NORGES BANK

Monetary Policy Report
with financial stability assessment

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Monetary Policy Report
with financial stability assessment
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NORGES BANK

Norges Bank

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Monetary Policy Report
with financial stability assessment

The *Report* is published four times a year, in March, June, September and December. The *Report* assesses the interest rate outlook and the need for countercyclical capital buffers for banks. The *Report* includes projections of developments in the Norwegian economy.

At its meeting on 19 December 2012, the Executive Board discussed relevant themes for the *Report*. At the Executive Board meeting on 27 February 2013, the economic outlook, the monetary policy stance and risk in the financial system were discussed. On the basis of this discussion and a recommendation from Norges Bank's management, the Executive Board adopted a monetary policy strategy for the period to the publication of the next *Report* on 20 June 2013. The Executive Board's assessment of the economic outlook, the monetary policy strategy and the countercyclical capital buffer requirement is presented in "The Executive Board's assessment". The next monetary policy meeting of the Executive Board will be held on 8 May.

The *Report* is available on www.norges-bank.no.

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This *Monetary Policy Report* is based on information in the period to 11 March 2013.
The monetary policy strategy was approved by the Executive Board on 13 March 2013.

Monetary policy in Norway

Objective

The operational target of monetary policy is low and stable inflation, with annual consumer price inflation of approximately 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 Market 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 Market Report.

Financial stability – countercyclical capital buffer

When the new regulatory framework for capital requirements in financial undertakings is in place later this year, Norges Bank will have primary responsibility for elaborating the basis for decisions on a countercyclical capital buffer. The objective of the buffer is to bolster banks' resilience to an impending downturn and counter wide fluctuations in the supply of credit that may amplify the economic cycle. In drawing up the basis, Norges Bank will collaborate and exchange relevant information with Finanstilsynet (Financial Supervisory Authority of Norway). The Ministry of Finance will set the buffer.

Norges Bank will recommend that the buffer should be increased when financial imbalances build up. 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 a separate report.

The Executive Board's assessment

From 2013, the Monetary Policy Report will be published four times a year and will also include an assessment of financial stability. The Executive Board's assessment is a summary of the Executive Board's discussion of monetary policy strategy and countercyclical capital buffer requirement for banks.

Monetary policy

At its meeting on 31 October 2012, the Executive Board decided that the key policy rate should be in the interval 1%–2% in the period to 14 March 2013, unless the Norwegian economy was exposed to new major shocks. In the October 2012 *Monetary Policy Report*, capacity utilisation was assessed to be above a normal level. Inflation remained low, but developments in the Norwegian economy suggested an upward drift in inflation further ahead. There was still considerable uncertainty surrounding international economic developments. The analysis in the October *Report* implied a key policy rate of 1.5% in the period to the turn of the year, followed by a gradual increase towards a more normal level.

In its discussion at the meeting on 19 December 2012, the Executive Board pointed out that the growth outlook for Europe appeared to have weakened somewhat since the October *Report*. The expected upward shift in key rates abroad had been moved further out in time. At the same time, risk premiums in bond markets had moved down. Developments in the Norwegian economy appeared to be broadly in line with the projections in the October *Report*. The Executive Board decided to keep the key policy rate unchanged at 1.5%.

At its meeting on 19 December, the Executive Board also discussed themes of relevance for the March 2013 *Monetary Policy Report*, including the analytical framework for the countercyclical capital buffer and the relationship between cost developments and price inflation in various sectors.

In its discussions on 27 February and 13 March, the Executive Board placed emphasis on the following developments:

- Conditions in international financial markets have continued to improve. Growth in emerging economies is also expected to hold up global growth in the period ahead. At the same time, there are prospects that growth in 2012 and 2013 among trading partners, especially in Europe, may be lower than projected in the October *Report*.

- Market expectations concerning key interest rates abroad have shown little change since the October *Report*. Equity prices have increased.

- The krone appreciated somewhat in the period to mid-February, but has since weakened. The import-weighted exchange rate (I-44) is now in line with the projections in the October *Report*.

- Premiums in money and bond markets are broadly in line with the projections in the October *Report*. Bank lending margins remain high. A number of banks have announced an increase in their lending rates in response to expectations of stronger capital requirements.

- Growth in the Norwegian economy is solid, but was somewhat lower than expected throughout 2012. Employment growth has tapered off, but unemployment remains low. Capacity utilisation is assessed to be above a normal level, but has been revised down slightly compared with the October *Report*. Activity remains high in the construction industry and industries supplying goods and services to the petroleum sector. At the same time, many Norwegian enterprises are feeling the impact of weak demand among trading partners and high costs. Household consumption is growing somewhat more slowly than projected in the October *Report*. House prices have risen at a slightly faster pace than anticipated.

- Inflation in Norway remains low and has been slightly lower than projected in the October *Report*. The underlying rise in prices has ranged between 1% and 1½% over the past year.

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. In order to attain this objective, stabilising inflation is balanced against stabilising output and unemployment. Monetary policy also seeks to be robust and to take into account the risk that financial imbalances build up and trigger or amplify an economic downturn.

The Executive Board noted that the analyses now imply a key policy rate at today's level in the period to spring 2014, followed by a gradual increase towards a more normal level. The interest rate forecast is below the October forecast throughout the projection period.

In its deliberations, the Executive Board pointed out that interest rates abroad are very low and there is still considerable uncertainty linked to developments in Europe. At the same time, robust growth among emerging economies is keeping prices for many commodities high. This will sustain growth in the Norwegian economy in the period ahead.

The krone is strong. High oil prices and a positive interest rate differential may indicate that the krone will remain strong, while improvements in financial markets and increased risk appetite may make other currencies more attractive among investors.

Inflation is low. The weak impetus from external prices and the appreciation of the krone are keeping imported inflation low. The Executive Board noted that the analyses in this *Report* indicate that cost growth in the household services sector has over a longer period been lower than previously assumed. It was also pointed out that high labour immigration has led to a more flexible labour supply, which may dampen wage growth. Low wage growth in neighbouring countries may also restrain wage growth in Norway. These factors imply that there are prospects that it may take longer than previously assumed for inflation to pick up.

The Executive Board was concerned that the risk of a build-up of financial imbalances is rising as household debt and house prices are rising faster than income.

The aim of bringing inflation back to target suggests in isolation a lower key policy rate. At the same time, capacity utilisation is above a normal level. The aim of stabilising output and employment suggests in isolation a somewhat higher key policy rate, as does the aim of maintaining a robust monetary policy and mitigating the risk of a build-up of financial imbalances. On the basis of an overall assessment, the Executive Board was of the view that it would now be appropriate to set the key policy rate so that it takes somewhat longer than earlier for inflation to move back to the target of 2.5%.

At its meeting on 13 March, 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% until the publication of the next *Report* on 20 June 2013, unless the Norwegian economy is exposed to new major shocks.

Financial stability – countercyclical capital buffer

The basis for the Executive Board's assessment of the countercyclical buffer requirement is that the buffer should be increased when financial imbalances build up. This will bolster banks' resilience to an impending downturn and may dampen high credit growth. Banks would be allowed to draw on the buffer in the event of an economic downturn and large bank losses, with a view to mitigating the procyclical effects of tighter bank lending.

The Executive Board notes that total debt is high in relation to GDP. Household debt is high in particular and is growing faster than income. At the same time, households are saving more, including in the form of increased bank deposits. However, liabilities and assets are unevenly distributed, which increases vulnerability. House prices are also rising faster than household income. There are prospects that house prices and household debt will continue to increase faster than income ahead.

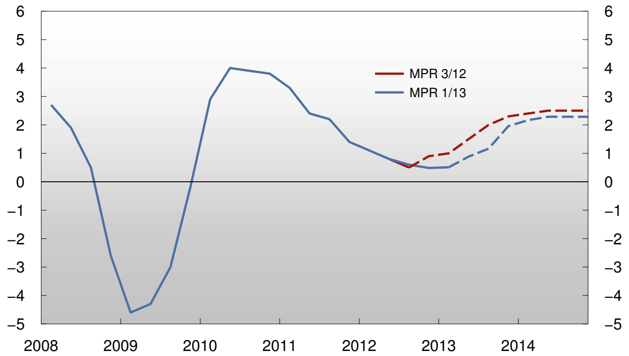
In the commercial property market, the industry to which banks have the highest loan exposure, selling and rental prices in some segments have risen in recent years. In the event of a downturn in the Norwegian economy, the potential fall may be considerable.

In the run-up to the financial crisis in 2008, Norwegian credit institutions' wholesale funding ratios rose, and financial market failure was one of the primary reasons that banks experienced funding problems. Wholesale funding ratios have remained approximately unchanged in the years following the crisis, but overall, funding structures have become more resilient.

In the view of the Executive Board, several years of rising credit and asset prices have increased the risk that financial imbalances may trigger or amplify an economic downturn. Banks should now build an additional capital buffer that they can draw on in the event of rising losses in an economic downturn. The introduction of a countercyclical capital buffer must be viewed in the light of other requirements applying to banks. Norges Bank assumes that the countercyclical buffer will apply in addition to other requirements for Common Equity Tier 1 capital, currently set at 9%. The Government has announced that statutory provisions for new capital requirements for banks will be introduced in the course of spring. Norges Bank will issue concrete advice on the level and timing for introducing the countercyclical buffer when the regulatory framework has been established.

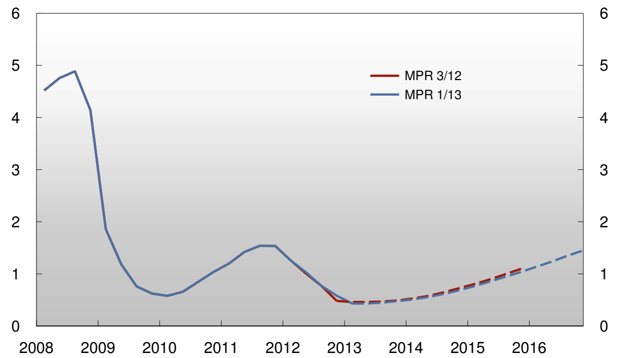
Øystein Olsen
14 March 2013

Chart 1.1 GDP trading partners in MPR 3/12 and 1/13. Four-quarter change. Percent. 2008 Q1 – 2014 Q4



Sources: Thomson Reuters and Norges Bank

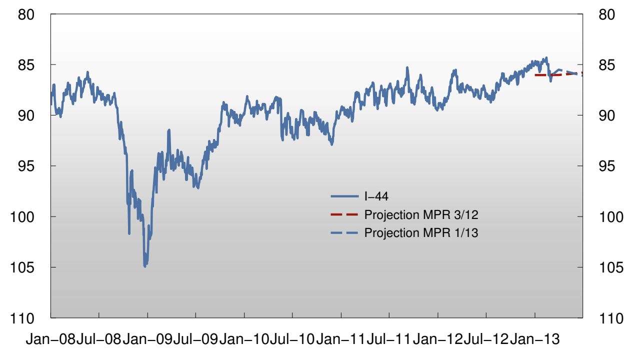
Chart 1.2 Money market rates for trading partners[1] in MPR 3/12 and 1/13. Percent. 2008 Q1 – 2016 Q4



1) Broken red and blue lines show estimated forward rates for trading partners as at 15 October and 8 March 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] January 2008 – June 2013



1) A positive slope denotes a stronger krone exchange rate

Source: Norges Bank

1 Monetary policy outlook

The economic situation

Growth in the global economy is being supported by robust growth in emerging economies. Prices for oil and other commodities of considerable importance to the Norwegian economy are still high. Measures implemented by central banks and the authorities since summer 2012 have contributed to improving conditions in global financial markets. The outlook for economic growth among Norway's trading partners has nonetheless weakened (see Chart 1.1). The improvement in financial markets has not influenced household consumption and business investment to the expected extent. In several southern European countries, funding conditions remain difficult and unemployment is high and rising. The downturn in the euro area looks set to persist for a longer period, contributing to lower growth in other European countries. In the US, the housing market is recovering, but fiscal policy uncertainty remains.

Economic growth among Norway's trading partners is expected to pick up gradually from 1¼% in 2013 to 2½% towards the end of the projection period. Global economic growth is projected at 2¾% in 2013. Uncertainty regarding future developments in the global economy remains high.

Key rates are close to zero in many countries. Market expectations regarding key rates among Norway's trading partners are virtually unchanged since the October 2012 *Monetary Policy Report* (see Chart 1.2). Market participants expect central bank key rates to remain unchanged in the US and the euro area and to be somewhat lower in the UK in the years ahead.

The krone has appreciated gradually over the past year, but has weakened somewhat since mid-February (see Chart 1.3). The projections are based on the assumption that the krone exchange rate, as measured by the import-weighted exchange rate index (I-44), is in line with the projections in the October *Report*.

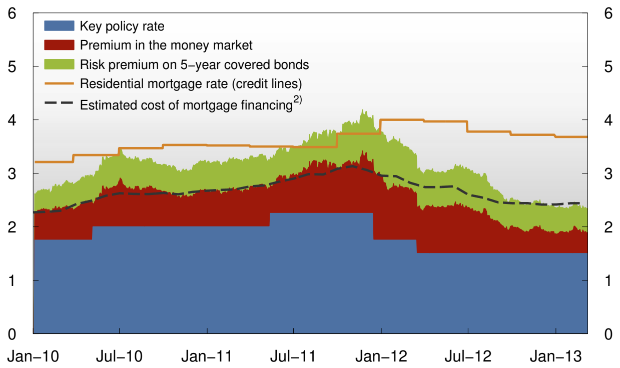
Money market premiums are slightly below 0.4 percentage point, approximately in line with the projections in the October *Report*. Premiums are expected to remain at this level in the period ahead. Risk premiums on covered bonds and bank bonds have continued to fall. Bank lending rates for households and enterprises have at the same time remained high (see Chart 1.4). Several banks have announced an increase in lending rates owing to expectations of stricter capital requirements.

Growth in the Norwegian economy has slowed and appears to be somewhat more moderate than projected in the October *Report*. Many Norwegian enterprises are being affected by weak growth among Norway's main trading partners and Norway's high cost level. Nevertheless, high oil prices and continued strong growth in Norwegian and global oil investment are supporting high activity levels in sectors supplying goods and services to the oil industry. Overall, developments in both mainland exports and business investment have been fairly moderate. Growth in private consumption remains muted, while housing investment has grown considerably. Household saving continues to increase. At the same time, house prices are still rising at a brisk pace, and growth in Norwegian household debt continues to grow slightly more rapidly than household income. Debt as a share of disposable income has thus increased from its already high level.

Overall, labour market conditions are assessed to be somewhat weaker than envisaged in the October 2012 *Report*. Employment continues to rise, albeit at a slower pace than in 2012. Unemployment has been a little higher than expected. Capacity constraints in the business sector point to slightly lower resource utilisation. Overall capacity utilisation in the Norwegian economy is considered to be above a normal level, but somewhat lower than expected in October 2012 (see Chart 1.5).

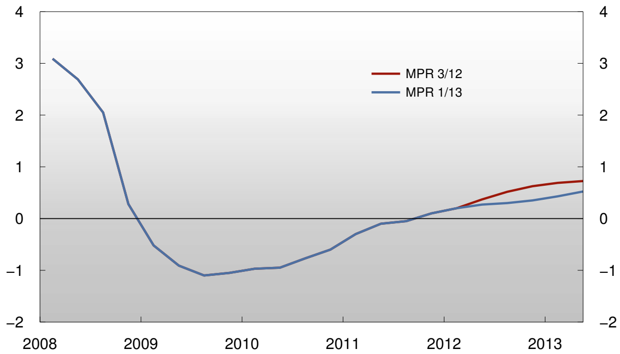
Inflation remains low and has been slightly lower than projected in the October *Report*. In particular, prices for domestically produced goods and services have risen at a slower pace than expected. A continued fall in prices for imported consumer goods is holding down overall consumer price inflation. In February, the year-on-year rise in the CPI and CPIXE was 1.0% and 0.9%, respectively, while the year-on-year rise in the CPI-ATE was 1.1%. Underlying inflation is still estimated to be between 1% and 1½% (see Chart 1.6).

Chart 1.4 Mortgage lending rates[1] and interest margins. Percent. 1 January 2010 – 8 March 2012



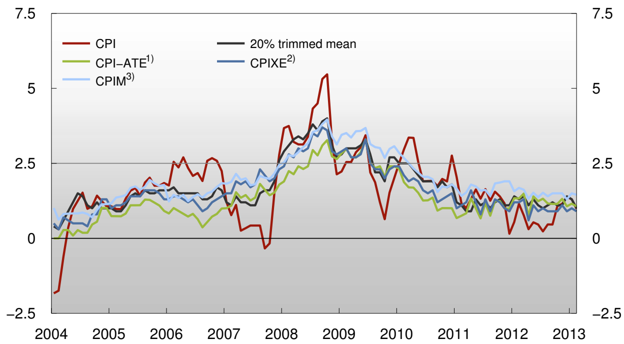
1) The lending rate on lines of credit secured on dwellings provided by all banks and mortgage companies in Norway
2) Estimated using weighted interest rate on holdings of covered bonds and weighted deposit rate
Sources: DNB Markets, Statistics Norway and Norges Bank

Chart 1.5 Projected output gap[1] in MPR 3/12 and 1/13. Percent. 2008 Q1 – 2013 Q2



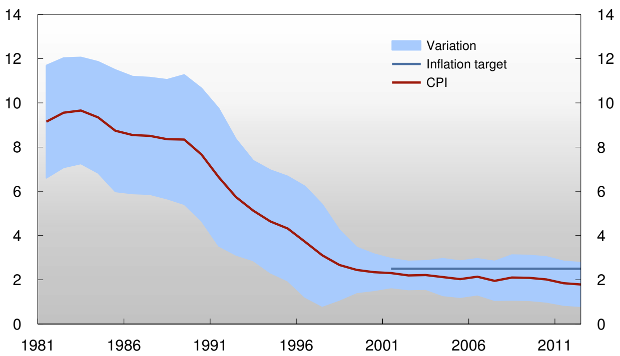
1) The output gap measures the percentage deviation between GDP mainland Norway and projected potential GDP mainland Norway
Source: Norges Bank

Chart 1.6 Consumer prices. 12-month change. Percent. January 2004 – Febuary 2013



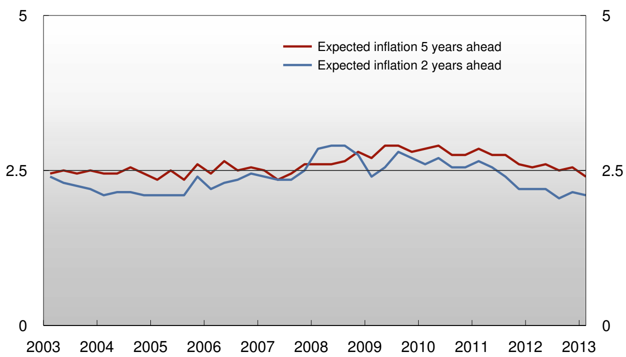
1) CPI adjusted for tax changes and excluding energy products
2) CPI adjusted for tax changes and excluding temporary changes in energy prices. Real time figures. See Norges Bank *Staff Memo* 7/2008 and 3/2009
3) Model-based indicator of underlying inflation. See *Norges Bank Economic Commentaries* 5/2010
Sources: Statistics Norway and Norges Bank

Chart 1.7 Inflation. Moving 10-year average[1)] and variation[2)] in CPI. Percent. 1981 – 2012



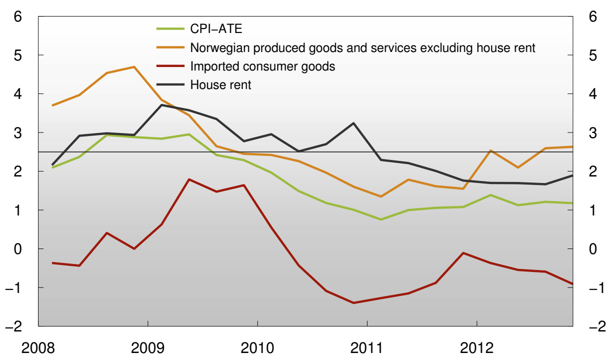
1) The moving average is calculated 10 years back
2) The band around the CPI is the variation in the CPI adjusted for tax changes and excluding energy products in the average period, measured by +/– one standard deviation
Sources: Statistics Norway and Norges Bank

Chart 1.8 Expected consumer price inflation 2 and 5 years ahead.[1)] Percent. 2003 Q1 – 2013 Q1



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

Chart 1.9 CPI-ATE[1)] by supplier sector. Four-quarter change. Percent. 2008 Q1 – 2012 Q4



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

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 1.7). Inflation expectations remain close to the inflation target (see Chart 1.8).

