NORGES BANK

Monetary Policy Report
with financial stability assessment

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

At its meeting on 7 August 2013, the Executive Board discussed relevant themes for the *Report*. At the Executive Board meeting on 4 September 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 at its meeting on 18 September a monetary policy strategy for the period to the publication of the next *Report* on 5 December 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 *Report* is available on www.norges-bank.no.

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This *Monetary Policy Report* is based on information in the period to 12 September 2013.
The monetary policy strategy was approved by the Executive Board on 18 September 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 Markets Report. The Governor of Norges Bank provides an assessment of monetary policy in an open hearing before the Standing Committee on Finance and Economic Affairs in connection with the Storting deliberations on the Financial Markets Report.

Financial stability – countercyclical capital buffer

Norges Bank has been assigned primary responsibility for elaborating the decision basis for the 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 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 are building up or have built up over a period. The buffer will be assessed in the light of other requirements applying to banks. Banks would be allowed to draw on the buffer in the event of an economic downturn and large bank losses, with view to mitigating the procyclical effects of tighter bank lending.

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

The Executive Board's assessment

Monetary policy

At its meeting on 19 June 2013, the Executive Board decided that the key policy rate should be in the interval 1%–2% in the period to 19 September 2013, unless the Norwegian economy was exposed to new major shocks. In the previous *Monetary Policy Report* published on 20 June, it was pointed out that growth prospects both at home and abroad had weakened slightly. Capacity utilisation was estimated to be close to a normal level. Wage growth was lower than expected. Inflation remained low and there were prospects that it would take longer for inflation to pick up than projected earlier. Considerable uncertainty remained concerning developments in the international economy. The analysis in the June *Report* implied a key policy rate of around 1.5% or somewhat lower in the period to autumn 2014, followed by a gradual increase towards a more normal level.

In its discussion on 4 September and 18 September, the Executive Board placed emphasis on the following developments:

- Growth among trading partners as a whole is broadly in line with that projected. There are signs of rising growth in many advanced economies, while growth has slackened in several emerging economies. The price of crude oil has increased somewhat since the June 2013 *Report*.

- Key interest rates are close to zero in many countries, but market expectations concerning policy rates abroad have increased somewhat since the June *Report*. The first interest rate increases in major advanced economies are expected towards the end of 2014 and in the course of 2015.

- The krone depreciated markedly during the last weeks of June, but has appreciated recently. The krone, as measured by the import-weighted krone exchange rate index (I-44), has been about 2% weaker so far in the third quarter than projected in the June *Report*.

- Banks increased interest rates on housing loans by 0.3 percentage point between Q1 and Q2, approximately as projected in the June *Report*. Premiums in the money market have decreased slightly.

- Growth in the Norwegian economy has been somewhat lower than projected in the June *Report*. In August, the enterprises in Norges Bank's regional network reported that growth had been moderate through summer, and growth is expected to remain unchanged ahead. Unemployment remains stable.

- House price inflation has abated and been lower than expected, while household debt growth remains high.

- Consumer price inflation has been clearly higher than projected. Consumer price inflation adjusted for tax changes and excluding energy products (CPI-ATE) was 2.5% in August.

The point of departure for the Executive Board's assessment of monetary policy is that the key policy rate is set with a view to keeping inflation close to 2.5% over time. The objective of low and stable inflation is weighed against the objective of stable developments in output and employment. Monetary policy also seeks to be robust and take into account the risk that financial imbalances build up and trigger or amplify an economic downturn.

The key policy rate is 1.5%. The key policy rate is low because interest rates abroad are very low and because the prospects for inflation have been low for a long time. At the same time, there is a substantial spread between the key policy rate and the interest rates facing households and enterprises.

The Executive Board noted that the analyses in this *Report* imply a key policy rate at today's level in the period to summer 2014, followed by a gradual increase to a more normal level. Underlying inflation is now estimated at between 2% and 2½%. Inflation is projected to run at around 2¼% towards the end of the projection period and capacity utilisation is expected to be close to a normal level in the coming years.

In its discussion, the Executive Board pointed out that there are signs of rising growth in many advanced economies. Activity has stopped declining in the euro area, but considerable challenges remain. At the same time, growth prospects for many emerging economies have weakened. Capital outflows from emerging economies have triggered a depreciation of their currencies, increasing the vulnerability of emerging countries with large current account deficits and high debt in foreign currency. There is considerable uncertainty surrounding future developments in these countries. If growth rates show a further decline, oil and non-oil commodity prices may fall.

There have been wide fluctuations in the krone since the end of June. Through summer, foreign exchange markets have been marked by expectations concerning the future stance of monetary policy among major advanced economies. Moreover, the krone has reacted more than usual to new information on economic developments in Norway. Limited liquidity in the krone market may have contributed to amplifying the movements in the krone exchange rate. It was recognised that the movements of the krone ahead are uncertain and that foreign-exchange market themes shift rapidly.

The Executive Board noted that the economic situation in Norway remains solid although they also noted that growth has slowed and been lower than expected earlier. The share of enterprises in Norges Bank's regional network that report capacity constrains has decreased. This may indicate that capacity utilisation in the Norwegian economy has declined. It was also pointed out that labour immigration entails a flexible labour supply in many industries, which may make it difficult to gauge the level of capacity utilisation.

National accounts figures indicate that productivity growth is still low. Weak productivity growth has been a feature of both the Norwegian economy and many of our trading partners in the period following the financial crisis. One reason cited was the combination of moderate business investment activity and an ample supply of labour. The Executive Board further considered whether the recent low growth in productivity may be of a more temporary character. Companies may have chosen to retain their workforces despite weaker output growth because they are uncertain as to future developments in the Norwegian economy.

The Executive Board also discussed the moderate growth in private consumption, pointing to many years of strong credit growth which has resulted in a very high level of household indebtedness. The high debt level is likely to continue to have a dampening impact on growth in consumer spending ahead. It was further noted that the uncertainty surrounding economic developments, tighter bank lending standards, demographic changes and the pension reform may have induced households to increase savings.

The rise in consumer price inflation in recent months may reflect higher purchase prices for imported goods, but may also be ascribable to rising business costs and higher operating margins. It was pointed out that given the particularly large changes in inflation in recent months, the uncertainty surrounding developments in the coming months is higher than normal. The Executive Board also discussed the driving forces of inflation ahead and noted that developments in wage growth will be important. Sluggish economic developments and low cost growth among our trading partners may influence wage settlements in Norway in the coming years. Moreover, the high level of labour immigration may continue to restrain wage growth.

In its discussion of monetary policy, the Executive Board gave weight to the fact that inflation has been higher than expected and that the krone exchange rate has weakened, but that the driving forces of inflation remain moderate. Weight was also given to somewhat slower growth in the Norwegian economy and slightly lower-than-projected capacity utilisation. A rapid rise in the key policy rate may increase the risk of a more pronounced dampening of activity growth, an appreciation of the krone and too low inflation. Weight was also given to the fact that house prices and debt have risen faster than income for a long period. A lower key policy rate may increase the risk of a renewed acceleration in house prices and debt accumulation and of a build-up of financial imbalances. The Executive Board's overall assessment is that the key policy rate should remain at today's level in the period ahead.

At its meeting on 18 September, the Executive Board decided to keep the key policy rate unchanged at 1.5%.

At the same meeting, the Executive Board decided that the key policy rate should be in the interval 1%–2% until the publication of the next *Report* on 5 December 2013, unless the Norwegian economy is exposed to new major shocks.

Financial stability – countercyclical capital buffer

At its meeting on 19 June, the Executive Board concluded that banks in Norway are well positioned to increase their capital ratios and that they should hold a countercyclical capital buffer. The Executive Board also emphasised that the level of the buffer must be considered in the light of other capital requirements that will be gradually increased over the coming years.

In its discussion on 4 and 18 September, the Executive Board placed emphasis on the following developments:

- After several years of rapidly rising house prices, house price inflation has slowed and has been lower than expected.
- Household debt ratios are high and debt is still rising faster than income.
- Banks have tightened lending somewhat. At the same time, enterprises have increased their borrowing abroad and in the bond market.
- Banks' wholesale funding ratios have recently edged down.
- Commercial property prices have fallen somewhat.
- Banks' earnings so far this year are solid and losses are low.

The basis for the Executive Board's assessment is that banks should build a countercyclical capital buffer when financial imbalances are building up or have built up over a period. This will strengthen the resilience of the banking sector to an impending downturn and strengthen the financial system. A countercyclical capital buffer may also curb credit growth. Banks will be allowed to draw on the buffer in the event of an economic downturn and large bank losses. This may mitigate the procyclical effects of tighter bank lending.

The Executive Board emphasises the fact that the countercyclical capital buffer is not an instrument for fine-tuning the economy. Should economic developments continue to be characterised by relatively long periods of lending growth and low losses, banks should normally hold a countercyclical capital buffer.

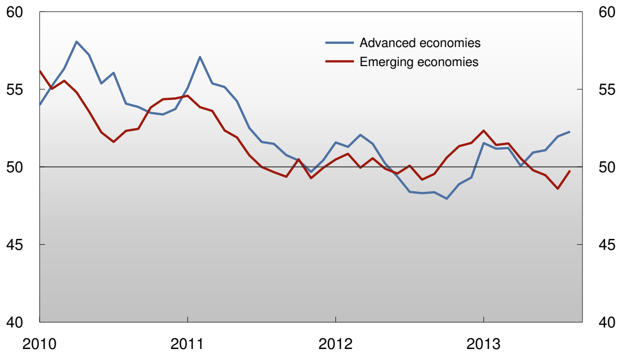
In its discussion, the Executive Board noted that the risk remains that financial imbalances will trigger or amplify an economic downturn. House prices have reached high levels and household debt ratios continue to rise. Recently, house price inflation has slowed and some of the indicators of financial imbalances have declined slightly. However, the Executive Board concluded that the amplitude of a potential economic downturn, and thereby banks' vulnerability, remains considerable in the event of an economic setback.

The Executive Board pointed out that there may also be costs associated with raising banks' capital ratios. A large number of regulatory changes are now being implemented simultaneously and the level of the buffer must be considered in the light of other capital requirements. Banks are well positioned to build up capital.

The Executive Board is of the view that banks should build a countercyclical capital buffer. The aim of avoiding excessive credit tightening suggests that capital requirements should not be raised quickly. When the regulation has been finalised, Norges Bank will give concrete advice on the level of the buffer and the timing of its introduction, probably in connection with the next *Report*, to be published on 5 December.

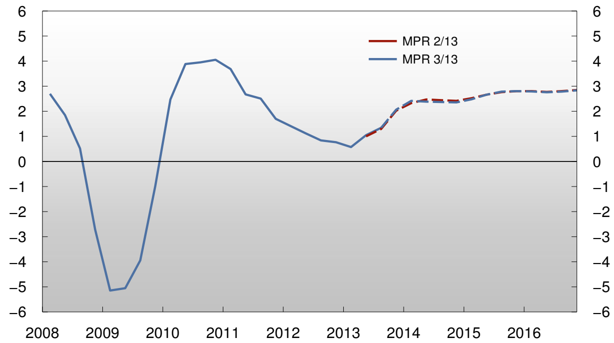
Jan F. Qvigstad
19 September 2013

Chart 1.1 Purchasing Managers´ Index (PMI) for manufacturing for advanced and emerging economies in trading partner aggregate.[1)]
Diffusion centred index around 50. Seasonally adjusted. January 2010 – August 2013



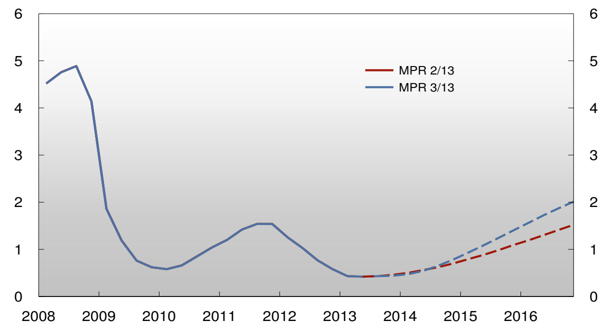
1) GDP weights.
Source: Thomson Reuters

Chart 1.2 GDP for trading partners in MPR 2/13 and MPR 3/13. Volume. Four–quarter change. Percent. 2008 Q1 – 2016 Q4



Sources: Thomson Reuters and Norges Bank

Chart 1.3 Money market rates for trading partners[1)] in MPR 2/13 and MPR 3/13. Percent. 2008 Q1 – 2016 Q4



1) Broken red and blue lines show estimated forward rates for trading partners at 13 June 2013 and 12 September 2013. Forward rates are based on Overnight Index Swap (OIS) rates.
Source: Norges Bank

1 Monetary policy outlook

The economic situation

There are signs of rising growth in many advanced economies, while growth has slackened and been weaker than expected in many emerging economies (see Chart 1.1). On the whole, growth prospects for our trading partners remain broadly unchanged since the June 2013 *Monetary Policy Report* (see Chart 1.2). In the US, labour market conditions have continued to improve, accompanied by solid growth in private demand and a gradual pickup in the housing market. Activity has stopped declining in the euro area. Unemployment has been stable in recent months, but remains high. Macroeconomic indicators indicate that growth may pick up further, but fiscal tightening, deleveraging in the private sector and tight credit conditions will continue to weigh down on activity in the period ahead. Capital inflows to several emerging economies, such as India, Indonesia and Brazil, have reversed and growth prospects have weakened. The price of crude oil has increased since June and is now around USD 110 per barrel.

Long-term interest rates in the US, Germany and the UK have moved up recently. Signs of rising growth in these countries and signals from the Federal Reserve of a forthcoming scaling back of monthly bond purchases have probably had an influence. Risk premiums in financial markets have edged down. The differential between German government bond yields and Spanish and Italian yields has narrowed to the levels prevailing in summer 2011. Equity prices have advanced somewhat since the June *Report.*

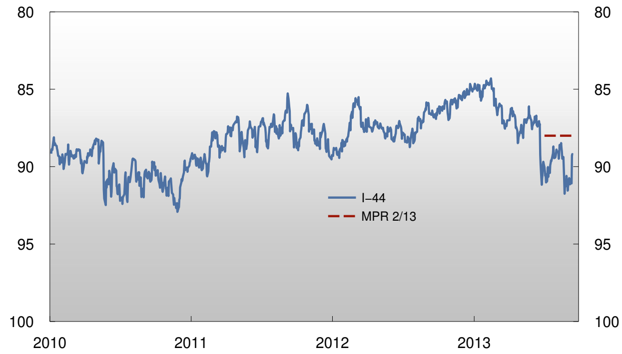
Key rates are close to zero in many countries. The Federal Reserve has communicated that its key rate will most likely remain close to zero up to the first half of 2015. The European Central Bank and the Bank of England have also signalled that key rates will be held at a low level for a long period. Market key rate expectations among Norway’s trading partners have nevertheless risen since the publication of the June *Report* (see Chart 1.3). The first interest rate increases in major advanced economies are expected towards the end of 2014 and in the course of 2015.

The krone depreciated markedly during the last weeks of June. The depreciation reflected heightened uncertainty in financial markets following the meeting of the Federal Open Market Committee (FOMC) of the US Federal Reserve on 19 June and the lower interest rate path presented by Norges Bank's on 20 June in relation to market expectations. The FOMC meeting led to a broad appreciation of the US dollar, also against the Norwegian krone. There have been substantial fluctuations in the krone exchange rate through summer and autumn (see Chart 1.4). Limited liquidity in the krone market has contributed to amplifying the fluctuations in the krone exchange rate, particularly in connection with the publication of new figures for the Norwegian economy. The krone has recently appreciated slightly again and the krone exchange rate measured by the import-weighted exchange rate index is projected to remain around 89 in the coming quarters.

Funding costs for Norwegian banks and mortgage companies have edged down through summer. The risk premium in three-month money market rates has come down towards the levels prevailing prior to the financial crisis and is now about 0.25 percentage point, slightly lower than projected in the June *Report*. The premium is expected to stay at this level ahead. Risks premiums in the market for covered bonds and bank bonds have shown little change since the June *Report*. Interest rates on housing loans increased by 0.3 percentage point between the first and second quarter (see Chart 1.5).

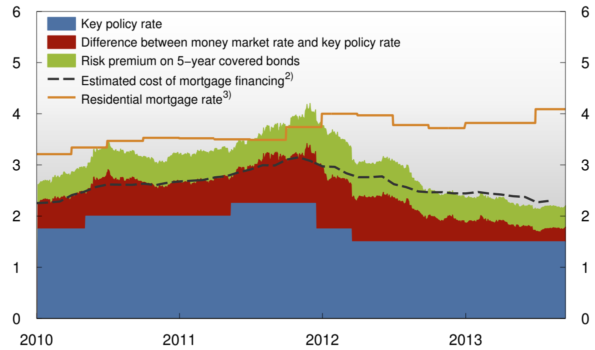
The economic situation in Norway remains favourable, but growth has slackened somewhat over the past year and been lower than previously projected. According to preliminary national accounts figures, GDP for mainland Norway increased by 0.2% between 2013 Q1 and 2013 Q2. Growth in private consumption has been sluggish and household saving has increased further. Housing starts have edged down. In August, the enterprises in Norges Bank's regional network reported that growth had been moderate through summer and that they expected growth to remain broadly unchanged ahead. Many Norwegian enterprises are affected by weak developments among our largest trading partners and a high cost level in Norway (see Chart 1.6). At the same time, high oil prices and sustained, brisk growth in both Norwegian and global petroleum investment are underpinning the buoyant activity in industries supplying goods and services to the petroleum sector.

