NB NORGES BANK

Monetary Policy Report

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Monetary Policy Report 1/2012

NORGES BANK

Norges Bank

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Monetary Policy Report

The *Report* is published three times a year, in March, June and October/November. The *Report* assesses the interest rate outlook and includes projections for developments in the Norwegian economy and analyses of selected themes.

At its meeting on 14 December 2011, the Executive Board discussed relevant themes for the *Report*. At the Executive Board meeting on 29 February 2012 the economic outlook and the monetary policy stance were discussed. On the basis of this discussion and a recommendation from Norges Bank's management, the Executive Board adopted a monetary policy strategy for the period to the publication of the next *Report* on 20 June 2012 at the meeting held on 14 March. The Executive Board's summary of the economic outlook and the monetary policy strategy are presented in "The Executive Board's assessment". The next monetary policy meeting of the Executive Board will be held on 10 May.

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This *Monetary Policy Report* is based on information in the period to 9 March 2012.

The monetary policy strategy was approved by the Executive Board on 14 March 2012.

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, including alternative strategies. The final decision to adopt a monetary policy strategy is made on the same day as 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 held six times a year. The analyses and the monetary policy strategy, together with assessments of price and cost developments and conditions in the money and foreign exchange markets, form a basis for interest rate decisions.

Communication of the interest rate decision

The monetary policy decision is published in a press release and announced at a press conference at 2 pm on the day of the meeting.

"The Executive Board's assessment" is published in the *Monetary Policy Report*. The assessment contains the main points of the *Report* and a summary of the main points to which the Executive Board gives weight in its discussion of monetary policy. The assessment concludes with the Executive Board's strategy for the period to the publication of the next *Report* and the key policy rate decision.

The press release, the *Monetary Policy Report*, the Executive Board's monetary policy decision – background and general assessment, and the press conference are available on www.norges-bank.no.

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 Section 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 Finansmarknadsmeldinga (Financial Market Report). The governor of Norges Bank provides an assessment of monetary policy in an open hearing before the Standing Committee on Finance and Economic Affairs in connection with the Storting deliberations on the Financial Market Report.

The Executive Board's assessment

At the time of the publication of the October 2011 *Monetary Policy Report*, the Executive Board decided that the key policy rate should be in the interval 1¾%–2¾% in the period to 14 March 2012, unless the Norwegian economy was exposed to new major shocks. The analysis in the October *Report* indicated that the key policy rate would remain unchanged for about a year and then gradually rise to around 4% towards the end of 2014. The *Report* also presented an alternative where the key policy rate declined to 1.5% in the period to summer 2012. The low interest rate alternative assumed continued turbulence in financial markets, sustained high money market premiums and a deeper and more prolonged downturn abroad than in the baseline scenario.

In its discussion at the meeting on 14 December 2011, Norges Bank's Executive Board pointed to the intensified turbulence abroad and greater risk of a new recession, especially in Europe. As a result of the debt crisis in the euro area, it was more difficult and more costly for European banks to obtain funding in the market. Norwegian banks were also affected. Developments resulted in prospects for lower output and employment growth and lower inflation in the Norwegian economy. The Executive Board noted that money market premiums had risen and that money market rates were higher than assumed in October. The Executive Board decided to lower the key policy rate by 0.5 percentage point to 1.75% to guard against an economic setback and even lower inflation.

At its meetings on 29 February and 14 March, the Executive Board discussed the monetary policy stance and the outlook for the key policy rate. The Executive Board has placed emphasis on the following developments:

The situation in international financial markets has improved since December 2011. Long-term loans from the European Central Bank (ECB) to banks have boosted liquidity and reduced risk premiums in the European banking system and in the sovereign debt market. Funding has become more accessible, also for Norwegian banks. Norwegian money market rates have recently fallen back slightly. Nevertheless, there are prospects that money market rates will be well above the key policy rate and that this premium will remain higher than projected in October.

There is still considerable uncertainty surrounding economic developments in Europe, even though actions taken by the ECB have eased market turbulence. It seems likely that euro area output will decline this year and that growth among Norway's trading partners as a whole will be fairly moderate. In addition, central bank key rates among Norway's main trading partners are expected to remain very low even longer than anticipated in autumn 2011.

In Norway, growth in petroleum investment and the oil sector is sustaining economic activity. In January, the enterprises in Norges Bank's regional network reported higher growth in production, but also that the weak prospects abroad would weigh on growth ahead. The export industry is being affected by developments in Europe and by a strong krone. Owing to high money and credit market premiums, the decline in the key policy rate in December has not resulted in lower bank lending rates. In January, banks announced some tightening of credit standards for households. A high level of uncertainty is causing households and enterprises to be more cautious in their consumption and investment decisions. Nevertheless, current statistics show a pickup in spending on consumer goods. The low key policy rate is stimulating demand for goods and services, but no more than what is necessary to sustain overall capacity utilisation in the economy as a whole.

Inflation is low. It is likely that underlying inflation will remain around 1¼% and 1½% through 2012. The krone has recently appreciated considerably and is now strong. Wage growth appears to be slackening.