The key policy rate is 1.5%. The key policy rate is low because inflation is low and because interest rates abroad are very low. Partly owing to the low level of interest rates, activity in the Norwegian economy remains high. Capacity utilisation in the Norwegian economy is expected to rise moderately in the period ahead.

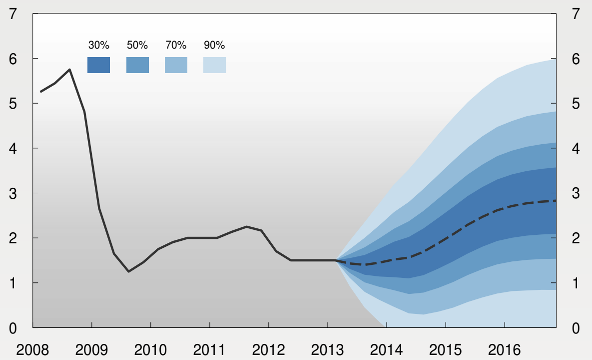
Despite robust growth in the Norwegian economy and rising capacity utilisation, inflation has been low. A strong krone and a decrease in prices for imported consumer goods have held down inflation (see Chart 1.9). The rise in rental prices has also been low. The rise in prices for other domestically produced goods and services has picked up somewhat, but has for several years been lower than implied by cost inflation in the mainland economy. However, in recent years, cost inflation in sectors supplying goods and services to households has been lower than in the economy as a whole. This may explain why inflation has been low while business profitability does not appear to have deteriorated to any appreciable extent. There are therefore no grounds to assume that enterprises will substantially increase their margins ahead.[1]

Capacity utilisation in the Norwegian economy is above a normal level and is expected to rise somewhat in the period ahead. This could contribute to a slight pickup in cost and price inflation further ahead. However, high inward labour migration and low wage growth among Norway's trading partners may dampen domestic wage growth. Looking forward, prices for domestically produced goods and services are expected to rise approximately in line with cost inflation in the Norwegian economy. A new assessment of cost pressures in sectors supplying consumer goods and prospects for slightly lower wage growth ahead underpins the Bank's current view that it will take longer than previously expected for inflation to pick up.

The key policy rate is set with a view to stabilising inflation at the inflation target without triggering excessive

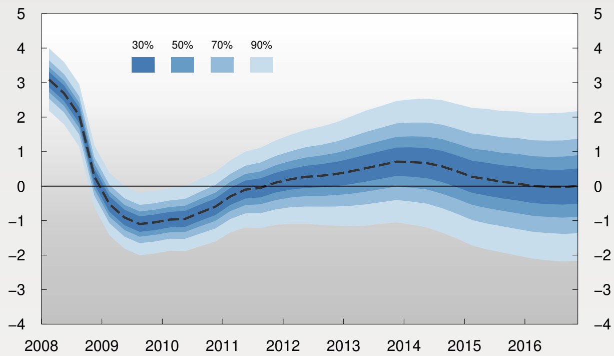
1 For further discussion of why inflation has been low, see *Staff Memo* 6/2013.

Chart 1.10a Projected key policy rate in the baseline scenario with probability distribution. Percent. 2008 Q1 – 2016 Q4



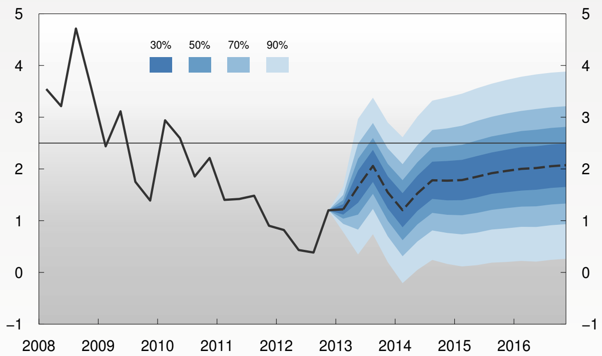
Source: Norges Bank

Chart 1.10b Projected output gap[1)] in the baseline scenario with probability distribution. Percent. 2008 Q1 – 2016 Q4



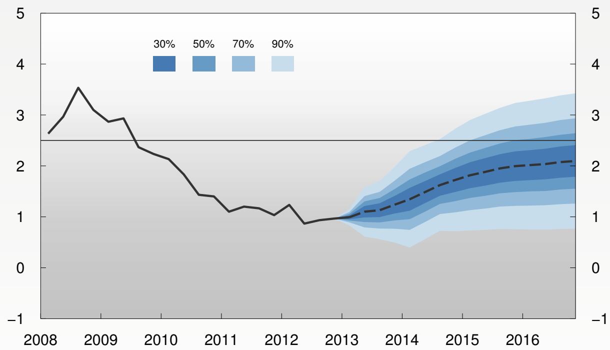
1) The output gap measures the percentage deviation between mainland GDP and projected potential mainland GDP
Source: Norges Bank

Chart 1.10c Projected CPI in the baseline scenario with probability distribution. Four-quarter change. Percent. 2008 Q1 – 2016 Q4



Sources: Statistics Norway and Norges Bank

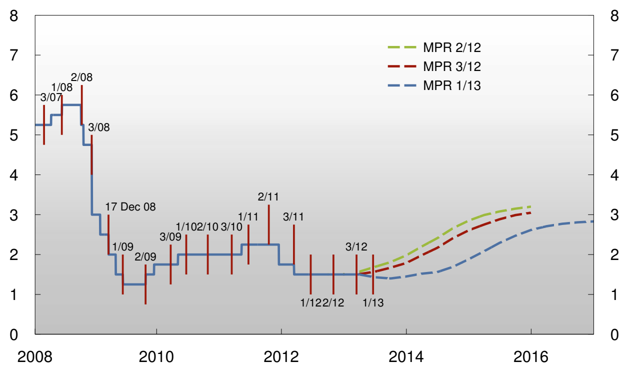
Chart 1.10d Projected CPIXE[1)] in the baseline scenario with probability distribution. Four-quarter change. Percent. 2008 Q1 – 2016 Q4



1) CPI adjusted for tax changes and excluding temporary changes in energy prices. As from August 2008, the CPIXE is a real-time series. See Norges Bank *Staff Memo* 7/2008 and 3/2009
Source: Norges Bank

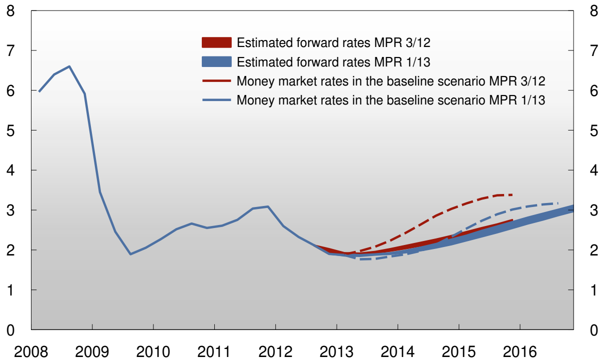
fluctuations in output and employment (see box on the criteria for an appropriate interest rate path on page 18). The prospect that inflation may remain below target for a prolonged period suggests that the key policy rate should be lower. At the same time, capacity utilisation is somewhat above a normal level and unemployment is low. The aim of stabilising developments in output and employment points, in isolation, to a somewhat higher interest rate. Monetary policy in Norway should also be robust and mitigate the risk that financial imbalances build up and trigger or amplify a downturn in the economy. A persistently low interest rate level may amplify house price inflation and debt growth and induce households and enterprises to take excessive risks. The household debt burden is already high and house prices continue to rise, increasing the risk of a build-up of financial

Chart 1.11 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. January 2008 – December 2016



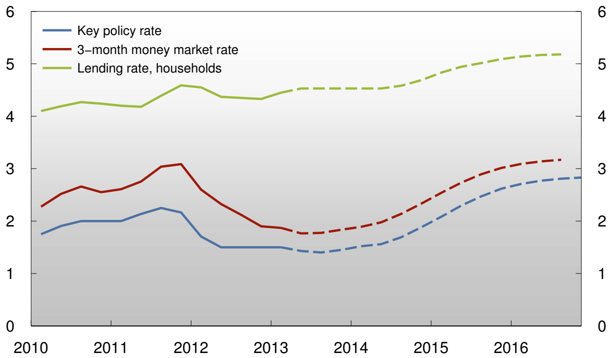
Source: Norges Bank

Chart 1.12 Three–month money market rates in the baseline scenario[1] and estimated forward rates[2]. Percent. 2008 Q1 – 2016 Q4



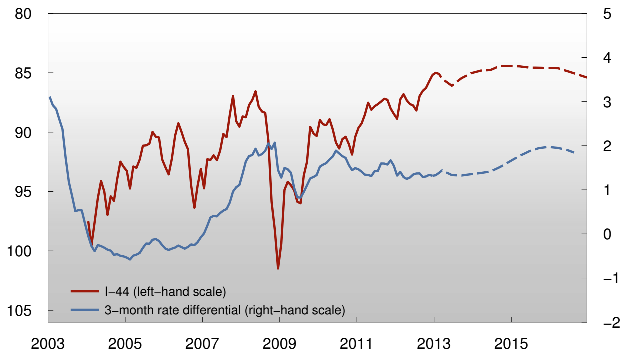
1) Key policy rate in the baseline scenario plus premiums in the Norwegian money market. The calculations are based on the assumption that announced interest rate changes are priced into the money market.
2) Forward rates are based on money market rates and interest rate swaps. The blue and red bands show the highest and lowest forward rates in the period 11 October – 25 October and 25 February – 8 March 2013
Sources: Thomson Reuters and Norges Bank

Chart 1.13 Projected key policy rate, three–month money market rate and lending rates on household loans[1]. Percent. 2008 Q1 – 2016 Q3



1) Average lending rate from banks and mortgage companies on all household loans
Sources: Statistics Norway and Norges Bank

Chart 1.14 Three–month money market rate differential between Norway[1] and trading partners and the import–weighted exchange rate index (I–44)[2]. January 2003 – December 2016 [3]



1) Key policy rate in the baseline scenario plus premiums in the Norwegian money market. The calculations are based on the assumption that announced interest rate changes are priced into the money market
2) A positive slope denotes a stronger krone exchange rate
3) Monthly figures from January 2003 and Norges Bank projections from 2013 Q1
Sources: Thomson Reuters and Norges Bank

imbalances. This consideration points to a higher key policy rate.

The analyses in this *Report* imply a key policy rate at around the current level for the next year. From spring 2014, the rate is projected to rise gradually towards a more normal level. The projections imply that the key policy rate will remain lower than projected in the previous *Report* throughout the projection period (see Charts 1.10 a–d, Chart 1.11 and the box on page 21). Lower inflation, lower capacity utilisation, somewhat higher lending margins and weaker growth abroad have contributed to the downward adjustment of the forecast. Money market rates are expected to track developments in the key policy rate (see Chart 1.12). Bank lending rates are likely to edge up in the short term, but are expected to remain largely unchanged for a period thereafter (see Chart 1.13). As money market rates start to rise, lending rates may also edge up. The interest rate differential against other countries is expected to be relatively stable and the krone is therefore expected to remain strong (see Chart 1.14).

With this interest rate forecast, inflation may rise gradually, but it will probably take longer than previously anticipated for inflation to move up to the target of 2.5%. Capacity utilisation is expected to be above a normal level and to increase somewhat in the period to mid-2014. As the key policy rate is raised, capacity utilisation may fall towards a normal level (see Chart 1.15). Such developments imply that house prices and household debt will continue to rise faster than income for a period ahead, but that growth in these variables will gradually slow (see Charts 1.16 and 1.17).

Growth in the Norwegian economy will remain fairly high for the next few years. Unemployment is expected to remain low. Wage growth is projected to remain at around 4% in 2013, but may rise somewhat towards the end of the projection period in pace with the rise in inflation. Activity levels are expected to remain high in oil-related sectors, while growth in other export sectors will probably be kept low by weak external demand and a further weakening of Norway's competitiveness. Total mainland business investment is expected to grow by around 5% annually for the next few years. High population growth will also support strong growth in housing investment. Solid income growth and continued low interest rates will contribute to potential growth in private consumption of between 3% and 4%. The saving ratio is expected to rise a little further in 2013 and 2014, edging down thereafter.

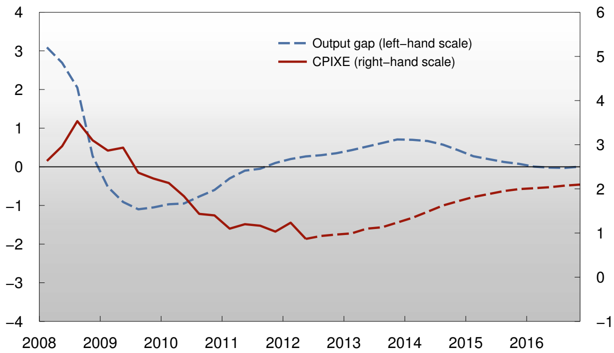
The projections for the key policy rate, inflation, capacity utilisation and other variables are based on Norges Bank's assessment of the economic situation and perception of the functioning of the economy and monetary policy. If economic developments are broadly in line with projections, economic agents can also expect the interest rate path to be approximately as projected. Monetary policy may respond to changes in the economic outlook, or if the relationships between the interest rate, inflation, output and employment 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 1.10 a–d). The width of the fan reflects historical uncertainty. Chart 1.18 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 mid-June 2013. Experience has shown that, in most cases, the key policy rate has been close to the middle of the interval at the end of the period (see Chart 1.11). 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.

The projections in this *Report* imply that inflation will gradually pick up. With high inward labour migration and weak economic growth among Norway's trading partners, wage growth may be lower than expected. In sectors supplying goods and services to households, cost inflation has been lower than in the economy as a whole in recent years. It cannot be ruled out that this trend may continue. There is also a risk of a further appreciation of the krone. Should inflation be lower than projected, or the krone show a marked appreciation, the key policy rate may be reduced.