Chart 1.4 Import–weighted exchange rate index (I–44).[1]
1 January 2010 – 12 September 2013



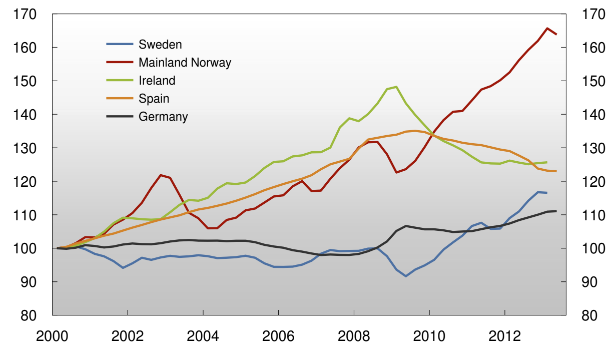
1) A positive slope denotes a stronger krone exchange rate.
Source: Norges Bank

Chart 1.5 Mortgage lending rates[1] and funding costs.
Percent. 1 January 2010 – 12 September 2013



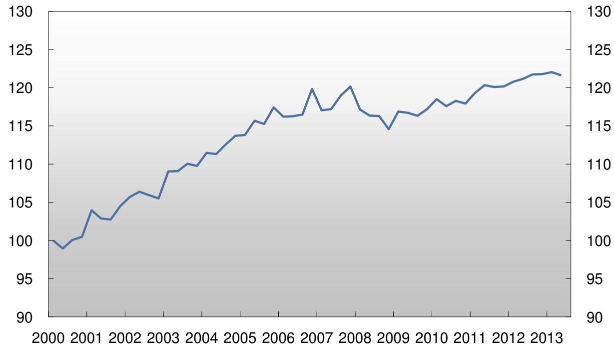
1) The lending rate on lines of credit secured on dwellings provided by all banks and mortgage companies in Norway.
2) Estimated using weighted interest rates on covered bonds outstanding and weighted deposit rates.
3) Credit lines.
Sources: DNB Markets, Statistics Norway and Norges Bank

Chart 1.6 Unit labour costs.[1] In a common currency.
Index. 2000 Q1 = 100. 2000 Q1 – 2013 Q2



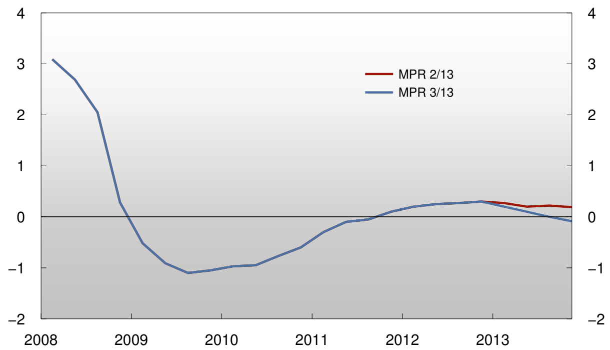
1) For Ireland and Sweden, data available to 2013 Q1 only.
Sources: OECD, Statistics Norway and Norges Bank

Chart 1.7 Productivity. GDP mainland Norway per hour worked.
Index. 2000 Q1 = 100. 2000 Q1 – 2013 Q2



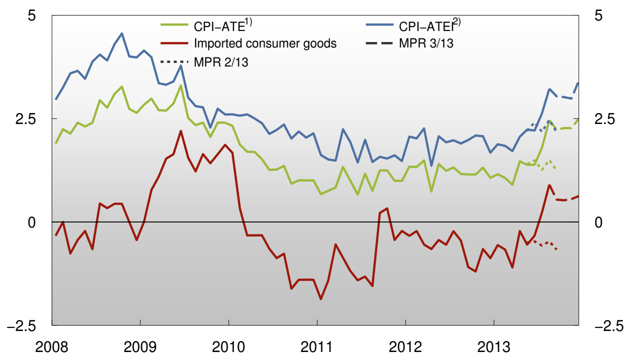
Sources: Statistics Norway and Norges Bank

Chart 1.8 Projected output gap[1)] in MPR 2/13 and MPR 3/13.
Percent. 2008 Q1 – 2013 Q4



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

Chart 1.9 CPI–ATE.[1)] Total and by supplier sector. 12–month change.
Percent. January 2008 – December 2013



1) CPI adjusted for tax changes and excluding energy products.
2) Domestically produced goods and services in the CPI–ATE.
Sources: Statistics Norway and Norges Bank

Productivity growth in the Norwegian economy has been low in recent years (see Chart 1.7). Moderate investment activity in the business sector, combined with an ample supply of labour, has probably contributed to the low rate of growth in productivity. Over the past year, employment has continued to drift upwards and unemployment has been stable, while output growth has tapered off. According to preliminary national accounts figures, productivity has been broadly unchanged over the past three quarters and lower than projected earlier. Underlying productivity growth is probably not quite as low as implied by these figures, but growth in potential output may nevertheless be somewhat lower than previously estimated.

In August, the enterprises in Norges Bank's regional network reported that capacity utilisation had decreased somewhat. At the same time, fewer enterprises reported that labour shortages represented a constraint on production. Capacity utilisation in the Norwegian economy is assessed to be a little lower than previously assumed, but still close to a normal level (see Chart 1.8).

In the past months, house prices have risen at a slower pace, with prices declining in some months. House price inflation has been lower than projected in the June *Report*. House prices have reached a high level after rising sharply in the years following the financial crisis. House prices may be rising at a slower pace as a result of the high level of house prices and some decline in income growth, combined with somewhat slower growth in the Norwegian economy. In addition, lending rates have edged up over the past year. Household debt and interest expenses as a percentage of disposable income have continued to increase. It takes time for changes in house prices to feed fully through to household debt accumulation. Growth in household credit may therefore remain elevated for a period and debt ratios may rise further.

Consumer price inflation has been clearly higher than projected in the June 2013 *Monetary Policy Report* (see Chart 1.9). Prices for imported consumer goods have shown a pronounced rise in recent months. This may reflect slightly higher prices for these goods measured in foreign currency, but may also reflect a weaker krone and a change in enterprises' operating margins. Prices for domestically produced goods and services have also risen at a faster pace. Weak productivity growth may have fed through to cost growth, but also for this component the price increase may reflect higher operating margins. The twelve-month rise in consumer prices (CPI) was 3.2% in August. Consumer price inflation adjusted for tax changes and excluding energy products (CPI-ATE) was 2.5% (see Chart 1.10). Underlying inflation is estimated to be between 2% and 2½%.

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 1.11). Inflation expectations remain close to the inflation target (see Chart 1.12).

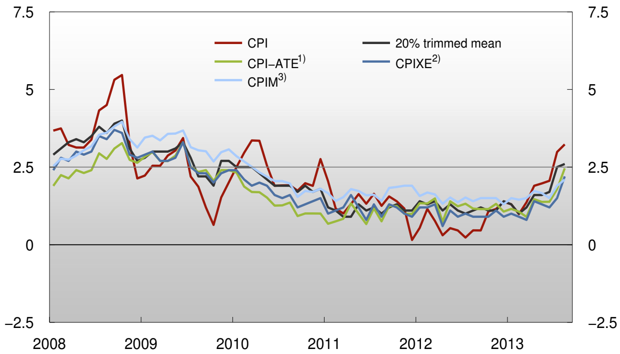
The key policy rate is set with a view to maintaining inflation of close to 2.5% over time without causing excessive fluctuations in output and employment. Monetary policy also seeks to be robust and take into account the risk that financial imbalances build up and trigger or amplify an economic downturn (see box on the criteria for an appropriate interest rate path on page 20).

The key policy rate is 1.5%. The key policy rate is low because interest rates abroad are very low and inflation prospects have been low for a long time. At the same time, there is a considerable spread between the key policy rate and the interest rates facing households and enterprises. Interest rates on housing loans are around 4% for most households, while banks' corporate lending rates are generally close to 5%.

In the June 2013 *Report*, the key policy rate was projected to remain at the current level or somewhat lower in the period to autumn 2014, rising gradually thereafter towards a more normal level. With this interest rate forecast, there were prospects that inflation would rise gradually, but run below 2.5% throughout the projection period. Capacity utilisation was projected to remain fairly stable and close to a normal level.

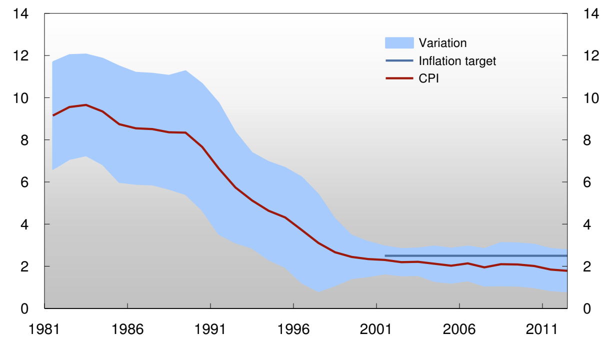
Looking ahead, growth in the Norwegian economy is expected to be slightly lower than in recent years. Growth in household consumption is projected to remain moderate. In addition, it is likely that weak external demand

Chart 1.10 Consumer prices. 12-month change.
Percent. January 2008 – August 2013



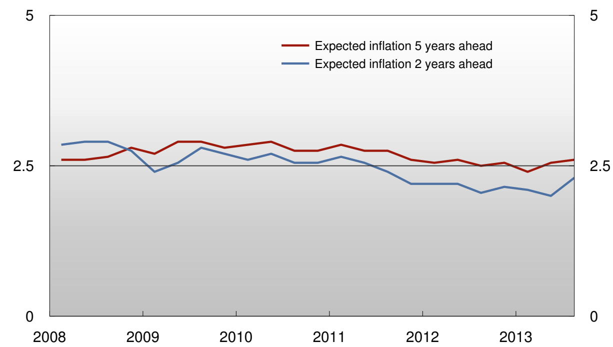
1) CPI adjusted for tax changes and excluding energy products.
2) CPI adjusted for tax changes and excluding temporary changes in energy prices. Real time figures. See Norges Bank *Staff Memo* 7/2008 and 3/2009. From June 2013, the method for calculating the CPIXE has been changed. For more information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

Chart 1.11 Inflation. 10-year moving average[1] and variation[2] in CPI.
Percent. 1981 – 2012



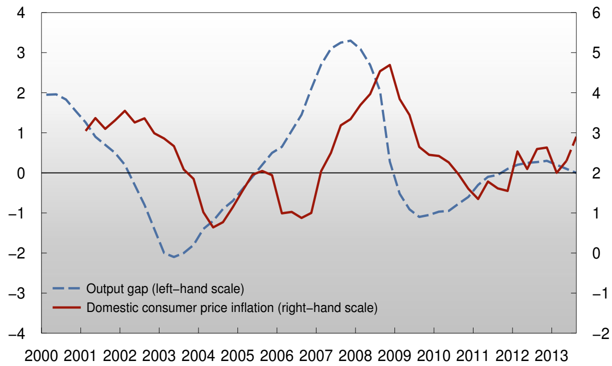
1) The moving average is calculated 10 years back.
2) The band around the CPI is the variation in the CPI adjusted for tax changes and excluding energy products in the average period, measured by +/– one standard deviation.
Sources: Statistics Norway and Norges Bank

Chart 1.12 Expected consumer price inflation 2 and 5 years ahead.[1]
Percent. 2008 Q1 – 2013 Q3



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

Chart 1.13 Domestic consumer price inflation[1)] and output gap in the baseline scenario. Percent. 2000 Q1 – 2013 Q3

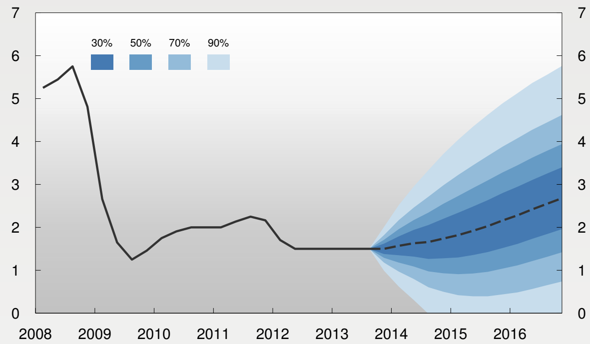


1) Domestically produced goods and services excluding house rents in the CPI-ATE. Four-quarter change.
Sources: Statistics Norway and Norges Bank

and a high domestic cost level will continue to dampen activity in many sectors. Overall, it is assumed that capacity utilisation in the Norwegian economy will decline somewhat ahead and be slightly lower than assumed in the June *Report*.

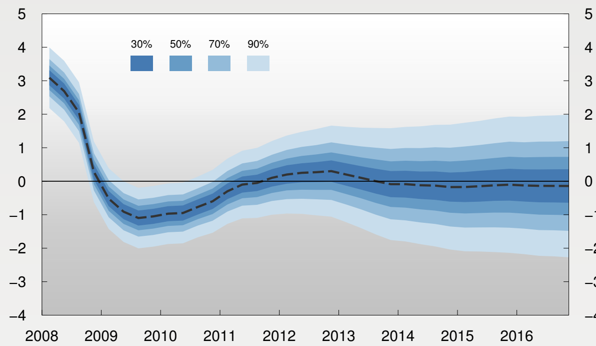
Given the recent rise in inflation, annual consumer price inflation may remain higher than previously projected in the coming quarters, but there is higher uncertainty than usual because price movements have been large recently. The krone depreciation and somewhat higher cost growth may imply a further pickup in inflation, but it cannot be ruled out that some of the increase is temporary.

Chart 1.14a Projected key policy rate in the baseline scenario with probability distribution. Percent. 2008 Q1 – 2016 Q4



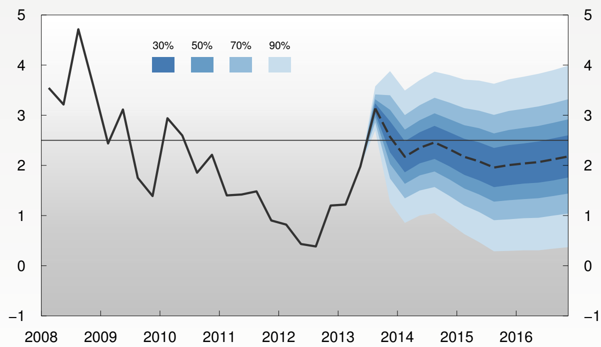
Source: Norges Bank

Chart 1.14b Projected output gap[1)] in the baseline scenario with probability distribution. Percent. 2008 Q1 – 2016 Q4



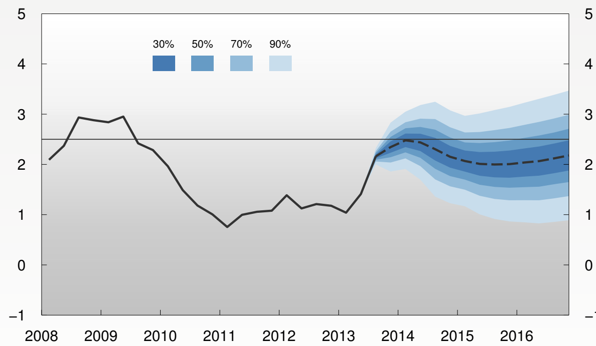
1) The output gap measures the percentage deviation between mainland GDP and projected potential mainland GDP.
Source: Norges Bank

Chart 1.14c Projected CPI in the baseline scenario with probability distribution. Four-quarter change. Percent. 2008 Q1 – 2016 Q4



Sources: Statistics Norway and Norges Bank

Chart 1.14d Projected CPI-ATE[1)] in the baseline scenario with probability distribution. Four-quarter change. Percent. 2008 Q1 – 2016 Q4



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

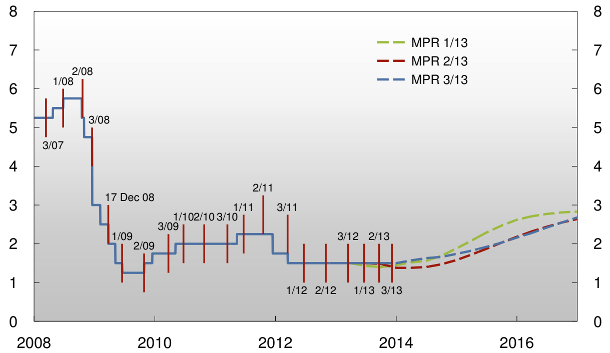
Further out, inflation prospects remain moderate. The krone is expected to be fairly stable ahead and the rise in prices for imported consumer goods, measured in foreign currency, is projected to remain low. Sluggish economic developments and low cost growth among our trading partners may have an impact on wage settlements in Norway in the coming years. In addition, high labour immigration may have a dampening effect on wage growth. We have previously seen that price movements for domestically produced goods and services follow developments in capacity utilisation fairly closely, but with a lag (see Chart 1.13). Falling capacity utilisation through 2013 points to a somewhat slower rise in prices for domestically produced goods and services in the period ahead.

New information since the June *Report* pulls in different directions with regard to interest rate developments. Inflation has recently been higher than expected and the krone has depreciated somewhat, but the driving forces of inflation further ahead are still moderate. Growth in the Norwegian economy has slowed somewhat and capacity utilisation is probably slightly lower than previously projected. A rapid increase in the key policy rate may increase the risk of a further slowdown in economic growth, an appreciation of the krone and eventually inflation that is too low. Even though the rise in house prices has slowed recently, house prices and debt have been rising faster than income for a long period. A lower key policy rate may increase the risk of a renewed acceleration in house prices and debt and of a build-up of financial imbalances.

The analyses in this *Report* imply that the key policy rate should be held at the current level in the period to summer 2014 and be increased gradually thereafter towards a more normal level (see Charts 1.14 a-d, Chart 1.15 and the box on page 22). On balance, the key policy rate is somewhat higher than projected in the June *Report* and the upward shift in the key policy rate is projected to occur somewhat earlier.[1]

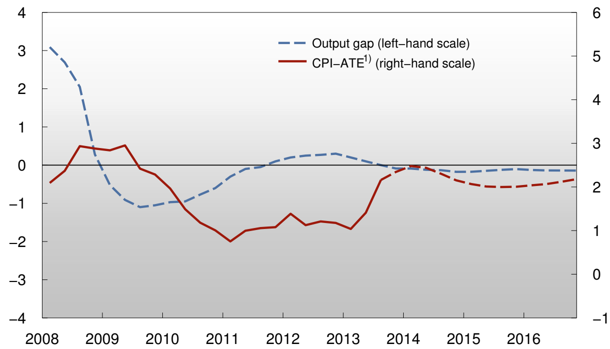
1 The key policy forecasts in this *Report* imply a rising probability of an increase in the key policy rate through 2014. The analysis does not take account of the timing of the monetary policy meetings in the different quarters. Hence it is not meaningful to quantify the probability of an interest rate change at the various meetings based on this forecast. Moreover, there is uncertainty associated with future interest rate developments. The uncertainty is illustrated using fan charts (see Chart 1.14a).

Chart 1.15 Interval for the key policy rate at the end of each strategy period, actual developments and projected key policy rate in the baseline scenario. Percent. 1 January 2008 – 31 December 2016



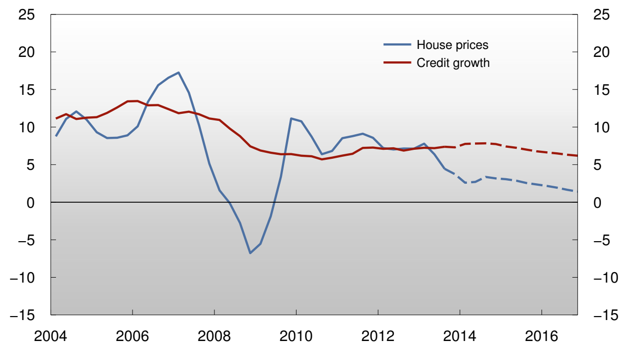
Source: Norges Bank

Chart 1.16 Projected inflation[1)] and output gap in the baseline scenario. Percent. 2008 Q1 – 2016 Q4



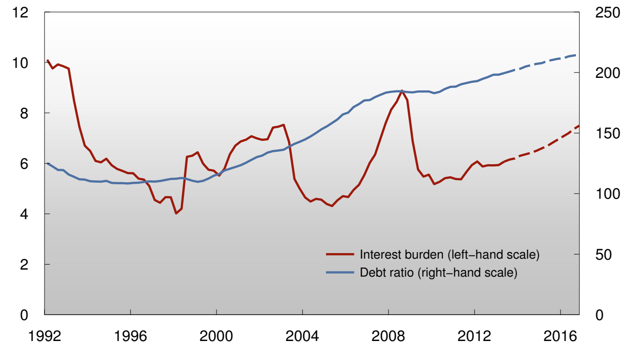
1) CPI adjusted for tax changes and excluding energy products.
Sources: Statistics Norway and Norges Bank

Chart 1.17 Household credit growth[1)] and rise in house prices. Four-quarter change. Percent. 2004 Q1 – 2016 Q4



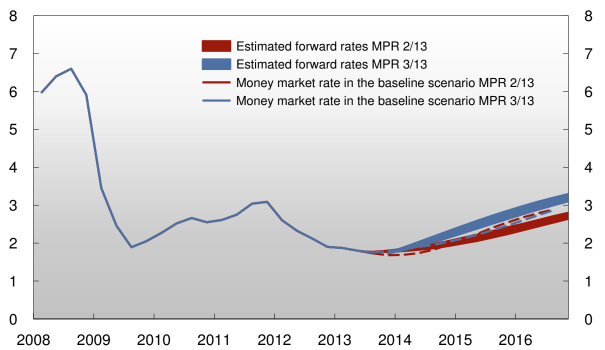
1) From 1 January 2012 the Norwegian standard for institutional sector grouping was changed. For credit growth this implies a break in the series from March 2012.
Sources: Statistics Norway, the real estate sector (NEF, EFF, Finn.no and Eiendomsverdi) and Norges Bank

Chart 1.18 Household debt ratio[1)] and interest burden[2)]. Percent. 1992 Q1 – 2016 Q4



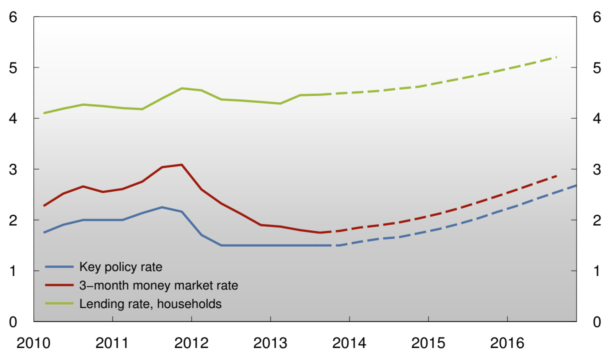
1) Loan debt as a percentage of disposable income adjusted for estimated reinvested dividend income for 2000 – 2005 and redemption/reduction of equity capital for 2006 – 2012 Q3
2) Interest expenses as a percentage of disposable income adjusted for estimated reinvested dividend income for 2000 – 2005 and redemption/reduction of equity capital for 2006 – 2016 plus interest expenses.
Sources: Statistics Norway and Norges Bank

Chart 1.19 3-month money market rate in the baseline scenario[1)] and estimated forward rates[2)]. Percent. 2008 Q1 – 2016 Q4



1) Key policy rate in the baseline scenario plus premiums in the Norwegian money market. The calculations are based on the assumption that announced interest rate changes are priced into the money market.
2) Forward rates are based on money market rates and interest rate swaps. The blue and red bands show the highest and lowest forward rates in the period 30 August – 12 September 2013 and 31 May – 13 June 2013.
Sources: Thomson Reuters and Norges Bank

Chart 1.20 Projected key policy rate, 3-month money market rate[1)] and interest rate on loans to households[2)] in the baseline scenario. Percent. 2010 Q1 – 2016 Q4



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

With this projection for the key policy rate, there are prospects that inflation will run somewhat below 2.5% throughout the projection period. Capacity utilisation is projected to remain close to a normal level (see Chart 1.16). House price inflation is projected to remain lower than household income growth in the years ahead (see Chart 1.17). There are also prospects that household debt and interest expenses as a percentage of disposable income will rise further (see Chart 1.18).