The point of departure for the Executive Board's deliberations is that the key policy rate is set with a view to stabilising inflation close to 2.5% over time. When setting interest rates, stabilising inflation is balanced against stabilising output and employment. A separate box in this *Report* describes how financial stability considerations may influence interest rate setting.

The Executive Board notes that the analyses in this *Report* call for a considerable downward revision of the interest rate forecast compared with the projections in October 2011.

The Executive Board judges that weak growth prospects abroad and the strong krone are contributing to keeping inflation low and dampening economic growth in Norway, even if activity in some industries in Norway remains buoyant. If the interest rate is set too high, the krone may appreciate further, inflation may continue to fall and growth in output and employment may become too low. This suggests that the key policy rate should be reduced further. On the other hand, there is virtually normal capacity utilisation in the Norwegian economy. Moreover, low interest rates over time may induce households and enterprises to take excessive risks and accumulate excessive debt. Such imbalances may have spillover effects further ahead, with substantial effects on output and employment.

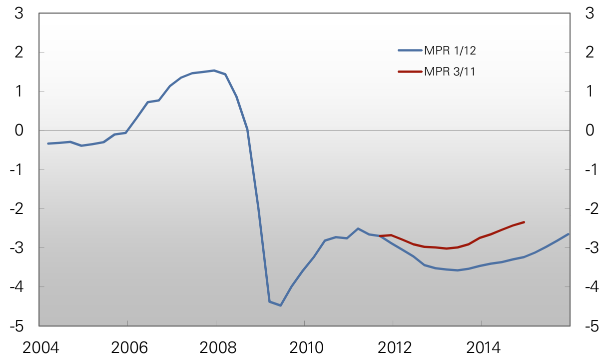
The Executive Board decided at its meeting on 14 March that the key policy rate should be in the interval 1%–2% until the publication of the next *Report* on 20 June 2012, unless the Norwegian economy is exposed to new major shocks. Should uncertainty abate and growth and inflation pick up, the interest rate may be raised. Conversely, a deterioration of the European debt crisis or other major shocks may result in a reduction in the interest rate. A substantially stronger krone may also result in further interest rate cuts.

At the same meeting, the Executive Board decided to reduce the key policy rate by 0.25 percentage point to 1.5%.

Øystein Olsen
14 March 2012

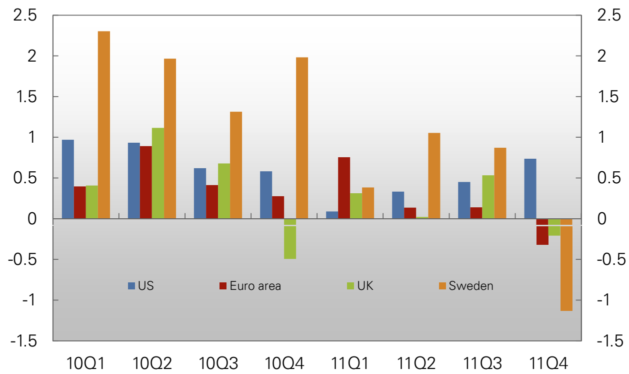
1 Outlook for monetary policy

Chart 1.1 Projected output gap[1)] for Norway's trading partners. Percent. 2004 Q1 – 2015 Q4



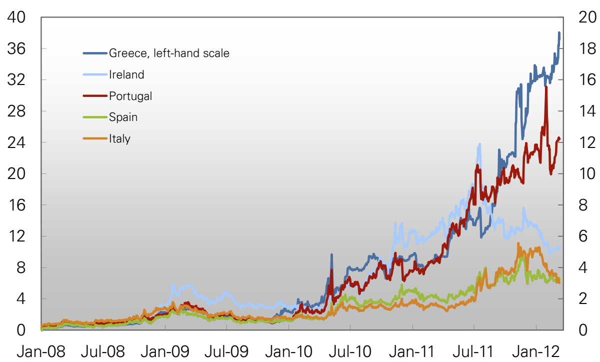
1) The output gap measures the percentage deviation between GDP and projected potential GDP for Norway's trading partners
Sources: IMF, Thomson Reuters and Norges Bank

Chart 1.2 GDP growth for advanced economies. Quarterly change. Percent. 2010 Q1 – 2011 Q4



Source: Thomson Reuters

Chart 1.3 Yield spreads against German 10-year government bonds. Percentage points. 1 January 2008 – 9 March 2012



Source: Thomson Reuters

The economic situation

There are prospects for low growth in most advanced economies (see Chart 1.1). There is considerable uncertainty about developments in Europe, even though the risk of a banking crisis triggered by a sovereign debt default has been reduced. Greece has reached an agreement with its private creditors on a substantial debt restructuring. On this basis, euro area Heads of State or Government have approved a new loan package for Greece. The euro area debt crisis clearly weighed on the pace of growth in autumn 2011 (see Chart 1.2). Household and business confidence has been weakened and banks have tightened their credit standards. Deleveraging by the public sector, banks and households will likely affect developments in advanced economies for several years. In the US, developments have been somewhat more favourable than expected, while the pace of growth of emerging economies has slowed, partly as a result of lower export demand and the unrest in Europe. Oil prices are now approximately USD 125 per barrel, or more than 10% higher than at the time of the October *Report*.