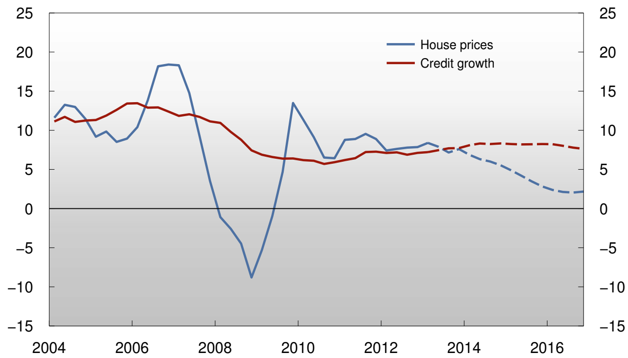
The key policy rate may also be increased more quickly than envisaged in this *Report*. Activity levels in the Norwegian economy may rise more quickly and inflation may pick up more rapidly than currently projected. Norges Bank assumes that household saving will continue to increase. The saving ratio is already historically high, and

Chart 1.15 Projected inflation[1)] and output gap in the baseline scenario. Percent. 2008 Q1 – 2016 Q4



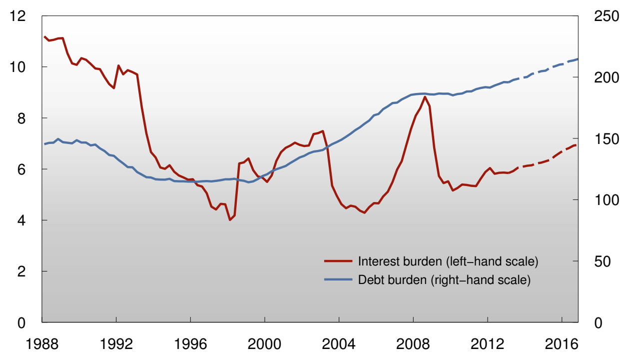
1) CPIXE: CPI adjusted for tax changes and excluding temporary changes in energy prices. As from August 2008, the CPIXE is a real–time series. See Norges Bank *Staff Memo* 7/2008 and 3/2009
Source: Norges Bank

Chart 1.16 Credit growth[1)] and house prices. 12–month change. Percent. January 2004 – December 2016[2)]



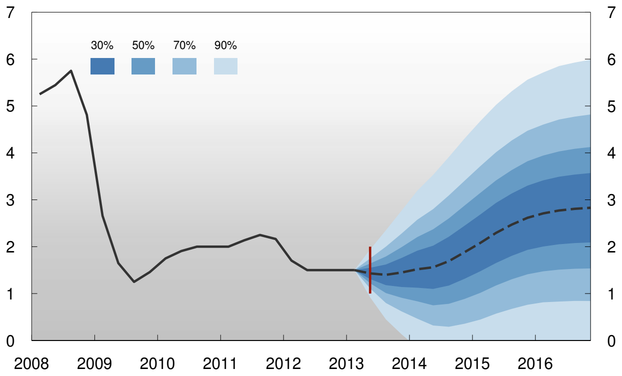
1) From January 1 2012 the Norwegian standard for institutional sector grouping was changed. For credit growth this implies a break in the series from March 2012
2) House prices up to and including Febuary 2013, credit growth up to and including January 2013. Projections to 2016 Q4, where debt growth is change in inventory and house prices is year–on–year rise
Sources: Statistics Norway, the real estate sector (NEF, EFF, Finn.no and ECON Pöyry) and Norges Bank

Chart 1.17 Household debt burden[1)] and interest burden[2)]. Percent. Quarterly figures. 1988 Q1 – 2016 Q4



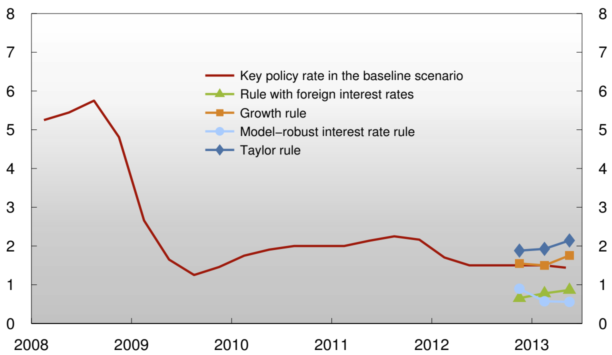
1) Loan debt as a percentage of disposable income adjusted for estimated reinvested dividend income for 2000 – 2005 and redemption/reduction of equity capital for 2006 – 2016
2) Interest expenses after tax as a percentage of disposable income adjusted for estimated reinvested dividend income for 2000 – 2005 and redemption/reduction of equity capital for 2006 – 2016 plus interest expenses
Sources: Statistics Norway and Norges Bank

Chart 1.18 Projected key policy rate in the baseline scenario and strategy interval with probability distribution. Percent. 2008 Q1 – 2016 Q4



Source: Norges Bank

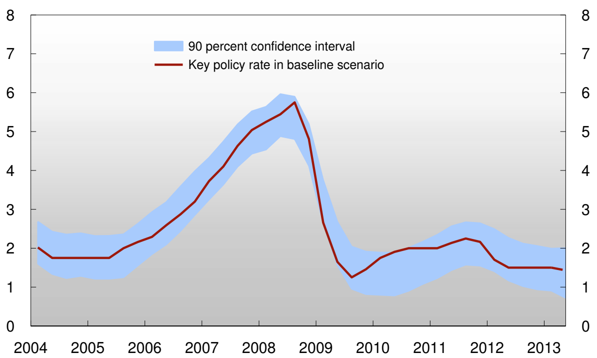
Chart 1.19 Key policy rate and calculations based on simple monetary policy rules.[1)] Percent. 2008 Q1 – 2013 Q2



1) The calculations are based on Norges Bank's projections for the output gap, growth gap, consumer prices and 3–month money market rates among 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 1.20 Key policy rate and interest rate developments that follow from Norges Bank's average pattern of interest rate setting.[1)] Percent. 2004 Q1 – 2013 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 – 2012 Q4. See *Staff Memo* 3/2008 for further discussion

Source: Norges Bank

households may prefer to spend a greater share of income on consumption. House price inflation and debt growth may also accelerate, increasing the risk of future imbalances.

Cross-checks of the interest rate forecast

Simple monetary policy rules can prescribe interest rate setting that is robust to different assumptions about the functioning of the economy and are useful cross-checks of the analysis (see Chart 1.19). The Taylor rule is based on projections for inflation, the output gap, money market premiums and the normal interest rate level. The Taylor rule calls for a key policy rate that is somewhat higher than the interest rate in the baseline scenario. The growth rule, where the output gap is replaced by a growth gap, produces a somewhat lower, but nearly identical, forecast (see orange line in the chart). The light blue line shows a model-robust rule[2] based on calculations in various models for the Norwegian economy. This rule gives greater weight to the output gap and inflation than the Taylor rule. It also gives weight to the interest rate in the previous period. The model-robust rule implies a key policy rate that is lower than the interest rate forecast. A simple rule that gives considerable weight to changes in the interest rate differential against other countries also implies a lower interest rate than in the baseline scenario (see green line in the chart).

Forward money and bond market rates are another cross-check for the interest rate forecast. Estimated forward rates are in line with the money market rate forecast in this *Report* (see Chart 1.12).

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 an estimated model that seeks to provide a simple explanation of historical developments in the key policy rate based on inflation, wage growth, mainland GDP and interest rates abroad. The interest rate in the previous period is also important. The uncertainty in this model is expressed by the blue interval. The projections are based on the estimates for the underlying variables in this *Report*. The chart shows that the interest rate in the baseline scenario is in the upper part of the interval.

2 For further analysis of this and other simple monetary policy rules, see *Staff Memo* 16/2012 and *Staff Memo* 17/2012.

Criteria for an appropriate interest rate path[1]

Over time, Norges Bank seeks to maintain inflation close to 2.5%. An appropriate interest rate path should meet the following criteria:

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

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

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

The various considerations expressed in the criteria must be weighed against each other. The specific time horizon for stabilising inflation at target will depend on the type of disturbances to which the economy is exposed and their effect on the outlook for inflation and the real economy.

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

If monetary policy gave weight only to the current low level of inflation, the key policy rate would, according to a technical model-based analysis, be lowered sharply and kept near zero for some time, (see red lines in Charts 1.21 a–c).[2] Inflation may then pick up more quickly, partly owing to a weaker krone, but output and employment may then show substantial fluctuations .

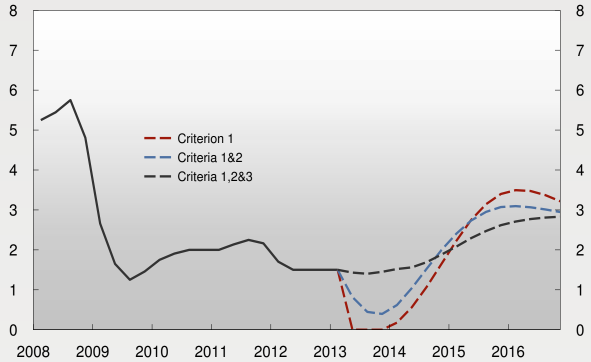
When weight is also given to avoiding excessive fluctuations in output and employment, the key policy rate will, according to a technical model-based analysis, be somewhat higher in the short term (see blue line).[3] Inflation will then take somewhat longer to rise towards 2.5%, but developments in output and employment will be more stable.

Furthermore, Norges Bank takes into account that monetary policy shall be robust. Monetary policy seeks to mitigate the risk of a build-up of financial imbalances. However, the functioning of the economy is not fully known. Normally, the Bank therefore also applies a gradualist approach to interest rate setting to be able to assess the effects of a change in the key policy rate and to avoid abrupt shifts in the economy.

The baseline scenario in this *Report* is based on Norges Bank's overall judgment and assessments of all three criteria.[4] In the baseline scenario (see black line), the key policy rate is higher than implied by a technical model-based analysis that does not take robustness into consideration. In the baseline scenario, output and employment are projected to move on a more stable path, but it takes longer for inflation to move up towards target.

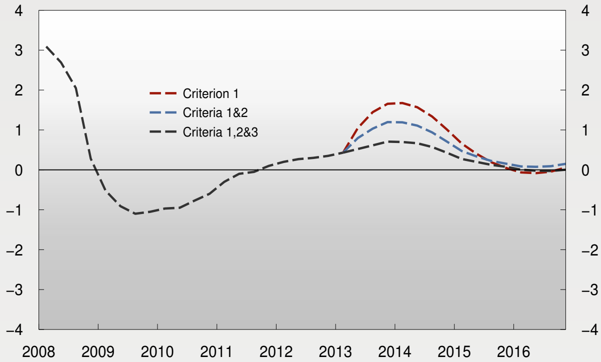
1 For further details, see "Response pattern in monetary policy and criteria for an appropriate interest rate path" in the March 2012 *Monetary Policy Report*.
2 In this model analysis, we have used our macroeconomic model NEMO, using a loss function that only gives weight to inflation.
3 In this model analysis, we have used NEMO with a loss function that gives weight to both inflation and the output gap, where the weight of the output gap is set at 0.5.
4 See box for a discussion of the use of models and the robustness of monetary policy.

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



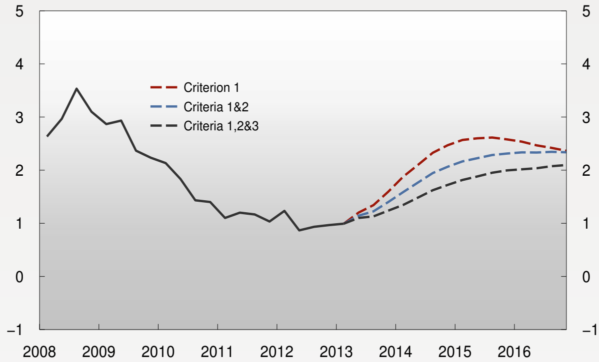
Source: Norges Bank

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



Source: Norges Bank

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



1) CPI adjusted for tax changes and excluding temporary changes in energy prices.
As from August 2008, the CPIXE is a real–time series. See Norges Bank *Staff Memo* 7/2008 and 3/2009
Source: Norges Bank

Use of models and the robustness of monetary policy

Monetary policy analyses rely on economic models. Models are useful tools for systematising information and ensuring consistency over time, but will always be simplifications. The projections are therefore based on a combination of model analyses and professional judgement.

In the conduct of monetary policy, the aim of reaching the inflation target is balanced against the aim of stabilising output and employment. In addition, monetary policy is to be robust by seeking to mitigate the risk of a build-up of financial imbalances, and so that acceptable developments in inflation and output are also the likely outcome under alternative assumptions about the functioning of the economy. The box on the criteria for an appropriate interest rate path on page 18 describes how the various considerations are weighed against each other in drawing up the forecast for the key policy rate.

In Norges Bank's macroeconomic model NEMO, the criteria for an appropriate interest rate path are represented by a loss function.[1] The loss function is a simplified and imperfect representation of the overall criteria and monetary policy assessments. It is particularly challenging to find a specification of robustness that fully covers monetary policy assessments and trade-offs. In addition to giving weight to the output gap, the model seeks to address this consideration by giving weight to the deviation between the actual key policy rate and a normal rate and to the Bank's gradualist approach to interest rate setting.

Section 2 of this *Report* provides a broad assessment of the risk of the build-up of financial imbalances. Several years of rising credit and asset prices is heightening the risk that a build-up of financial imbalances may trigger or amplify a downturn. There are prospects that the build-up of vulnerability especially in the household sector will continue from an already high level. Such an assessment based on professional judgement is not fully provided by the indicators in the loss function.

The key policy rate forecast in this *Report* is based on the assumption that the risk of financial imbalances will continue to build up. The interest rate forecast is therefore somewhat higher than a purely model-based forecast would indicate (see Chart 1.22).

Norges Bank will continue to work on enhancing the representation of the consideration concerning robustness and the risk of financial imbalances in the analytical framework. Moreover, the consideration regarding robustness will also in future require an element of professional judgement in addition to technical model-based analyses.

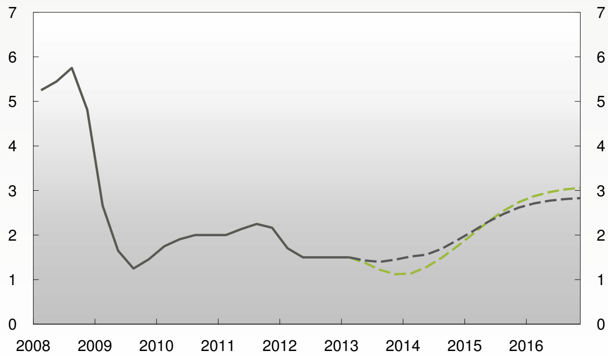
1 Mathematically the trade-offs can be expressed, somewhat simplified, by a loss function where the parameters λ, τ and γ represent relative weights:

$$L_t = (\pi_t - \pi^*)^2 + \lambda(y_t - y_t^*)^2 + \gamma(i_t - i_{t-1})^2 + \tau(i_t - i_t^*)^2$$

where L_t is the loss, $(\pi_t - \pi^*)$ is the deviation between actual inflation and the inflation target, $(y_t - y_t^*)$ is the output gap, i_t is the key policy rate and i_t^* should represent a normal key policy rate level.

For further details, see "Response pattern in monetary policy and criteria for an appropriate interest rate path" in the March 2012 *Monetary Policy Report*.

Chart 1.22 Key policy rate in a technical model–based interest rate forecast and the baseline scenario in MPR 1/13 (black line). Percent. 2008 Q1 – 2016 Q4



Source: Norges Bank

Changes in the projections since *Monetary Policy Report* 3/12

The interest rate forecast in this *Monetary Policy Report* is lower than in the October 2012 *Report* (see Chart 1.23). 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 1.24 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 previous *Report* is shown by the black line.

There are prospects that the downturn abroad may be more prolonged than projected in the October *Report*. Growth projections have been reduced, particularly for the euro area. Weaker growth prospects abroad suggest a lower key policy rate in Norway (see blue bars).

Output and demand growth in the Norwegian economy has also been lower than projected. Unemployment has been slightly higher than projected in the October *Report*. The capacity utilisation projection has now been somewhat reduced compared with the October *Report* (see green bars).

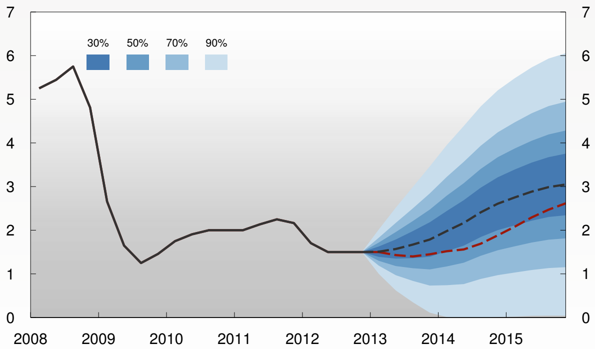
Inflation is low and has been somewhat lower than projected in the October *Report*. Cost growth for businesses that produce and supply consumer goods and services has likely been lower than previously assumed. High labour immigration and low wage growth abroad may curb domestic wage growth. These factors suggest that it will take longer for inflation to pick up than projected in the October *Report*. Low inflation pushes down the interest rate forecast (see red bars).

Premiums in money and bond markets are expected to remain stable. A number of banks have announced an increase in their lending rates ahead. This means that bank lending margins, defined as the spread between money market rates and lending rates, may increase further from an already high level. In isolation, high lending margins push in the direction of a lower key policy rate (see yellow bars).

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

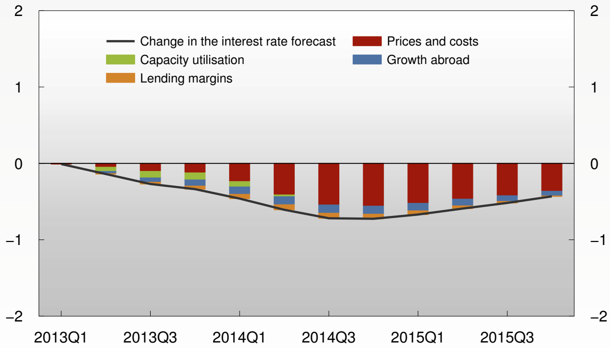
1 Illustrated using the macroeconomic model NEMO, and based on the criteria for an appropriate interest rate path.

Chart 1.23 Key policy rate in the baseline scenario in MPR 3/12 with probability distribution and key policy rate in the baseline scenario in MPR 1/13 (red line). Percent. 2008 Q1 – 2015 Q4



Source: Norges Bank

Chart 1.24 Factors behind changes in the interest rate forecast since MPR 3/12. Accumulated contribution. Percentage points. 2013 Q1 – 2015 Q4



Source: Norges Bank

Table 1 Projections for macroeconomic aggregates in *Monetary Policy Report* 1/13. Percentage change from previous year (unless otherwise stated). Change from projections in *Monetary Policy Report* 3/12 in brackets.

	2013	2014	2015	2016
CPI	1½ (-½)	1½ (-½)	2 (-¼)	2
CPI-ATE[1)]	1¼ (-¼)	1½ (-½)	2 (-¼)	2
CPIXE[2)]	1 (-¼)	1½ (-½)	2 (-¼)	2
Annual wages[3)]	4 (-¼)	4¼ (-¼)	4½ (0)	4¼
Mainland demand[4)]	3 (-1¼)	3¾ (-¼)	3¼ (-½)	3
GDP, mainland Norway	2¾ (-¼)	3 (¼)	2½ (-¼)	2¾
Output gap, mainland Norway (level)[5)]	½ (-¼)	½ (0)	¼ (0)	0
Employment, persons, QNA	1½ (-¼)	1¼ (0)	1 (-¼)	1
Registered unemployment (rate, level)	2½ (0)	2½ (0)	2½ (0)	2¾
Level				
Key policy rate[6)]	1½ (-¼)	1¾ (-½)	2¼ (-¾)	2¾
Import-weighted exchange rate (I-44)[7)]	85½ (-¼)	84½ (-¾)	84½ (-1)	85
Foreign money market rates[8)]	½ (0)	½ (0)	1 (0)	1¼

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) Annual wage growth is based on the Technical Reporting Committee on Income Settlements' definitions and calculations.
4) Private and public consumption and mainland gross fixed investment.
5) The output gap measures the percentage deviation between mainland GDP and projected potential mainland GDP.
6) The key policy rate is the interest rate on banks' deposits in Norges Bank.
7) The weights are estimated on the basis of imports from 44 countries, which comprise 97% of total imports.
8) Forward rates are based on money market rates and interest rate swaps.

Source: Norges Bank

The countercyclical capital buffer and monetary policy

As Norges Bank is to issue advice to the Ministry of Finance on a countercyclical capital buffer for banks, it raises questions about how such a new policy instrument will be taken into consideration in the conduct of monetary policy.

The objectives of the countercyclical capital buffer and the key policy rate are different. The objective of the buffer is to strengthen the resilience of banks to an impending downturn, while the objective of monetary policy is low and stable inflation over time. In interest rate setting, the inflation target is weighed against the aim of smoothing fluctuations in output and employment.