Money market rates are projected to track developments in the key policy rate (see Chart 1.19). Bank lending rates are expected to track developments in money market rates in the short term, but may rise somewhat less further out in the projection period (see Chart 1.20). The interest rate differential against other countries is expected to be fairly stable. The projections are based on the assumption that the krone will appreciate somewhat in the year ahead, but remain weaker than projected in the June *Report* (see Chart 1.21).

GDP for mainland Norway is projected to grow by about 2¼% in 2014 and 2¾% in 2015 and 2016. Unemployment is projected to increase slightly. Wage growth is projected at 4% in 2014, which is slightly higher than projected in the June *Report*. It is assumed that some of the rise in prices will be passed through to wages in 2014. Wage growth is projected at 4¼% in 2015 and 2016, unchanged on the previous *Report*. With this projection for wage growth, household purchasing power rises somewhat less than in the June *Report*. Private consumption is projected to grow by a little less than 3% annually through the projection period and the saving ratio to remain high. Housing investment is expected to grow at a slower pace in the years ahead compared with the past few years. Activity levels are expected to remain high in oil-related industries. At the same time, sluggish growth among trading partners and a further weakening of competitiveness will weigh down on growth in other export industries.

The projections for the key policy rate, inflation, capacity utilisation and other variables are based on Norges Bank's assessment of the economic situation and perception of the functioning of the economy and monetary policy. Monetary policy may respond to changes in the economic outlook, or if the relationships between the interest rate, inflation, 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 1.14 a-d). The width of the fan reflects historical uncertainty. Chart 1.21 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 5 December. 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.

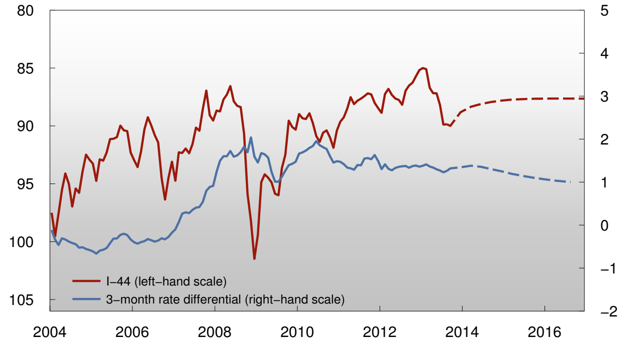
The projections in this *Report* imply that capacity utilisation in the Norwegian economy will remain close to a normal level. The possibility that the slowdown in the economy will be more pronounced cannot be ruled out. Unemployment may then be higher than projected and wage growth lower. This will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

The key policy rate may also be increased more quickly than projected in this *Report*. In recent months, inflation has been clearly higher than projected. It cannot be ruled out that the underlying driving forces of inflation are stronger than assumed. Low productivity growth, among other things, may have a greater impact on business costs than expected. The krone may also prove to be weaker than projected. Should inflation be higher than projected, the upward shift in interest rates may occur earlier than in the baseline scenario. Moreover, our projections are based on the assumption that the higher rate of inflation results in a limited increase in wage growth. Should wage growth prove to be higher than projected, the key policy rate may be set higher than in the baseline scenario.

Cross-checks of the interest rate forecast

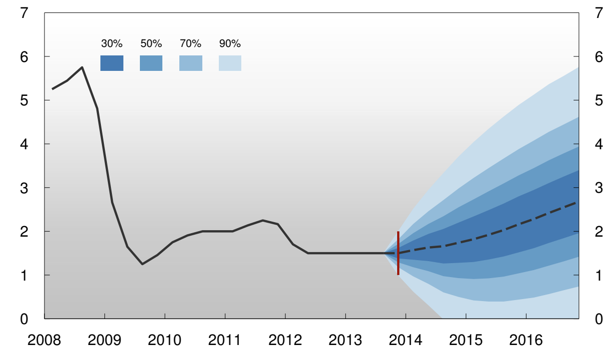
Simple monetary policy rules can prescribe an interest rate setting that is robust to different assumptions about the functioning of the economy. The Taylor rule is based on projections for inflation, the output gap, money market premiums and the normal interest rate level. In the

Chart 1.21 Three-month money market rate differential between Norway[1)] and trading partners and the import-weighted exchange rate index (I-44)[2)]. January 2004 – December 2016



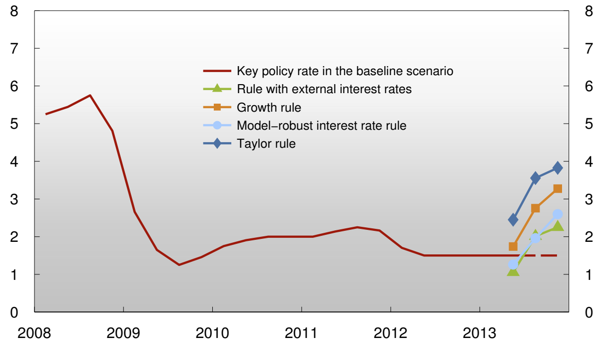
1) Key policy rate in the baseline scenario plus premiums in the Norwegian money market. The calculations are based on the assumption that announced interest rate changes are priced into the money market.
2) A positive slope denotes a stronger krone exchange rate.
Sources: Thomson Reuters and Norges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

Chart 1.22 Projected key policy rate in the baseline scenario and strategy interval with probability distribution. Percent. 2008 Q1 – 2016 Q4



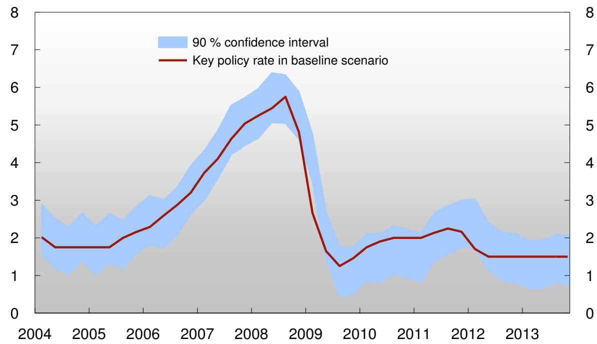
Source: Norges Bank

Chart 1.23 Key policy rate and calculations based on simple monetary policy rules.1) Percent. 2008 Q1 – 2013 Q4



1) The calculations are based on Norges Bank's projections for the output gap, growth gap, consumer prices (CPIXE) 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 1.24 Key policy rate and interest rate developments that follow from Norges Bank's average pattern of interest rate setting.1)
Percent. 2004 Q1 – 2013 Q4



1) Interest rate movements are explained by developments in inflation, mainland GDP growth, wage growth and 3–month money market rates among trading partners. The equation is estimated over the period 1999 Q1 – 2013 Q2. See Norges Bank *Staff Memo* 3/2008 for further discussion.
Source: Norges Bank

growth rule, the output gap is replaced by a growth gap. The rule with external interest rates also takes into account that changes in the interest rate level among our trading partners may result in changes in the exchange rate and hence influence the inflation outlook. The model-robust rule[2] is based on calculations using different models for the Norwegian economy. This rule gives greater weight to the output gap and inflation than the Taylor rule. In addition, it gives weight to the interest rate in the preceding period.

The simple rules imply a key policy rate that is consistently higher than our forecast in the coming period (see Chart 1.23). The rules are based on information on recent observations of inflation and do not capture continued moderate driving forces of inflation further ahead. Nor do these rules capture a considerably wider difference between the money market rate and bank lending rates than earlier.

Forward money and bond market rates are another cross-check for the interest rate forecast. Estimated forward rates are in line with the money market forecast for the coming quarters in this *Report* (see Chart 1.19). Further out in the projection period, estimated forward rates suggest that market participants expect somewhat higher money market rates than projected in this *Report*.

A simple rule based on Norges Bank's previous interest rate setting can also serve as a cross-check for the interest rate in the baseline scenario. Chart 1.24 shows such a rule, where the key policy rate is determined by developments in inflation, wage growth, mainland GDP and external interest rates. The interest rate in the previous period is also important. The parameters in this model are estimated using historical relationships. The projections are based on the estimates for the underlying variables in this *Report*. The uncertainty in this model is expressed by the blue band. The chart shows that the interest rate in the baseline scenario is close to the middle of this band.

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

Criteria for an appropriate interest rate path

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

Moreover, Norges Bank emphasises the importance of a robust monetary policy. The functioning of the economy is not fully known, and there may be uncertainty regarding the economic situation. In addition, events will occur that are difficult to foresee. Monetary policy also seeks to mitigate the risk of a build-up of financial imbalances. A prolonged rise in credit and asset prices increases the risk that financial imbalances may trigger or amplify an economic downturn.

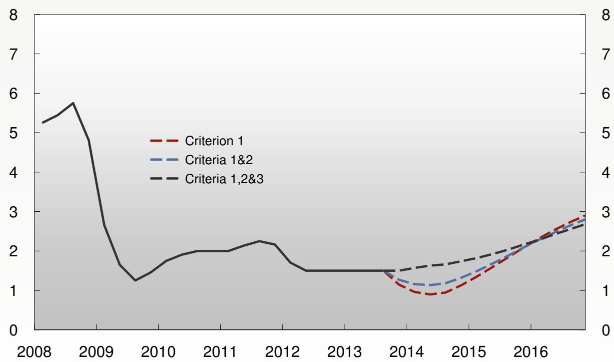
The following set of criteria can serve as a guideline for an appropriate interest rate path:

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

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

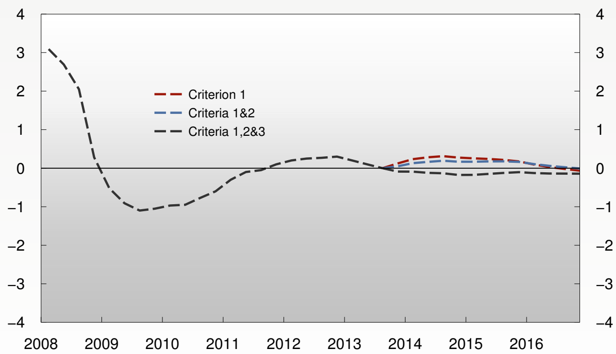
3. ***Monetary policy is robust:***
   The interest rate should be set so that monetary policy mitigates the risk of a build-up of financial imbalances, and so that acceptable developments in inflation and output are also likely under alternative assumptions about the functioning of the economy.

Chart 1.25a Key policy rate. Percent. 2008 Q1 – 2016 Q4



Source: Norges Bank

Chart 1.25b Output gap. Percent. 2008 Q1 – 2016 Q4



Source: Norges Bank

The various considerations expressed in the criteria must be weighed against each other. The first two criteria reflect the flexible inflation targeting regime. The consideration of robustness is not an objective in itself, but is included because in an uncertain world taking robustness into consideration may bring about a more stable attainment of inflation, output and employment objectives over time.

Charts 1.25 a-c illustrate the forecasts for the key policy rate, output gap and inflation when the various criteria are taken into account.

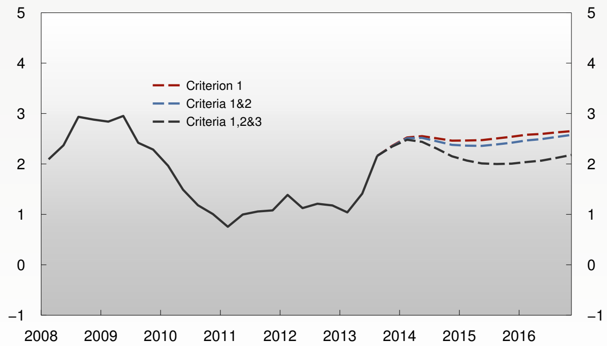
If the sole objective of monetary policy were to maintain inflation at target, the key policy rate would, according to a technical model-based analysis, quickly be lowered towards 1% (see red line in the charts).[1] Inflation would then run close to 2.5% throughout the entire projection period, but such a policy would at the same time have resulted in wider fluctuations in output and employment. After a short time, the key policy rate would have had to be raised again in order to avoid too high inflation further ahead.

When it is also taken into account that monetary policy should not lead to excessive fluctuations in output and employment, the key policy rate will, according to a technical model-based analysis, be somewhat higher in the coming years (see blue line). Inflation will then be somewhat lower, but developments in output and employment will be more stable.

Monetary policy also seeks to be robust and to mitigate the risk of a build-up in the economy of financial imbalances. This consideration pushes up the interest rate path. In the baseline scenario (see black line), the key policy rate is therefore higher than implied by a technical model-based analysis that does not take robustness into consideration. In the baseline scenario, output and employment are projected to move on a more stable path, but at the same time inflation runs at a somewhat lower rate.

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

Chart 1.25c CPI–ATE.[1)] Four–quarter change. Percent. 2008 Q1 – 2016 Q4



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

Changes in the projections since *Monetary Policy Report* 2/13

The interest rate forecast in this *Monetary Policy Report* is slightly higher than in the June 2013 *Report* (see Chart 1.25). The projections are based on the criteria for an appropriate interest rate path (see box on page 20), an overall assessment of the situation in the Norwegian and global economy, and Norges Bank's perception of the functioning of the economy.

Chart 1.26 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.

The krone has depreciated and is weaker than projected in the June *Report*. A weaker krone contributes in isolation to both higher inflation and higher economic activity. This suggests a higher key policy rate (see red bars).

Key rates are close to zero among many of Norway's trading partners, but market expectations concerning key rates ahead have risen since June. Higher interest rates abroad suggest a higher key policy rate also in Norway (see green bars).

Consumer price inflation has been clearly higher than expected since the June *Report*. Inflation is expected to remain higher than previously projected in the period ahead, but the outlook for inflation further out is moderate. On balance, developments in and the outlook for inflation suggest in isolation a higher key policy rate (see dark blue bars).

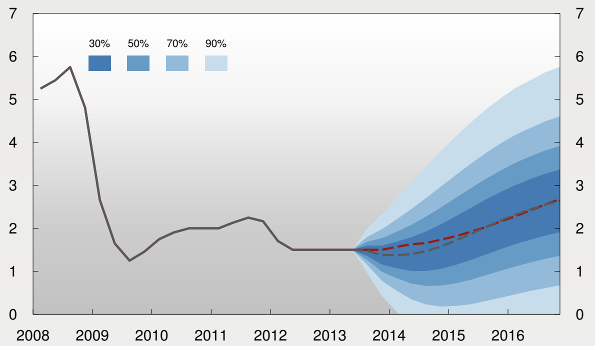
Output and demand growth have been somewhat lower than expected, and the growth outlook for the Norwegian economy has been revised down compared with the June *Report*. In August, the enterprises in Norges Bank's regional network reported low growth through summer, and they expected approximately unchanged growth ahead. Capacity utilisation is assessed to be slightly lower than projected in the June *Report*. These factors suggest a lower key policy rate (see light blue bars).

Premiums in the money market have declined somewhat and are slightly lower than projected in the June *Report*. In isolation, lower premiums push in the direction of a higher key policy rate (see black bars). At the same time, banks' lending rates have remained firm. As a result, bank lending margins, the spread between money market and bank lending rates, have increased somewhat. This pushes in the opposite direction and suggests, in isolation, a lower key policy rate (see orange bars).

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

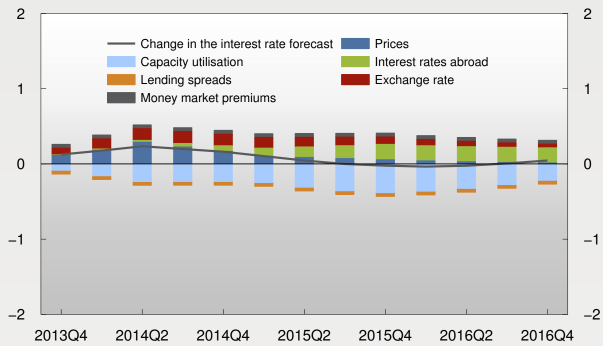
1 Illustrated using the macroeconomic model NEMO and based on the criteria for an appropriate interest rate path.

Chart 1.26 Key policy rate in the baseline scenario in MPR 2/13 with probability distribution and key policy rate in the baseline scenario in MPR 3/13 (red line). Percent. 2008 Q1 – 2016 Q4



Source: Norges Bank

Chart 1.27 Factors behind changes in the interest rate forecast since MPR 2/13. Accumulated contribution. Percentage points. 2013 Q4 – 2016 Q4



Source: Norges Bank

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

	2013	2014	2015	2016
CPI	2¼ (½)	2¼ (¾)	2 (¼)	2 (¼)
CPI-ATE[1)]	1¾ (½)	2¼ (¾)	2 (¼)	2 (¼)
Annual wages[2)]	3½ (0)	4 (¼)	4¼ (0)	4¼ (0)
Mainland demand[3)]	2¼ (-½)	2¾ (-½)	3 (¼)	2¾ (0)
GDP, mainland Norway	1¾ (-¾)	2¼ (-½)	2¾ (0)	2¾ (0)
Output gap, mainland Norway (level)[4)]	0 (-¼)	-¼ (-½)	-¼ (-¼)	-¼ (-¼)
Employment, persons, QNA	1¼ (0)	1 (-¼)	1 (-¼)	1 (-¼)
Registered unemployment (rate, level)	2¾ (¼)	2¾ (0)	3 (¼)	3 (¼)
Level				
Key policy rate[5)]	1½ (0)	1¾ (¼)	2 (0)	2½ (0)
Import-weighted exchange rate (I-44)[6)]	88 (1)	88 (1)	87¾ (1¼)	87¾ (1)
Foreign money market rates[7)]	½ (0)	½ (0)	1¼ (¼)	1¾ (½)

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

Source: Norges Bank

2 Decision basis for setting the countercyclical capital buffer

Financial imbalances may build up in times of solid economic growth. When debt and asset prices rise quickly, the magnitude of a potential fall is also greater and thereby the vulnerability of the financial system. Banks' capital adequacy is intended to reduce this vulnerability. According to the Ministry of Finance, the purpose of the countercyclical buffer is "[…] primarily to build up banks' soundness and resilience so that they are able to bear loan losses in a future downturn. This may reduce the risk that banks will amplify a downturn by reducing their lending. In addition, a countercyclical capital buffer may, to some extent, dampen credit growth during an upturn." [1]

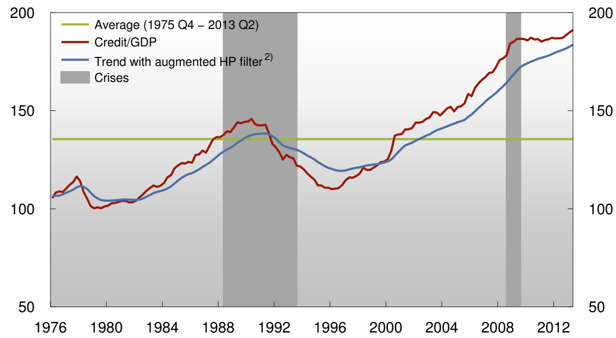
In line with this purpose, Norges Bank has formulated three criteria for an appropriate countercyclical capital buffer (see box on page 30). The first criterion is that banks should become more resilient during an upturn. The countercyclical capital buffer should be increased when financial imbalances are building up or have built up over a period. Four key indicators of the build-up of vulnerabilities and financial imbalances will figure prominently in the assessment: i) the ratio of total credit (C2 households and C3 mainland enterprises) to mainland GDP, ii) the wholesale funding ratio of Norwegian credit institutions, iii) the ratio of house prices to household disposable income, and iv) commercial property prices. As the basis for its advice on the countercyclical capital buffer, Norges Bank will analyse developments in the key indicators and compare the current situation with historical trends.[2]

Total credit is growing somewhat faster than GDP (see Chart 2.1). The indicator is above the estimated historical trends, and the gaps between the indicator and trends are therefore positive (see Chart 2.2). The gaps have narrowed

1 Quoted from the Ministry of Finance's consultation submission on the regulation concerning the countercyclical capital buffer, 28 June 2013.