The situation in global financial markets has improved somewhat after the turn of the year. Substantial long-term loans from the European Central Bank (ECB) to banks have boosted liquidity and reduced risk premiums in the European banking system and sovereign debt market. This has resulted in a clear decline in financing costs for countries in the euro area's southern tier. Nevertheless, long-term yields for Italy and Spain continue to be at approximately the same level as when *Monetary Policy Report* 3/11 was published in October (see Chart 1.3). Yields on presumably safe sovereign bonds remain low (see Chart 1.4).

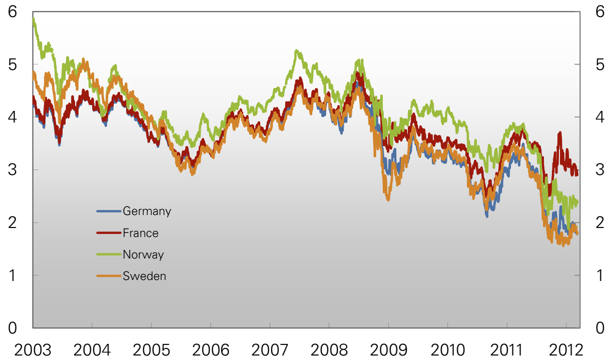
Key rates are near zero in many countries. Expectations of a gradual normalisation of interest rates have been deferred still further ahead (see Chart 1.5). The Federal Reserve has communicated that the federal funds rate will most probably remain near zero until end-2014. In the UK, the repo rate is 0.5%, and is not expected to increase in the next couple of years. In the euro area, the short money market rate (EONIA) is expected to remain at current levels, between ¼% and ½%, in the year ahead. In Sweden, Sveriges Riksbank lowered its key rate to 1.5%, with market participants expecting further interest rate reductions ahead.

The krone has appreciated in recent weeks. The krone exchange rate is now approaching the strongest levels ever measured against the I-44. Against the euro, the krone is at its strongest level since January 2003.

In pace with the deepening turbulence in the euro area, the spread between Norwegian money market rates and the key policy rate widened considerably in November and December 2011. The money market premium has since fallen back and is now at approximately the same level as in October 2011 (see Chart 1.6). Nevertheless, the premium is higher than projected in the October *Report*. Three-month money market rates (NIBOR) are now about 2.6% (see Chart 1.7). Credit premiums on covered bonds and senior bank bonds remain high, but Norwegian banks' long-term borrowing costs have declined somewhat since October, and funding has become more available. Banks tightened credit standards for households and enterprises in 2011 Q4, and in January announced some tightening of credit standards for households in 2012 Q1.

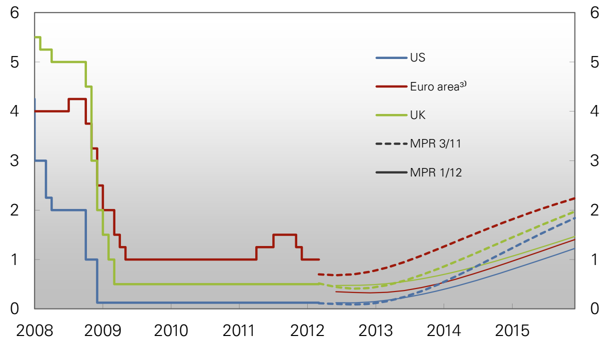
The analyses in the October *Report* indicated that the key policy rate would remain unchanged at 2.25% up to autumn 2012, and then increase gradually to around 4% towards the end of 2014. It was assumed that the turbulence in financial markets would not intensify and that the debt problems facing Greece would be resolved without significant new spillover effects on other countries. In the period to around the end of 2012, the economic turmoil abroad heightened, increasing the risk of a new recession, especially in Europe. The debt crisis in the euro area made it more difficult and expensive for European banks to obtain funding in the market. Wholesale funding has also become more expensive and less available for Norwegian banks. To counteract higher money market premiums and cushion the effects on the Norwegian economy of weaker external developments, the key policy rate was reduced to 1.75% in December.

