.4% (see Chart 2.22). Not all the largest banking groups satisfy next year's capital adequacy requirement. The difference between the capital adequacy requirement and the CET1 requirement can be covered by other regulatory capital, such as preferred capital securities and subordinated debt capital. A number of Norwegian banks have raised new other regulatory capital in recent months, which indicates that banks will have no problem meeting the capital adequacy requirement.

1 The largest banking groups refer to the six largest Norwegian banking groups: DNB Bank, Nordea Bank Norge, SpareBank 1 SR-Bank, SpareBank 1 SMN, Sparebanken Vest and SpareBank 1 Nord-Norge.

Banks can increase their capital ratios in various ways. They can increase their capital (the numerator of the ratios) or reduce their risk-weighted assets (the denominator of the ratios). The largest Norwegian banking groups have over the last years generally increased their CET1 ratio through profit retention and equity issuance (see Chart 3.16). Although banks' total assets have increased in the period, they have also improved capital adequacy by reducing their risk-weighted assets. This is due to approval of new internal risk-weighting models and a shift in lending growth from corporate loans to residential mortgages that have lower risk weights.

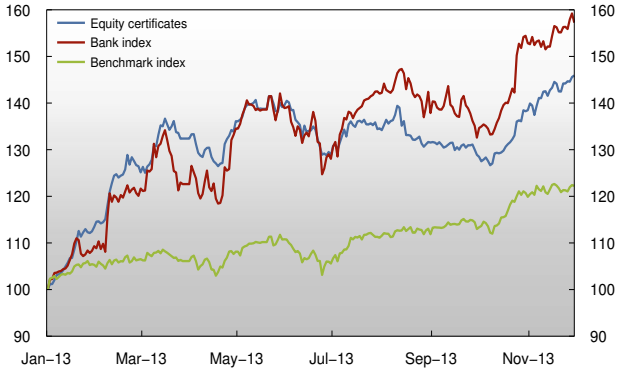
Rather than tightening lending at the expense of profit opportunities and market position, banks may benefit from raising new equity capital. Prices on Norwegian bank shares and equity certificates have increased sharply so far this year (see Chart 3.17). Higher prices make equity issuance more attractive for existing owners. When Sparebanken Møre and SpareBank 1 Nord-Norge announced new issues earlier this year, the price of their equity certificates fell. Fears of a price decline may lower existing owners' preference for equity issuance.

In June, the Storting (Norwegian parliament) approved the phase-in timeline for capital adequacy requirements for banks (see Chart 2.1), including the capital buffer for systemically important banks. In November, Finanstilsynet sent a letter to the Ministry of Finance recommending that DNB Bank, Nordea Bank Norge, SpareBank 1 Nord-Norge, SpareBank 1 SR-Bank, SpareBank 1 SMN, Sparebanken Vest, Sparebanken Sør and Sparebanken Pluss[2] should be designated as domestic systemically important banks.[3] Finanstilsynet recommends that a buffer of 2 percent should be applied to all these banks. The regulation on systemically important financial institutions has now been circulated for comment. A final clarification is expected after the consultation round is concluded in February 2014.

In addition to the percentage capital adequacy requirement, rules for calculating banks' risk-weighted assets are important for how much capital a bank is required to hold. In connection with the National Budget, the Ministry of Finance issued rules for calculating banks' risk weights for residential mortgages. Banks that use the Internal

2 A merger between Sparebanken Sør and Sparebanken Pluss has been approved.
3 See letter to the Ministry of Finance of 4 November 2013: «Systemviktige finansinstitusjoner og verdipapirforetak» [Systemically important financial institutions and collective investment undertakings].

Chart 3.17 Price performance of bank shares, equity certificates and Oslo Børs. Index. 28 December 2012 = 100. 1 January 2013 – 29 November 2013

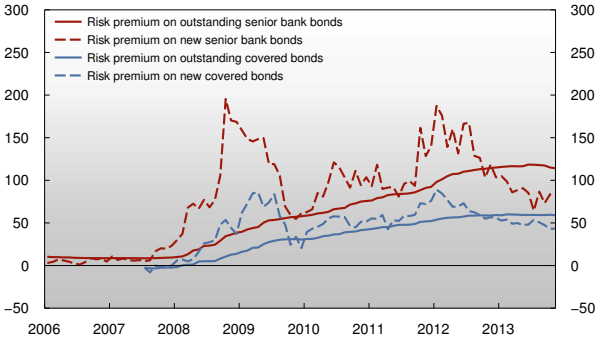


Source: Thomson Reuters

Chart 3.18 Banks' qualitative assessment of access to and premiums on wholesale funding.[1] March 2008 – October 2013

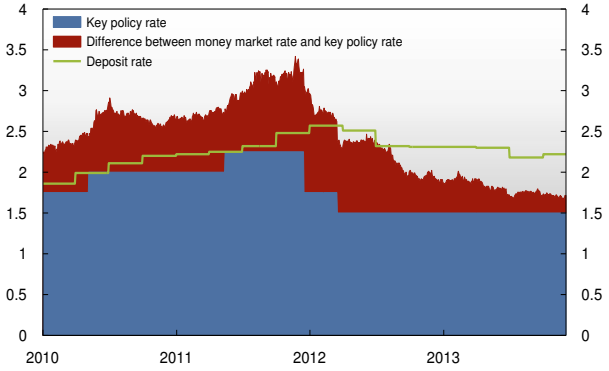
1) Average of reporting banks in Norges Bank's liquidity survey. For short-term funding in foreign currency, only banks active in these markets are included. Red indicates reduced access and higher premiums, grey indicates unchanged, green indicates increased access and lower premiums. During some periods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

Chart 3.19 Average risk premium[1] on new and outstanding bond debt for Norwegian banking groups[2]. Basis points. January 2006 – November 2013