Even though the objectives differ, both the key policy rate and the buffer work through banks' respones. The buffer will be set on the basis of an assessment of the risk that financial imbalances build up and trigger or amplify an economic downturn (see box on page 24). Capital requirements, and their effect on bank interest margins, will be one of many factors underlying the monetary policy analyses. Buffer decisions will be based on an assessment of the current situation in the Norwegian economy, with particular weight on various credit and asset prices.

The countercyclical buffer will strengthen the resilience of the banking sector during an upturn. It may also, to some extent, counteract the build-up of financial imbalances, but the effect is uncertain. Thus, Norges Bank cannot disregard taking financial imbalances into consideration when setting the key policy rate. The criteria for the conduct of monetary policy remain firm also after the introduction of a countercyclical capital buffer.

Banks have stated that they are already in the process of adapting to higher capital requirements, well ahead of their adoption. Even though the regulatory framework for new capital requirements will not be in place until later this year, the effects have already come into evidence. As part of its conduct of monetary policy, Norges Bank will continuously monitor banks’ responses to new regulations.

2 Financial stability

Financial imbalances may build up during upturns when there is ample access to funding, asset prices are rising and bank losses are small. When a positive trend turns, particularly if the shift is sudden and severe, banks may suffer considerable losses.

Under a draft proposal for new European banking regulations (CRD IV), banks will be required to build up an additional capital buffer during upturns. This will strengthen their resilience to an impending downturn and may curb high credit growth. Banks will be allowed to draw on the buffer in the event of an economic downturn and rising bank losses. The intention is that banks will tighten the supply of credit to a lesser extent than would otherwise be the case. The applicable regulations are described on page 29. Norges Bank will issue advice to the Ministry of Finance on setting the buffer four times a year in its *Monetary Policy Report*. The Bank's advice will be based on an assessment of the build-up of financial imbalances based on a set of economic indicators (see box below).

Criteria for an appropriate countercyclical capital buffer

The countercyclical capital buffer should satisfy the following criteria:

1. ***Banks should become more resilient during an upturn***
   The buffer should be increased when financial imbalances build up.

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

3. ***Stress in the financial system should be alleviated***
   Banks would be allowed to draw on the buffer in the event of an economic downturn or large bank losses, with a view to mitigating the procyclical effects of tighter bank lending.

It is demanding to identify financial imbalances. In an upturn, credit that rises faster than mainland GDP will signal a build-up of imbalances. Rising house and property prices 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 tend to increase their risk exposure at the same time.

Norges Bank's advice on the 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[1], and iv) the wholesale funding ratio of Norwegian credit institutions (See Charts 2.1 to 2.4).[2] On the whole, the four indicators provide early warning signals of vulnerabilities and financial imbalances. Historically, they have risen ahead of periods of financial instability.

As a basis for its advice on the capital buffer, Norges Bank will analyse developments in the key indicators and compare the current situation with historical trends and averages. There will not be a mechanical relationship between changes in the indicators and Norges Bank's advice on the countercyclical capital buffer. The advice will be based on the Bank's professional judgement, which will also take into account other factors. The size of the buffer will be viewed in the light of other requirements applying to banks, particularly when new requirements are introduced.

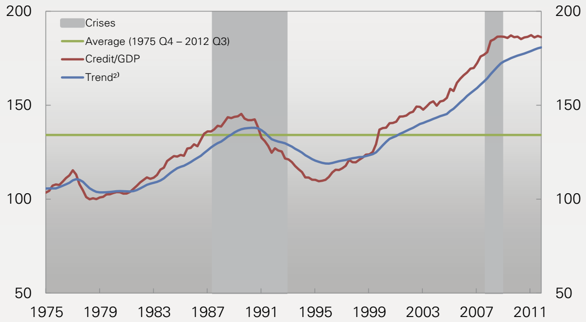
To maintain resilience, the buffer should not be reduced automatically even if there are signs that financial imbalances are receding.

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. If the buffer functions as intended, banks will tighten lending to a lesser extent in a downturn than would otherwise be the case. The buffer will not be released to alleviate isolated problems in some banks.

1 The indicators are based on selling prices for office premises in Oslo calculated by OPAK using Dagens Næringsliv's (Norwegian financial daily) commercial property price index.

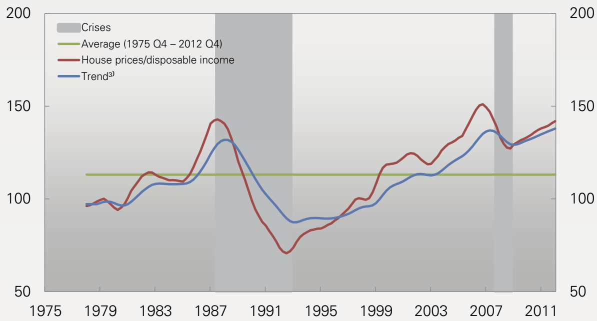
2 As experience and insights are gained the set of indicators can be developed further.

Chart 2.1 Total credit[1] mainland Norway as a percentage of GDP mainland Norway. Percent.1975 Q4 - 2012 Q3



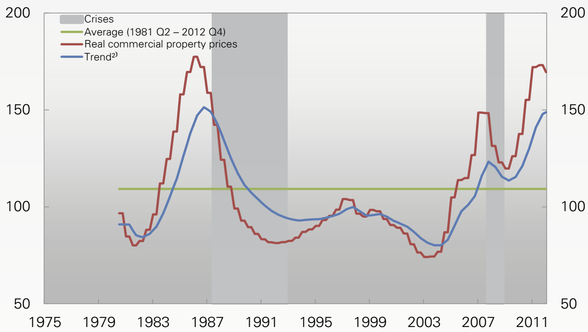
1) The sum of C3 non-financial corporations in mainland Norway (total economy before 1995) and C2 households
2) One-sided Hodrick-Prescott filter with recursive projections. Lambda = 400 000
Sources: Statistics Norway, IMF and Norges Bank

Chart 2.2 House prices[1] as a percentage of disposable income[2]. Indexed. 1998 Q4 = 100. 1978 Q4 – 2012 Q4



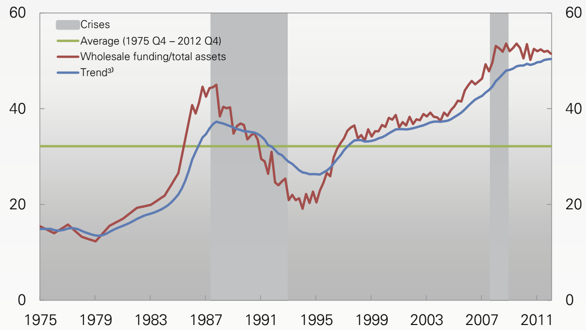
1) Quarterly figures before 1990 are calculated with linear interpolation of annual figures
2) Adjusted for estimated reinvested dividend income for 2000 – 2005 and redemption/reduction of equity capital for 2006 – 2012
3) One-sided Hodrick-Prescott filter with recursive projections. Lambda = 400 000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

Chart 2.3 Real commercial property prices[1]. Indexed. 1998 = 100. Semi-annual data. 1981 – 2012



1) Estimated market prices for office premises in Oslo deflated by a GDP deflator for mainland Norway
2) One-sided Hodrick-Prescott filter with recursive projections. Lambda = 400 000
Sources: OPAK and Statistics Norway

Chart 2.4 Banks'[1] wholesale funding as a percentage of total assets[2]. Percent. 1975 Q4 – 2012 Q4



1) All banks and covered bond mortgage companies in Norway excluding branches and subsidiaries of foreign banks
2) Quarterly figures before 1989 are calculated by linear interpolation of annual figures
3) One-sided Hodrick-Prescott filter with recursive projections. Lambda = 400 000
Source: Norges Bank

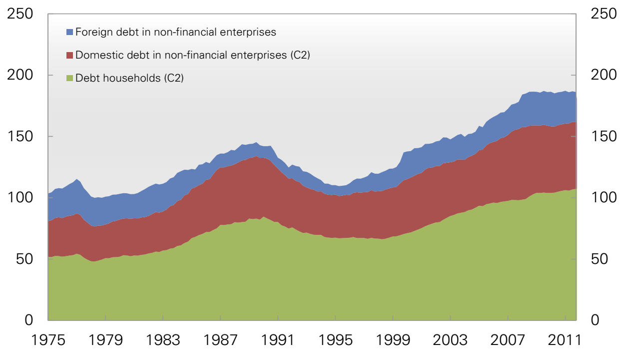
From the mid-1990s until 2008, growth in total household and corporate debt in the mainland economy far outstripped economic growth (see Charts 2.5 and 2.6). Experience from previous financial crises in Norway and other countries shows that both banks and borrowers often assume high risk during periods of strong credit growth. Since the financial crisis, credit growth has dropped somewhat and is now largely in line with mainland economic growth. Nevertheless, the ratio of total credit to GDP is historically high (see Chart 2.1).

Households in particular have contributed to the most recent increase in credit volume (see Chart 2.6). Household debt continues to grow more rapidly than income, and total debt is now almost double disposable household income (see Chart 2.7). At the same time, households are saving more; in 2012, financial savings grew at almost the same pace as debt. Growth in bank deposits accounts for around half of the increase in financial savings. However, debt and savings are unequally distributed. Analyses of 2010 tax assessment data for Norwegian households show that 11% of households had debt of more than five times disposable income.[1] This figure is high compared with the proportion in the years preceding the Norwegian banking crisis, when less than 8% of households were in this position. In addition, the households with the largest debt burdens have small financial buffers. These borrowers may find it difficult to service debt if interest rates increase or income falls. In this situation, many households will also be forced to reduce consumption, which may have ripple effects that weaken the financial position of businesses, engendering large bank losses, as during the Norwegian banking crisis at the beginning of the 1990s.

The vulnerability of Norwegian households is linked to developments in house prices. Some 90% of household debt is secured on dwellings. When adjusted for CPI inflation, house prices in Norway have reached unprecedented levels (see Chart 2.8). In the past 10 years, house prices in different parts of Norway have risen at almost the same pace, albeit from different initial levels. The rate of increase has varied for shorter periods (see Chart 2.9). If house prices fall substantially, household wealth and the mortgage assets of banks will fall.

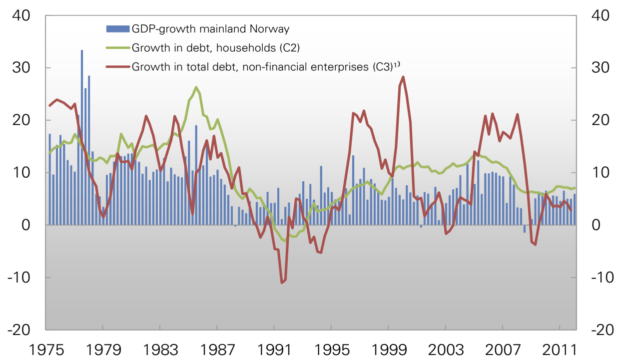
1 *Financial Stability* 2/12.

Chart 2.5 Total private credit/GDP mainland Norway. Decomposed. Percent. 1975 Q4 – 2012 Q3



Sources: Statistics Norway, IMF and Norges Bank

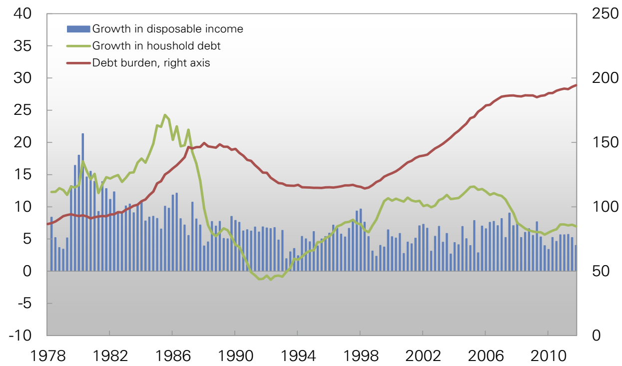
Chart 2.6 Debt of households and non-financial enterprises and mainland GDP. 4-quarter growth. Percent. 1975 Q4 - 2012 Q4



1) The sum of C2 non-financial enterprises and foreign debt of non-financial enterprises. Mainland Norway

Sources: Statistics Norway, IMF and Norges Bank

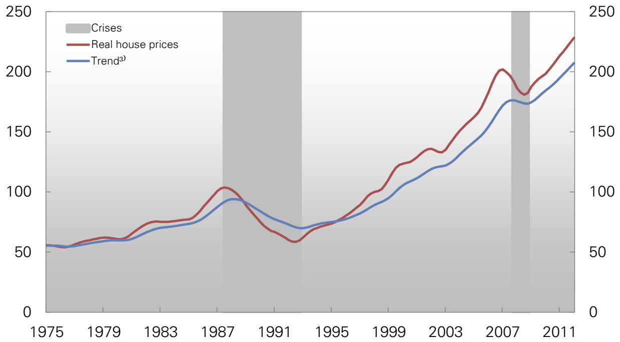
Chart 2.7 Household debt burden[1]. Percent. 1978 Q4 – 2012 Q3



1) Debt as a percentage of disposable income adjusted for estimated reinvested dividend income for 2000 – 2005 and redemption/reduction of equity capital for 2006 – 2012

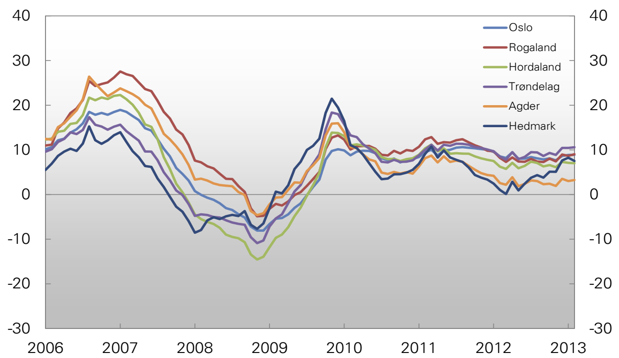
Sources: Statistics Norway and Norges Bank

Chart 2.8 Real house prices[1)2)]. Indexed . 1998 Q4 =100. 1975 Q4 – 2012 Q4



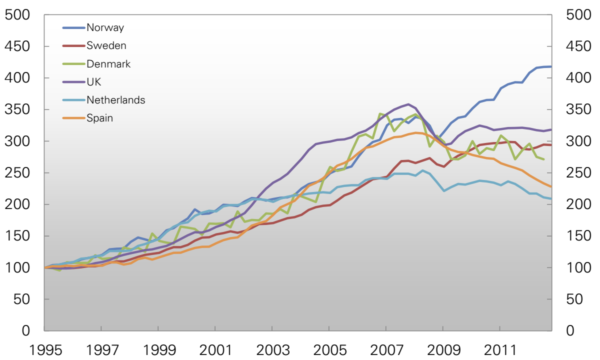
1) Quarterly figures before 1990 are calculated by linear interpolation of annual figures
2) Deflated by CPI
3) One-sided Hodrick-Prescott filter with recursive projections. Lambda = 400 000
Sources: Statistics Norway, Norwegian Association of Real Estate Agents (NEF), Eiendomsmegler-foretakenes forening (EFF), Finn.no, Pöyry and Norges Bank

Chart 2.9 House prices by region. 12-month change. Percent. Monthly data. January 2006 – February 2013



Sources: Norwegian Association of Real Estate Agents (NEF), Pöyry, Finn.no and Eiendomsmeglerforetakenes forening

Chart 2.10 House prices in selected countries. Indexed. 1995 Q1 = 100. Quarterly data. 1995 Q1 – 2012 Q4



Source: Thomson Reuters

Developments in the Norwegian housing market contrast with developments in most other northern European countries, where house prices have only risen slightly or continued to fall since the financial crisis (see Chart 2.10). However, Norwegian households have enjoyed markedly higher growth in real income than households among Norway's trading partners over the past decade, which may explain some of the rise in house prices. Nevertheless, Norwegian house prices are rising more rapidly than household disposable income (see Chart 2.11). Measured as a proportion of disposable income, house prices are now higher than the historical average (see Chart 2.2).

According to Norges Bank's projections, house prices will continue to rise until 2016 (see Chart 1.16). Rising house prices fuel debt growth, which is one reason why Norges Bank expects a continued increase in the debt burden (see Chart 1.17). If debt and house prices rise as projected, the vulnerability of the household sector will continue to increase from its current high level. However, there is considerable uncertainty associated with house price developments. The projected continued rise in house prices is based on the assumption that developments in the wider economy are in line with the baseline projections.

Since the financial crisis, corporate debt growth in mainland Norway has been lower than GDP growth (see Chart 2.6). In 2012, growth in banks' corporate lending was close to zero. According to their responses to Norges Bank's lending survey, banks have tightened their credit standards for enterprises somewhat since 2011 Q3. Expectations of stricter capital requirements are reported as an important reason for tightening. However, respondents to the Norwegian Confederation of Enterprise (NHO) quarterly survey report inadequate access to financing as the least important of a number of investment constraints. It is likely that both limited demand and a tighter supply are contributing to the moderate growth of corporate debt.

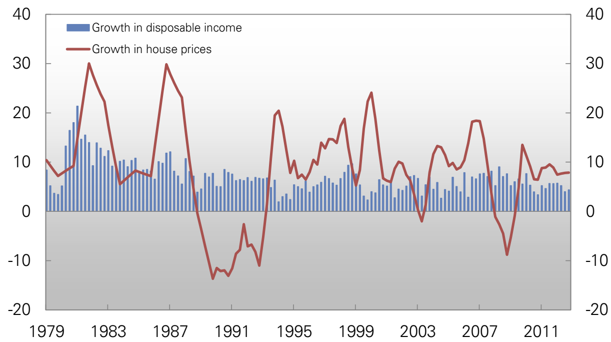
The commercial property market, which is the sector to which banks in Norway have the highest debt exposure, has been influenced by the favourable macroeconomic situation in Norway in recent years. Demand for office space in the Oslo region, a segment to which banks are highly exposed, increased from 2011 to 2012. A large number of construction projects are now under way, even though activity has declined from pre-crisis levels (see Chart 2.12). Following a fall in rental and selling prices for office premises during the financial crisis, prices have continued to rise in several segments in recent years (see Charts 2.3 and 2.13). In the event of an economic downturn, prices may fall, reducing the debt-servicing ability of property companies and the values of the properties on which banks hold mortgages. This may result in increased losses at Norwegian banks.