Chart 1.4 Yields on 10-year government bonds. Percent. 1 January 2003 – 9 March 2012



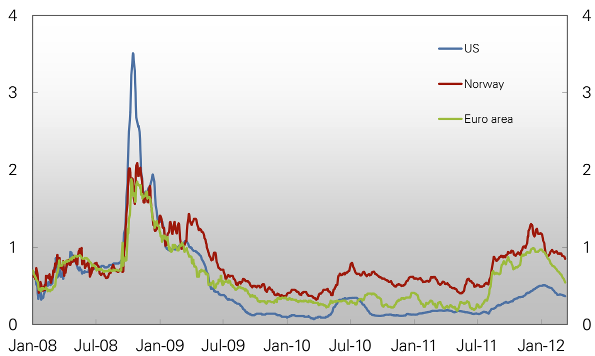
Source: Thomson Reuters

Chart 1.5 Key rates and estimated forward rates as at 13 October 2011 and 9 March 2012.[1)] Percent. 1 January 2008 – 31 December 2015[2)]



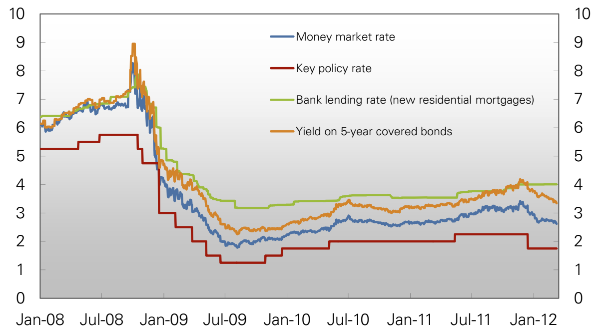
1) Broken lines show estimated forward rates as at 13 October 2011. Thin lines show forward rates as at 9 March 2012. Forward rates are based on Overnight Index Swap (OIS) rates
2) Daily figures from 1 January 2008 and quarterly figures from 2012 Q1
3) EONIA in euro area from 2012 Q1
Sources: Bloomberg and Norges Bank

Chart 1.6 Difference between 3-month money market rate and expected key rates[1)]. Percentage points. 5-day moving average. 1 January 2008 – 9 March 2012



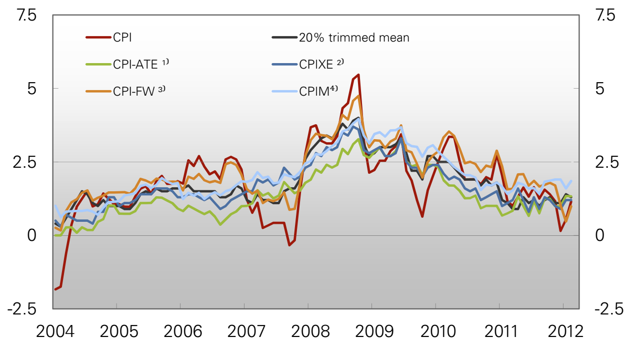
1) Expected key rates are derived from Overnight Index Swap (OIS) rates. Norges Bank's projections for market key rate expectations are used for Norway
Sources: Bloomberg, Thomson Reuters and Norges Bank

Chart 1.7 Key policy rate, money market rate[1], yield on 5-year covered bonds[2] and weighted average lending rate on new residential mortgages[3]. Percent. 1 January 2008 – 9 March 2012



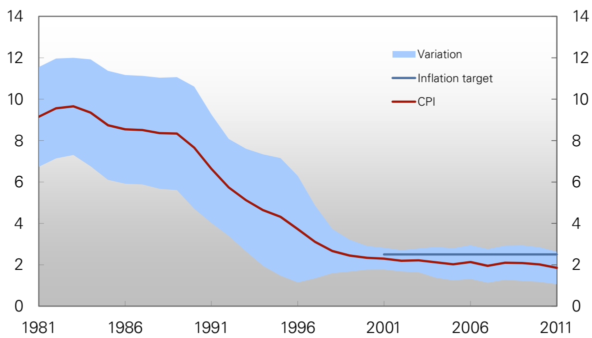
1) 3-month NIBOR (effective)
2) Sum of 3-month NIBOR and indicative credit spreads on 5-year covered bonds
3) Interest rate on new residential mortgages of NOK 1m within 60% of purchase price with variable interest rate. Figures for the 20 largest banks, weighted according to market share
Sources: Norsk familieøkonomi AS, DnB Nor Markets, Statistics Norway and Norges Bank

Chart 1.8 Consumer prices. 12-month change. Percent. January 2004 – February 2012



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

Chart 1.9 Inflation. Moving 10-year average[1] and variation[2] in CPI[3]. Percent. 1981 – 2011



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
3) Estimate based on CPI projections in this *Report*
Sources: Statistics Norway and Norges Bank

Growth in the Norwegian economy remains solid, even though developments have been somewhat weaker than expected. According to preliminary national accounts figures, mainland GDP increased by 0.6% between 2011 Q3 and 2011 Q4. Growth in petroleum investment and petroleum-related industries is strong. In January, the enterprises in Norges Bank's regional network reported rising output growth. Unemployment has remained stable. House prices have risen and household debt continues to rise at a faster pace than household income. On the other hand, the export industry is being affected by developments in Europe and by a strong krone. Continued uncertainty is causing households and enterprises to be cautious in their consumption and investment decisions. Weaker prospects internationally and lower confidence indicators suggest activity growth ahead will be lower than previously assumed. Quarterly growth in mainland GDP is now expected to be ¾% throughout 2012. Capacity utilisation in the Norwegian economy appears to be close to a normal level but is rising somewhat more slowly than projected in October.