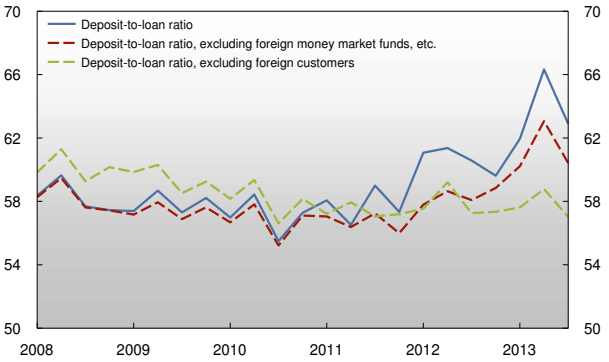
1) Difference against 3-month NIBOR.
2) All banks and covered bond mortgage companies in Norway, excluding branches of foreign banks in Norway.
Sources: Bloomberg, Stamdata, DNB Markets and Norges Bank

Chart 3.20 Deposit rate[1] and money market rate.
Percent. 1 January 2010 – 29 November 2013



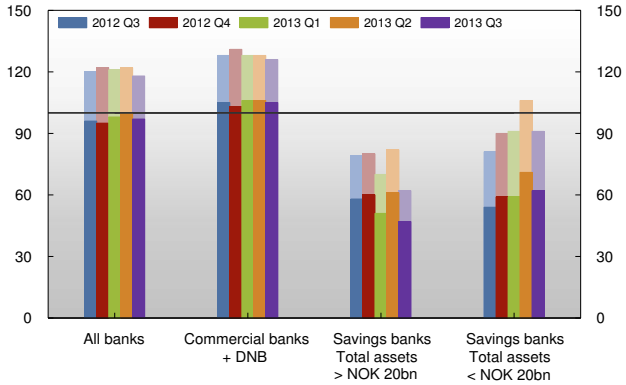
1) All banks in Norway.
Sources: Statistics Norway and Norges Bank

Chart 3.21 Deposit-to-loan ratio.[1] Percent. 2008 Q1 – 2013 Q3



1) Deposit-to-loan ratio is deposits from customers as a percentage of gross loans to customers. All banks and covered bond mortgage companies in Norway, excluding branches and subsidiaries of foreign banks in Norway.
Source: Norges Bank

Chart 3.22 Banks'[1] liquidity coverage ratio (LCR).[2]
Consolidated data. Weighted average for the group. At end-quarter



1) All banks in Norway excluding branches of foreign banks in Norway.
2) Calculations are based on the recommendations published by the Basel Committee in 2010. Lighter colours indicate estimated levels with the suggested easing the Basel Committee published in 2013.
Sources: Finanstilsynet and Norges Bank

Ratings-Based (IRB) approach must apply a minimum loss-given-default (LGD) ratio of 20%. Moreover, the transitional rule as practised in Norway today will still apply.[4] The rules have different implications for Norwegian IRB banks. Most banks will still be bound by the transitional rule. For those banks, the increase in the risk weights for residential mortgages will not entail a change in capital adequacy. For some banks, however, the risk-weighted assets will be higher than required under the transitional rule as a result of the increase in the risk weights for residential mortgages. Capital adequacy will then be reduced. This will make it more demanding for these banks to meet the future capital requirements.

Wholesale funding and deposits are banks' primary funding sources. Norwegian banks and mortgage companies still have ample access to wholesale funding (see Chart 3.18). The premium in the Norwegian three-month money market rate has fallen to about 0.20 percentage point, which is somewhat lower than the pre-crisis level and the projections in the September 2013 *Report*. The premium is expected to remain around this level to the end of the year, followed by an increase to a normal level of 0.25 percentage point. Risk premiums on new long-term wholesale funding are broadly unchanged since the previous *Report*. After rising since 2007, the average risk premium on bank bonds outstanding has levelled off (see Chart 3.19). If premiums on new funding remain at today's level, the average premium on bonds outstanding will edge down ahead.

It is uncertain how premiums on banks' wholesale funding will develop ahead. The draft EU directive on recovery and resolution, which includes a proposal for allocation of losses to unsecured bondholders in a going concern, suggests an increase in risk premiums on senior bonds ahead. In the near term, uncertainty about the effects of a tapering of Federal Reserve asset purchases may also push up risk premiums. The build-up of capital across banks points to lower risk premiums. Further deleveraging in Europe and continued high liquidity provision by central banks will reduce the supply of bonds from banks and mortgage companies, which will also contribute to holding down risk premiums ahead.

Bank deposit rates declined through the first half of the year, but increased a little in Q3. They are still higher

4 Under the transitional rule, risk-weighted assets for IRB banks must make up to at least 80% of that which would have applied under Basel I.

than money market rates (see Chart 3.20). Deposit rates are expected to converge towards money market rates, but deposit margins are expected to remain negative ahead. The deposit-to-loan ratio for Norwegian banks fell in 2013 Q3 after rising sharply in the first half of the year (see Chart 3.21). This variation is primarily driven by changes in deposits from large foreign operators.

Many banks still have some way to go before meeting the expected short-term Liquidity Coverage Ratio (LCR[5]) requirement (see Chart 3.22). With the Basel Committee's proposed easing of the requirement, banks will come closer to satisfying the LCR requirement.[6] The LCR requirement of 100% was to apply from 2015, but a gradual phasing-in from 2015 to 2019 has now been proposed. Finanstilsynet has proposed that systemically important banks should satisfy the 100% LCR requirement as from 1 July 2015.

The Net Stable Funding Requirement (NSFR[7]) will probably apply from 2018. Norwegian banks have gradually moved towards satisfying this requirement and have thereby become more robust, but many banks still do not meet the requirement as defined at present. Finanstilsynet has proposed that systemically important banks should, until further notice, maintain a minimum ratio of stable funding to illiquid assets of 110%, based on Finanstilsynet's own definition of this ratio.[8] The proposed systemically important banks are well poised to meet this requirement.