The proportion of activities by Norwegian banks and mortgage companies funded by borrowing in the money and bond markets increased substantially from 2005 until 2008 (see Chart 2.4). Ample access to market funding made it easy for banking groups to grow and to accommodate high business and household demand for credit (see Chart 2.14). This rapid growth contributed to the build-up of risk in the financial system. The wholesale funding ratio has been historically high since 2008. At the same time, the funding structure of Norwegian banks has become more robust. Wholesale funding maturities have increased, and short-term wholesale funding is increasingly being matched by liquid assets. Norwegian banks currently have ample access to funding in the money and bond markets, although the cost of funding is higher than before the financial crisis.

Banks in Norway have a solid foundation for building up buffers that improve their capacity to deal with a potential downturn. Earnings are strong, and losses are currently low. The increase in capital ratios from 2011 to 2012 shows that banks are already in the process of strengthening their resilience (see Chart 2.15).

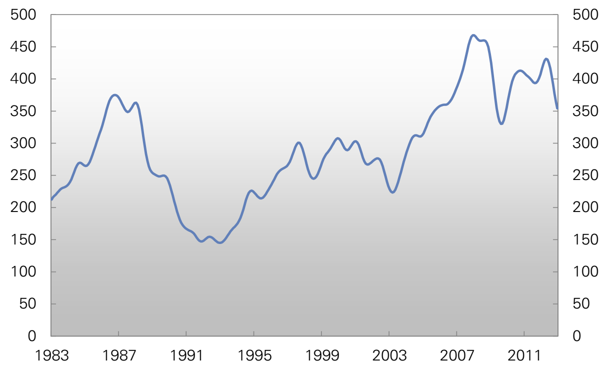
Banks can continue to increase their capital in various ways. First, they can improve their capital adequacy by increasing their equity capital, either by issuing equity or retaining earnings. Banks can also increase their capital ratios by reducing or changing the composition of their assets in order to reduce their risk-weighted assets. This will have a direct effect on the supply of credit. If banks increase their lending margins to strengthen earnings, credit growth may be affected indirectly. If bank behaviour continues as observed to date, the likely result will be a combination of high margins, weak growth in business lending and moderate dividend ratios.

Chart 2.11 House prices[1)] and disposable income[2)]. 4-quarter growth. Percent. 1978 Q4 – 2012 Q4



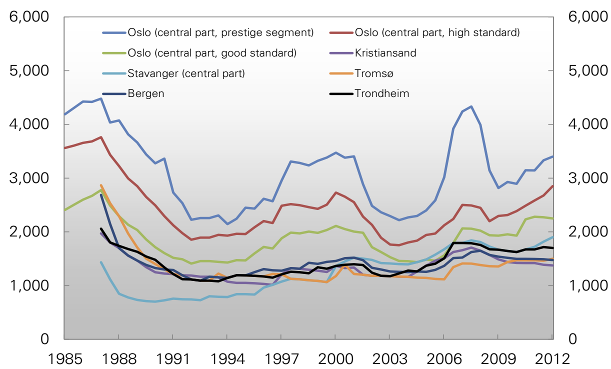
1) Quarterly figures before 1990 are calculated by linear interpolation of annual figures
2) Adjusted for estimated reinvested dividend income for 2000 – 2005 and redemption/reduction of equity capital for 2006 – 2012
Sources: Statistics Norway, Norwegian Association of Real Estate Agents (NEF), Eiendomsmeglerforetakenes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

Chart 2.12 Non-residential building starts. Adjusted for seasonal and irregular components. 1000 m². 1983 – 2012



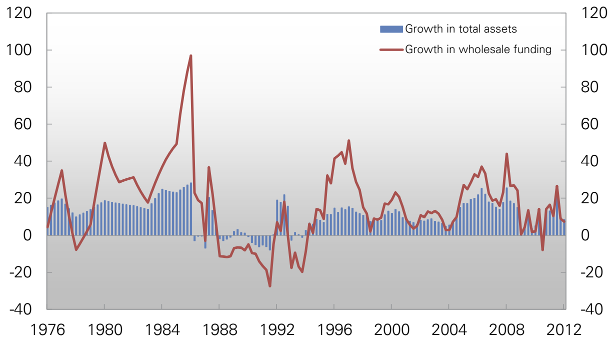
Source: Statistics Norway

Chart 2.13 Rental prices for office premises. NOK per square metre (at constant 2012 prices). Semi-annual figures. 1985 – 2012



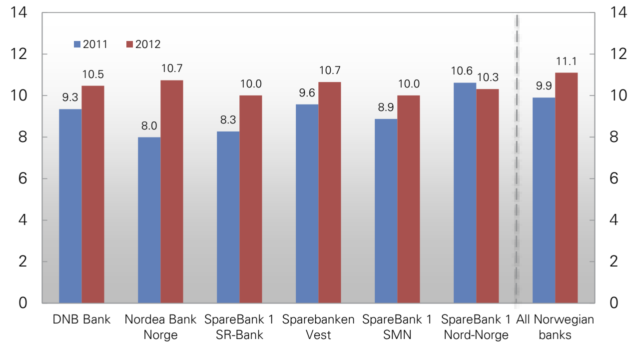
Sources: Statistics Norway, Dagens Næringsliv and OPAK

Chart 2.14 Banks'[1)] total assets and wholesale funding[2)]. 4-quarter growth. Percent. 1981 Q2 – 2012 Q4



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

Chart 2.15 Common Equity Tier 1 capital ratio at year-end. Large banking groups[1)] and all Norwegian banks[2)]. Percent. 2011 – 2012



1) Norwegian banking groups with total assets larger than NOK 60 billion
2) For banks that are financial conglomerates, consolidated level data are used. For other banks, solo level data are used
Sources: Banking groups' earnings reports, Finanstilsynet and Norges Bank

Regulatory framework for a countercyclical capital buffer[1]

The financial crisis highlighted the need to strengthen the resilience of the banking system. It became clear that banks needed more equity capital to strengthen their resilience to economic downturns. In 2010, the Basel Committee on Banking Supervision recommended a new regulatory framework (Basel III) that imposes stricter qualitative and quantitative capital requirements on banks. The European Commission followed up this initiative in July 2011, proposing new regulations for EEA countries. The new EU regulations are expected to be finalised in the course of spring 2013. Under the EEA Agreement, the regulations will also apply to Norway. The new regulations include a countercyclical capital buffer requirement.

The objective of the countercyclical capital buffer is to strengthen the resilience of the banking sector to an economic downturn and counter excessive fluctuations in the credit supply that may amplify the business cycle. The buffer should be increased when financial imbalances build up. Banks would be allowed to draw on the buffer in the event of an economic downturn and large bank losses, with a view to mitigating the procyclical effects of tighter bank lending.

The buffer requirement will apply to all banks in Norway. The home supervisor of a foreign bank with a branch in Norway must recognise the buffer automatically, provided that it constitutes no more than 2.5% of the core capital calculation basis. The buffer requirement may be increased above this threshold, but will then not apply automatically to the Norwegian branch of a foreign bank until approved by the home supervisor.

Any increase in the buffer requirement must be preannounced with a lead time of at least 12 months before taking effect, to give banks time to adapt. A reduction in the requirement will be implemented promptly, however. To create predictability for banks in connection with a reduction in the buffer rate, the authorities are also required to estimate for how long the buffer rate is highly unlikely to be increased.

Norges Bank has primary responsibility for drawing up the basis for decisions on the countercyclical capital buffer in Norway. The Bank will present an assessment basis and advice on the buffer to the Ministry of Finance four times a year. Norges Bank will collaborate and exchange information with Finanstilsynet (Financial Supervisory Authority of Norway) when preparing the assessment basis. The Ministry of Finance will set the buffer.

1 The relevant regulations are described in greater detail in *Norges Bank Papers* No. 1/2013: Criteria for an appropriate countercyclical capital buffer.

3 The projections

The global economy

The outlook for global economic growth is somewhat weaker than expected in the October 2012 *Monetary Policy Report*. Emerging economies are supporting overall global growth. A continued need for deleveraging in the private and public sector is weighing on growth in advanced economies. The euro area remains in recession, and the downturn appears to be more prolonged than projected in the October *Report*. For 2013 and 2014, growth projections for Norway's trading partners have been revised down by ½ and ¼ percentage point, respectively, to 1¼% and 2¼% (see Table 3.1). Global growth is projected to be 2¾% in 2013, in line with the average for the past 30 years (see Chart 3.1).

While the growth outlook has weakened, conditions in financial markets have continued to improve, largely owing to actions taken by central banks and the authorities since summer 2012. The risk of a collapse of the euro area was substantially reduced after the European Central Bank (ECB) announced that it was prepared to undertake unlimited purchases of European sovereign bonds (Outright Monetary Transactions). In autumn, the EU took further steps towards a European banking union. Market concerns regarding the outlook for Greek government finances eased after Greece reached an agreement with creditors before Christmas to reduce its payment and debt obligations. In the US, there is continued uncertainty regarding fiscal policy.

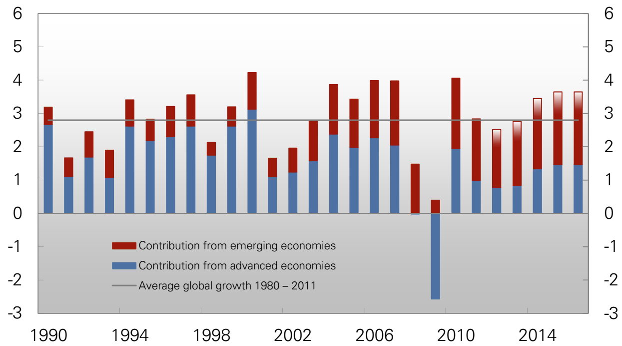
In the wake of these events, risk premiums have fallen in a number of markets. Sovereign bond yields in highly indebted euro area countries have fallen (see Chart 3.2) and CDS premiums for European financial institutions have decreased considerably. Equity prices have risen since the publication of the October *Report* (see Chart 3.3). In Germany and the US, the main stock market indices are now near their autumn 2007 peak levels. Investor demand for the very safest investments appears to have been reduced in favour of assets that generate a higher expected return with somewhat more risk. Long-term interest rates in major economies such as the US and the UK have risen slightly. Market uncertainty increased somewhat after the Italian parliamentary election at the end of February.

Table 3.1 Projections for GDP growth in other countries. Change from previous year. Percent. Change from projections in *Monetary Policy Report* 3/12 in brackets

	Share of world GDP[1] (percent)	2013	2014	2015 – 2016[2]
US	20	2¼ (-¼)	2¾ (0)	3¼
Euro area	15	-¼ (-¾)	1¼ (-½)	1¾
UK	3	1 (-½)	2 (0)	2¼
Sweden	0.5	1¼ (-½)	2½ (0)	2¾
China	13	8 (0)	8 (0)	7½
Trading partners[3]	65	1¼ (-½)	2¼ (-¼)	2½
World (PPP)[4]	100	3½ (-¼)	4 (0)	4¼
World (market exchange rates)[4]	100	2¾ (-¼)	3½ (0)	3¾

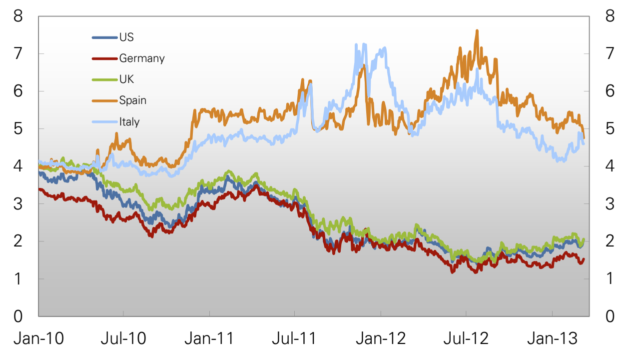
[1] Purchasing-power-parity (PPP) GDP in 2010
[2] Average annual growth
[3] Export weights, 26 main trading partners
[4] GDP weights. Norges Bank's estimates for 26 trading partners, other estimates from IMF
Sources: IMF, Eurostat and Norges Bank

Chart 3.1 Global GDP. Weighted to reflect each country's share of global output measured in a common currency (market exchange rates). Annual growth. Percent. 1990 – 2016. Projections from 2012



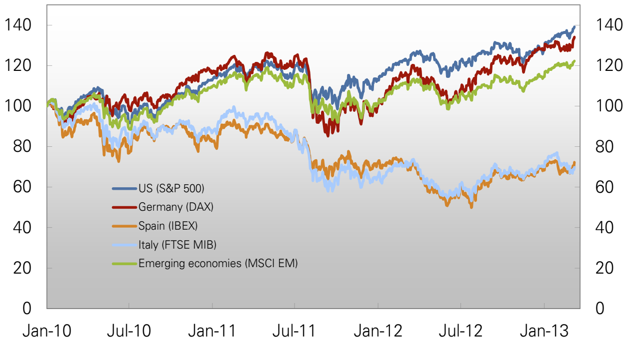
Sources: IMF and Norges Bank

Chart 3.2 Yields on 10-year government bonds. Percent. Daily data. 1 January 2010 – 8 March 2013



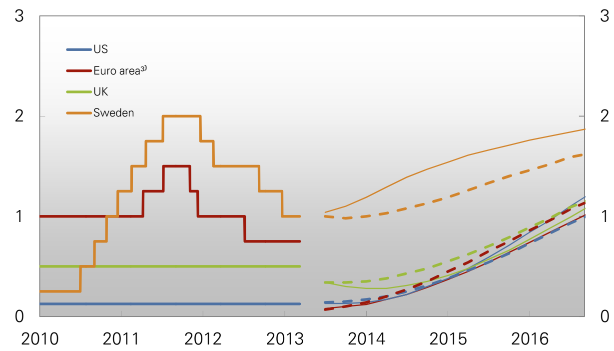
Source: Thomson Reuters

Chart 3.3 Developments in equity markets. Index. 1 January 2010 = 100. 1 January 2010 – 8 March 2013



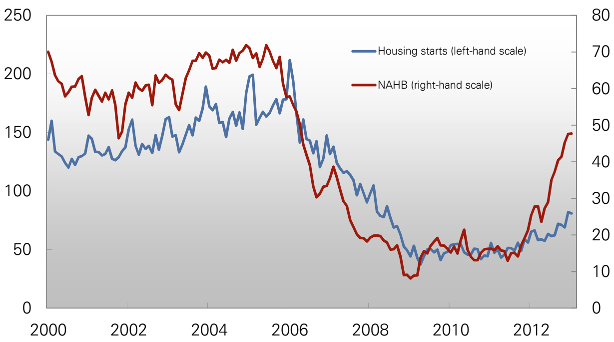
Source: Thomson Reuters

Chart 3.4 Key rates and estimated forward rates at 31 October 2012 and 8 March 2013.1) Percent. 1 January 2010 – 31 December 2016[2)]



1) Broken lines show estimated forward rates at 31 October 2012. Thin lines show forward rates at 8 March 2013. Forward rates are based on Overnight Index Swap (OIS) rates
2) Daily data from 1 January 2010 and quarterly data from 2013 Q2
3) EONIA for the euro area from 2013 Q2
Sources: Bloomberg and Norges Bank

Chart 3.5 US housing market. Housing starts (in thousands) and National Association of Home Builders (NAHB) housing market index. Monthly data. January 2000 – January 2013



Sources: Thomson Reuters and Norges Bank

Key rates in the US, euro area and UK have remained unchanged since the October *Report*. Market participants expect unchanged key rates in the US and euro area and a somewhat lower key rate in the UK in the years ahead (see Chart 3.4). At its meeting in December, the Federal Open Market Committee (FOMC) linked the outlook for the federal funds rate to developments in unemployment and inflation. In December, the FOMC also decided to extend its asset purchases. In January, the Bank of Japan announced that it was introducing an inflation target of 2% as part of its monetary policy regime. To reach this target, it will increase its purchases of securities beginning in 2014.

There is still substantial excess liquidity in the Eurosystem, and the short-term money market rate (EONIA) is considerably lower than the ECB key rate. Market participants expect this difference to remain wide in the years ahead. In Sweden, the Riksbank lowered the key rate from 1.25% to 1.0% at its monetary policy meeting in December. Market participants are not pricing in further cuts in Sweden's key rate. For Norway's trading partners as a whole, market expectations concerning key rates are virtually unchanged since the October *Report*.

Growth outlook for regions and countries

In the US, economic activity was sluggish in the second half of 2012. In January, Congress agreed on a permanent extension of tax cuts introduced under President Bush and extended under President Obama. On the other hand, no agreement was reached on cuts in federal government spending, and automatic spending cuts equivalent to around ½% of GDP went into effect on 1 March. Growth is expected to pick up somewhat in the coming quarters, but growth projections for 2013 have been revised down slightly compared with the October *Report* owing to the uncertainty surrounding fiscal policy and the effect of weak economic developments in Europe. Nevertheless, a number of positive signals are emerging in the US economy. The housing market has continued its recovery (see Chart 3.5) and unemployment is edging down. Increased energy production and better cost competitiveness could contribute to a pickup in growth somewhat further out in the projection period.

Activity in the euro area declined throughout 2012. Weak economic developments in several southern European member states have now spread to core countries.

Macroeconomic indicators point to a decline also in 2013 Q1. The impact on households and enterprises of the recovery in financial markets since summer 2012 has not been as positive as assumed in the October *Report*. Rising unemployment, difficult funding conditions in a number of countries, fiscal austerity and continued heightened uncertainty are weighing on growth in consumption and investment (see Chart 3.6). A substantial improvement in the funding situation in countries with high government debt is likely to take longer than previously assumed, and this will restrain investment growth in the period ahead.

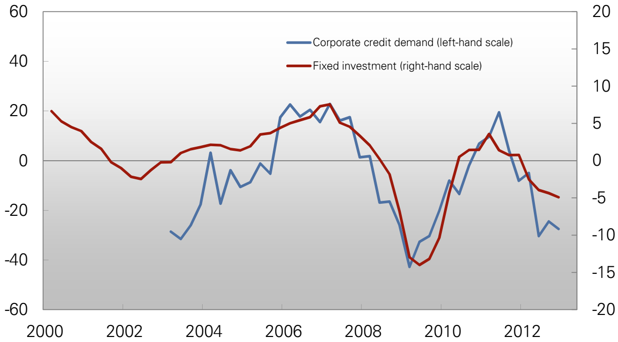
In recent years, a number of structural reforms in labour markets, product markets and pension systems have been approved in euro area crisis countries. This has likely resulted in lower trade deficits and a slowdown in labour cost inflation in the countries hardest hit by the crisis (see Chart 3.7). In the long run, the reforms will boost these economies' growth potential, but reallocating resources across sectors will take time. Labour market reforms have so far contributed to redundancies and wage reductions (see Chart 3.8). It will likely take longer than previously assumed for adopted structural reforms to have lasting positive growth effects. Growth projections for the euro area have therefore been revised down throughout the projection period.