The twelve-month rise in consumer prices adjusted for tax changes and excluding temporary changes in energy prices (CPIXE) was 1.2% in February, 0.2 percentage point lower than projected in the October *Report* (see Chart 1.8). Underlying inflation is projected to be approximately 1¼%.

The outlook ahead

The operational target of monetary policy in Norway is low and stable inflation, with annual consumer price inflation of close to 2.5% over time. Over the past ten years, average inflation has been somewhat below but close to 2.5% (see Chart 1.9). Long-term inflation expectations are stable around the inflation target, but short-term inflation expectations have fallen somewhat (see Charts 1.10 and 1.11).

GDP growth in 2012 is now expected to be -½% in the euro area and 1% for trading partners as a whole. This is clearly lower than the projections in the October *Report*. The downward revision primarily reflects weaker growth prospects for Europe. Growth is projected to pick up somewhat ahead, but is expected to remain fairly moderate. The analysis in this *Report* is based on the assumption that financial market turbulence will continue to recede gradually. The uncertainty surrounding future developments in the world economy remains considerable.

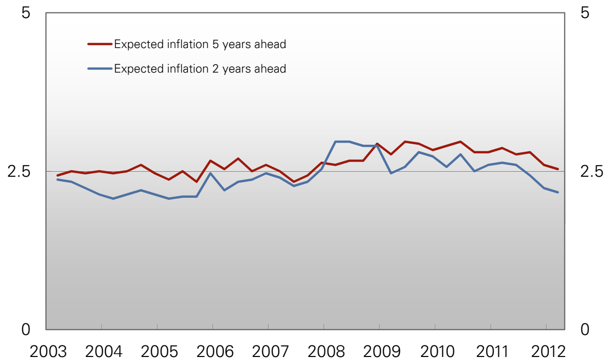
Forward rates in money and financial markets indicate that short-term money market rates among Norway's main trading partners will remain low for a long period. There are prospects that market rates will be well below 2% at the end of 2015. There is little indication that interest rates abroad will normalise at a markedly faster pace than implied by market rates.

Inflation in Norway is low. Wage growth seems to be slackening. The krone is strong, and import prices cannot be expected to push up inflation. In the coming quarters underlying inflation is expected to remain fairly stable and somewhat lower than projected in the October *Report*.

Weak growth prospects abroad and the strong krone are dampening economic growth and inflation in Norway, even if activity in some Norwegian business sectors is high. Growth is being driven by high activity in the oil industry and construction. Combined with low interest rates, this will contribute to output growth in the Norwegian economy broadly in pace with potential output. At the same time, there is an unusually wide spread between different interest rates. Due to high money market premiums and higher credit premiums, low key rates are not feeding through fully to the rates facing households and businesses. Many households continue to pay around 4% for residential mortgage loans, and interest rates for enterprises are between 5% and 6%. Moreover, persistently high uncertainty is causing households and enterprises to be more cautious in their consumption and investment decisions. The result is that a low key policy rate may now generate less economic stimulus than in a situation of lower uncertainty.

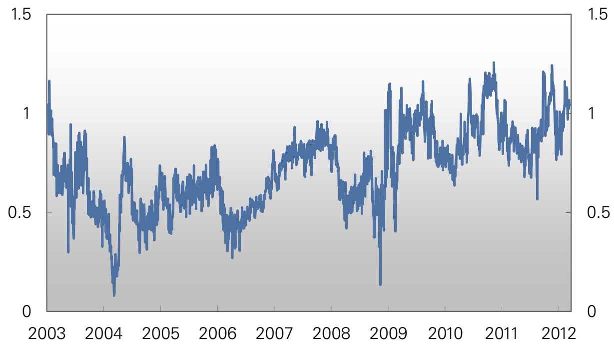
Capacity utilisation in the Norwegian economy is now near a normal level. At the same time, household debt has continued to rise faster than disposable income. Debt burdens are high (see Chart 1.12). This makes households vulnerable to high interest rates and loss of income. A prolonged low interest rate level can amplify house price inflation and lending growth and induce households and

Chart 1.10 Expected consumer price inflation 2 and 5 years ahead.[1]
Percent. 2003 Q1 – 2012 Q1



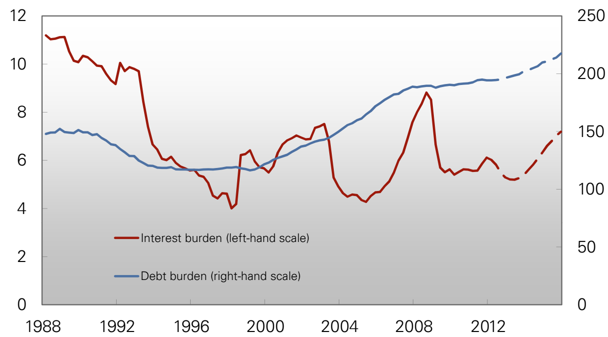
1) Average of expectations of employer/employee organisations and economists (financial industry experts and academia)
Sources: TNS Gallup and Perduco