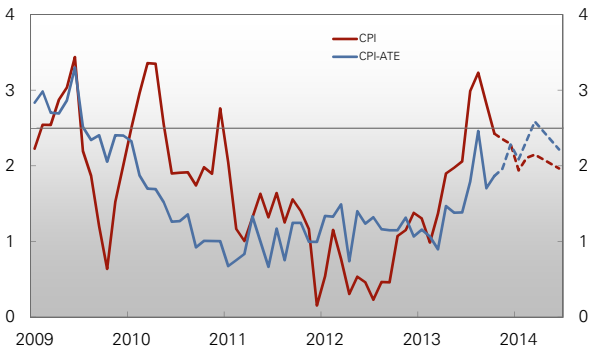
Consumer prices

Consumer price inflation has varied considerably in recent months. After rising sharply in summer, 12-month consumer price inflation has fallen back and has been lower than projected in the September *Report*. In October, 12-month consumer price inflation (CPI) was 2.4% (see Chart 3.23). Inflation adjusted for tax changes and excluding energy products (CPI-ATE) was 1.9%. Other indicators of underlying inflation ranged between 1.6% and 2.6%.

The rate of increase in prices for domestically produced goods and services in the CPI-ATE has picked up since the

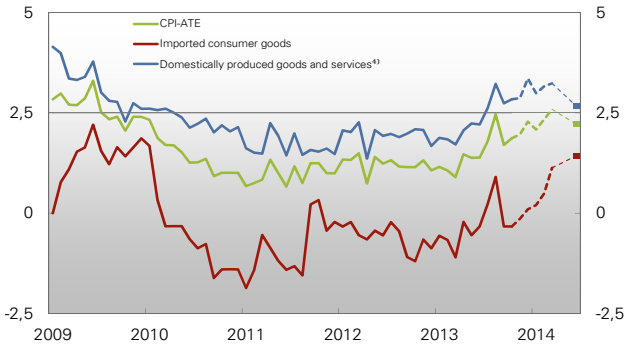
5 Liquidity Coverage Ratio (LCR) is defined as the ratio of high-quality liquid assets to net cash outflows over 30 calendar days under a specified acute liquidity stress scenario. The minimum required ratio is 100%.
6 The most important change for Norwegian banks is that corporate deposits are assumed to be more stable than earlier.
7 The Net Stable Funding Ratio (NSFR) is defined as the ratio of stable funding to illiquid assets. The minimum required ratio is 100%.
8 Finanstilsynet's liquidity indicator 1.

Chart 3.23 CPI and CPI-ATE[1]. 12-month change[2]. Percent. January 2009 – June 2014[3]



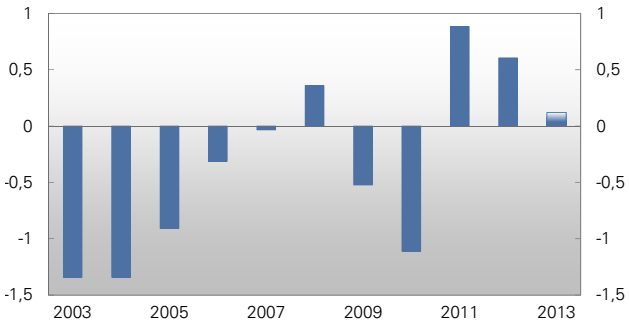
1) CPI adjusted for tax changes and excluding energy products
2) Four-quarter change for June 2014
3) Projections for November 2013 – June 2013 (broken lines)
Sources: Statistics Norway and Norges Bank

Chart 3.24 CPI-ATE[1]. Total and by supplier sector.
12-month change[2]. Percent. January 2009 – June 2014[3]



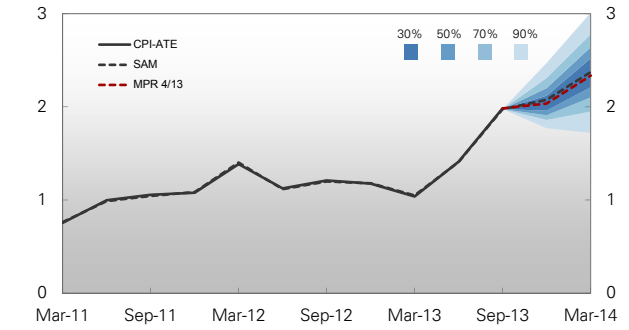
1) CPI adjusted for tax changes and excluding energy products
2) Four-quarter change for June 2014
3) Projections for November 2013 – June 2014 (broken lines)
4) Norges Bank's estimates
Sources: Statistics Norway and Norges Bank

Chart 3.25 Indicator of external price impulses to imported consumer goods measured in foreign currency. Percent. 2003 – 2013[1]



1) Projections for 2013
Source: Norges Bank

Chart 3.26 CPI-ATE[1]. Actual figures, baseline scenario and projections from SAM[2] with fan chart. Four-quarter change. Percent. 2011 Q1 – 2014 Q1[3]



1) CPI adjusted for tax changes and excluding energy products
2) System for averaging short-term models
3) Projections for 2013 Q3 – 2014 Q1 (broken lines)
Sources: Statistics Norway and Norges Bank

beginning of the year (see Chart 3.24). Higher cost growth due to lower productivity growth has probably contributed to the increase in inflation. House rents and food and beverage prices have risen substantially in 2013, which may reflect a change in the methods for measuring price developments in these components of the CPI. Over time, the method changes will more accurately capture price developments. The changes have contributed to wider monthly fluctuations, making it more difficult to assess the level of underlying inflation in a transitional period. The 12-month rise in prices for domestically produced goods and services is projected to move up to 3¼% in 2014 Q1, but to move down again to 2¾% in 2014 Q2. Somewhat lower capacity utilisation will have a dampening effect on inflation.

The 12-month rise in prices for imported consumer goods has also varied considerably recently (see Chart 3.24). In the past two months, the rise in prices for these goods has slowed and has been substantially lower than projected in the September *Report*. Inflation was also held down by a modest rise in clothing prices and lower audiovisual equipment prices. External price impulses to Norwegian consumer prices have been fairly stable over the past year (see Chart 3.25) and are now projected to be somewhat higher than assumed in the September *Report*. Changes in the krone exchange rate normally affect inflation with a lag, and the krone depreciation over the past six months is expected to contribute to a higher rise in prices for imported consumer goods ahead. The rise in prices for these goods is assumed to increase to ½% in 2014 Q1 and to 1½% in 2014 Q2.