In the UK, the recovery following the sharp decline in activity in 2008 and 2009 has been unusually weak. GDP at year-end was still 3% lower than its pre-crisis level. The still high debt burden in the private sector, fiscal austerity and weak developments in key export markets will contribute to continued weak growth in the years ahead.

In Sweden, GDP growth in 2012 Q4 was lower than expected in the October *Report*. The situation in the manufacturing sector deteriorated, exports continued to decline and confidence indicators for the service sector and households have fallen to low levels. Projected growth for 2013 has been revised down. Financial solidity in both the private and public sectors, along with continued expansionary monetary policy, will likely bring growth up towards its potential level already in 2014.

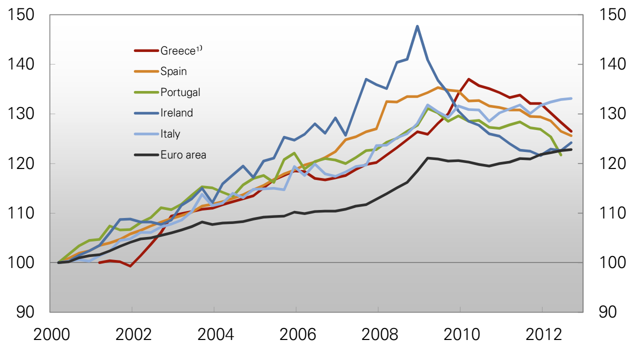
GDP growth in China was 7.8% in 2012, the lowest since 2001. The decline is due to lower growth in export demand and previous monetary tightening. The pace of growth picked up somewhat towards the end of 2012,

Chart 3.6 Fixed investment in the euro area. Four-quarter change. Percent. Change in corporate credit demand[1]. 2000 Q1 - 2012 Q4



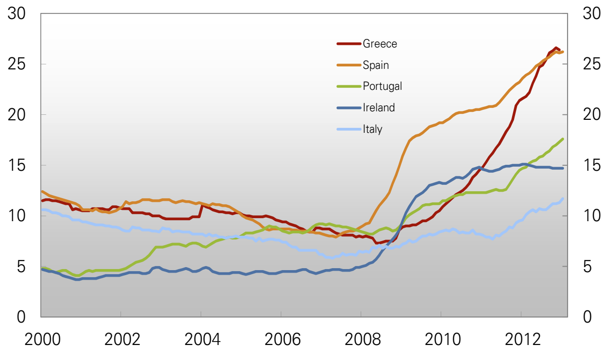
1) Euro area bank lending survey. Values above zero indicate net increase in credit demand
Sources: Thomson Reuters, Eurostat and ECB

Chart 3.7 Unit labour costs. Seasonally adjusted index. 2000 Q1 = 100. 2000 Q1 – 2012 Q3



1) 2001 Q1 = 100. Four-quarter moving average, not seasonally adjusted
Sources: OECD and Norges Bank

Chart 3.8 Unemployment. Percentage of labour force. Monthly data. January 2000 – January 2013



Source: Thomson Reuters

Chart 3.9 Retail sales in emerging economies in Asia and in the OECD. Volume. Three-month moving average. 12-month change. Percent.
January 2000 – December 2012

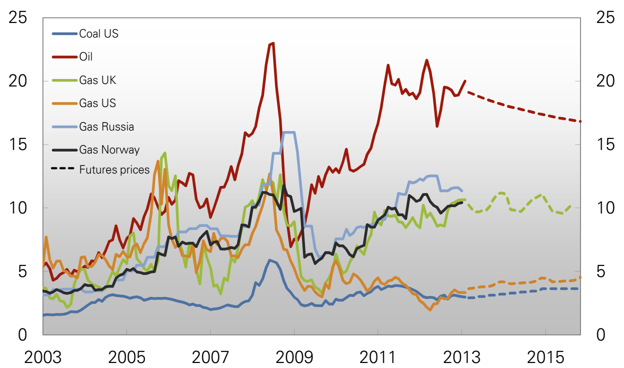
1) GDP-weighted (PPP). Indonesia, Malaysia, Philippines, Thailand, Singapore, South-Korea and Taiwan
Sources: Thomson Reuters, IMF and Norges Bank

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* 3/12 in brackets

	2013	2014	2015–16[1)]
US	1¾ (-¼)	2 (0)	2¼
Euro area[2)]	1¾ (+¼)	1½ (-¼)	1¾
UK	2½ (+¾)	2¼ (+½)	2
Sweden	½ (-1)	2¼ (-¼)	2½
China	3¼ (+¼)	3½ (+¼)	3¼
Trading partners[3)]	1¾ (0)	2 (0)	2
Oil price Brent Blend[4)]	110	102	97

1) Average annual rise
2) Weights from Eurostat (each country's share of euro area consumption)
3) Import weights, 26 main trading partners
4) 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

Chart 3.10 Prices for coal, crude oil and natural gas. USD per MMBTU. Monthly data. January 2003 – December 2015



Sources: IMF, Thomson Reuters, Statistics Norway and Norges Bank

and continued high domestic demand and expansionary fiscal policy are expected to contribute to sustained growth of around 8% in both 2013 and 2014. In Japan, growth is expected to pick up in the coming quarters as a result of monetary and fiscal policy easing.

Growth in other emerging economies in Asia has been broadly as projected in the October *Report*. Domestic demand has remained robust in many of these countries (see Chart 3.9). Exports fell in periods through 2012, but recovered somewhat towards year-end. Growth in this region is expected to gather pace, largely due to higher demand from China. The private sector has ample access to capital from abroad and this will contribute to supporting growth in domestic consumption and investment.

Prices

Consumer price inflation among Norway's trading partners was 1.8% in 2012 Q4, approximately as expected in the October *Report*. In the US and Europe, spare capacity and low wage growth are expected to contribute to slightly lower inflation in 2013. Long-term inflation expectations appear to be firmly anchored to inflation targets. Consumer price inflation among trading partners is projected to rise to around 2% per year as economic growth gradually picks up (see Table 3.2).

The oil price is around USD 110 per barrel, broadly unchanged since the October *Report*. The projections in this *Report* are based on the assumption that oil prices will track futures prices (see Table 3.2). Continued high oil prices must be viewed in the context of sustained robust growth in emerging economies and considerable reductions in OPEC production in recent months. In addition, the unrest in the Middle East and North Africa persists. Futures prices indicate some decline in oil prices ahead, probably reflecting expectations of moderate growth in global demand for oil combined with increased production in non-OPEC countries. Higher shale oil production in the US and oil sand production in Canada are expected to account for much of this increase.

Norwegian gas export prices remain high (see Chart 3.10). A relatively large share of Norwegian gas is still sold on contracts where prices are linked to oil prices. Moreover, UK gas prices remain high. High futures prices for oil and British gas point to continued high prices for Norwegian gas exports.

The Economist commodity price index has fallen by around 3% since the October *Report*. Prices for industrial metals have risen by over 2% in the same period. Futures prices are also exhibiting a slight increase ahead (see Chart 3.11). Food commodity prices, however, have fallen by more than 7% since the October *Report*, but remain at historically high levels.

Foreign exchange markets

Risk appetite in foreign exchange markets has picked up slightly since summer. The euro has appreciated as uncertainty regarding the future of the euro area has eased. Commodity currencies such as the Australian and the New Zealand dollar have also appreciated. The Japanese yen has depreciated markedly following increased expectations of far more expansionary monetary and fiscal policy.

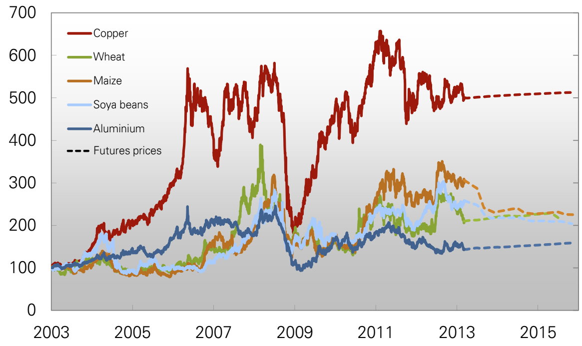
Developments in the krone exchange rate normally reflect changes in oil prices and the interest rate differential against other countries. Since summer, the krone has appreciated more than implied by developments in these variables. The combination of stability, solid government finances and a positive return may have increased the demand for investments in NOK. In recent months, the effective nominal krone exchange rate has been at its strongest levels since May 1986 (see Chart 3.12).

However, with the depreciation in recent weeks, the krone exchange rate, as measured by the import-weighted exchange rate index (I-44), has shown little change overall since the publication of the October *Report*. In the present *Report*, it is assumed that in the coming quarters, the I-44 will remain close to its average level so far this year.

Norwegian banks

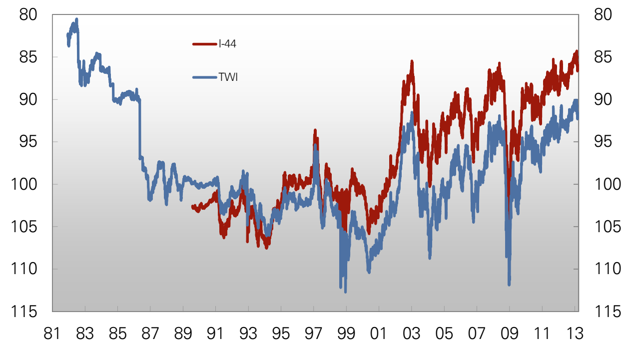
The price of wholesale funding for banks has fallen in recent months. Interest rates in money and bond markets have declined, reflecting reduced uncertainty in financial markets and continued high levels of surplus liquidity. Money market risk premiums declined during 2012 and have approached their pre-crisis levels in a number of countries. The premiums are about unchanged since the October *Report*. The Norwegian three-month money

Chart 3.11 Commodity prices. USD. Index. 2 January 2003 = 100. Daily data. January 2003 – December 2015



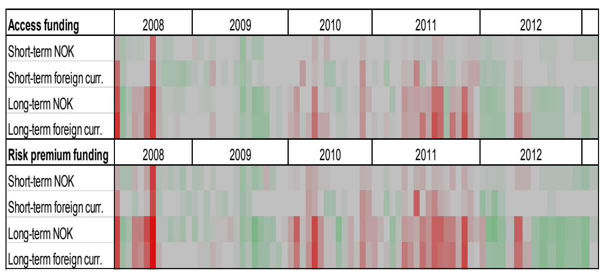
Sources: CME Group, ICE and Thomson Reuters

Chart 3.12 Developments in the krone exchange rate. Import-weighted exchange rate index (I-44) and trade-weighted index (TWI)[1]. Daily data. 11 December 1981 – 8 March 2013



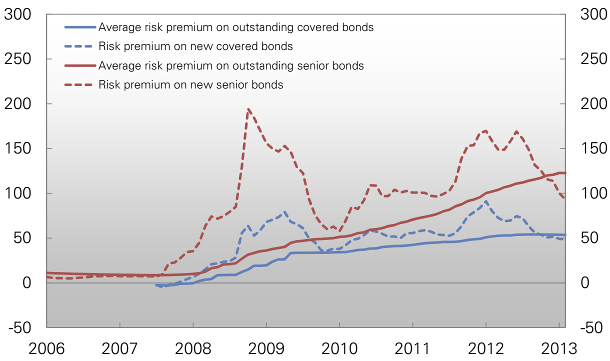
1) A positive slope denotes a stronger krone exchange rate
Source: Norges Bank

Chart 3.13 Banks' and mortgage companies' qualitative assessment of access to and premiums on wholesale funding.[1] March 2008 – February 2013



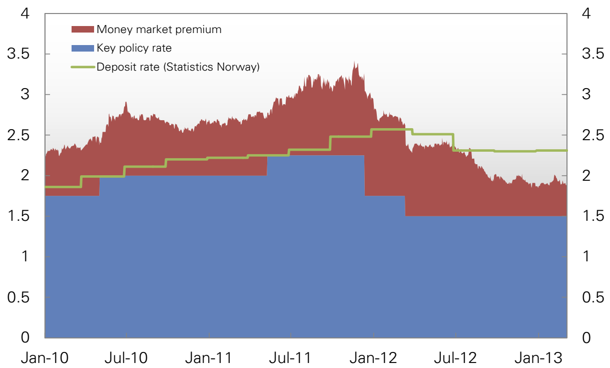
1) Average reported by banks in Norges Bank's liquidity survey. For short-term funding in foreign currency only banks active in these markets are included. Red indicates reduced access and higher premiums, grey indicates unchanged, green indicates increased access and lower premiums
Source: Norges Bank

Chart 3.14 Estimated average risk premium[1)] on new and outstanding bond debt for Norwegian banking groups[2)]. Basis points. Monthly average. January 2006 – February 2013



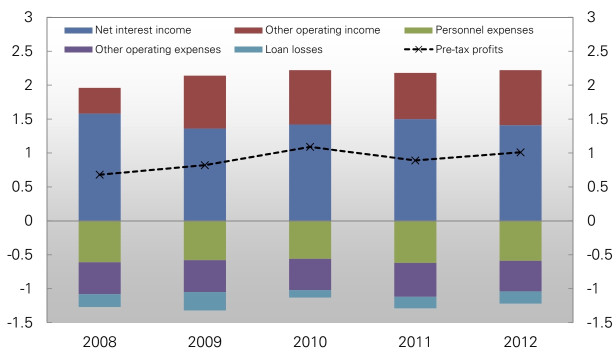
1) Difference against 3-month NIBOR
2) All banks and mortgage companies in Norway, excluding branches of foreign banks in Norway
Sources: Bloomberg, Stamdata, DNB Markets and Norges Bank

Chart 3.15 Deposit rate[1)] and margin. Percent. 1. January 2010 – 8. March 2013



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

Chart 3.16 Banks'[1)] pre-tax profits as a percentage of average total assets. Percent. Annual data. 2008 – 2012



1) All banks excluding branches of foreign banks in Norway, but including branches of Norwegian banks abroad. Solo level
Source: Norges Bank

market rate has so far this year averaged 38 basis points above the expected key policy rate. Premiums are expected to remain at around the same level ahead.

Norwegian banks and mortgage companies continue to have ample access to funding (see Chart 3.13), and risk premiums on new long-term wholesale funding have fallen since the October *Report* (see Chart 3.14). Still, average risk premiums on banks' overall market wholesale have continued to rise, because risk premiums on new funding are higher than premiums on maturing bond debt.

Deleveraging in Europe and expectations of less stringent future requirements for banks' long-term funding are reducing the supply of bank and mortgage company bonds, keeping risk premiums on senior bank bonds and covered bonds low. Norwegian covered bond yields are now close to sovereign bond yields in countries with solid government finances. This may limit a further fall in covered bond premiums in Norway. If premiums on new funding remain at the current level until end-2013, the average premium for banks' stocks of senior bank bonds may decline somewhat through 2013, while average premiums on covered bonds will remain broadly unchanged.

In the past year, banks paid relatively high interest rates on customer deposits, and deposit rates were higher than money market rates (see Chart 3.15). Deposits and wholesale funding are banks' most important funding sources. The high deposit rates reflect the high wholesale funding costs banks faced at the end of 2011 and in the first half of 2012. Owing to lower premiums on wholesale funding, it is likely that banks, in the period ahead, will be unwilling to continue to pay high deposit rates. This suggests that deposit rates will converge on money market rates.

Banks' earnings in 2012 were solid (see Chart 3.16). Profit allocation proposals suggest that the large banks will retain between 72% and 100% of net income for the year as equity. By retaining earnings and raising fresh equity capital, banking groups overall have boosted their Common Equity Tier 1 (CET1) ratio by 1¼ percentage points in 2012.

The Government has announced that the legal framework for new capital requirements for banks will be presented during spring. The framework will allow imposition of a countercyclical capital buffer requirement on banks (see Section 2). In the light of Finanstilsynet's guidelines requiring a minimum CET1 ratio of 9%, the result of a countercyclical capital buffer may be that several of the major banking groups will still need to increase their CET1 ratios (see Chart 3.17).

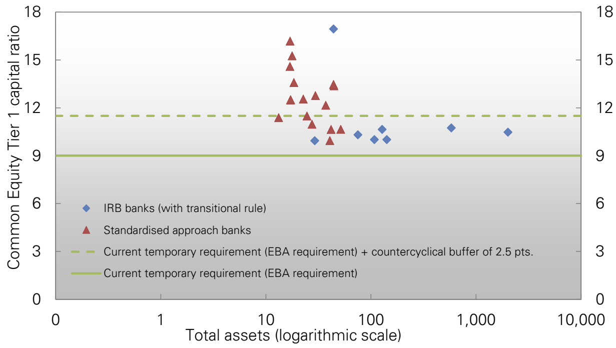
Bank margins on loans have increased over the past year. Lending rates have remained high, despite a fall in borrowing costs (see Charts 1.4). Even if the relatively high rates that banks have been paying on deposits are taken into account, earnings on lending activities have been solid. A number of banks have still announced an increase in lending rates. This will result in somewhat higher lending margins ahead. Expectations of stricter capital requirements are cited as the reason for the increase.

Norwegian banks and mortgage companies have maintained growth in household lending, while growth in corporate lending has slowed. Developments in banks' lending standards may reflect expectations of stricter capital requirements. To increase their capital ratios, banks may opt to reduce lending. Most effective would be a reduction in loans with high risk weights. Corporate loans have higher risk weights than residential mortgages. Imposing higher risk weights for residential mortgages on banks will reduce the difference in tied-up capital between corporate loans and residential mortgages. A possible effect may be a reduction in residential mortgage lending. In the short term, however, the effect may be that banks will reduce corporate lending to facilitate compliance with the capital requirements following from higher risk weights for residential mortgages.

Developments in the structure of bank funding are affected by expected regulatory liquidity and stable funding requirements. Norwegian banks are well on the way to meeting the expected short-term liquidity requirement (LCR[1]) (see Chart 3.18). In January, the Basel Committee on Banking Supervision relaxed the proposed liquidity rules. The regulatory easing will improve banks' LCR. Most banks need more long-term funding to meet the expected stable funding requirement (NSFR[2]). The NOK 128bn[3] in agreements in the swap arrangement set to expire over the next two years will also have to be replaced by long-term wholesale funding.