Chart 1.11 Five-year forward rate[1] differential 5 years ahead between Norway and the euro area.[2] Percentage points. 1 January 2003 – 9 March 2012



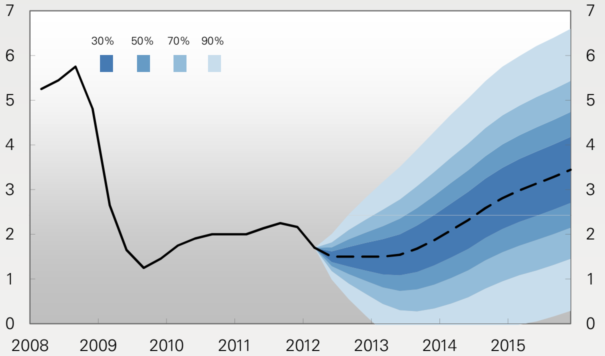
1) Based on swap rates
2) Expected inflation can be derived from the long-term interest rate differential. Due to a higher inflation target in Norway, the long-term interest rate differential will normally be 0.5 – 1 percentage point, depending on risk premium. This level may indicate that long-term inflation expectations are close to target.
Sources: Thomson Reuters and Norges Bank

Chart 1.12 Household debt burden[1] and interest burden[2].
Percent. Quarterly figures. 1988 Q1 – 2015 Q4



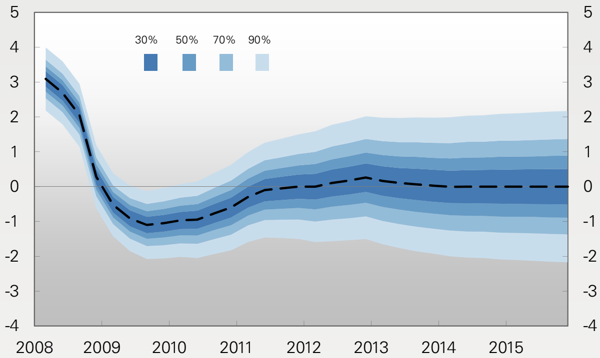
1) Loan debt as a percentage of disposable income adjusted for estimated reinvested dividends for 2000 – 2005 and redemption/reduction of equity capital for 2006 – 2015
2) Interest expenses after tax as a percentage of disposable income adjusted for estimated reinvested dividends for 2000 – 2005 and redemption/reduction of equity capital for 2006 – 2015 plus interest expenses
Sources: Statistics Norway and Norges Bank

Chart 1.13a Projected key policy rate in the baseline scenario with probability distribution. Percent. 2008 Q1– 2015 Q4



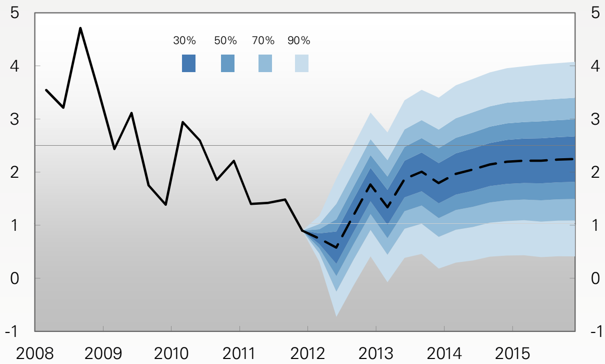
Source: Norges Bank

Chart 1.13b Projected output gap[1)] in the baseline scenario with probability distribution. Percent. 2008 Q1 – 2015 Q4



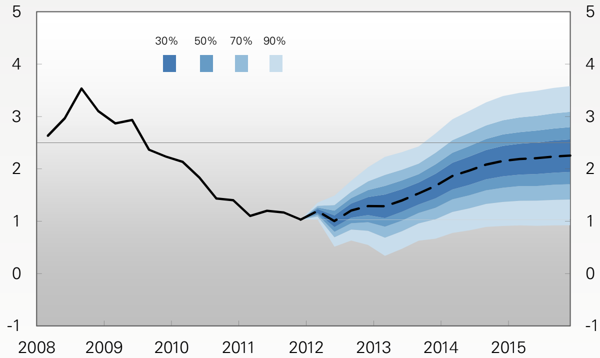
1) The output gap measures the percentage deviation between mainland GDP and projected potential mainland GDP
Source: Norges Bank

Chart 1.13c Projected CPI in the baseline scenario with probability distribution. Four-quarter change. Percent. 2008 Q1 – 2015 Q4



Sources: Statistics Norway and Norges Bank

Chart 1.13d Projected CPIXE[1)] in the baseline scenario with probability distribution. Four-quarter change. Percent. 2008 Q1 – 2015 Q4



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

enterprise to take excessive risks and accumulate excessive debt. Such imbalances may have spillover effects further ahead, with impacts on output, employment and inflation. On the other hand, persistently low inflation may lead to a situation where inflation expectations become entrenched at a level that is too low.

Overall, the outlook and the balance of risks suggest that the key rate should be in the interval 1%-2% in the period to the publication of the next *Monetary Policy Report* (see the Executive Board's assessment at the beginning of the *Report*).