CPI-ATE inflation is projected to be 2½% in 2014 Q1 and 2¼% in 2014 Q2. This is somewhat lower than assumed in the September *Report*, and reflects lower-than-expected consumer prices in recent months. Partly owing to a weaker krone, month-on-month inflation is projected to be somewhat higher in the period ahead than in the September *Report*. These forecasts are in line with the projections from Norges Bank's System for Averaging short-term Models (SAM) (see Chart 3.26).

The 12-month rise in electricity prices was high in autumn, partly reflecting low levels of electricity prices in autumn 2012. This has pushed up 12-month CPI inflation since the end of 2012. The 12-month rise in energy prices is expected to slow gradually. CPI inflation is projected at 2¼% in 2013.

The Norwegian real economy

Output and capacity utilisation

After growing at a solid pace over several years, activity growth in the Norwegian economy slowed in 2013. In 2013 Q3, mainland GDP was 1.5% higher than one year earlier and 0.5% higher than the previous quarter. Moderate growth in consumption, low corporate investment and low export growth have dampened growth. Mainland GDP is projected to rise by 1¾% in 2013, down from 3.4% growth in 2012. Excluding the power sector, growth in 2013 is projected at 2%.

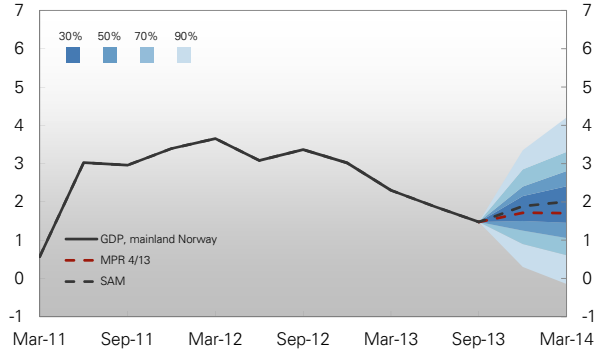
Activity is projected to continue to rise by about ½% per quarter in the period to summer 2014, reaching 2% growth in 2014, which is somewhat lower than in the September *Report*. There are prospects that growth abroad may edge up and, combined with the depreciation of the krone exchange rate, this may boost exports. On the other hand, demand from the petroleum sector is not expected to grow as fast as in recent years. House price developments will likely dampen growth in housing investment, and there are prospects that growth in private consumption will remain moderate.

The projections for GDP are within the most probable outcomes in the projections from Norges Bank's System for Averaging short-term Models (SAM) (see Chart 3.27).

The enterprises in Norges Bank's regional network reported in October that output growth had declined somewhat more than expected (see Chart 3.28). At the same time, regional network contacts also revised down their expectations for output growth ahead. Expectations decreased in particular in the oil supplier industry, domestically oriented manufacturing, construction and retail trade, while enterprises in the export industry reported approximately unchanged growth expectations.

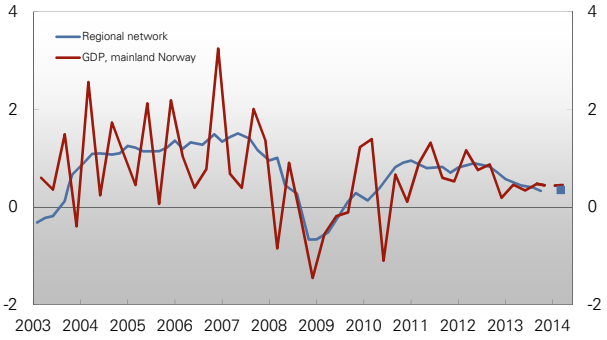
The slowdown in activity growth is reflected in a moderate decline in mainland capacity utilisation over the past year. According to Norges Bank's regional network, the share of enterprises reporting capacity constraints has declined (see Chart 3.29). Enterprises also report that the supply of labour has improved. Registered unemployment has recently edged up but, measured as a percentage of the labour force, unemployment is close to the average for the past 15 years. This indicates that capacity utilisation is fairly close to a normal level.

Chart 3.27 GDP for mainland Norway. Actual figures, baseline scenario and projections from SAM[1] with fan chart. Four-quarter change. Volume. Seasonally adjusted. Percent. 2011 Q1 – 2014 Q1[2]



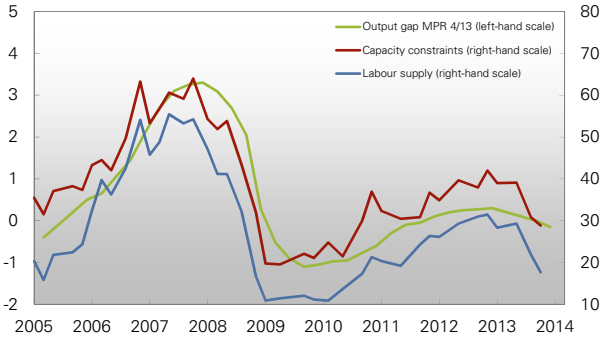
1) System for averaging short-term models
2) Projections for 2013 Q4 – 2014 Q1 (broken lines)
Sources: Statistics Norway and Norges Bank

Chart 3.28 GDP for mainland Norway[1] and Norges Bank's regional network's indicator of growth in production past three months and expected growth in production next six months. Percent. 2003 Q1 – 2014 Q2[2]