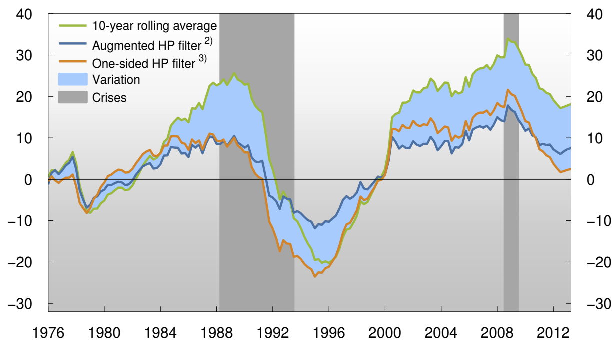
2 Norges Bank has so far used three different trend calculation methods: a one-sided Hodrick-Prescott filter as applied by the Basel Committee, a Hodrick-Prescott filter estimated on data extended using a forecast and a mean method. For a detailed discussion, see the box on measuring financial imbalances in *Monetary Policy Report* 2/13

Chart 2.1 Total credit[1)] mainland Norway as a percentage of mainland GDP. Percent. 1976 Q1 – 2013 Q2



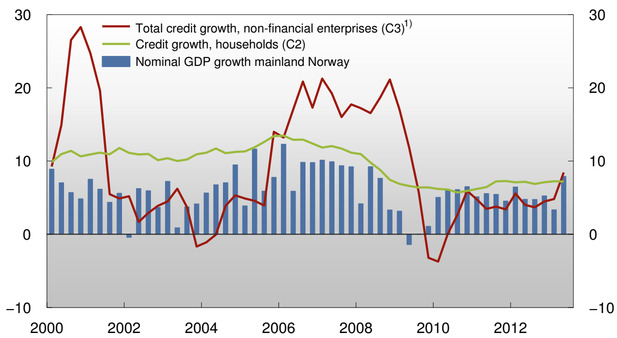
1) The sum of C3 non-financial enterprises in mainland Norway (whole economy pre-1995) and C2 households.
2) One-sided Hodrick-Prescott filter augmented with a simple projection. Lambda = 400 000.
Sources: Statistics Norway, IMF and Norges Bank

Chart 2.2 Credit gap. Total credit[1)] mainland Norway as a percentage of mainland GDP as deviations from estimated trends. Percentage points. 1976 Q1 – 2013 Q2



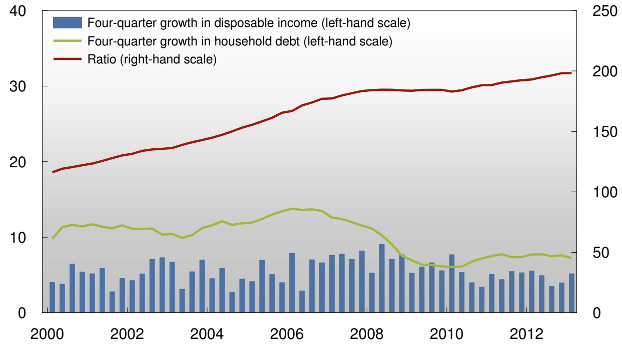
1) The sum of C3 non-financial corporations in mainland Norway (total economy pre-1995) and C2 households.
2) One-sided Hodrick-Prescott filter augmented with a simple projection. Lambda = 400 000.
3) One-sided Hodrick-Prescott filter. Lambda = 400 000.
Sources: Statistics Norway, IMF and Norges Bank

Chart 2.3 Credit to households and non-financial enterprises, and mainland GDP. Four-quarter growth. Percent. 2000 Q1 – 2013 Q2



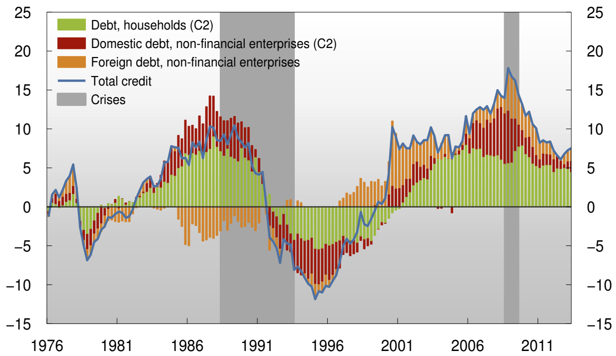
1) Sum of C2 non-financial enterprises and foreign debt in mainland Norway.
Sources: Statistics Norway and Norges Bank

Chart 2.4 Household debt to disposable income ratio.[1]
Percent. 2000 Q1 – 2013 Q1



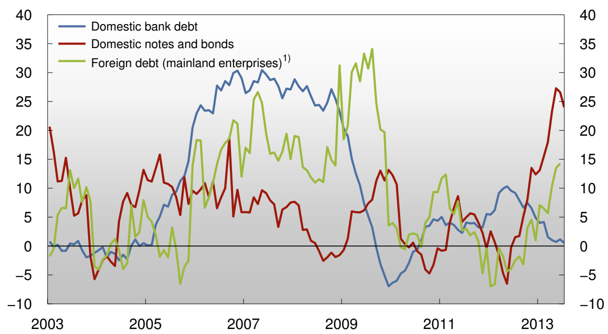
1) Loan debt as a percentage of disposable income, adjusted for estimated reinvested dividend income for 2000 – 2005 and redemption/reduction of equity capital for 2006 Q1 – 2012 Q3.
Sources: Statistics Norway and Norges Bank

Chart 2.5 Decomposed credit gap. Total credit[1] mainland Norway as a percentage of mainland GDP as deviation from the estimated trend [2].
Percentage points. 1976 Q1 – 2013 Q2



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

Chart 2.6 Credit from selected funding sources of Norwegian non-financial enterprises.
Twelve-month growth. Percent. January 2003 – July 2013



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

since the financial crisis, but still signal a higher credit level than is sustainable over time.

Overall debt growth in recent years has primarily been fuelled by household borrowing (see Chart 2.3). Household debt continues to rise faster than income, and hence the ratio of debt to disposable income is still rising (see Chart 2.4). When debt ratios increase, households become more vulnerable to a loss of income or higher interest rates. It will take a long time before a decrease in house price inflation (see discussion below) translates into lower household debt ratios. Because house prices have risen over a long period, dwellings sold now will on average require higher debt than the previous time they were on the market. There are thus prospects that household debt ratios will also rise ahead (see Chart 1.18).

Debt growth for non-financial enterprises increased in 2013 Q2. Credit from foreign sources was the main contributor. Corporate credit makes a positive contribution to the overall credit gap (see Chart 2.5). There are signs that banks have tightened corporate lending somewhat. Growth in lending has declined, and several banks, particularly regional savings banks, report that higher capital requirements are limiting their lending capacity. The largest banks report that stricter capital requirements mainly imply a reduction in lending activity to large enterprises, which instead issue bonds that these banks underwrite, leaving banks to focus their lending activity on small and medium-sized enterprises. The banks that participate in Norges Bank's Survey of Bank Lending had in July no plans for further tightening of corporate credit standards in 2013 Q3.

Bond issuance has increased markedly since autumn 2012 and is helping to sustain credit growth (see Chart 2.6). Higher prices for bank loans and lower premiums in the bond market have made bonds a more attractive source of financing for many large Norwegian enterprises. Market participants report an increase in issuance also from enterprises that were not previously in the market and from somewhat smaller enterprises than earlier. Nevertheless, the bond market is not a particularly suitable source of financing for most small and medium-sized enterprises. Despite strong growth, capital market financing accounts for only 14% of total domestic corporate credit and this share is still lower than in the 1990s.

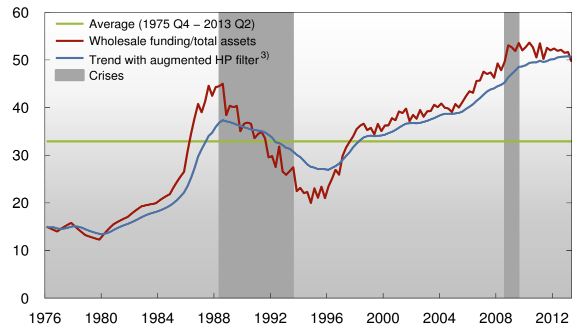
Developments in corporate credit are closely associated with investment. Moderate growth in investment is restraining demand for new borrowing. A survey conducted by the Confederation of Norwegian Enterprise (NHO) among member firms for 2013 Q3 shows that access to credit is only a minor constraint on new investment.

Banks' wholesale funding ratios declined between 2013 Q1 and 2013 Q2 (see Chart 2.7), bringing the indicator below estimated historical trends (see Chart 2.8). During periods of strong lending growth, growth in wholesale funding has outpaced deposit growth. Solid deposit growth, combined with moderate growth in lending, is currently limiting the need to increase market funding (see Chart 2.9). A considerable portion of deposit growth in Q2 stemmed from foreign sources, including money market funds. Such deposits may not be particularly stable. Adjusted for this, the decline in the indicator is less than that shown in Charts 2.7 and 2.8.

House prices continued to rise faster than household disposable income in 2013 Q2 (see Chart 2.10). The indicator is also higher than estimated historical trends (see Chart 2.11). House price inflation that is higher than growth in disposable income is probably not sustainable over the long term.

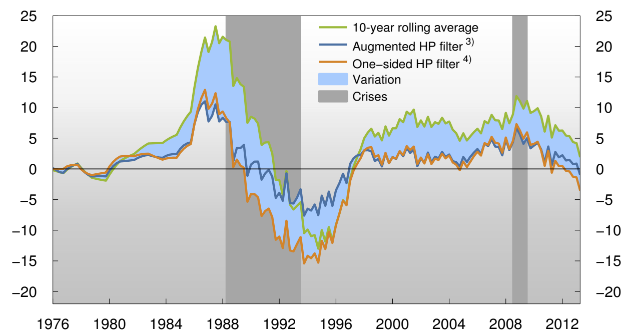
House price inflation has slowed in recent months and in some months prices fell (see Chart 2.12). Seasonally adjusted price levels at end-August were 2.4% higher

Chart 2.7 Banks'[1)] wholesale funding as a percentage of total assets[2)]. Percent. 1976 Q1 – 2013 Q2



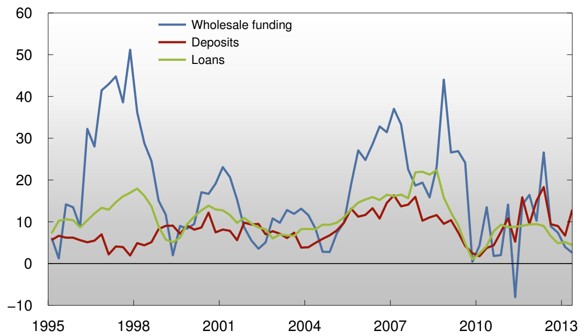
1) All banks and covered bond mortgage companies excluding branches and subsidiaries of foreign banks in Norway.
2) Quarterly figures pre-1989 are calculated by linear interpolation of annual figures.
3) One-sided Hodrick-Prescott filter augmented with a simple projection. Lambda = 400 000.
Source: Norges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

Chart 2.8 Wholesale funding gap. Banks'[1)] wholesale funding as a percentage of total assets[2)] as deviations from estimated trends. Percentage points. 1976 Q1 – 2013 Q2



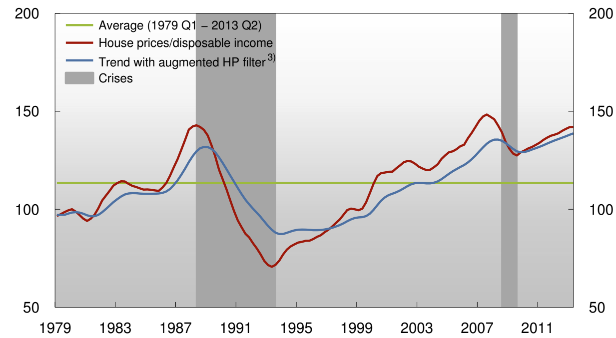
1) All banks and covered bond mortgage companies excluding branches and subsidiaries of foreign banks in Norway.
2) Quarterly figures pre-1989 are calculated by linear interpolation of annual figures.
3) One-sided Hodrick-Prescott filter augmented with a simple projection. Lambda = 400 000.
4) One-sided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

Chart 2.9 Banks'[1)] wholesale funding, deposits and loans. Four-quarter growth. Percent. 1995 Q1 – 2013 Q2



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

Chart 2.10 House prices[1)] relative to disposable income[2)]. Indexed. 1998 Q4 = 100. 1979 Q1 – 2013 Q2

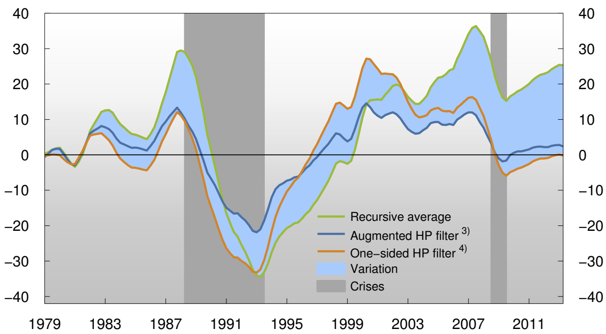


1) Quarterly figures pre-1990 are calculated with linear interpolation of annual figures.
2) Adjusted for estimated reinvested dividend income for 2000 – 2005 and redemption/reduction of equity capital for 2006 Q1 – 2012 Q3.
3) One-sided Hodrick-Prescott filter augmented with a simple projection. Lambda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

than at the beginning of the year (see Chart 2.13). House prices have risen at a slower pace in recent months than projected in the June 2013 *Report*. This must be viewed in the context of a long period of rapidly rising house prices that have reached high levels. Somewhat weaker developments in Norwegian economy, diminished consumer confidence and higher lending rates may have curbed house price inflation. House sales have also edged down and were 3% lower in the period to end-August than in the same period in 2012. The number of unsold dwellings on the Finn.no marketplace website has increased somewhat. Even so, there are still no signs of a sudden shift in the housing market. It is still the case that houses listed for sale are quickly sold. Norges Bank expects that house price inflation will be lower than growth in disposable income in the years ahead (see Chart 1.17 for projections of developments in house prices).

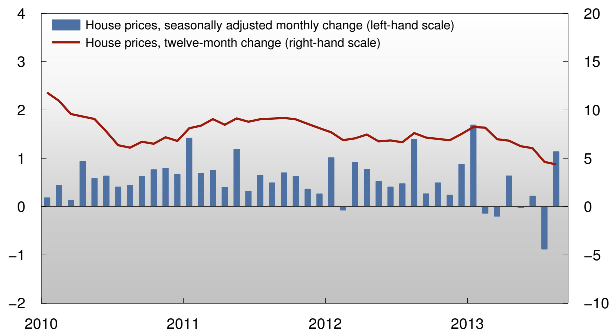
After rising for several years, the commercial property indicator has fallen slightly in the past year (see Chart 2.14). The indicator remains markedly higher than estimated historical trends (see Chart 2.15). Norwegian banks' corporate loan exposure is highest in the commercial property market, with banks especially exposed to the retail and office segment. The commercial property indicator is based on estimated selling prices of high-standard office premises in central Oslo, a segment where price increases since the financial crisis have been fairly high. Since 2000, rental price inflation has varied more for office properties than in other segments (see Chart 2.16), and Oslo is one of

Chart 2.11 House price gap. House prices[1)] as a percentage of disposable income[2)] as deviations from estimated trends. Percent. 1979 Q1 – 2013 Q2



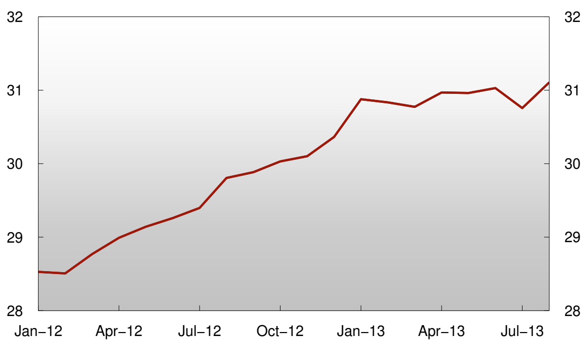
1) Quarterly pre-1990 figures are calculated with linear interpolation of annual figures.
2) Adjusted for estimated reinvested dividend income for 2000 – 2005 and redemption/reduction of equity capital for 2006 Q1 – 2012 Q3.
3) One-sided Hodrick-Prescott filter augmented with a simple projection. Lambda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

Chart 2.12 House prices.[1)] Twelve-month change and seasonally adjusted monthly change. Percent. January 2010 – August 2013



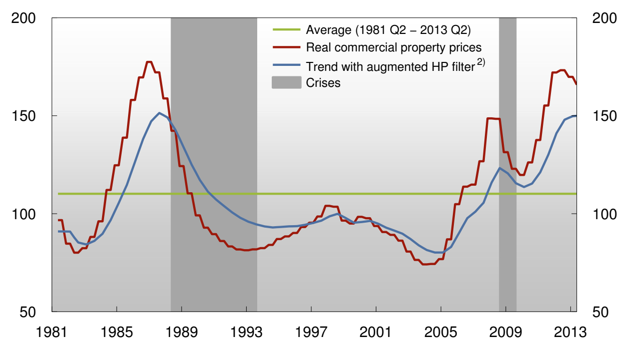
1) House prices in NOK per square metre.
Sources: Statistics Norway, Norwegian Association of Real Estate Agents (NEF), Eiendomsmeglerforetakenes forening (EFF), Finn.no, Eiendomsverdi and Norges Bank

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



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

Chart 2.14 Real commercial property prices.[1)] Indexed. 1998 = 100. 1981 Q2 – 2013 Q2



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

the cities where prices have risen most in recent years. Prices for office premises that have risen sharply over a long period may potentially fall to a greater extent than prices for office premises that have risen more modestly.