The interest rate forecast in this *Monetary Policy Report* has been revised down compared with the October 2011 *Report* (see box on pages 20 and 21). A substantial portion of the downward revision occurred already when the key policy rate was lowered in December. At that time, the key policy rate was reduced to 1.75%. There are prospects that the key policy rate will remain at the current level in the year ahead (see Charts 1.13a-d and Chart 1.14). The interest rate is projected to rise gradually thereafter to around 3.5% towards the end of 2015.

The spread between the expected key policy rate and the money market rate is assumed to narrow gradually from the current level of close to 1 percentage point to approximately 0.35 percentage point in the course of 2014 (see Chart 1.15).[1] Money market rates are therefore projected

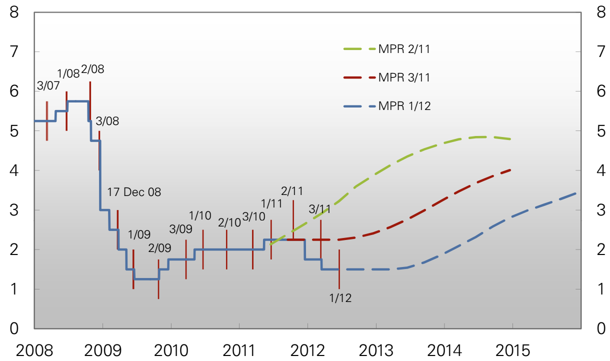
1 For a discussion of the calculation of the Nibor premium, see Economic Commentaries no. 5/2012: "Estimating forward Nibor premiums", by Erlend Hellum and Geir-Are Ø. Kårvik

to edge down over the next year and thereafter rise slightly less than the key policy rate. The interest rate differential against other countries is projected to edge up further ahead. The krone is expected to depreciate somewhat (see Chart 1.16).

Inflation is projected to edge up towards 2½%, partly as a result of continued low interest rates (see Chart 1.17). Growth in mainland GDP is projected at about 3% this year and in the years ahead, broadly in pace with potential output growth. Capacity utilisation will thus remain close to a normal level. Projections for household consumption have been revised down considerably since October. Enterprises are also expected to invest less than previously assumed. Export growth from mainland Norway is expected to be weak. Norwegian export firms are affected by the downturn abroad and the strong krone. On the other hand, strong growth in petroleum investment and high activity in the oil sector will continue to sustain activity in the Norwegian economy.

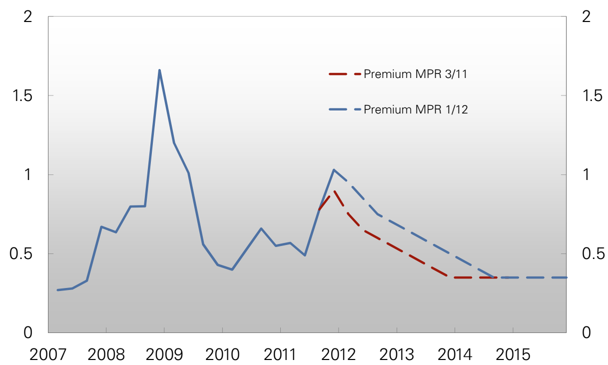
House price inflation is projected to decline from around 8% this year to 4%-5% towards the end of the projection period. It takes time for a downward shift in house price inflation to feed through fully to household debt growth. For that reason, household credit growth may remain at around current levels over the coming years. Household debt relative to disposable income is projected to edge up

Chart 1.14 Interval for the key policy rate at the end of each strategy period, actual developments and projected key policy rate in the baseline scenario. Percent. January 2008 – December 2015



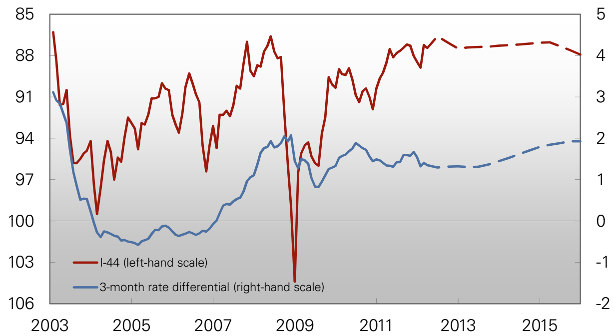
Source: Norges Bank

Chart 1.15 Difference between 3-month money market rate and expected key rates.[1] Percentage points. 2007 Q1 – 2015 Q4



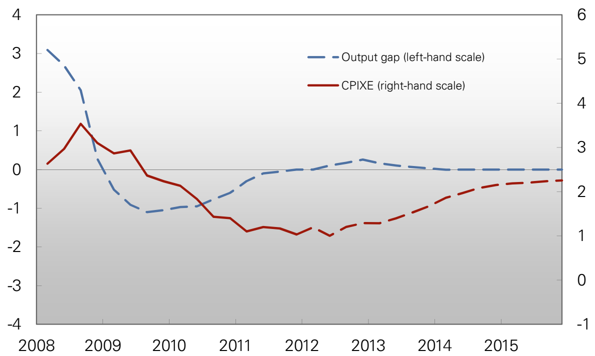
1) Norges Bank's projections from 2012 Q1
Source: Norges Bank