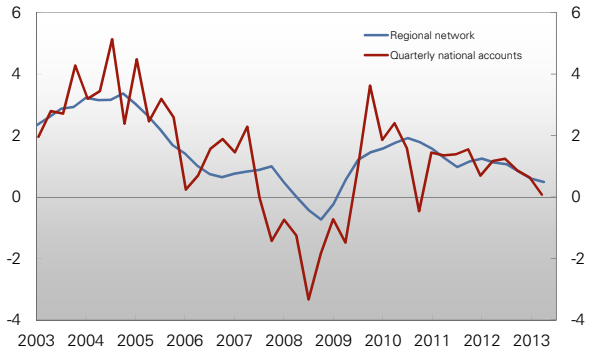
1) Seasonally adjusted quarterly change. Volume
2) Latest observation in the regional network is October 2013. Latest GDP observation is 2013 Q3, projections for 2013 Q4 – 2014 Q2 (broken line)
Sources: Statistics Norway and Norges Bank

Chart 3.29 Capacity constraints and labour supply[1] as reported by Norges Bank's regional network and estimated output gap. Percent. 2005 Q1 – 2013 Q4



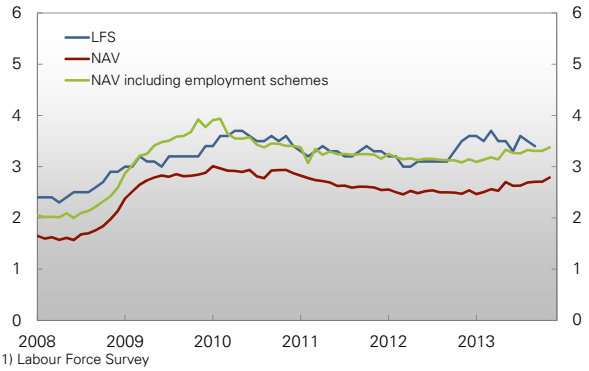
1) Share of contacts that will have some or considerable problems accommodating an increase in demand and the share of contacts where production is constrained by labour supply
Source: Norges Bank

Chart 3.30 Productivity in mainland Norway. Output per person employed.[1)]
Four-quarter change. Percent. 2003 Q2 - 2013 Q3



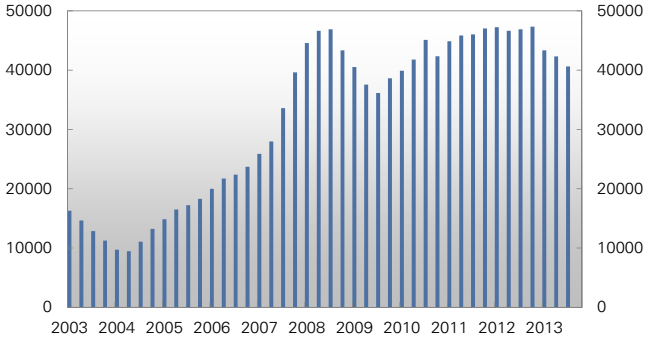
1) Gross product per person employed in the national accounts
Sources: Statistics Norway and Norges Bank

Chart 3.31 Unemployment rate. LFS[1)] and NAV[2)].
Seasonally adjusted. Percent. January 2008 – November 2013



1) Labour Force Survey
2) Norwegian Labour and Welfare Administration
Sources: Statistics Norway and NAV

Chart 3.32 Net immigration past four quarters.
Persons. 2003 Q1 - 2013 Q3



Source: Statistics Norway

The weak growth in output may indicate that capacity utilisation has declined more than projected. However, it is assumed that growth in potential output has also been low. According to national account figures, productivity growth has been weak for a period, while employment growth has been solid. This may indicate that underlying productivity growth is also low. Enterprises in Norges Bank's regional network report that productivity growth has fallen further in the second half of 2013 (see Chart 3.30).

In the quarters ahead, capacity utilisation is likely to continue to drift down. This is because growth in the mainland economy is projected to be slightly lower than growth in potential output. Growth in potential output is projected at just over ½% per quarter. Population growth will continue to make a fairly substantial contribution to potential output, while underlying productivity growth is likely to show only a small increase. In 2013, population growth is expected to push up potential output by approximately 1¼ percentage points, while the contribution from underlying productivity growth is estimated at ¾ percentage point.

Labour market

Registered unemployment has increased somewhat through 2013. In November, registered unemployment was 2.8% of the labour force (see Chart 3.31). According to the Labour Force Survey (LFS), unemployment has varied somewhat more from month to month. In September, LFS unemployment was 3.4%. Overall, unemployment has increased slightly more than expected in the September *Report*.

After several years of strong gains, employment growth has slowed somewhat. According to the LFS, annual growth in employment was 0.6% in September. Growth in the labour force remains high and was 1.0% in September. Labour force growth is projected at 1% in 2013.

The weak growth in productivity in recent quarters may reflect that firms have maintained their workforces, even though output growth has slowed. Regional network contacts report more spare capacity than one year ago. Relatively low investment may also have contributed to low productivity growth.

Net inward migration has slowed in recent quarters (see Chart 3.32). Over the past four quarters to end-Q3,

net inward migration was slightly more than 40 000 persons. This has contributed to population growth of 1.2%. When growth in demand for labour slows, there is reason to believe that labour immigration will taper off. This was also observed in connection with the financial crisis. Nevertheless, labour immigration is projected to continue at a relatively high level (see Table 3.3).

In the period ahead, employment growth is expected to be moderate. Regional network contacts expect lower employment growth over the next three months (see 3.33). Contacts' expectations are now lower than they have been over the past three years. Employment is projected to increase by just under ¼% in the coming quarters, while labour participation is expected to edge down. Unemployment is projected to rise slightly in the coming quarters.

Wage growth in 2013 is projected at 3½%, unchanged from the September *Report*. The projection is in line with expectations of the enterprises in Norges Bank´s regional network. Projected wage growth in 2014 is 3½%, a ½ percentage point downward revision from the September *Report*. This reflects a somewhat weaker labour market outlook and somewhat lower inflation. Regional network contacts also expect wage growth of 3½% in 2014. Wage expectations are highest in services and lowest in manufacturing. According to the Opinion Perduco expectations survey for Q4, the social partners expect annual wage growth of 3.6% in 2014.