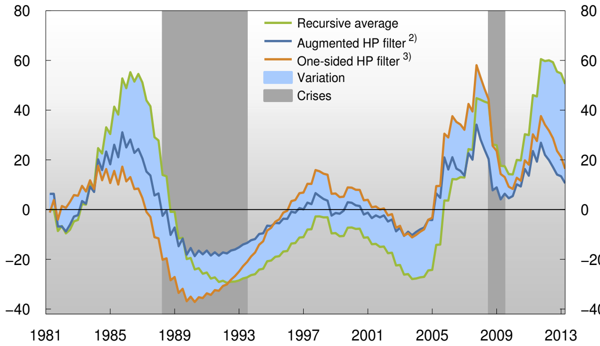
Higher rental prices were an important factor behind the increase in commercial property values in the period to 2007 (see Chart 2.17). For commercial property as a whole, recent years' overall rise in values has been moderate. This may indicate that investors do not expect substantial changes in rental prices ahead. In the Oslo region, market participants expect stable or somewhat lower vacancy rates for office premises, which may also suggest a moderate rise in rental prices.

The four key indicators of the build-up of vulnerabilities and financial imbalances are all at historically high levels. The credit gap increased in Q2 as a result of higher growth in corporate credit, while the other gaps have levelled off or declined. Developments so far this year may be an indication that financial imbalances will not build up further. Nevertheless, the analyses suggest that the indicators overall are higher than what is sustainable in the long term. This may indicate a continued risk that financial imbalances may trigger or amplify a downturn. Thus, the first criterion for an appropriate countercyclical capital buffer suggests that banks should hold such a buffer.

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

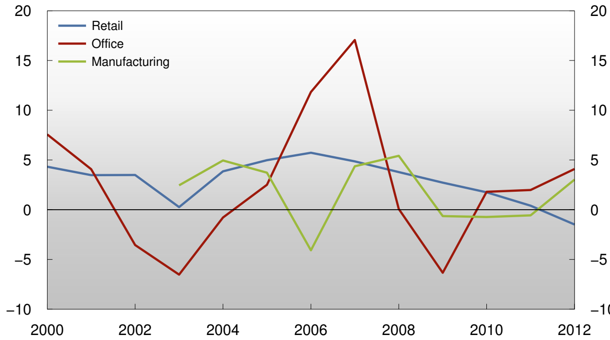
From 1 July 2013, changes in banks' capital requirements entered into force. The changes require that banks now have a capital ratio of 12.5%, of which at least 9 percentage points must consist of Common Equity Tier 1 (CET1). All large Norwegian banking groups meet the CET1 requirement by an ample margin. In the coming years, capital requirements will be gradually raised (see Chart 2.18).

Chart 2.15 Real commercial property price gap. Real commercial property prices[1] as deviations from estimated trends. Percent. 1981 Q2 – 2013 Q2



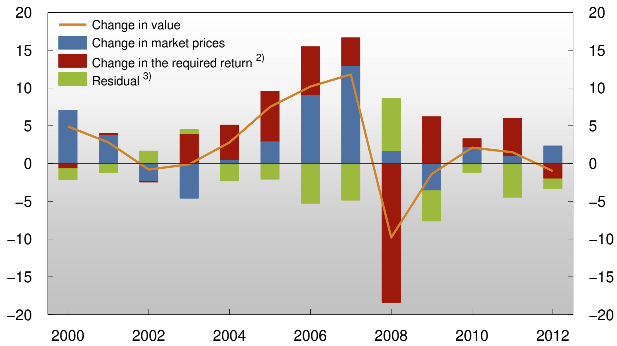
1) Estimated market prices for office premises in Oslo deflated by a GDP deflator for mainland Norway.
2) One-sided Hodrick-Prescott filter augmented with a simple projection. Lambda = 400 000.
3) One-sided Hodrick-Prescott filter. Lambda = 400 000.
Sources: Dagens Næringsliv, OPAK, Statistics Norway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

Chart 2.16 Rental prices.[1]
Annual change. Percent. 2000 – 2012



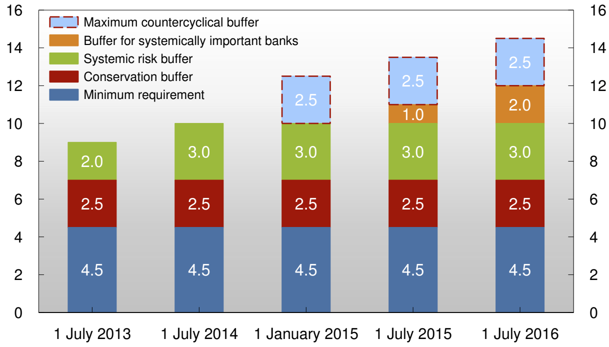
1) Rental prices for investment properties in Norway. New/renegotiated contracts.
Source: Investment Property Databank (IPD)

Chart 2.17 Commercial property values.[1]
Annual change. Percent. 2000 – 2012



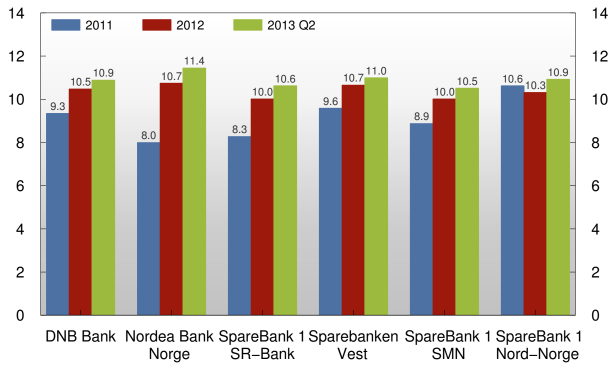
1) Value of investment properties in Norway. All types of commercial property.
2) Required return is the average rate used for discounting future cash flows.
3) Difference between change in value and the sum of change in market prices and change in the required rate of return.
Source: Investment Property Databank (IPD)

Chart 2.18 Common Equity Tier 1 capital ratio requirements in the new regulatory framework. Percent. 1 July 2013 – 1 July 2016



Sources: Ministry of Finance and Norges Bank

Chart 2.19 Common Equity Tier 1 capital ratio with transitional arrangements for large Norwegian banks'. Percent. End of period. 2011 – 2012 and 2013 Q2[1)]



1) Including the results so far in 2013.
Sources: Banking groups' financial statements and Norges Bank

Once the systemic risk buffer and the buffer for systemically important financial institutions are fully phased in, the CET1 requirement will be 12% for systemically important banks. Including the countercyclical capital buffer, CET1 will normally vary between 12% and 14.5%.

Several of the largest banking groups have announced long-term targets for the CET1 ratio that take into account a maximum countercyclical capital buffer. At the same time, in some cases, the targets assume that the transitional arrangement[3] will be eliminated and that banks will receive approval of new internal ratings for calculating risk weights[4]. The effect of eliminating the transitional rule varies widely among banks. For the largest banks, this will ease the overall capital requirement by between 0.5 and 4 percentage points. Weighted using banks' loans, the easing comes to about 1.5 percentage points. Under the Capital Requirements Directive for the EEA (CRD IV), the transitional arrangement will remain in force until 2017. A clarification of Norwegian rules for calculating risk weights on residential mortgages and application of the transitional arrangement is expected later this year.

Banks are taking the new requirements seriously and are well on the way to adjusting to them. Discussions with market participants suggest that an expected countercyclical buffer has been included in banks' long-term adjustments. Adding the entire profits for the first six months of this year to Tier 1 capital would boost the largest banks' CET1 ratios by approximately 0.5 percentage point (see Chart 2.19).[5] Earnings so far this year confirm Norges Bank's calculations that banks can raise their CET1 ratios by up to 1 percentage point per year, while maintaining lending growth.[6] Banks increased their lending margins in spring, which, in isolation, will result in better earnings in the second half of 2013 than in the first half. Banks may also opt to raise fresh equity capital though equity issues. Of the large banks, SpareBank 1 Nord-Norge has announced that it will raise new equity capital to boost its lending capacity while meeting future capital requirements.

3 Under the transitional arrangement, total risk-weighted assets for IRB banks must be at least 80% of what they would have been under the Basel I framework.
4 Under the internal ratings-based (IRB) approach, the largest banks use internal ratings to calculate risk weights on various assets. The sum of risk-weighted assets is the denominator in the calculation of a bank's capital adequacy ratio.
5 This is an estimate as accrued interim profit less allocation of dividend is not added to CET1 capital until year-end.
6 In the calculation there is an assumption of an annual increase in banks' risk-weighted assets of around 4%, earnings in line with 2012 and all profits are used to increase equity capital. It is also assumed that the transitional arrangement is retained and is binding.

Criteria for an appropriate countercyclical capital buffer[1]

The countercyclical capital buffer should satisfy the following criteria:

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

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

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

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

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

Norges Bank's advice to build up a countercyclical capital buffer will primarily be based on four key indicators: i) the ratio of total credit (C2 households and C3 mainland enterprises) to mainland GDP, ii) the wholesale funding ratio of Norwegian credit institutions, iii) the ratio of house prices to household disposable income, and iv) commercial property prices[2]. On the whole, the four indicators provide early warning signals of vulnerabilities and financial imbalances[3]. Historically, they have risen ahead of periods of financial instability.

As part of the basis for advice on the countercyclical capital buffer, Norges Bank will analyse developments in the key indicators and compare the current situation with historical trends. The gap between the key indicators and their estimated trends can serve as a measure of financial imbalances. When actual developments deviate substantially from trend, it may indicate that developments are not sustainable over time. This may signal future financial crises. At the same time, there is considerable uncertainty linked to trend calculations and hence to measures of financial imbalances. Statistical methods and economic theory may be of help, but do not provide an unequivocal answer. Given this uncertainty, different methods for calculating trends are used.

There will not be a mechanical relationship between changes in the indicators or gaps 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. Higher capital requirements may induce banks to tighten credit to households and enterprises. In periods of high credit growth, this may contribute to dampening the build-up of imbalances. The overall increase in capital requirements should not limit the supply of credit to the extent that it leads to a downturn in the Norwegian economy.

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

Banks will be allowed to draw on the buffer in the event of an economic downturn and large bank losses. If the buffer functions as intended, banks will tighten lending to a lesser extent in a downturn than would otherwise be the case. This may mitigate the procyclical effects of tighter bank lending.

The key indicators are not well suited to signalling whether the buffer should be reduced. Other information, such as market turbulence and loss prospects for the banking sector, will then be more relevant. If Norges Bank's assessment suggests an abrupt tightening of bank lending owing to the capital requirements, the Bank would issue advice that banks should be allowed to draw on the buffer. The buffer will not be released to alleviate isolated problems in some banks.

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

3 The projections

The global economy

Overall growth prospects for Norway's main trading partners are in line with the projections in the June 2013 *Monetary Policy Report* for the entire projection period. A positive shift in sentiment is evident in many advanced economies (see Chart 3.1). GDP growth is expected to pick up in the second half of 2013, but fiscal policy tightening and deleveraging in the private sector in a number of European countries will continue to dampen growth ahead. In emerging economies, it appears that growth in both 2013 and 2014 will be lower than projected in the June *Report,* reflecting monetary policy tightening and lower credit growth.

Growth among our trading partners is expected to increase from 1¼% in 2013 to 2½% in 2014. Somewhat higher growth is expected in some advanced economies and lower growth in emerging economies (see Table 3.1). Global growth is projected at 2½% in 2013, slightly below the average for the past 30 years.

Long-term interest rates have moved up through summer (see Chart 3.2). The increase has been particularly marked in the US and the UK, where 10-year government bond yields are now just below 1 percentage point higher than they were in mid-June. In Germany, the increase has been somewhat smaller. Long-term interest rates have been driven up by signals from the Federal Reserve that a tapering of its monthly bond purchases may occur in the near term. Economic indicators have also shown an improvement. The economic situation looks somewhat brighter in several of the most heavily indebted euro area countries. The spread between German government bond yields and comparable Spanish and Italian yields has fallen back to the levels prevailing in summer 2011.

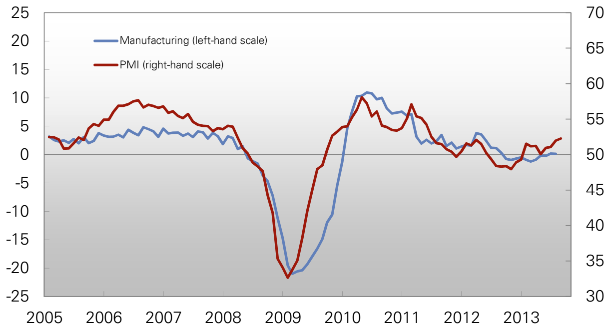
Short-term rates have risen to a somewhat lesser extent than long-term rates following announcements by several central banks regarding the outlook for monetary policy ahead. In the US, the Federal Reserve has re-affirmed that monetary policy will be kept very expansionary for some time to come, even when the monthly bond purchases have been discontinued. At the beginning of July, the Bank of England warned that the rise in market expectations concerning the key rate was not warranted by

Table 3.1 Projections for GDP growth in other countries. Change from previous year. Percent. Change from projections in *Monetary Policy Report* 2/13 in brackets

	Share of world GDP[1] (percent)	2013	2014	2015 – 2016[2]
US	23	1¾ (-¼)	3 (¼)	3¼ (0)
Euro area	20	-¼ (¼)	1 (0)	1¾ (0)
UK	4	1¼ (¼)	2¼ (½)	2¼ (0)
Sweden	0.7	1½ (0)	2½ (0)	2¾ (0)
China	9	7½ (-¼)	7½ (-¼)	7¼ (-¼)
Emerging economies[3]	12	3¼ (-¾)	4 (-½)	4¾ (0)
Trading partners[4]	78	1¼ (0)	2½ (0)	2¾ (0)
World (PPP)[5]	100	3 (-¼)	3¾ (-¼)	4¼ (0)
World (market exchange rates)[5]	100	2½ (0)	3¼ (0)	3¾ (0)

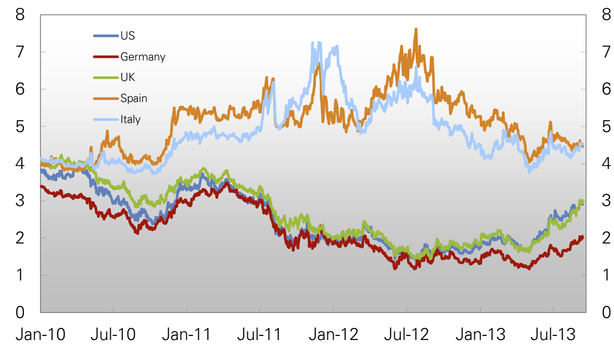
1) Country's share of global output measured in a common currency (market exchange rate). Average 2009–2011.
2) Average annual growth.
3) Emerging economies in the trading partner aggregate excluding China: Brazil, India, Indonesia, Russia, Turkey, Poland and Thailand. GDP weights.
4) Export weights,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

Chart 3.1 Manufacturing output and Purchasing Managers' Index (PMI) for manufacturing for advanced economies in trading partner aggregate.[1] January 2005 – August 2013



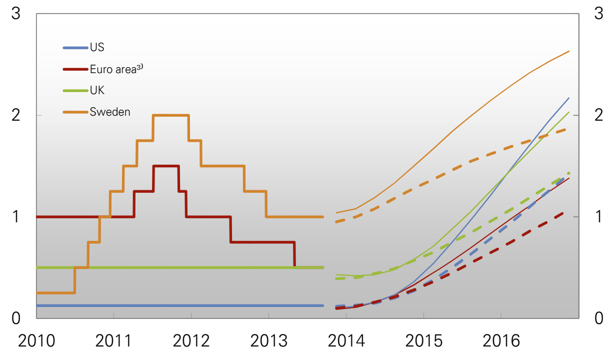
1) GDP weights. Manufacturing: 12-month change. Percent. To July 2013.
PMI: Diffusion index centred around 50.
Sources: IMF, Thomson Reuters and Norges Bank

Chart 3.2 Yields on 10-year government bonds. Percent. 1 January 2010 – 12 September 2013



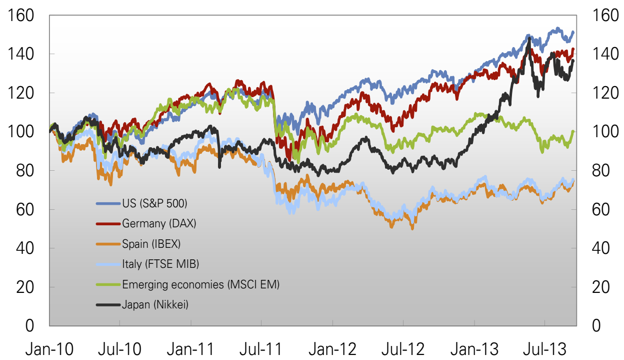
Source: Bloomberg

Chart 3.3 Key rates and estimated forward rates at 13 June 2013 and 12 September 2013.[1)] Percent. 1 January 2010 – 31 December 2016[2)]



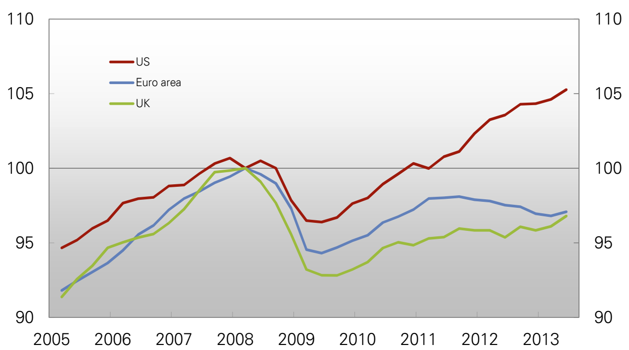
1) Broken lines show estimated forward rates at 13 June 2013. Thin lines show forward rates at 12 September 2013. Forward rates are based on Overnight Index Swap (OIS) rates.
2) Daily data from 1 January 2010 and quarterly data from 2013 Q4.
3) EONIA for the euro area from 2013 Q4.
Sources: Bloomberg and Norges Bank

Chart 3.4 Developments in equity markets. Index. 1 January 2010 = 100. 1 January 2010 – 12 September 2013



Source: Bloomberg

Chart 3.5 GDP in US, euro area and UK. Volume. Index. 2008 Q1 = 100. 2005 Q1 – 2013 Q2



Source: Thomson Reuters

economic developments. This was followed by a statement in August that the key rate would not be increased as long as unemployment is higher than 7%, subject to conditions on price and financial stability not being breached. The forecast for unemployment, which was published for the first time in the Bank of England's August 2013 *Inflation Report*, indicates in isolation that the key rate will not be increased until towards the end of 2016. The European Central Bank (ECB) announced in July that its key rate would remain at present or lower levels for an extended period. Neither the Bank of England nor the ECB have previously issued explicit guidance about the future path of key rates. In spite of this communication from the central banks, market expectations concerning the key rate among Norway's trading partners are higher than at the time of the June *Report*. Key rates in the largest economies are not expected to be increased until at the earliest towards the end of 2014 (see Chart 3.3). The key rate in Sweden has also been kept unchanged. Market participants appear to expect the first key rate increase to occur in the first half of 2014.

Major equity markets have risen somewhat since the June *Report* (see Chart 3.4). The Federal Reserve's signals about tapering its bond purchases have pulled down equity prices, while the improvement in the real economy has had the opposite effect. Credit insurance premiums for European banks edged up earlier this summer in response to the Federal Reserve's signals concerning its bond purchases. These premiums have since fallen back and are now somewhat lower than at the time of the June *Report*.

Growth prospects for regions and countries

The US housing market continues to improve and household and business confidence has increased. Growth is expected to pick up in the latter half of the year. The recovery after the 2008 financial crisis has been stronger in the US than in the UK and the euro area (see Chart 3.5). At the same time, economic growth has been low compared with previous recoveries in the US. Higher production of oil and gas from unconventional sources and strengthened competitiveness will likely contribute to higher growth somewhat further ahead.

Euro area GDP rose by 0.3% between 2013 Q1 and Q2 after falling for 18 months. There was a clear increase in the pace of growth in both Germany and France, while GDP fell in the large southern European economies.