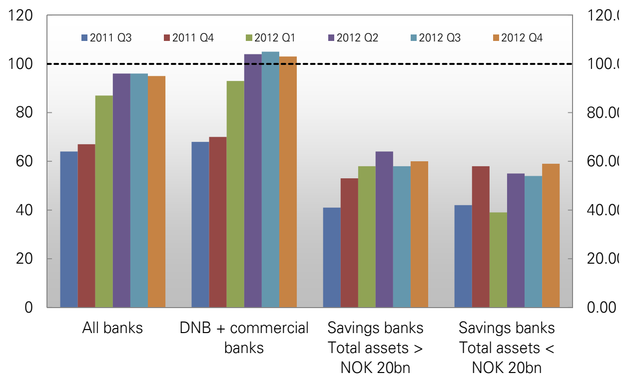
1 LCR = Liquidity Coverage Ratio.
2 NSFR = Net Stable Funding Ratio.
3 As of 31 December 2012.

Chart 3.17 Banking groups'[1)] Common Equity Tier 1 capital ratio. Percent. Total assets. In billions of NOK. At 31 December 2012



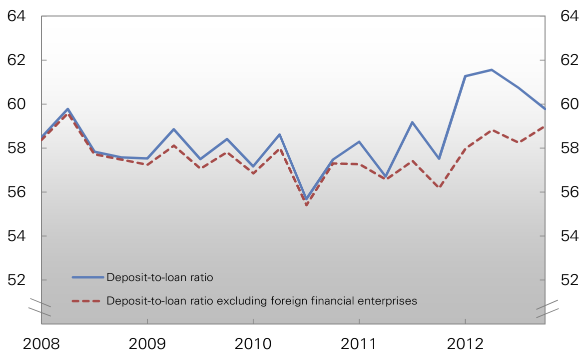
1) Banking groups with total assets in excess of NOK 10bn, excluding branches of foreign banks in Norway
Sources: Finanstilsynet, banking groups' earnings reports and Norges Bank

Chart 3.18 Banks'[1)] liquidity coverage ratio (LCR).[2)] Consolidated data. Weighted average for the group. At end-quarter



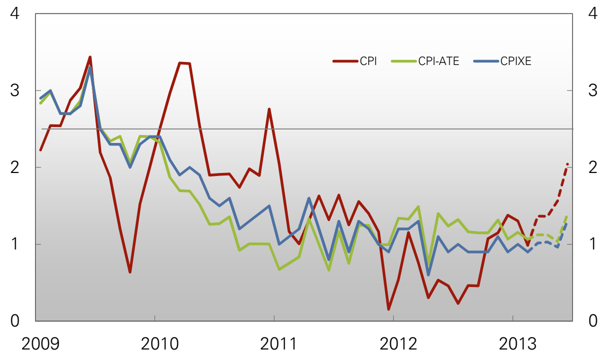
1) All banks in Norway excluding branches of foreign banks in Norway
2) Calculations are based on the recommendations published by the Basel Committee in 2010
Sources: Finanstilsynet and Norges Bank

Chart 3.19 Deposit-to-loan ratio – customers of Norwegian banks and mortgage companies.[1)] Percent. 2008 Q1 – 2012 Q4



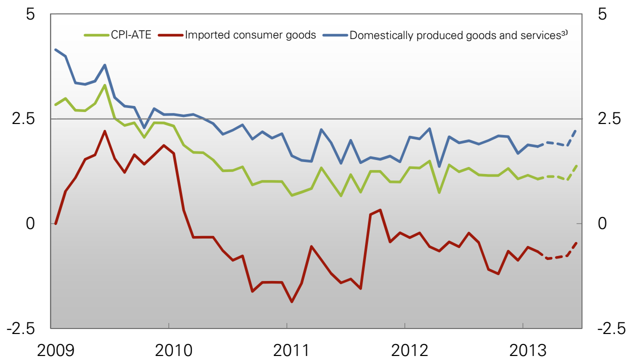
1) All banks and mortgage companies in Norway, excluding branches and subsidiaries of foreign banks in Norway
Source: Norges Bank

Chart 3.20 CPI, CPI-ATE[1)] and CPIXE[2)]. 12-month change. Percent. January 2009 – June 2013[3)]



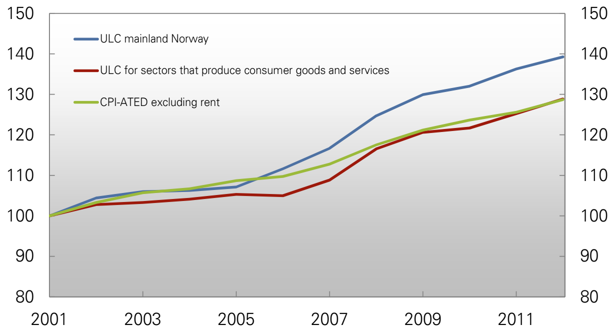
1) CPI adjusted for tax changes and excluding energy products
2) CPI adjusted for tax changes and excluding temporary changes in energy prices. Real-time figures. See Norges Bank *Staff Memo* 7/2008 and 3/2009
3) Projections for March 2013 – June 2013 (broken lines)
Sources: Statistics Norway and Norges Bank

Chart 3.21 CPI-ATE[1)]. Total and by supplier sector. 12-month change. Percent. January 2009 – June 2013[2)]



1) CPI adjusted for tax changes and excluding energy products
2) Projections for March 2013 – June 2013 (broken lines)
3) Norges Bank's estimates
Sources: Statistics Norway and Norges Bank

Chart 3.22 Unit labour costs and prices for domestically produced consumer goods and services, excluding rent. Index. 2001 = 100. 2001 – 2012



Sources: Statistics Norway and Norges Bank

Banks' deposit-to-loan ratios, i.e. deposits relative to loans to customers, increased through 2012 (see Chart 3.19). Deposits are normally regarded to be a stable form of funding. The decline in deposit-to-loan ratios in the past months primarily reflects a reduction in deposits from foreign financial enterprises. If terms for depositors become less favourable, deposits regarded as stable may diminish and increasing the need for market funding.

Consumer prices

In February, twelve-month consumer price inflation (CPI) was 1.0% (see Chart 3.20). Consumer price inflation adjusted for tax changes and excluding temporary changes in energy prices (CPIXE) was 0.9%. Inflation adjusted for tax changes and excluding energy products (CPI-ATE) was 1.1%. Some other indicators of underlying inflation are somewhat higher. Underlying inflation is still estimated at 1%–1½%.

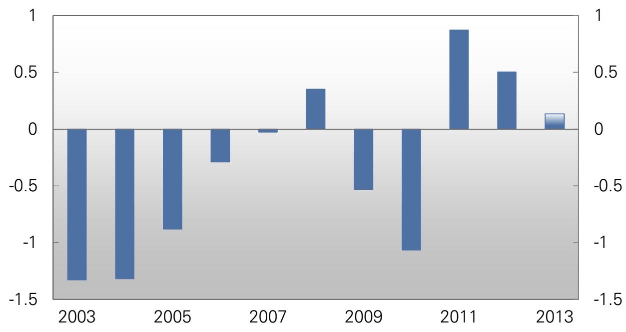
Prices for domestically produced goods and services in the CPI-ATE have risen more slowly than expected in the October *Report* (see Chart 3.21). The rise in rental prices was especially low throughout 2012, but picked up somewhat in January and February. The rise in prices for other domestically produced goods and services has picked up over the past year, in pace with higher costs in retail trade and the household services sector. However, cost inflation in these sectors has been lower than overall cost inflation in the mainland economy in recent years (see Chart 3.22). A number of these sectors have shown higher productivity growth than the economy as a whole and wage growth may have been restrained by ample labour supply. This may explain why consumer price inflation has been low, while business sector profitability does not appear to have been substantially weakened. In the period ahead, wage and profitability growth in these sectors are expected to be the same as in the economy as a whole and that this will boost the rise in prices for domestically produced goods and services. Rental prices are affected by consumer price inflation with a lag. Low CPI inflation through 2012 will likely dampen the rise in rental prices in the period ahead and to a somewhat greater extent than assumed in the October *Report*. Overall, the rise in prices for domestically produced goods and services is projected to pick up slightly in the period to summer to 2¼%.

Prices for imported consumer goods have fallen slightly less than expected in recent months. External price impulses to Norwegian consumer prices are expected to be positive, albeit somewhat weaker than in 2012 (see Chart 3.23). On the other hand, the projections in this *Report* imply that the krone exchange rate in 2013 will be about 1½% stronger than the average for 2012. The krone appreciation will continue to curb the rise in prices for imported consumer goods measured in NOK. The rise in prices for imported consumer goods, as measured by the CPI-ATE, will remain at around negative ½% at the end of the first half of 2013.

Overall, CPI-ATE inflation is projected to rise slightly to 1¼% in 2013 Q2. The projections for CPI-ATE inflation are in line with the projections from Norges Bank's System for Averaging short-term Models (SAM) (see Chart 3.24).

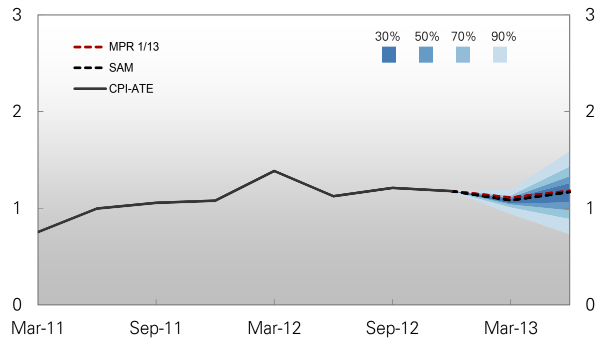
Electricity prices were very low in the period to autumn 2012, but picked up relatively quickly to more normal levels towards the end of the year. This has contributed to the marked rise in CPI inflation in recent months. The twelve-month rise in energy prices is expected to pick up ahead and to result in a fairly rapid rise in CPI inflation to 1¼% at the end of the first half of 2013. The energy price trend incorporated in the CPIXE calculation is expected to rise slightly in the period ahead, so that CPIXE inflation will be fairly closely in line with CPI-ATE inflation throughout the first half of 2013 and will be around 1¼% at the end of 2013 Q2.

Chart 3.23 Indicator of external price impulses to imported consumer goods measured in foreign currency. Annual change. Percent. 2003 – 2013[1)]



1) Projections for 2013
Source: Norges Bank

Chart 3.24 CPI-ATE[1)]. Actual figures, baseline scenario and projections from SAM[2)] with fan chart. Four-quarter change. Percent. 2011 Q1 – 2013 Q2[3)]



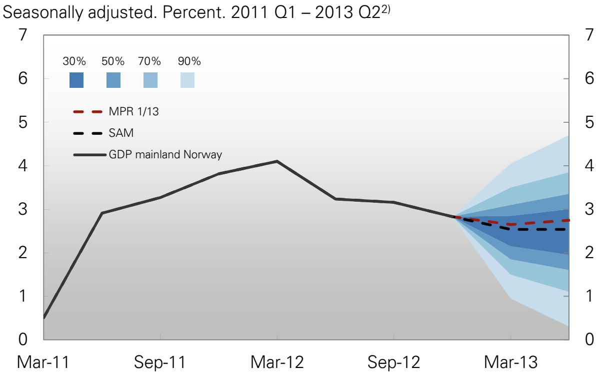
1) CPI adjusted for tax changes and excluding energy products
2) System for averaging short-term models
3) Projections for 2013 Q1 – 2013 Q2 (broken lines)
Sources: Statistics Norway and Norges Bank

The real economy

Output and capacity utilisation

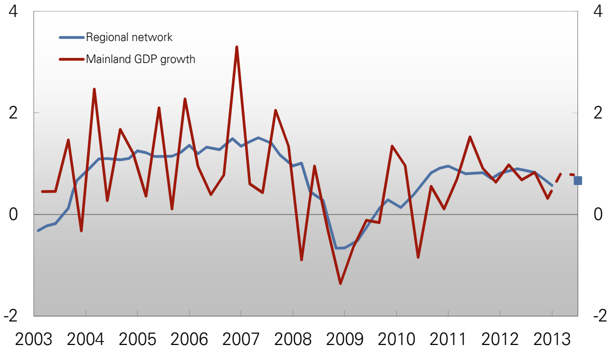
Growth in the Norwegian economy is still robust (see Chart 3.25). According to the national accounts, mainland GDP rose by 3.5% in 2012, while the Bank had expected growth of 3¾%. Private consumption and corporate investment have shown weaker-than-expected developments, while developments in oil investment and the export industry have been stronger. Housing investment continues to grow at a brisk pace. Growth in the mainland economy is expected to be close to ¾% in the quarters ahead and is being fuelled by a high level of activity in the petroleum sector, strong population growth, favourable terms of trade and low interest rates. Mainland GDP is projected to rise by 2¾% in 2013.

Chart 3.25 GDP mainland Norway. Actual figures, baseline scenario and projections from SAM[1)] with fan chart. Four-quarter change. Volume. Seasonally adjusted. Percent. 2011 Q1 – 2013 Q2[2)]



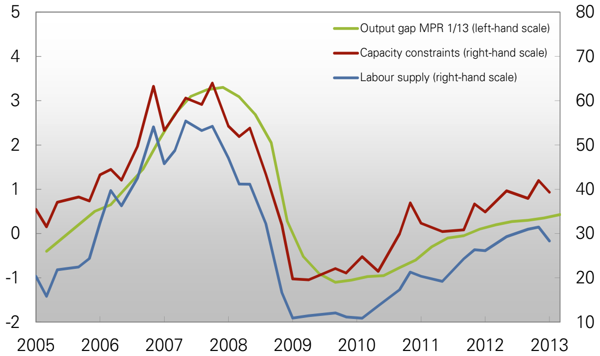
1) System for averaging short-term models
2) Projections for 2013 Q1 – 2013 Q2 (broken lines)
Sources: Statistics Norway and Norges Bank

Chart 3.26 GDP mainland Norway[1] and Norges Bank's regional network's indicator of change in production past three months and expected change in production next six months. Percent. 2003 Q1 – 2013 Q2[2]



1) Seasonally adjusted quarterly change. Volume
2) Latest observation in the regional network is January 2013. Latest GDP observation is 2012 Q4, projections for 2013 Q1 – 2013 Q2 (broken line)
Sources: Statistics Norway and Norges Bank

Chart 3.27 Capacity constraints and labour supply[1] as reported by Norges Bank's regional network and estimated output gap. Percent. 2005 Q1 – 2013



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

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	1¼	1¼

* Unchanged labour force participation for all age groups since the 2007 level.
Sources: Statistics Norway and Norges Bank

Norges Bank's projections for mainland GDP are in line with the projections from the Bank's System for Averaging short-term Models (see Chart 3.25). The rate of output growth expected by the Bank's regional network contacts is also in line with the Bank's projections (see Chart 3.26). High growth is expected in the oil supplier industry, and moderate growth in construction and the export industry, while output in domestically oriented manufacturing is expected to remain unchanged.

Capacity utilisation in the Norwegian economy appears to be rising a little more slowly than previously projected, but is probably still slightly above a normal level. Even though a large share of the enterprises in Norges Bank's regional network report capacity pressures, this share has edged down recently (see Chart 3.27). In addition, registered unemployment, which is slightly lower than the average for the past 15 years, has remained stable in recent months.

Productivity growth in the Norwegian economy has been low since the financial crisis. At the same time, employment has risen considerably. This may imply that underlying productivity growth has also been low. Underlying productivity growth is projected to pick up ahead but remain slightly lower than the average for the decades preceding the financial crisis. Population growth is also projected to remain high. Overall, potential output is estimated at 2¾% this year, which is slightly lower than projected in the October 2012 *Monetary Policy Report*.

In the period to summer, growth in the economy is expected to be slightly higher than estimated growth in potential output, and capacity utilisation will thus edge up.

Labour market

Labour market developments have been slightly weaker than projected in the October *Report*. According to the Labour Force Survey (LFS), labour supply has been approximately in line with expectations, while employment growth has been lower than projected. Unemployment has been slightly higher than expected.

Contacts in the Bank's regional network have revised down their expectations regarding employment growth (see Chart 3.28). Expectations surveys carried out by the Confederation of Norwegian Enterprise (NHO) and Opinion Perduco also show that employment growth in 2013 will be lower than in 2012. Employment is projected to rise by approximately ¼% in the quarters ahead.

The supply of labour from other countries, particularly from Eastern European EU member states, remains high. Net inward migration to Norway totalled 47 000 in 2012. Inward labour migration is expected to remain high in the years ahead, supporting the high level of population growth (see Table 3.3).

Labour force participation is projected to remain fairly stable in the short term and employment to grow in pace with the labour force. Unemployment is therefore expected to remain fairly stable (see Chart 3.29).

According to preliminary figures from the Technical Reporting Committee on Income Settlements (TBU), annual wage growth in 2012 averaged 4%. Wage growth was 4% in manufacturing and the public sector, but 3.3% in retail trade.

According to Opinion Perduco's expectations survey, the social partners expect wage growth to average 3.8% in 2013. Enterprises in the Bank's regional network expect wage growth of 4%. Wage expectations are highest in services and lower in construction, retail trade and manufacturing.

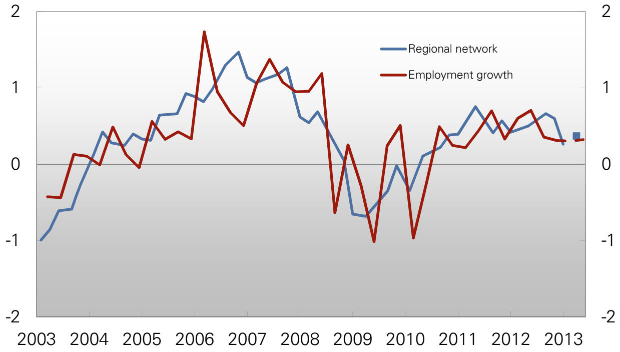
There is strong demand for some types of labour and the level of unemployment is low. At the same time, solid growth in labour supply, weaker external developments and a strong krone will probably have a dampening impact on wage growth. The TBU estimates a wage carry-over into 2013 of 1¾% for the largest employee groups in the wage negotiations. Overall, annual wage growth in 2013 is projected to average 4%. The projections imply real wage growth in 2013 of 2½%, down from 3.2% in 2012.