Norges Bank's wage projections for 2013 imply that real wage growth will be higher than productivity growth. However, as producer prices appear to be rising more than consumer prices, enterprises' wage share may nevertheless remain at approximately an average historical level (see Chart 3.34).

Households and enterprises

Households

Household income growth has been high in recent years. At the same time, consumption growth has been moderate and saving has increased to a high level (see Chart 3.35). High debt-to-income ratios, the pension reform, demographic changes, increased uncertainty, higher bank lending rates and tighter credit standards have probably contributed to the increase in saving.

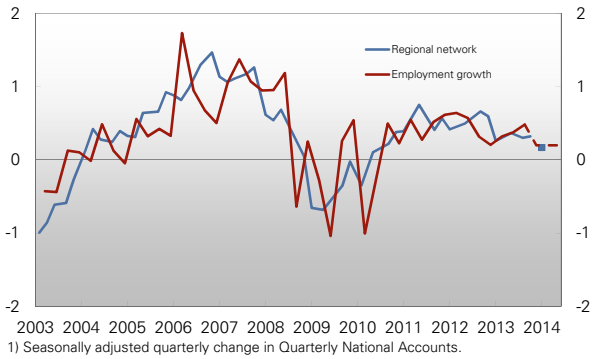
Table 3.3. Population and labour force growth. Change from previous year. Percent

	2012	2013	2014
Population growth in the age group 15–74	1.7	1½	1½
Growth in labour force conditional on unchanged labour force participation*	1.3	1¼	1¼
Labour force growth	1.8	1	1¼

* Unchanged labour force participation for all age groups since the 2007 level.

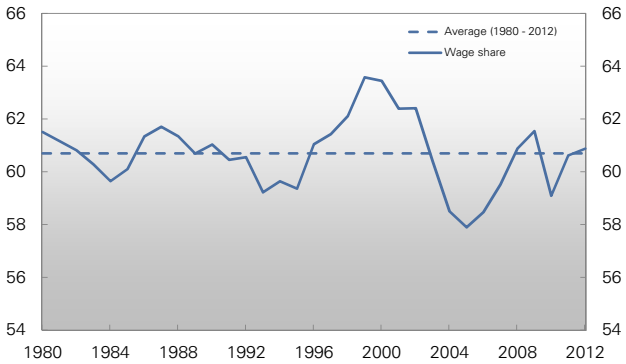
Sources: Statistics Norway and Norges Bank

Chart 3.33 Employment[1] and Norges Bank's regional network's indicator of change in employment past three months and expected change in employment next three months. Percent. 2003 Q1 – 2014 Q2[2]



1) Seasonally adjusted quarterly change in Quarterly National Accounts.
2) Latest observation in the regional network is October 2013.
Latest observation in the Quarterly National Accounts is 2013 Q3.
Projections for 2013 Q3 – 2014 Q2 (broken line)
Sources: Statistics Norway and Norges Bank

Chart 3.34 Wage share in mainland Norway.[1] Percent. 1980 - 2012

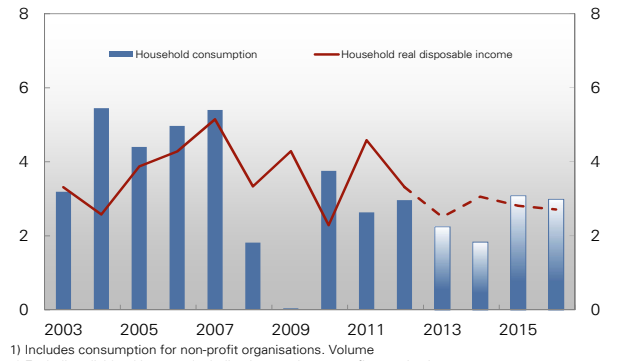


1) Excluding public sector and housing services. Wage costs as a share of gross factor income
Sources: Statistics Norway and Norges Bank

Chart 3.35 Household saving and net lending as a share of disposable income. Percent. 1993 – 2016[1)]

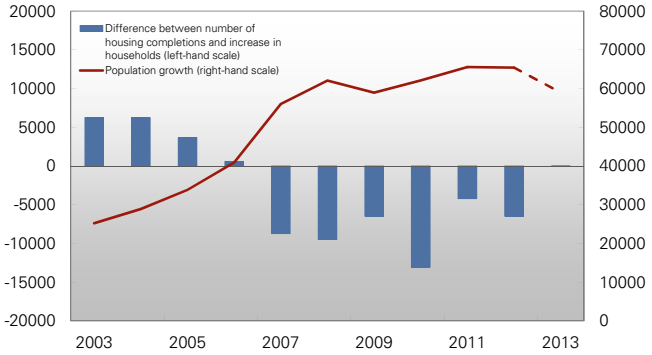
1) Projections for 2013 – 2016 (broken lines)
Sources: Statistics Norway and Norges Bank

Chart 3.36 Household consumption[1)] and real disposable income[2)]. Annual change. Percent. 2003 – 2016[3)]



1) Includes consumption for non-profit organisations. Volume
2) Excluding dividend income. Including income in non-profit organisations
3) Projections for 2013 – 2016 (broken line)
Sources: Statistics Norway and Norges Bank

Chart 3.37 Difference between number of housing completions and increase in households, and population growth[1)]. 2003 – 2013



1) Projections for 2013
Sources: Statistics Norway and Norges Bank

Consumption growth has slowed through 2013. Consumption of goods showed a marked decline through autumn, while there has been growth in consumption of services and consumption abroad. Consumer confidence indicators have fallen in recent months. Combined with weak developments in the housing market, this may indicate that household demand will continue to be fairly moderate in the coming period. Nevertheless, prospects for continued solid growth in disposable income suggest that consumption will pick up somewhat through 2014. Private consumption is projected to increase by 2¼% in 2013 (see Chart 3.36). The household saving ratio is projected to rise to close to 9% in 2013.