In the euro area as a whole, private consumption increased somewhat in Q2, after falling throughout 2012. Higher net exports and public consumption also contributed to growth. Unemployment has been stable in recent months, with a slight fall in some countries (see Chart 3.6). Current indicators show a positive shift in sentiment and suggest that growth will continue in the latter half of the year, in line with the projections in the June *Report*. The projection for annual GDP growth in 2013 has been revised up by ¼ percentage point.

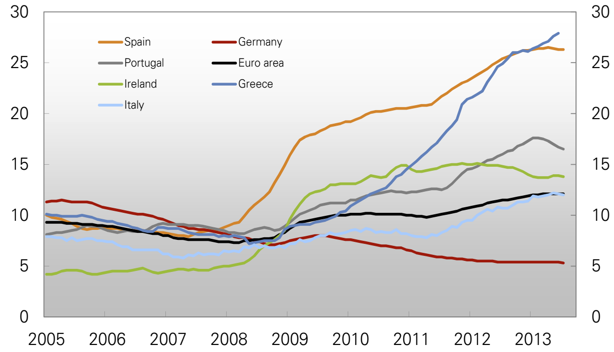
In a number of southern European countries, there are clear signs that imbalances are diminishing, even though the situation is still difficult. The most important objectives have been to reduce government budget and current account deficits. This has primarily been achieved by means of measures that have reduced domestic purchasing power through low wage growth and reduced benefits. The decline in purchasing power has curbed cost inflation in southern European countries, resulting in higher export growth and reduced current account deficits in the hardest hit countries (see Chart 3.7). Austerity measures have also entailed large reductions in government spending. Greece has achieved the largest reduction, improving the structural budget deficit by almost 17 percentage points since 2009. Spain and Italy have also implemented extensive spending cuts. However, public debt is still high in all these countries.

A moderate recovery is expected in the euro area in the period ahead, although growth is being hampered by several years of declining investment, high unemployment and difficult funding conditions for small and medium-sized enterprises.

In the UK, economic growth in 2013 Q2 was stronger than expected in the June *Report*. Rising optimism among UK businesses and households suggests that growth will continue to pick up ahead (see Chart 3.8). Fiscal tightening will continue, while a continued expansionary monetary policy stance is expected in the years ahead in line with the new communication from the Bank of England. Growth projections for the UK have been revised up for both 2013 and 2014.

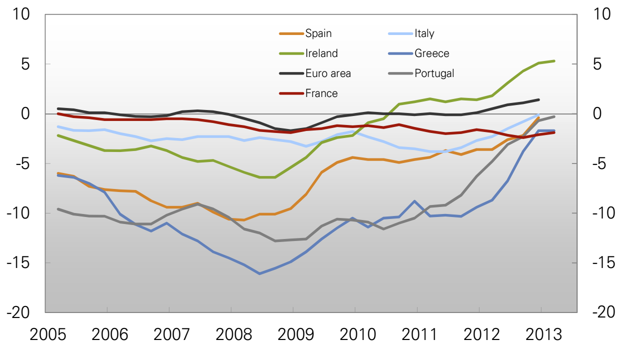
In Sweden, GDP growth in 2013 Q2 was lower than expected in the June *Report*. Manufacturing output has been weak and exports have fallen for four consecutive

Chart 3.6 Unemployment. Percentage of labour force. Monthly data. January 2005 – July 2013[1)]



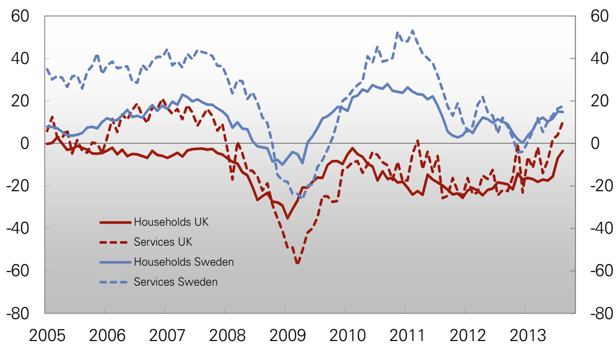
1) To June 2013 for Greece.
Source: Thomson Reuters

Chart 3.7 Current account as percentage of GDP. Three-quarter moving average. 2005 Q1 – 2013 Q1[1)]



1) To 2012 Q4 for Spain, Italy and the euro area.
Sources: OECD and Norges Bank

Chart 3.8 Confidence indicators for households and services in the UK and Sweden. January 2005 – August 2013



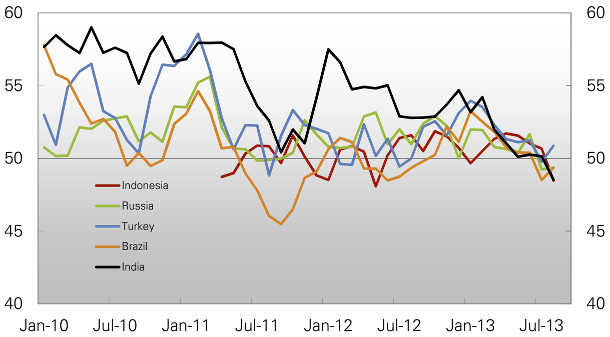
Sources: European Commission and Thomson Reuters quarters. The labour market seems, however, to have stabilised, and confidence indicators for the service, manufacturing and household sectors have risen in recent months. Growth is expected to pick up ahead, supported by an expansionary economic policy and a gradual recovery among Sweden's main trading partners.

Japan recorded the highest GDP growth among the major advanced economies in the first half of 2013. The largest contribution to growth was provided by private consumption and net exports. The fiscal stimulus package announced by the authorities, combined with the Bank of Japan's expansionary monetary policy, will contribute to sustaining the pace of growth in the quarters ahead. A planned doubling of the VAT rate by end-2015 will contribute to lower consumption growth.

Four-quarter GDP growth in China slowed from 7.7% in 2013 Q1 to 7.5% in Q2. China's economy is still heavily dependent on investment, which accounted for over half of GDP growth in the first half of 2013. Policy measures such as increased railway investment and tax reductions for small enterprises, combined with an ample credit supply, are expected to support growth in the short term. In the longer term, a tighter credit supply and a gradual rebalancing of the economy from investment to consumption is expected to curb growth.

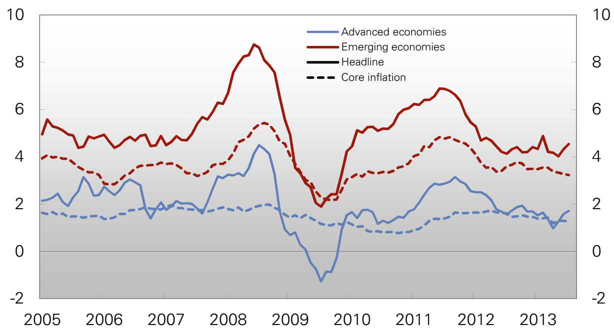
In other emerging economies, current indicators signal that the pace of growth will slow in the quarters ahead (see Chart 3.9). With a weaker growth outlook and the signals from the Federal Reserve of a tapering of its monthly bond purchases, capital flows to emerging economies have been reversed. Countries with large current account deficits, such as India, Indonesia and Brazil, are particularly vulnerable. Several emerging economies have tightened monetary policy. India has introduced capital restrictions, and in Brazil the central bank has intervened in the foreign exchange market to counteract further currency depreciation. Bank lending surveys show that international funding conditions have worsened in several emerging economies, particularly in Asia. Credit growth is slowing in many countries, and growth in domestic demand is now lower than that observed in recent years. There is considerable uncertainty about developments ahead. A moderate improvement in demand from advanced economies is expected, but higher real interest rates are likely to constrain growth in emerg-

Chart 3.9 Purchasing Managers' Index (PMI) for manufacturing. Diffusion index centred around 50. Seasonally adjusted. January 2010 – August 2013



Source: Thomson Reuters

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



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

ing economies. Growth projections for both 2013 and 2014 have been revised down since the June *Report* (see Table 3.1).

Prices

Consumer price inflation has moved up in many advanced economies (see Chart 3.10). For most of our trading partners, inflation prospect for 2013 are low, largely owing to spare capacity. Long-term inflation expectations seem to be firmly anchored in both the US and Europe. Consumer price inflation among our trading partners as a whole is projected to increase to about 2½% annually as economic growth gradually picks up (see Table 3.2).

The price of oil is above USD 110 per barrel, more than USD 5 higher than at the time of the June *Report*. The price increase is primarily related to unrest in the Middle East and a fall in production in several OPEC countries. Futures prices suggest that the price rise is expected to be temporary. Should the unrest in the Middle East spread to major OPEC countries in the region, the price increase could be considerably larger in the near term. In the longer term, futures prices indicate some decrease in the oil price. This probably reflects expectations of moderate growth in global oil demand, partly reflecting lower growth in emerging economies combined with higher production in non-OPEC countries, particularly in North America. The projections in this *Report* are based on the assumption that the oil price moves in line with futures prices (see Table 3.2).

Norwegian gas export prices remain high (see Chart 3.11). High futures prices for oil and UK gas indicate that high prices for Norwegian gas exports will persist.

The Economist commodity-price index has fallen by more than 5% since the June *Report*, primarily as a result of a decrease in food commodity prices (see Chart 3.12). Industrial metals prices have also fallen somewhat, in line with lower growth in many emerging economies.

Foreign exchange markets

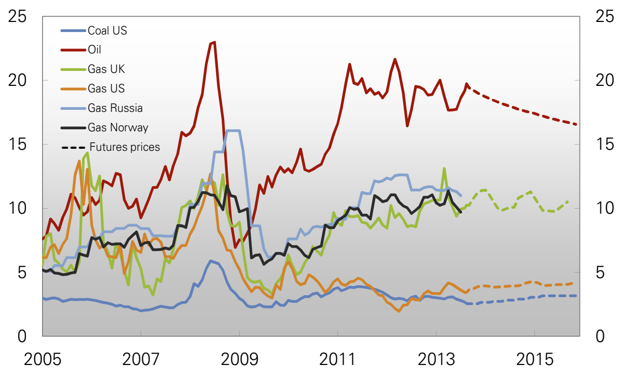
In the course of summer, foreign exchange markets were marked by expectations concerning the future stance of monetary policy among major economies. The US dollar has fluctuated in response to market expectation as to how long the Federal Reserve will continue its programme

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* 2/13 in brackets

	2013	2014	2015–16[1]
US	1½ (0)	2 (0)	2¼ (0)
Euro area[2]	1½ (0)	1½ (0)	1¾ (0)
UK	2½ (0)	2¼ (0)	2 (0)
Sweden	0 (0)	1½ (0)	2½ (0)
China	2¾ (0)	3¼ (-¼)	3¼ (0)
Emerging economies[3]	6¼ (¼)	5¾ (0)	5½ (0)
Trading partners[4]	1¾ (0)	2¼ (0)	2½ (0)
Oil price Brent Blend[5]	109	105	96

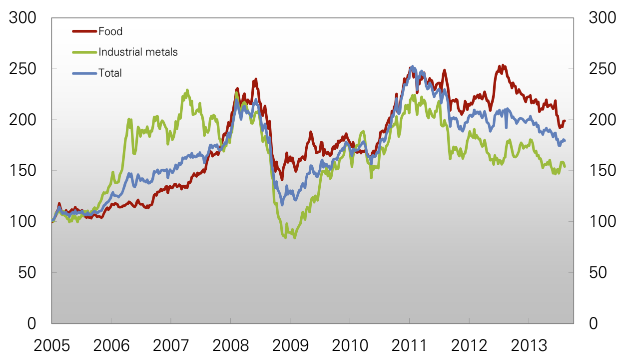
[1] Average annual rise.
[2] Weights from Eurostat (each country's share of euro area consumption).
[3] Emerging economies in the trading partner aggregate excluding China: Brazil, India, Indonesia, Russia, Turkey, Poland and Thailand. GDP weights.
[4] Import weights, 25 main trading partners.
[5] Futures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

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



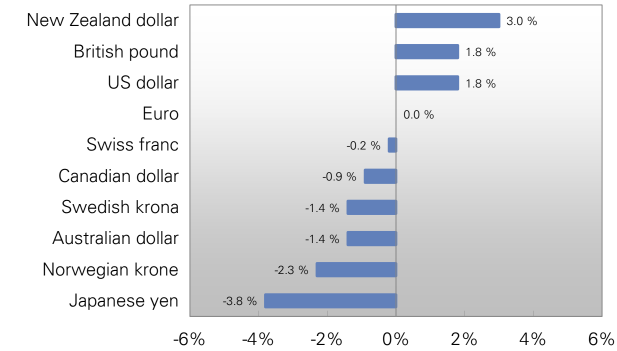
1) Million British thermal unit.
Sources: IMF, Thomson Reuters, Statistics Norway, Ministry of Finance and Norges Bank

Chart 3.12 The Economist commodity–price index. 7 January 2005 = 100. 7 January 2005 – 6 September 2013



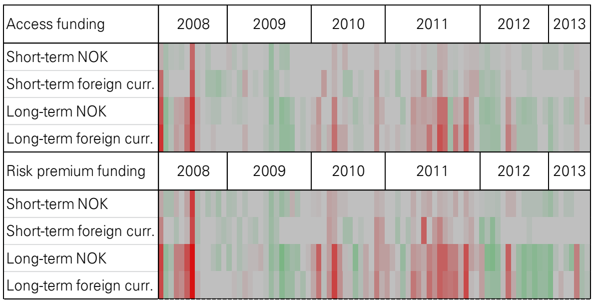
Source: Thomson Reuters

Chart 3.13 Effective exchange rates, G10 currencies. Change from 19 June 2013.[1] At 12 September 2013



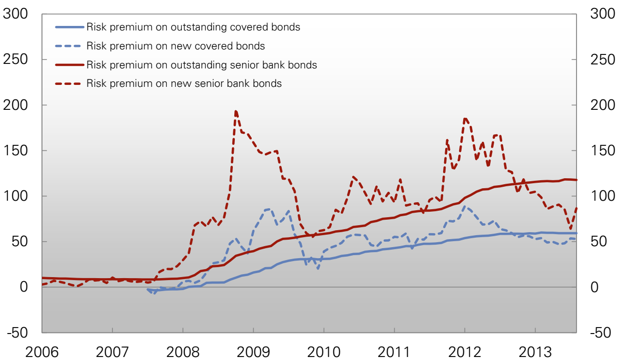
1) Positive numbers denote a stronger exchange rate.
Sources: Bloomberg and Norges Bank

Chart 3.14 Banks' qualitative assessment of access to and premiums on wholesale funding.[1] March 2008 – August 2013



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

Chart 3.15 Average risk premium[1] on new and outstanding bond debt for Norwegian banking groups[2]. Basis points. January 2006 – August 2013



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

of asset purchases. The meeting of the Federal Open Market Committee (FOMC) on 19 June reinforced market expectations of an imminent tapering of bond purchases, which led to a broad appreciation of the US dollar. On the whole, the US dollar has appreciated since the June *Monetary Policy Report* (see Chart 3.13). Growing expectations that the Federal Reserve is set to scale back asset purchases have also contributed to a marked depreciation of the currencies of a number of small countries and emerging market currencies. Sterling weakened during summer on signals from the Bank of England that its key rate will be kept low for a longer period. Sterling has since appreciated in response to several positive indicators for the UK economy and higher money market rates. The European Central Bank has also communicated that its key rate will be kept at a low level for a longer period. The euro has shown little change since the June *Report*.

The krone exchange rate has fluctuated considerably through summer. So far in Q3, the krone exchange rate measured by the import-weighted exchange rate index (I-44), has on average been around 2% weaker than projected in the June *Report*. The krone has recently appreciated somewhat, to around 89 measured by the I-44, and is expected to remain close to this level in the coming quarters. Developments in the krone exchange rate are discussed further on page 12 in Section 1.

Norwegian banks

Wholesale funding and deposits are banks' most important funding sources. The structure of bank funding is affected by the risk and price of various forms of funding and expected regulatory requirements.

Norwegian banks and mortgage companies still have ample access to wholesale funding (see Chart 3.14). The risk premium in the Norwegian 3-month money market rate has fallen to around 0.25 percentage point, close to pre-crisis levels and somewhat lower than projected in the June *Report*. Premiums are expected to remain at this level ahead. Risk premiums on new long-term wholesale funding are approximately unchanged on the June *Report*. After having risen since 2007, average risk premiums on bank bonds outstanding have levelled off (see Chart 3.15). If premiums on new funding remain at the current level, the average premium on bank bonds outstanding will decline somewhat in the period ahead.

There is still considerable uncertainty regarding developments in risk premiums on long-term wholesale funding. Renewed financial market turbulence may push up risk premiums. In June, fears regarding the effect of any scaling back by the Federal Reserve of its quantitative easing programme pushed up risk premiums in the international credit market. This rise was later reversed and had less of an impact on risk premiums on Norwegian banks' wholesale funding. Deleveraging in Europe and continued high levels of central bank liquidity provision have reduced the supply of bank and mortgage company bonds, keeping risk premiums low. This may also make it easier for Norwegian banks to obtain more new long-term funding to cover the expiry of NOK 89bn[1] in swap agreements in the coming year. The build-up of bank capital may also reduce bondholders' risk exposure, which suggests lower risk premiums.

At the end of June, EU finance ministers reached a compromise on the Bank Recovery and Resolution Directive. Under the proposal, which will probably be adopted by the European Parliament in November, holders of bank bonds will have to absorb losses, also short of insolvency, when banks do not meet capital requirements. There will also be scope for converting unsecured bank bonds into equity in order to recapitalise a failing bank. So far, this compromise has had little effect on risk premiums on bank bonds.

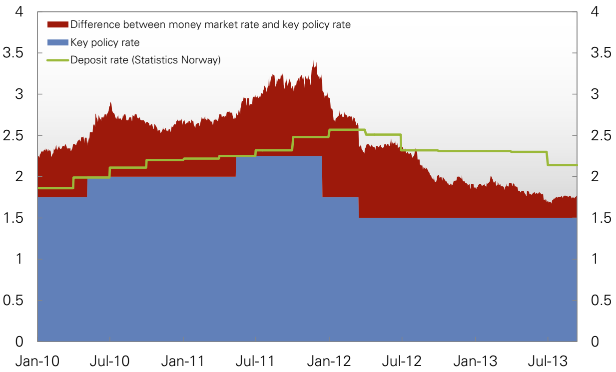
Banks' deposit rates have declined markedly since the June *Report*, but still remain above money market rates (see Chart 3.16). Lower risk premiums on wholesale funding could indicate that banks may seek to pay less for deposits in the period ahead.

Banks' residential mortgage rates rose by 0.3 percentage point between 2013 Q1 and 2013 Q2 (see Chart 1.5). The reason cited for the increase was stricter capital requirements. The increase has led to wider lending spreads for loans to households. Lending spreads are expected to remain around current levels for the remainder of the year, followed by a gradual reduction (see Chart 1.20). Corporate lending rates changed little between Q1 and Q2 (see Chart 3.17).

Norwegian banks are adapting to the gradually increasing capital requirements (see Chart 2.18). From 1 July 2013,

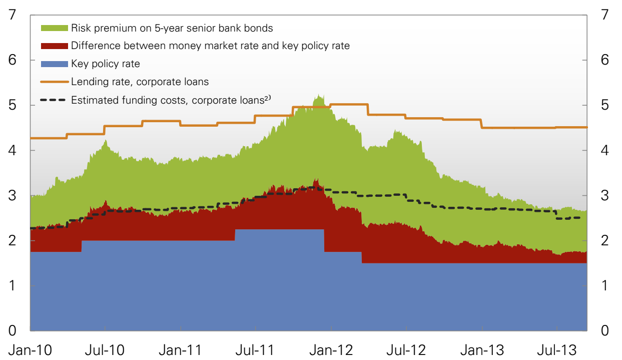
1 As at 18 September 2013.