Households and enterprises

Households

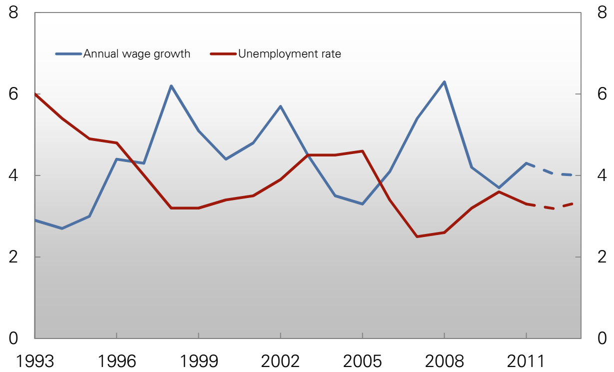
Growth in household demand for goods and services has been moderate. In recent years, households have saved a rising share of disposable income, largely to finance house building and refurbishment, although financial saving has also increased (see Chart 3.30). A high debt level and uncertainty as to how the adverse economic situation in the countries around us will affect the

Chart 3.28 Employment[1] and Norges Bank's regional network's indicator of change in employment and expected change in employment next three months. Percent. 2003 Q1 – 2013 Q2[2]



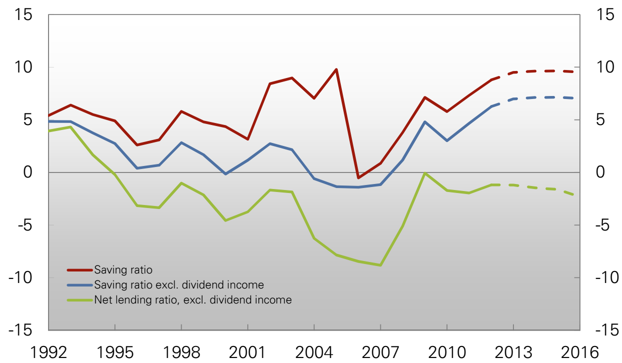
1) Seasonally adjusted quarterly change in Quarterly National Accounts
2) Latest observation in the Regional network is January 2013. Latest observation in the Quarterly National Accounts is 2012 Q4, projections for 2013 Q1 – 2013 Q2 (broken line)
Sources: Statistics Norway and Norges Bank

Chart 3.29 Annual wage growth[1] and LFS unemployment. Percent. 1993 – 2013[2]



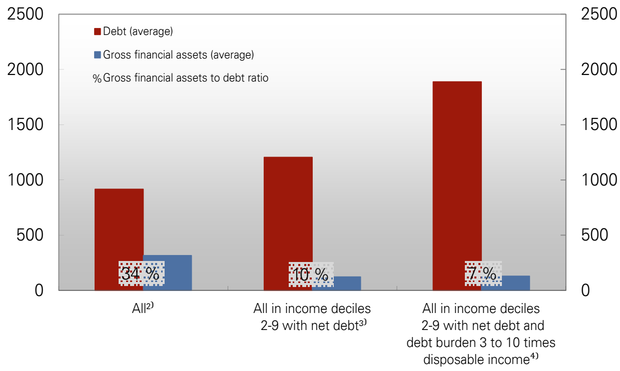
1) Including estimated costs of increase in number of vacation days and introduction of mandatory occupational pensions
2) Projections for 2013 (broken lines)
Sources: Statistics Norway, Technical Reporting Committee on Income Settlements and Norges Bank

Chart 3.30 Household saving and net lending as a share of disposable income. Percent. 1992 – 2016[1]



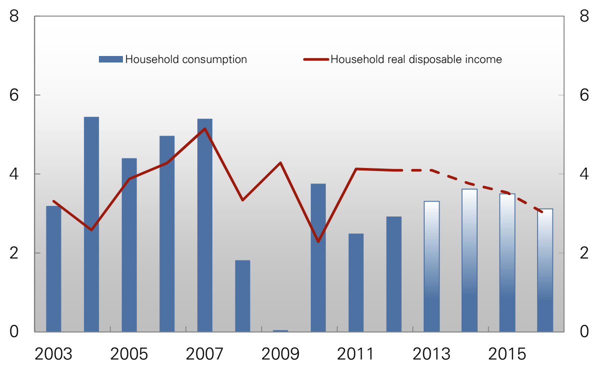
1) Projections for 2013 – 2016 (broken lines)
Sources: Statistics Norway and Norges Bank

Chart 3.31 Total household[1)] debt and gross financial assets. Average. In thousands of NOK. 2010



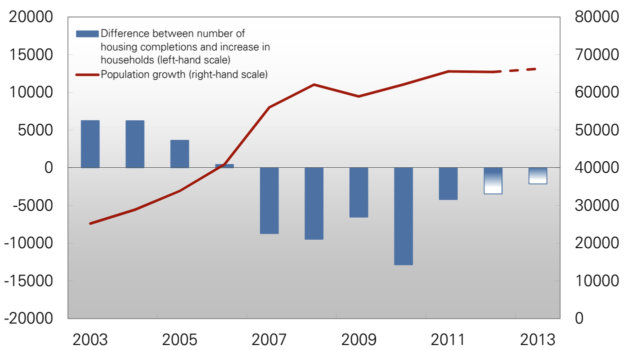
1) Excluding self-employed
2) 2.19m households 3) 1.16m households 4) 455 000 households
Sources: Statistics Norway and Norges Bank

Chart 3.32 Household consumption[1)] and real disposable income[2)]. Annual change. Percent. 2003 – 2016[3)]



1) Includes consumption among 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 3.33 Difference between number of housing completions and increase in households[1)], and population growth[2)]. 2003 – 2013



1) Projections for 2012 and 2013
2) Projections for 2013
Sources: Statistics Norway and Norges Bank

Norwegian economy has probably prompted households to dampen consumption and increase saving. Demographic changes and higher labour force participation among older workers may also have had an impact. The pension reform offers the opportunity to combine paid work with an early retirement pension, providing a temporary additional income, a considerable portion of which may have been saved. An unusually low spread between bank deposit and lending rates provides less incentive to repay debt and may therefore also have contributed to higher gross financial saving.

House prices rose by almost 8% in 2012 and household debt increased by a good 7%. Debt is still rising faster than incomes and total household debt at end-2012 was close to twice annual disposable income. With the increase in saving, the average household is more robust, but there are substantial differences across households. In approximately a quarter of households, debt is more than three times disposable income (see Chart 3.31). On average, these households also have small financial buffers. Households with a high debt-to-income ratio are particularly vulnerable to interest rate increases, a drop in income or a fall in house prices.

Household demand has shown fairly moderate growth, even though confidence indicators have been somewhat above average levels. Projected household saving has been revised up, while consumption is expected to increase to a somewhat lesser extent than previously (see Chart 3.32). Private consumption is projected to rise by 3¼% in 2013 and the saving ratio, excluding dividend income, is projected at 7%.

Housing market activity is expected to increase further. It takes time to adjust the housing stock to accommodate continuing population growth (see Chart 3.33). Housing completions in 2012 totalled 26 000, which is somewhat lower than the increase in the number of households. Housing investment is expected to continue to grow through the year (see Chart 3.34). The number of housing completions in 2013, estimated at around 28 000 dwellings, is close to the increase in the number of households. House prices and household debt are both expected to rise by approximately 7¾% in 2013. Debt growth and house price inflation will therefore continue to outpace income growth in 2013.

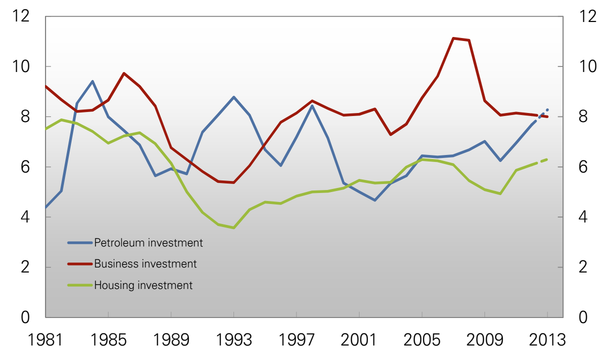
Enterprises
Norwegian enterprises are affected by developments among Norway's main trading partners. Growth in mainland exports has been low in recent years. Many Norwegian firms have lost market shares on the global market owing to the high Norwegian cost level. Exports of engineering products and oil supplier services have been affected to a lesser extent by weak growth abroad. A strong increase in global petroleum investment may contribute to continued substantial growth in exports from industries supplying goods and services to the petroleum sector. Total exports of traditional goods and services are projected to increase by ¾% between 2012 and 2013.

Activity in the petroleum sector is high (see Chart 3.34), and oil investment has shown strong growth in recent years (see Chart 3.35). With a number of development projects in both new and existing fields, strong growth in oil investment will continue ahead, even though growth may be constrained somewhat by the supply of qualified labour. Oil investment is projected to increase by 11% in 2013, 5% in 2014 and 4% in the subsequent two years, a higher increase overall than projected in the October *Report*.

Growth in mainland business investment, on the other hand, has been moderate in recent years (see Chart 3.34). Weak growth among Norway's trading partners, tighter bank credit standards and continued high funding costs may have had a dampening effect on investment growth. According to Statistics Norway's investment intentions survey, investment in manufacturing, mining and electricity will edge down ahead, while enterprises in Norges Bank's regional network expect continued moderate investment growth. Mainland business investment is projected to grow by 4.0% between 2012 and 2013.

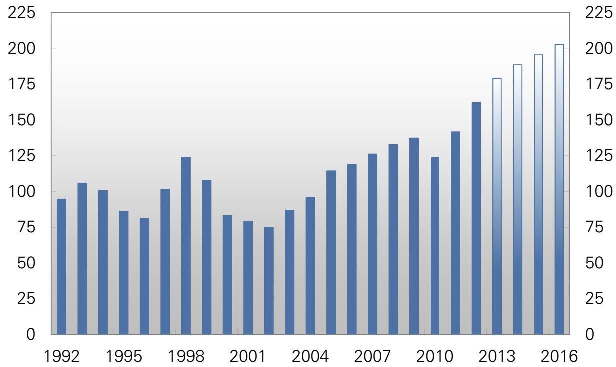
A large share of mainland business investment is investment in commercial construction. Commercial property prices rose sharply in 2010 and 2011, but have remained fairly stable over the past year. Market prices for office premises have often fluctuated in tandem with employment growth (see Chart 3.36). Should business sector profitability abruptly deteriorate and employment growth stall, commercial property prices could fall. The negative impact on the economy will be amplified by banks' particularly large exposures to commercial property.

Chart 3.34 Investment as share of GDP mainland Norway. Volume. Percent. 1981 – 2013[1)]



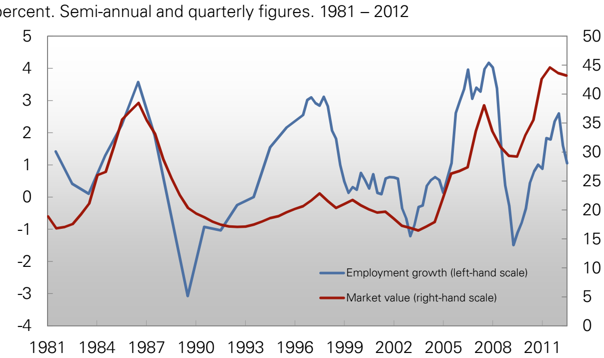
1) Projections for 2013
Source: Statistics Norway

Chart 3.35 Petroleum investment. Constant 2010 prices. In billions of NOK. 1992 – 2016[1)]



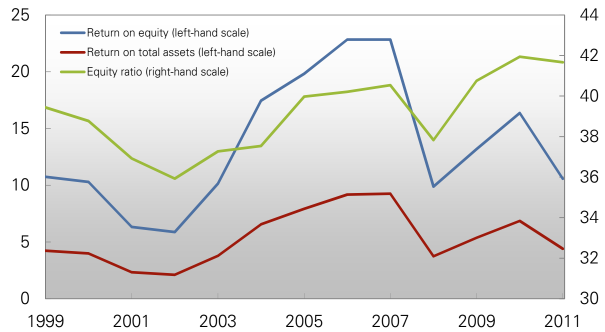
1) Projections for 2013 – 2016
Sources: Statistics Norway and Norges Bank

Chart 3.36 Market value of office premises in Oslo and employment growth[1)]. NOK 1000 per square metre (at constant 2012 prices) and four-quarter change in percent. Semi-annual and quarterly figures. 1981 – 2012



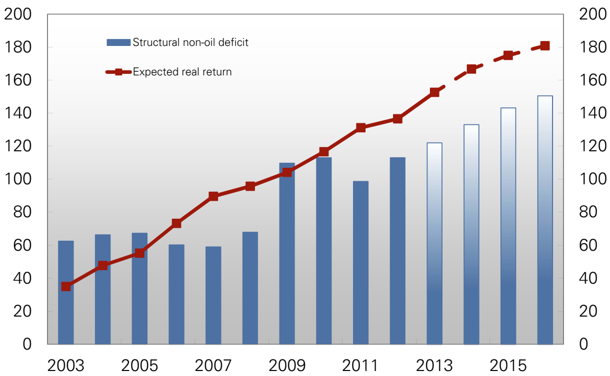
1) Annual figures in the period 1981 – 1995, quarterly figures from 1996 Q4
Sources: OPAK and Statistics Norway

Chart 3.37 Return on equity[1] and total assets[2] and equity ratio[3]. Percent. Annual figures. 1999 – 2011



1) Earnings before tax, depreciation and amortisation as a percentage of equity
2) Earnings before tax, depreciation and amortisation as a percentage of total assets
3) Sample of limited companies holding interest-bearing debt. Excluding government, banking/insurance and exploitation of natural rescourses
Source: Norges Bank

Chart 3.38 Structural non-oil deficit and expected real return on the Government Pension Fund Global. Constant 2013 prices. In billions of NOK. 2003 – 2016[1)]



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

Overall corporate debt growth has shown fairly moderate developments since the financial crisis and has recently slowed slightly. In 2012, corporate debt rose by about 5%.

As a whole, Norwegian enterprises have high equity ratios and are financially solid. However, equity ratios and profitability fell somewhat in 2011 (see Chart 3.37). Profitability decreased in particular in services, shipping and manufacturing, resulting in somewhat reduced corporate debt-servicing capacity compared to the pre-crisis period. Debt-servicing capacity for listed companies fell in the first half of 2012, but was approximately unchanged between the second and third quarter.[4] With lower debt-servicing capacity, enterprises may be somewhat more vulnerable to an economic setback than previously.

Fiscal policy

The fiscal policy assumptions in this *Report* are based on the projections in the National Budget for 2013, although it appears that petroleum revenue spending will be somewhat lower than projected in the Budget. The projected structural deficit in 2012, for example, was revised down by NOK 7bn in connection with the final budget bill. The structural deficit is now expected to be NOK 122bn in 2013, NOK 3bn lower than projected in the National Budget for 2013, and equivalent to 3.2% of the market value of the Government Pension Fund Global at the beginning of the year.

The fiscal policy guidelines call for restraint in periods of limited spare capacity in the economy. Budget savings in the years ahead may also ease fiscal adjustment as the expected rise in costs related to an ageing population picks up in earnest. The deficit is therefore assumed to remain well below 4% of the capital in the Fund through the projection period (see Chart 3.38).

The projections imply a faster rise in petroleum revenue spending than in activity in the wider economy. Nonetheless, growth in public sector consumption and investment may be relatively moderate, as transfers are expected to show a considerable increase, primarily as a result of higher expenditure on old age pension benefits.

4 OBX index excluding Statoil and financial enterprises.

Annex

Monetary policy meetings

Tables and detailed projections

Monetary policy meetings
with changes in the key policy rate

Date	Key policy rate[1)]	Change
19 June 2013		
8 May 2013		
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
17 December 2008	3.00	-1.75
29 October 2008	4.75	-0.50
15 October 2008	5.25	-0.50
24 September 2008	5.75	0

[1)] The key policy rate is the interest rate on banks' sight deposits in Norges Bank. This interest rate forms a floor for money market rates. By managing 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	Mainland GDP	Private consumption	Public consumption	Mainland fixed investment	Petroleum investment[1]	Mainland exports[2]	Imports
2008		0.1	1.5	1.8	2.7	-1.3	5.2	4.5	3.9
2009		-1.6	-1.6	0.0	4.3	-13.2	3.4	-8.4	-12.5
2010		0.5	1.7	3.8	1.3	-4.5	-9.5	7.7	9.0
2011		1.2	2.5	2.5	1.8	8.5	14.1	0.5	3.8
2012		3.2	3.5	2.9	2.1	3.9	14.4	2.9	3.3
2012[3]	Q1	1.3	1.0	0.8	0.0	2.5	3.8	2.6	0.4
	Q2	0.8	0.7	0.9	1.3	0.4	5.2	1.5	1.7
	Q3	-0.6	0.8	0.7	0.2	4.0	0.4	-1.0	-0.2
	Q4	0.4	0.3	0.3	0.1	-0.6	5.0	0.3	1.3
2012-level, in billions of NOK		2 915	2 206	1 175	626	411	171	457	804

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

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

[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		0.8	1½	1½	2	2
CPI-ATE[1)]		1.2	1¼	1½	2	2
CPIXE[2)]		1,0	1	1½	2	2
Annual wages[3)]		4	4	4¼	4½	4¼
Real economy						
GDP	2 915	3.2	1¾	2¼	2	2¼
GDP, mainland Norway	2 206	3.5	2¾	3	2½	2¾
Output gap, mainland Norway (level)[4)]		0.3	½	½	¼	0
Employment, persons, QNA		2.2	1½	1¼	1	1
Labour force, LFS		1.8	1¼	1¼	1¼	1¼
LFS unemployment (rate, level)		3.2	3¼	3¼	3½	3¾
Registered unemployment (rate, level)		2.5	2½	2½	2½	2¾
Demand						
Mainland demand[5)]	2 212	2.9	3	3¾	3¼	3
- Private consumption	1 175	2.9	3¼	3½	3½	3
- Public consumption	626	2.1	2	2½	.	.
- Fixed investment, mainland Norway	411	3.9	4	6	.	.
Petroleum investment[6)]	171	14,4	11	5	4	4
Mainland exports[7)]	457	2.9	½	¼	.	.
Imports	804	3.3	3¾	3½	.	.
Interest rate and exchange rate						
Key policy rate (level)[8)]		1.6	1½	1¾	2¼	2¾
Import-weighted exchange rate (I-44)[9)]		87.1	85½	84½	84½	85

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) Annual wage growth is based on the Technical Reporting Committee on Income Settlements' definitions and calculations.
4) The output gap measures the percentage deviation between mainland GDP and projected potential mainland GDP.
5) Private and public consumption and mainland gross fixed investment.
6) Extraction and pipeline transport.
7) Traditional goods, travel and exports of other services from mainland Norway.
8) The key policy rate is the interest rate on banks' deposits in Norges Bank.
9) 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 Admininstration and Norges Bank

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