House prices have fallen since summer and were 2.2% lower in November than at the beginning of the year. The number of house sales has fallen. At the same time, both transaction times and the number of dwellings for sale have risen. Increased uncertainty regarding the economy and personal income growth may have made households somewhat more cautious. Combined with higher lending rates, this may have curbed house price inflation. The slower rise in house prices must also be viewed in the context of a long period of rapidly rising house prices that have reached high levels. Household debt growth has remained fairly stable at just above 7%. This means that the debt-to-income ratio has increased further from an already high level. It will take time for lower house prices and lower growth in new construction to feed through into slower household debt growth.

Housing investment has reached a high level. Over the past year, there were over 30 000 housing starts, and the number of housing completions is projected to exceed 27 000 in 2013. This is approximately the same as the increase in the number of households (see Chart 3.37). In October, enterprises in Norges Bank's regional network reported that new construction may slow in the period ahead owing to a decline in new home sales. A lower rise in prices for new homes will also make residential construction less profitable. Housing investment is projected to edge down ahead.

Enterprises

In recent years, sectors supplying the petroleum sector have recorded strong growth, while more traditional internationally exposed industries have experienced weaker growth as a result of sluggish market growth abroad.

Output expectations in the oil supplier industry have recently shown a pronounced decline (see Chart 3.38).

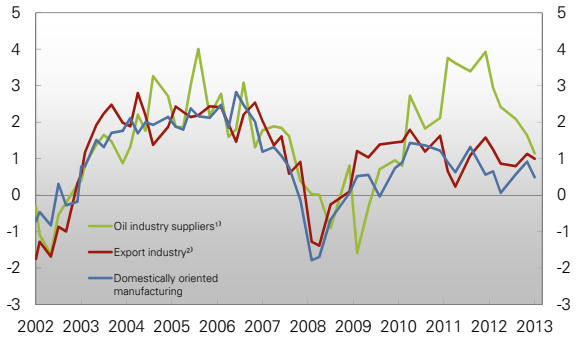
Growth in foreign markets will provide a boost to demand for traditional exports ahead. A weaker krone will also improve cost competitiveness, even though the cost level is still high. Figures from the most recent business sentiment survey for manufacturing and PMI figures indicate an improvement for this manufacturing segment. Export enterprises in Norges Bank's regional network have reported higher output growth over the past six months. Exports of traditional goods and services are projected to grow by 1% in 2013. The projections for export growth imply a continued loss of market shares.

Growth in demand in the supplier industry for the oil sector will likely slow in the period ahead (see Chart 3.39). Investment in petroleum activities has reached a high level, driven by increased oil and gas prices. A number of large development projects will give an additional boost to investment ahead. However, growth will likely be restrained by the high cost level on the Norwegian continental shelf and expectations of lower oil prices. Overall, petroleum investment is projected to grow by 15% in 2013, 4% in 2014 and 1% in each of the following two years.

In recent years, growth in business investment has been relatively weak. In both manufacturing and commercial property, levels of investment were high in the pre-crisis period. This accumulation of real capital may have curbed investment growth in the years following the crisis. In addition, weak external developments and a high cost level may have curbed investment growth. With prospects for moderate growth in the Norwegian economy, continued weak developments in investment are expected in the coming quarters. Mainland business investment is projected to increase by approximately 1% between 2012 and 2013.

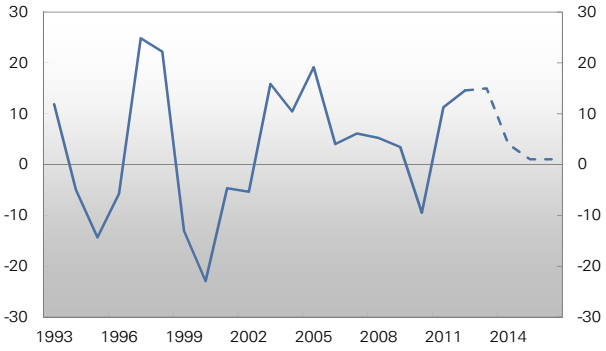
Corporate debt growth has increased recently (see Chart 3.40), particularly foreign debt. Although bank loans are still the main source of corporate funding, bonds have become an increasingly important source of funding for large companies. Over the past two years, the debt-servicing capacity and equity ratios of Norwegian listed companies have weakened. In the period ahead, moderate developments in business investment may restrain credit growth.

Chart 3.38 Manufacturing. Expected output growth next six months as reported by Norges Bank's regional network. Percent. October 2002 – October 2013



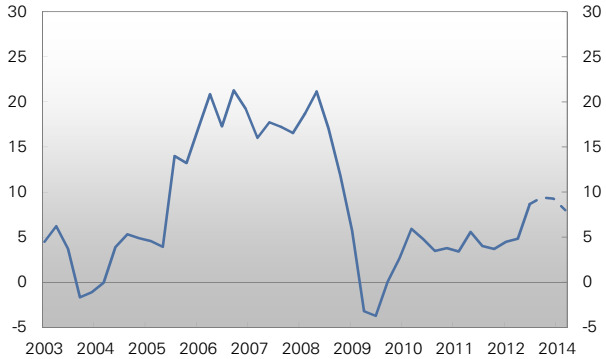
1) Supplies to the petroleum sector, Norwegian continental shelf
2) Including petroleum-related exports to the global market
Source: Norges Bank

Chart 3.39 Petroleum investment. Constant 2010 prices. Annual change. Percent. 1992 – 2016¹⁾



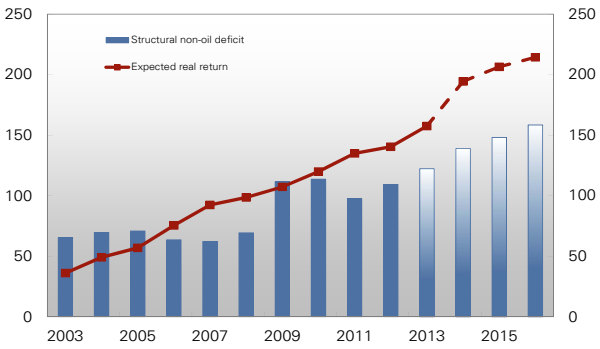
1) Projections for 2013 – 2016
Sources: Statistics Norway and Norges Bank