Chart 3.16 Deposit rate[1)] and money market rate. Percent. 1 January 2010 – 12 September 2013



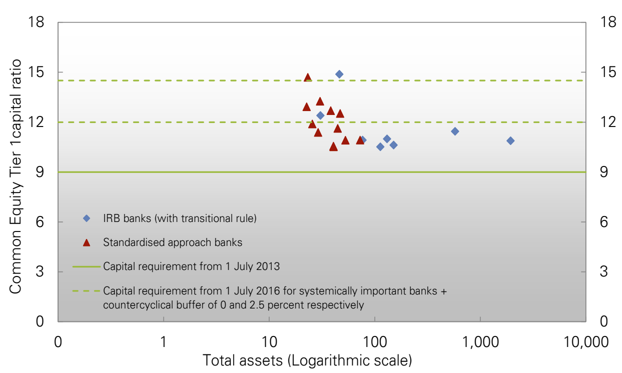
1) All banks in Norway.
Sources: Statistics Norway and Norges Bank

Chart 3.17 Lending rate on corporate loans[1)] and funding costs. Percent. 1 January 2010 – 12 September 2013



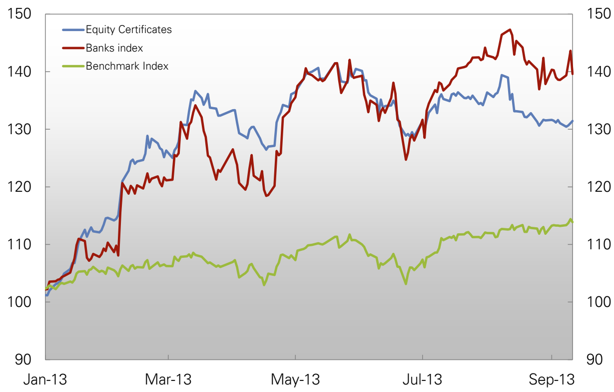
1) All banks and mortgage companies in Norway.
2) Estimated using weighted interest rate on senior bank bonds outstanding and weighted deposit rate.
Sources: DNB Markets, Statistics Norway and Norges Bank

Chart 3.18 Banking groups'[1)] Common Equity Tier 1 capital ratios including the result for the first half of 2013. Percent. Total assets. In billions of NOK. At 30 June 2013



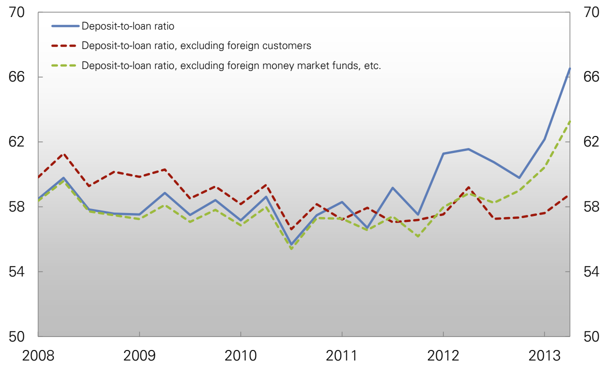
1) Banking groups with total assets in excess of NOK 20bn, excluding branches of foreign banks in Norway.
Sources: Finanstilsynet, banking groups' income statements and Norges Bank

Chart 3.19 Prices for bank stocks, equity certificates and for Oslo Børs as a whole. Index. 28 December 2012 = 100. 2 January 2013 – 12 September 2013



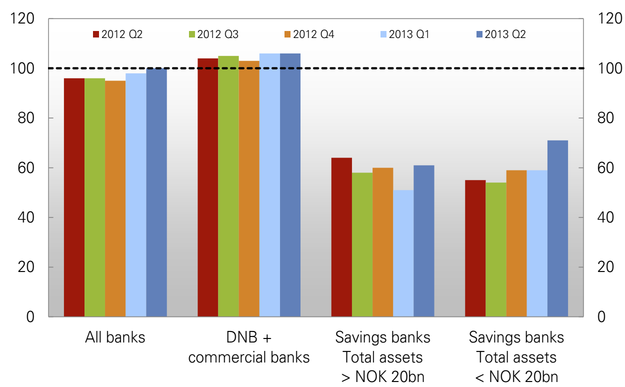
Source: Thomson Reuters

Chart 3.20 Deposit-to-loan ratio.[1] Percent. 2008 Q1 – 2013 Q2



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

Chart 3.21 Banks'[1)] liquidity coverage ratio (LCR).[2)]
Consolidated data. Weighted average for the group. At end-quarter



1) All banks, 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

the CET1 requirement will be 9.0% and the total capital adequacy requirement 12.5%. At the end of 2013 Q2, all large Norwegian banking groups met the CET1 requirement with a considerable margin (see Chart 3.18), while some banking groups had yet to meet the total capital adequacy requirement. The difference between the total capital requirement and the CET1 requirement can be made up by other regulatory capital, such as preferred capital securities and subordinated loan capital. Banks are expected to choose the least costly form of eligible capital, rather than meeting this portion of the requirement with higher quality capital. The markets for other regulatory capital function well and banks that so desire should not have difficulty meeting their quotas in this way.

Banking groups' after-tax profits improved between 2013 Q1 and Q2. The improvement is due in part to higher lending rates. Because the increase in rates did not become effective for existing loan customers until the end of April, the impact on earnings will not be fully reflected until Q3. Loan losses were somewhat higher in Q2 than in Q1, but remain low. If all of the profit from the first half of 2013 is added to Tier 1 capital, IRB banking groups'[2] CET1 capital ratios will rise overall by 0.5 percentage point, to 11.0% (see Chart 2.19).[3]

Prices for Norwegian bank shares and equity certificates have risen sharply so far this year (see Chart 3.19). This may make it easier for banks to raise fresh equity capital because a higher price makes equity capital issues more attractive to existing owners. Sparebanken Møre raised NOK 375m in equity capital through issues of equity certificates this summer, while SpareBank 1 Nord-Norge will raise NOK 750m in September. The new certificates are being issued to meet high loan demand, while banks adapt to new capital requirements.

Norwegian banks' deposit-to-loan ratios increased significantly in the first half of 2013 owing to high deposit growth (see Chart 3.20). Deposits are normally regarded as a stable form of funding. A substantial portion of this deposit growth stems from major market participants abroad, which may be less stable. Excluding these deposits, the increase in the deposit-to-loan ratio is considerably smaller.

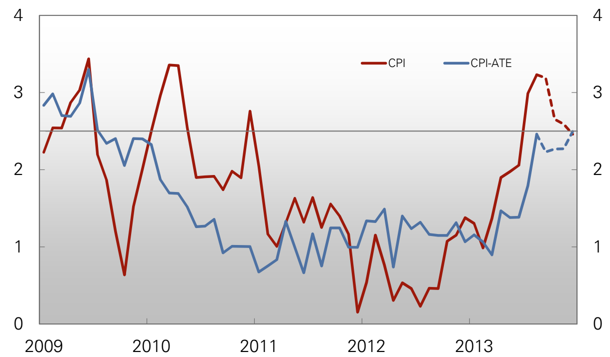
2 The six largest Norwegian banking groups, as well as Sparebanken Hedmark and Bank 1 Oslo Akershus, use the internal ratings-based (IRB) approach to calculate their capital requirements.
3 This is an estimate, since accrued interim profit less allocation of dividend is not added to CET1 capital until year-end.

Banks are well on the way to meeting the expected short-term liquidity requirement (the liquidity coverage ratio, LCR[4]) (see Chart 3.21). If the Basel Committee's proposal to ease this requirement is implemented, banks will satisfy the LCR to a further extent.[5] The LCR requirement of 100% was to apply from 2015, but a gradual phasing-in from 2015 to 2019 has now been proposed. A stable funding requirement (Net Stable Funding Ratio (NSFR)[6]) will likely also be introduced as from 2018. Norwegian banks have gradually come close to meeting this requirement, and in that respect have become more robust. To meet the requirement, the ratio of stable funding to illiquid assets must be further improved. This will require that banks finance their lending and other assets with longer-term funding.

Consumer prices

Inflation has picked up rapidly in recent months and has been higher than projected in the June *Report*. In August, 12-month consumer price inflation (CPI) was 3.2% (see Chart 3.22). Inflation adjusted for tax changes and excluding energy products (CPI-ATE) was 2.5%. Other indicators of underlying inflation were between 2.1% and 2.6%.

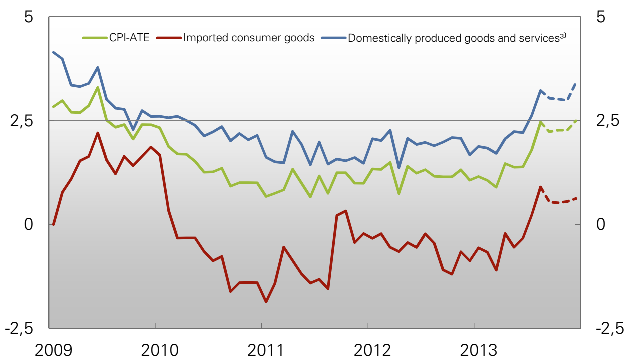
Chart 3.22 CPI and CPI-ATE[1]. 12-month change. Percent. January 2009 – December 2013[2]



1) CPI adjusted for tax changes and excluding energy products.
2) Projections for August 2013 – December 2013 (broken lines).
Sources: Statistics Norway and Norges Bank

Prices for domestically produced goods and services in the CPI-ATE have risen more than projected in the June *Report* (see Chart 3.23). Weak productivity growth implies a slightly higher rise in business costs than assumed in the June *Report*. At the same time, the rise in prices has probably led to an increase in operating margins in the business sector. Food commodity prices rose sharply through summer. The rise was larger than the estimated effect on prices of the agricultural settlement. The rise in house rents has also picked up recently, after remaining low throughout 2012. The methods for measuring price developments in these components of the CPI have been changed in the past year. Such changes generate additional uncertainty as to what the CPI figures actually reflect, and the sample space around the projections for the months ahead is therefore unusually wide. The rise in prices for domestically produced goods and services is assumed to remain around 3% to the end of 2013.

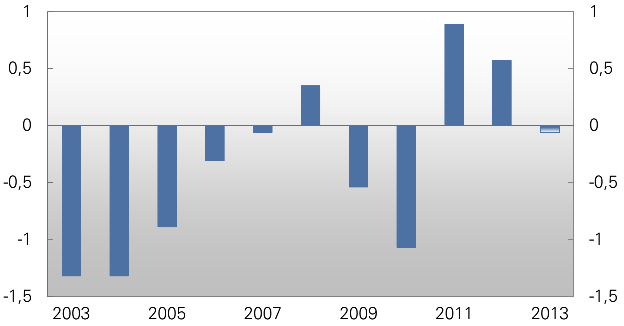
Chart 3.23 CPI-ATE[1]. Total and by supplier sector. 12-month change. Percent. January 2009 – December 2013[2]



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

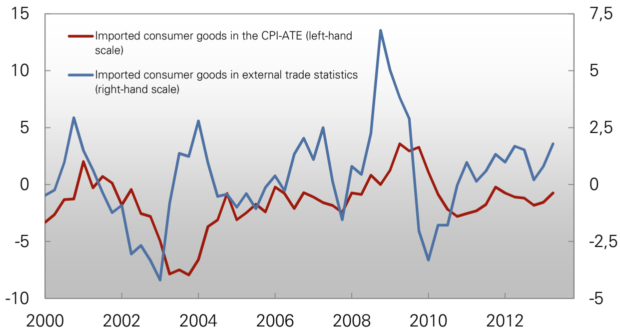
4 The LCR is defined as stock of high-quality liquid assets as a percentage of total net cash outflows over 30 calendar days of severe market stress. The standard requires that the value of the ratio be no lower than 100%.
5 The most important change for Norwegian banks is that deposits from enterprises are considered more stable than earlier.
6 The NSFR is defined as the available amount of stable funding as a percentage of the required amount of stable funding for all illiquid assets. This ratio must be greater than 100%.

Chart 3.24 Indicator of external price impulses to imported consumer goods measured in foreign currency. Annual change. Percent. 2003 – 2013[1)]



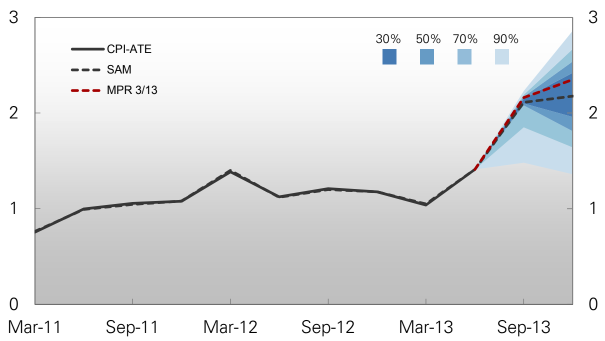
1) Projection for 2013.
Source: Norges Bank

Chart 3.25 Imported consumer goods in the CPI-ATE[1)] and in external trade statistics. Four-quarter growth. Percent. 2000 Q1 – 2013 Q2



1) CPI adjusted for tax changes and excluding energy products.
Source: Statistics Norway

Chart 3.26 CPI-ATE[1)]. Actual figures, baseline scenario and projections from SAM[2)] with fan chart. Four-quarter change. Percent. 2011 Q1 – 2013 Q4[3)]



1) CPI adjusted for tax changes and excluding energy products.
2) System for averaging short-term models.
3) Projections for 2013 Q3 – 2013 Q4 (broken lines).
Sources: Statistics Norway and Norges Bank

The 12-month rise in prices for imported consumer goods has picked up considerably in recent months and has been clearly higher than expected (see Chart 3.23). The 12-month rise was positive in both July and August. The rise in prices has picked up for most groups of imported consumer goods. The 12-month rise in prices for audio-visual equipment has accelerated in recent years and is positive for the first time in close to 20 years. The rise in prices for clothing and footwear has also gained momentum in recent months. External producer prices for imported consumer goods have been fairly stable in the past year (see Chart 3.24). At the same time, the rise in prices for these goods as recorded in external trade statistics has picked up recently (see Chart 3.25). Changes in the krone exchange rate normally affect inflation with a lag. It cannot be ruled out that higher inflation is linked to the krone depreciation, but if this is the case, the feed-through to prices has been considerably more rapid than normal. The rise in prices for imported consumer goods, as measured by the CPI-ATE, is assumed to increase to ½% in 2013 Q4, partly as a result of the krone depreciation, which is expected to have a stronger impact on the rise in prices through autumn.

Overall, the 12-month rise in the CPI-ATE is projected at 2¼% towards the end of the year. The projections are higher than in the June *Report*, primarily because consumer prices have risen to a higher level than previously projected. The sharp rise in some prices may be reversed somewhat in the months ahead. At the same time, the krone is somewhat weaker than projected in the June *Report*. Overall, prices are projected to rise month-on-month at approximately the same rate as in the June *Report*. The projections for CPI-ATE inflation are within the most probable outcomes in the projections from Norges Bank's System for Averaging short-term Models (SAM) (see Chart 3.26).

The rise in electricity prices has pushed up 12-month CPI inflation since the latter part of 2012. The 12-month rise in energy prices is expected to slow gradually in the period to the turn of the year. CPI inflation is projected at 2¼% in 2013.

The Norwegian real economy

Output and capacity utilisation

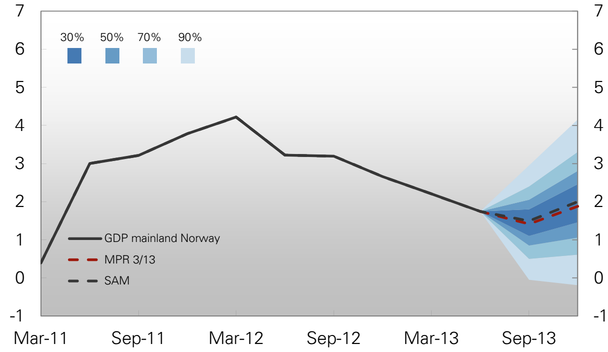
Growth in the Norwegian economy has slowed somewhat (see Chart 3.27). Growth in the mainland economy has been somewhat below a historical average for the past three quarters. GDP for mainland Norway grew by 0.2% in 2013 Q2. This is lower than projected in the June *Report*, but the increase in demand was considerably higher than output growth. In the quarters ahead, growth is expected to be just above ½%. Growth is being supported by high activity in the petroleum sector, favourable terms of trade and strong population growth. GDP for mainland Norway is projected to grow by 1¾% in 2013. The projection is slightly lower than in the June *Report*, but in line with the forecasts from Norges Bank's System for Averaging short-term Models (SAM).

The enterprises in Norges Bank's regional network reported in August that output growth had been somewhat lower than expected. Prospects for output growth had weakened, according to the network (see Chart 3.28). Expectations had in particular decreased in the oil supplier industry, retail trade and household services.

Capacity utilisation in the mainland economy has recently fallen slightly, but is still considered to be close to a normal level. According to Norges Bank´s regional network, the share of enterprises with capacity problems has fallen back since the June *Report* (see Chart 3.29). Registered unemployment has recently increased slightly, consistent with somewhat lower capacity utilisation. In isolation, weak GDP growth could point to lower-than-projected capacity utilisation. The preliminary national accounts figures are uncertain. Reports from the regional network suggest somewhat higher growth in Q2 than indicated by the preliminary national accounts. At the same time, weak productivity growth over a period suggest that growth in potential output is somewhat lower than previously anticipated.

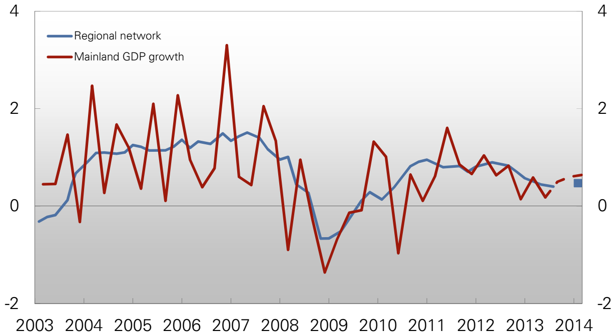
In the quarters ahead, capacity utilisation is expected to remain close to a normal level. Estimated growth in the mainland economy in 2013 is somewhat lower than estimated growth in potential output. Potential output growth is assumed to be 2% in 2013. This is ½ percentage point lower than in the June *Report*, reflecting a downward adjustment of the Bank´s projections of underlying productivity growth. Underlying productivity growth is

Chart 3.27 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 Q4[2]



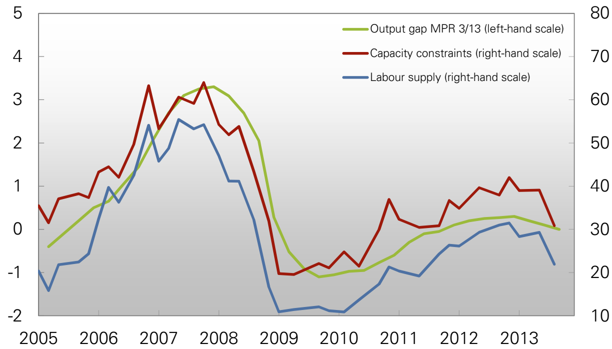
1) System for averaging short-term models.
2) Projections for 2013 Q3 – 2013 Q4 (broken lines).
Sources: Statistics Norway and Norges Bank

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



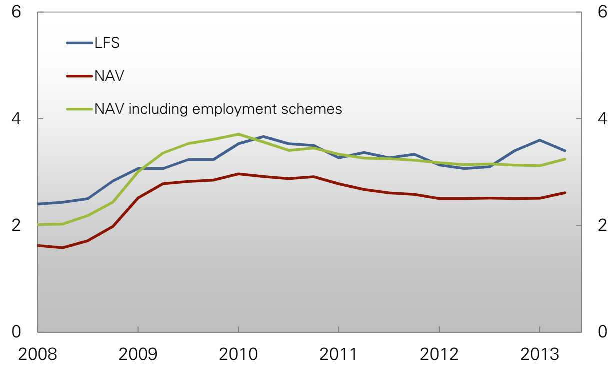
1) Seasonally adjusted quarterly change. Volume.
2) Latest observation in the regional network is September 2013. Latest GDP observation is 2013 Q2. Projections for 2013 Q3 – 2014 Q1 (broken line).
Sources: Statistics Norway and Norges Bank

Chart 3.29 Capacity constraints and labour supply[1] as reported by Norges Bank' regional network and estimated output gap. Percent. 2005 Q1 – 2013 Q3



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

Chart 3.30 Unemployment rate. LFS[1)] and NAV[2)]. Seasonally adjusted. Percent. 2008 Q1 – 2013 Q2



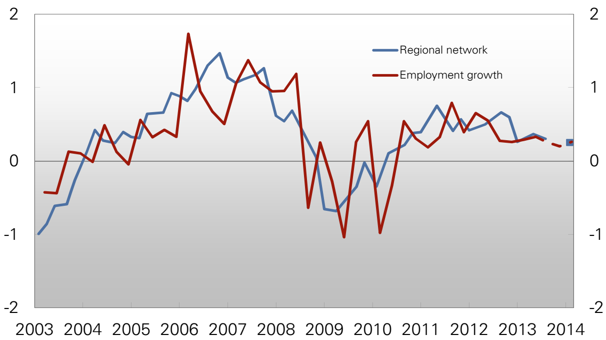
1) Labour Force Survey
2) Norwegian Labour and Welfare Administration
Sources: Statistics Norway and NAV

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	¾	1

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

Chart 3.31 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 – 2014 Q1[2)]



1) Seasonally adjusted quarterly change in Quarterly National Accounts.
2) Latest observation in the regional network is September 2013.
Latest observation in the Quarterly National Accounts is 2013 Q2.
Projections for 2013 Q3 – 2014 Q1 (broken line).
Sources: Statistics Norway and Norges Bank

projected at ¾%, while population growth is expected to raise potential output by about 1¼ percentage points.