Figur 3.40 Credit growth for non-financial corporations¹⁾ in mainland Norway. Four-quarter growth. Percent. 2003 Q1 - 2014 Q1²⁾



1) C3, growth based on volume figures
2) Projections for 2013 Q3 – 2014 Q1
Sources: Statistics Norway and Norges Bank

Chart 3.41 Structural non-oil deficit and expected real return on the Government Pension Fund Global. Constant 2014 prices. In billions of NOK. 2003 – 2016[1)]



1) Projections for 2013 – 2016
Sources: Ministry of Finance and Norges Bank

Fiscal policy

The fiscal policy assumptions in this *Report* are based on the projections in the new government's Supplementary Budget Bill for 2014. The budget compromise in the Storting provides for petroleum revenue spending in line with these projections.

In 2013, the structural non-oil deficit is projected at NOK 119bn, in line with the Final Budget Bill for 2013. This brings the deficit in 2013 to 3.1% of the market value of the Government Pension Fund Global (GPFG). The projected deficit is NOK 6bn lower than in the Revised National Budget for 2013, on which the projections in the September *Report* were based.

The deficit in 2014 is projected at NOK 139bn (see Chart 3.41), or 5.7% of trend mainland GDP. By this measure, the deficit will increase by 0.5 percentage point from 2013. The deficit increases somewhat faster between 2013 and 2014 than assumed in the September *Report*, but this must be viewed in the context of the downward revision of the deficit for 2013.

The market value of the GPFG is now projected to rise by over NOK 1 000bn in the course of 2013 owing to positive developments in international markets and the depreciation of the krone. Therefore, even with the rise in petroleum revenue spending, the deficit is projected to fall to 2.9% of the GPFG's capital in 2014.

The strong growth in the value of the GPFG may provide considerable room for manoeuvre in fiscal policy in the coming years. However, a substantial increase in petroleum revenue spending could lead to a further increase in cost growth in the Norwegian economy. Moreover, budget savings in the years ahead may ease fiscal adjustment as the costs related to an ageing population are expected to rise in earnest. Petroleum revenue spending as a share of mainland GDP is assumed to increase at the same pace ahead as in the period since the fiscal rule was introduced in 2001. The current projected value of the GPFG implies that petroleum revenue spending will be close to 3% of the GPFG through the projection period.

Annex

Monetary policy meetings

Tables and detailed projections

Monetary policy meetings
with changes in the key policy rate

Date	Key policy rate[1)]	Change
26 March 2014		
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
6 May 2009	1.50	-0.50
25 March 2009	2.00	-0.50
4 February 2009	2.50	-0.50

[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 bank reserves, 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 consump-tion	Public con-sumption	Mainland fixed investment	Petroleum investment[1]	Main-land 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[3]	Q1	-0.4	0.5	1.0	0.4	-1.4	1.4	1.6	0.0
	Q2	1.2	0.3	0.2	0.5	1.1	8.4	-0.9	-0.9
	Q3	0.7	0.5	0.1	0.5	-0.3	1.5	-1.0	2.6
2012-level, in billions of NOK		2 909	2 191	1 177	621	404	172	454	802

[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		0.7	1.4	1.9	0.5	1.6	0.7
2008		3.8	2.6	3.1	3.9	2.5	3.4
2009		2.2	2.6	2.6	2.1	2.7	2.3
2010		2.4	1.4	1.7	2.4	1.4	2.3
2011		1.3	1.0	1.1	1.1	1.1	1.2
2012		0.7	1.2	1.0	0.6	1.4	0.4
2013	Jan	1.3	1.2	1.0	1.3	1.1	1.2
	Feb	1.0	1.1	0.9	0.9	1.0	0.6
	Mar	1.4	0.9	0.8	1.3	1.0	1.1
	Apr	1.9	1.5	1.4	1.9	1.3	1.8
	May	2.0	1.4	1.3	2.0	1.4	1.8
	Jun	2.1	1.4	1.2	2.1	1.4	1.9
	Jul	3.0	1.8	1.5	3.0	1.7	2.8
	Aug	3.2	2.5	2.2	3.3	2.4	3.3
	Sep	2.8	1.7	1.5	2.8	1.7	2.6
	Oct	2.4	1.9	1.6	2.4	1.8	2.3

[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 *Staff Memo* 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 main economic aggregates

	In billions of NOK	Percentage change from previous year (unless otherwise stated)				
			Projections			
	2012	2012	2013	2014	2015	2016
Prices and wages						
CPI		0.7	2¼	2	2	2
CPI-ATE[1]		1.2	1½	2	2	2
Annual wages[2]		4	3½	3½	3¾	4
Real economy						
GDP	2 909	2.9	¾	2¼	2½	2½
GDP, mainland Norway	2 191	3.4	1¾	2	2½	3
Output gap, mainland Norway (level)[3]		0.3	0	-½	-½	-¼
Employment, persons, QNA		2.1	1¼	1	1	1
Labour force, LFS		1.8	1	1¼	1¼	1
LFS unemployment (rate, level)		3.2	3½	3¾	4	4
Registered unemployment (rate, level)		2.5	2¾	3	3	3
Demand						
Mainland demand[4]	2 201	2.9	2¼	2	3	3
- Private consumption	1 177	3.0	2¼	1¾	3	3
- Public consumption	621	1.8	2	2¼	.	.
- Fixed investment, mainland Norway	404	4.5	2½	1¾	.	.
Petroleum investment[5]	172	14.6	15	4	1	1
Mainland exports[6]	454	1.1	1	1¾	.	.
Imports	802	2.3	2¼	3½	.	.
Interest rate and exchange rate						
Key policy rate (level)[7]		1.6	1½	1½	1¾	2
Import-weighted exchange rate (I-44)[8]		87.1	89	91¼	89¾	89½

[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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