Labour market

Developments in unemployment have been broadly in line with expectations in the June *Report* (see Chart 3.30). According to the Norwegian Labour and Welfare Administration (NAV), registered unemployment was 2.7% of the labour force in August, while unemployment as recorded by the Labour Force Survey (LFS) was 3.3% in June. Since the June *Report,* LFS unemployment has edged down, while registered unemployment has increased slightly. The deviation between the two measures of unemployment is now more in line with the historical difference.

After several years of strong employment gains, employment growth has slowed somewhat over the past year. According to the quarterly national accounts, annual growth in employment was 1.2% in Q2. The difference between LFS employment growth and employment as recorded in the quarterly national accounts is still unusually wide. Some of the difference may be attributable to the sharp increase in workers on short-term contracts in Norway. These workers are recorded as far as possible in the quarterly national accounts, but are not included in the LFS.

Labour immigration has declined slightly since 2012, but is still high. Over the past four quarters, net labour migration to Norway has totalled 42 300. Labour immigration is expected to remain high in the years ahead, supporting continued high population growth (see Table 3.3).

Growth in employment is expected to be moderate ahead, approximately in line with expectations among regional network contacts (see Chart 3.31). The Opinion Perduco expectations survey also indicates slightly lower employment growth ahead. Employment is projected to rise by approximately ¼% in the quarters ahead, while labour participation is expected to edge down. Unemployment is projected to rise slightly in the period ahead.

According to the national accounts, productivity growth has been weak recently (see Chart 3.32). Similar developments have been captured by output and employment indicators derived from regional network data. Moderate business investment and an ample supply of labour may have contributed to lower productivity growth. It is also likely that, owing to lower growth in the economy, enterprises are making less intensive use of factor inputs. Productivity growth is assumed to pick up somewhat ahead. Somewhat higher GDP growth may lead to more efficient use of factor inputs.

Wage growth in 2013 is projected at 3½%. The enterprises in Norges Bank´s regional network also expect annual wage growth in 2013 to be 3½%. Wage expectations are highest in services and lowest in manufacturing. According to the Opinion Perduco expectations survey for Q3, the social partners expect wage growth of 3.7% in 2013.

Households and enterprises

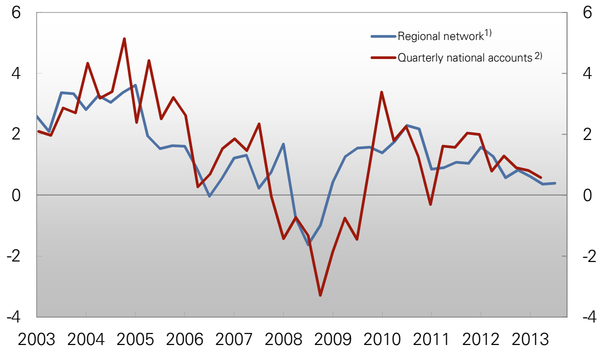
Households

After growing rapidly in Q1, household spending on goods fell in Q2, with another marked fall in July (see Chart 3.33). Consumption of both goods and services has been weaker than assumed in the June *Report.* Confidence indicators suggest that household expectations regarding economic developments are slightly lower. Contacts in the Bank´s regional network expect growth in services consumption to remain fairly weak ahead.

Household income is still showing solid growth. The household saving ratio has increased in recent years and has now reached a historically high level (see Chart 3.34). Tighter bank credit standards and higher bank lending rates, a high debt to income ratio, the pension reform and demographic changes are some of the factors that are likely to have contributed to the rise in the saving ratio. Household real disposable income in 2013 is projected to rise approximately as projected in the June *Report.* Weaker developments in the housing market may curb consumption growth and provide a further boost to household saving. Private consumption is projected to rise by 2¼% between 2012 and 2013, which is somewhat lower than projected in the June *Report* (see Chart 3.35). The household saving ratio is projected at close to 9% in 2013.

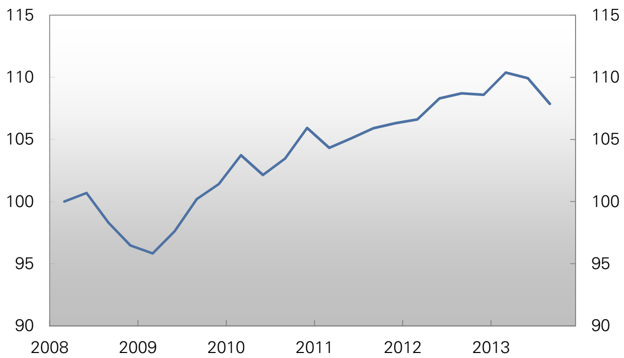
Housing investment has reached a high level. The number of housing starts rose somewhat in the first half of 2013, compared with the first half of 2012, totalling more than 30 000 over the past year (see Chart 3.36). Housing completions are expected to total 28 000 in 2013, which is

Chart 3.32 Productivity in mainland Norway. Output per person employed. Annual growth. Percent. 2003 Q1 - 2013 Q3



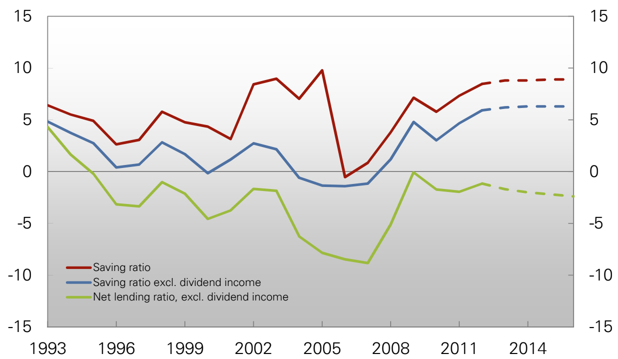
1) Annualised quarterly growth
2) Four-quarter growth
Sources: Statistics Norway and Norges Bank

Chart 3.33 Household spending on goods. Index. 2008 Q1 = 100. Seasonally adjusted. 2008 Q1 – 2013 Q3



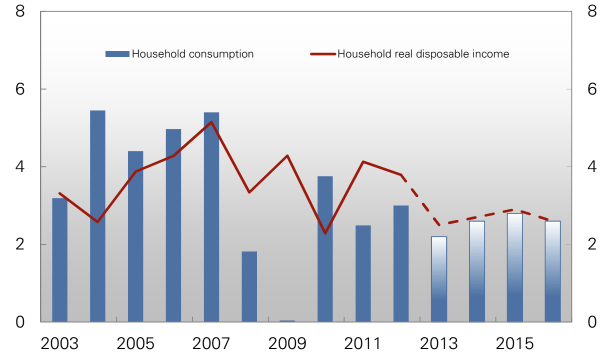
Source: Statistics Norway

Chart 3.34 Household saving and net lending as a share of disposable income. Percent. 1993 – 2016[1)]



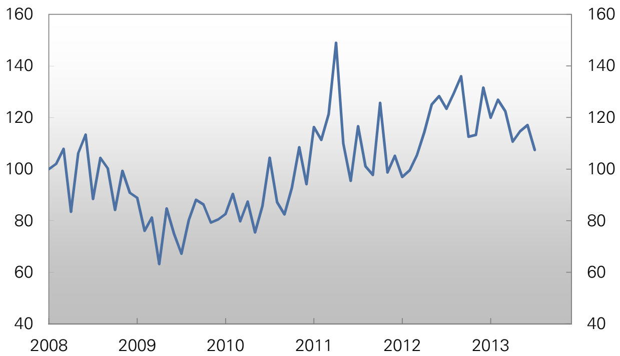
1) Projections for 2013 – 2016 (broken lines).
Sources: Statistics Norway and Norges Bank

Chart 3.35 Household consumption[1] and real disposable income[2]. Annual change. Percent. 2003 – 2016[3]



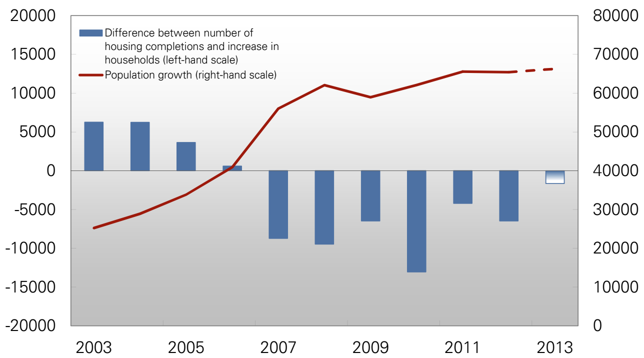
1) Includes consumption among non-profit organisations. Volume.
2) Excluding dividend income. Including income in non-profit organisations.
3) Projections for 2013 – 2016 (broken line).
Sources: Statistics Norway and Norges Bank

Chart 3.36 Housing starts. Seasonally adjusted. Area. Index. January 2008 = 100. January 2008 – August 2013



Source: Statistics Norway

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



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

somewhat lower than the increase in the number of households (see Chart 3.37). Regional network enterprises report that activity in residential construction has been fairly stable and is expected to remain at this level in the quarters ahead. Lower order intake in residential construction and a slower annual rise in house prices may indicate that the current growth in housing investment will slow somewhat ahead. Housing investment is projected to increase by 6½% in 2013.

In recent months, house prices have been lower than projected in the June *Report*. Lower consumer confidence, higher bank lending rates and lower income growth may have contributed to curbing the rise in house prices. Debt growth has slowed slightly, but the debt to income ratio has increased further from an already high level. The rise in house prices is expected to be somewhat slower than assumed in the June *Report,* which will also contribute to a slower rise in household debt than previously projected. At end-2013, house prices and debt are expected to rise by 3% and 7% respectively.

Enterprises

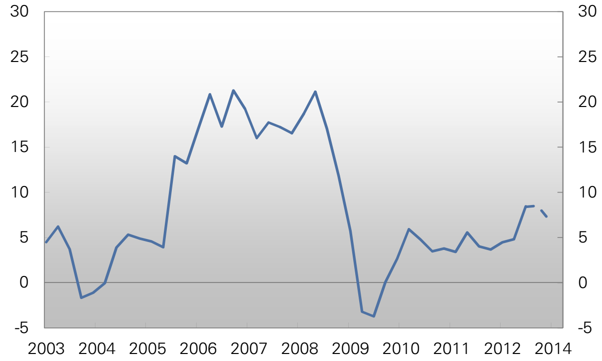
Norway's mainland export industry is being supported by strong demand from the petroleum sector. With continued growth in global petroleum investment, exports from industries supplying the petroleum sector may continue to increase. Over time, high cost inflation has weakened the cost competitiveness of more traditional export firms. Combined with low external demand, this has led to weak developments for many of these firms. In the long term, a weaker krone may result in somewhat higher demand for Norwegian goods and services. Exports of traditional goods and services are projected to grow by 1¾% between 2012 and 2013.

Petroleum investment has increased markedly since 2010. A number of new projects will be launched in the next few years. In addition, there are plans for extensive upgrading of existing facilities, contributing to a further rise in investment. Petroleum investment is assumed to grow by 13% in 2013, 4% in 2014 and around 1-2% in the subsequent two years.

In both manufacturing and commercial property, levels of investment were high in the pre-crisis period. This accumulation of fixed assets may have curbed investment growth in the years following the crisis. In addition, weak external developments, tighter bank credit standards and high funding costs may have held back investment. The level of mainland business investment is projected to remain approximately unchanged between 2012 and 2013.

Corporate debt growth has been moderate since the financial crisis (see Chart 3.38). Although bank loans are still the most important source of corporate funding, bonds have become an increasingly important source of funding for large firms. Since mid-2011, listed companies' earnings have fallen relative to interest-bearing debt, but debt-servicing capacity has recently been fairly stable. Weak growth in business investment may contribute to moderate credit growth ahead. Growth in credit to mainland enterprises is expected to slow somewhat and to be 7% at end-2013.

Chart 3.38 Credit growth for non-financial enterprises in mainland Norway.[1)] Four-quarter growth. Percent. 2003 Q1 – 2013 Q4[2)]

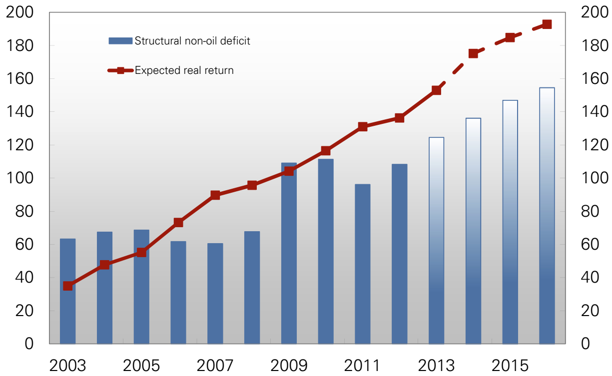


1) Growth based on volume figures.
2) Projections for 2013 Q3 - 2013 Q4.
Sources: Statistics Norway and Norges Bank

Fiscal policy

The projections in this *Report* are based on the assumption that fiscal policy is conducted in line with the fiscal rule. In the Revised National Budget for 2013, petroleum revenue spending in 2013, as measured by the structural non-oil deficit, is projected at NOK 125bn, or 3.3% of the market value of the Government Pension Fund Global (GPFG) at the beginning of the year. As a technical assumption, the deficit is assumed to remain around this proportion through the projection period. This implies a fairly steady rise in petroleum revenue spending (see Chart 3.39).

Chart 3.39 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

Public consumption is projected to grow by 2½% on an annual basis in 2013. According to the quarterly national accounts, general government investment fell in the first half of the year, but is expected to increase in the period ahead. Overall, growth in public demand is projected at about 2½% in the coming years.

Annex

Monetary policy meetings

Tables and detailed projections

Monetary policy meetings
with changes in the key policy rate

Date	Key policy rate[1)]	Change
4 December 2013		
23 October 2013		
18 September 2013	**1.50**	**0**
19 June 2013	1.50	0
8 May 2013	1.50	0
13 March 2013	1.50	0
19 December 2012	1.50	0
31 October 2012	1.50	0
29 August 2012	1.50	0
20 June 2012	1.50	0
10 May 2012	1.50	0
14 March 2012	1.50	-0.25
14 December 2011	1.75	-0.50
19 October 2011	2.25	0
21 September 2011	2.25	0
10 August 2011	2.25	0
22 June 2011	2.25	0
12 May 2011	2.25	+0.25
16 March 2011	2.00	0
26 January 2011	2.00	0
15 December 2010	2.00	0
27 October 2010	2.00	0
22 September 2010	2.00	0
11 August 2010	2.00	0
23 June 2010	2.00	0
5 May 2010	2.00	+0.25
24 March 2010	1.75	0
3 February 2010	1.75	0
16 December 2009	1.75	+0.25
28 October 2009	1.50	+0.25
23 September 2009	1.25	0
12 August 2009	1.25	0
17 June 2009	1.25	-0.25
6 May 2009	1.50	-0.50
25 March 2009	2.00	-0.50
4 February 2009	2.50	-0.50

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

Table 1 Main macroeconomic aggregates

Percentage change from previous year/quarter		GDP	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		3.1	3.4	3.0	1.8	3.7	14.5	2.2	2.4
2012[3]	Q3	-0.5	0.8	0.6	0.5	5.1	1.1	0.1	1.9
	Q4	0.2	0.1	0.4	0.5	0.5	5.9	-1.0	-0.8
2013	Q1	-0.1	0.6	1.1	0.5	-2.5	1.2	0.5	-1.8
	Q2	0.8	0.2	0.2	0.8	1.8	7.4	1.7	0.9
2012-level, in billions of NOK		2 907	2 200	1 175	619	410	172	454	799

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

Sources: Statistics Norway and Norges Bank

Table 2 Consumer prices

Annual change/twelve-month change. Per cent		CPI	CPI-ATE[1]	CPIXE[2]	CPI-AT[3]	CPI-AE[4]	HICP[5]
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		0.8	1.2	1.0	0.6	1.4	0.4
2013	Jan	1.3	1.2	1.0	1.3	1.1	1.2
	Feb	1.0	1.1	0.9	0.9	1.0	0.6
	Mar	1.4	0.9	0.8	1.3	1.0	1.1
	Apr	1.9	1.5	1.4	1.9	1.3	1.8
	May	2.0	1.4	1.3	2.0	1.4	1.8
	Jun	2.1	1.4	1.2	2.1	1.4	1.9
	Jul	3.0	1.8	1.5	3.0	1.7	2.8
	Aug	3.2	2.5	2.2	3.3	2.4	3.3

[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	2¼	2¼	2	2
CPI-ATE[1)]		1.2	1¾	2¼	2	2
Annual wages[2)]		4	3½	4	4¼	4¼
Real economy						
GDP	2 907	3.1	¼	2	2¾	2¼
GDP, mainland Norway	2 200	3.4	1¾	2¼	2¾	2¾
Output gap, mainland Norway (level)[3)]		¼	0	-¼	-¼	-¼
Employment, persons, QNA		2.1	1¼	1	1	1
Labour force, LFS		1.8	¾	1	1¼	1¼
LFS unemployment (rate, level)		3.2	3½	3½	3¾	3¾
Registered unemployment (rate, level)		2.5	2¾	2¾	3	3
Demand						
Mainland demand[4)]	2 204	2.8	2¼	2¾	3	2¾
- Private consumption	1 175	3.0	2¼	2½	2¾	2¾
- Public consumption	619	1.8	2½	2¾	.	.
- Fixed investment, mainland Norway	410	3.7	2	3¾	.	.
Petroleum investment[5)]	172	14.5	12½	3¾	1½	1¾
Mainland exports[6)]	454	2.2	1¾	¼	.	.
Imports	799	2.4	0	4	.	.
Interest rate and exchange rate						
Key policy rate (level)[7)]		1.6	1½	1¾	2	2½
Import-weighted exchange rate (I-44)[8)]		87.1	88	88	87¾	87¾

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

. Not available

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

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