Chart 1.16 Three-month money market rate differential between Norway[1] and trading partners and the import-weighted exchange rate index (I-44)[2]. January 2003 – December 2015[3]



1) Key policy rate in the baseline scenario plus premiums in the Norwegian money market. The calculations are based on the assumption that announced interest rate changes are priced into the money market
2) A positive slope denotes a stronger krone exchange rate
3) Monthly figures from January 2003 and Norges Bank projections from 2012 Q1
Sources: Thomson Reuters and Norges Bank

Chart 1.17 Projected inflation[1] and output gap in the baseline scenario. Percent. 2008 Q1 – 2015 Q4



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

Response pattern of monetary policy and criteria for an appropriate interest rate path

Since 2005, Norges Bank has published forecasts for the key policy rate. As a guideline for the forecasts, Norges Bank has established a set of criteria for an appropriate interest rate path (see, for example, *Monetary Policy Report* 3/11).

The conduct of monetary policy is based on empirical observations of the functioning of the Norwegian economy and how the key policy rate works. New insights provide a basis for further development of monetary policy, in terms of the criteria that may be useful and how to apply them when forecasting the interest rate path.

There is a discussion internationally about whether monetary policy should take into account the risk of financial imbalances.[1] An emerging view is that in certain situations, persistently low interest rates may give rise to financial imbalances in the longer term, with wide fluctuations in output and employment. Norges Bank has previously stated that low interest rates over time entail the risk of a buildup of imbalances.[2] Technically this consideration has been expressed as a supplementary assessment of the changes to the Bank's interest rate forecast.[3] To clarify Norges Bank's response pattern, the criteria for an appropriate interest rate path have now been adjusted accordingly, as described below.

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

1. ***The inflation target is achieved:***
   The interest rate should be set with a view to stabilising inflation at target or bringing it back to target after a deviation has occurred.
2. ***The inflation targeting regime is flexible:***
   The interest rate path should provide a reasonable balance between the path for inflation and the path for overall capacity utilisation in the economy.
3. ***Monetary policy is robust:***
   The interest rate should be set so that monetary policy mitigates the risk of a buildup of financial imbalances, and so that acceptable developments in inflation and output are also the likely outcome under alternative assumptions about the functioning of the economy.

The various considerations taken into account in the criteria must be weighed against each other. The specific time horizon for stabilising inflation at target will depend on the type of disturbances to which the economy is exposed and their effect on the outlook for inflation and the real economy. Mathematically, these assessments can be represented in somewhat simplified terms by a loss function, where the parameters λ, τ and γ represent relative weights[4]:

$$L = \rlap{$\overbrace{}^{\text{Criterion 2}}$}\overbrace{(\pi_t-\pi^*)^2}^{\text{Criterion 1}} + \underbrace{\lambda(y_t-y_t^*)^2 + \gamma(i_t-i_{t-1})^2 + \tau(i_t-i_t^*)^2}_{\text{Criterion 3}}$$

Criterion 1, which states that the inflation target is reached, is covered by the first segment. The loss L_t will be greater, the more actual inflation π_t deviates from the target π^*.

Criterion 2, which states that the inflation targeting regime is flexible, is covered by the first and second segments. For given inflation developments, the loss L_t will increase with fluctuations in economic activity, measured as the deviation between actual output y_t and the normal output level y_t^*. Often, a reasonable balance will imply opposite signs for the projected inflation gap $(\pi_t - \pi^*)$ and output gap $(y_t - y_t^*)$ some time ahead.

Criterion 3, which states that monetary policy is robust, is covered by the second, third and fourth segments.[5] Experience shows that financial imbalances often build up in periods of high capacity utilisation. For that reason, increasing the weight λ of the output gap in the loss function may reduce the risk of a buildup of such imbalances. The third segment of the loss function expresses that it will normally be robust to change the interest rate gradually, so that the current interest rate, i_t, does not deviate excessively from the rate in the previous period, i_{t-1}. Substantial and sudden changes in the interest rate may lead to economic instability. Gradual changes in the interest rate enhance the robustness of monetary policy because the Bank can then regularly assess the effects of a change in the interest rate and other new information on economic developments.

The last segment states that the loss increases when the interest rate deviates substantially from a normal level i_t^*.[6] This consideration can help to mitigate the risk of a buildup of financial imbalances – even in periods when capacity utilisation is not particularly high.

Over time, income level, saving behaviour, the tax system and the structure of financial markets determine the level of household and corporate indebtedness. Low interest rates for extended periods can increase the risk that debt and asset prices will move up and remain higher than what is sustainable over the economic cycle.[7] In addition, banks may ease credit standards and financial market participants may increase risk taking.[8] High debt levels make borrowers more vulnerable and increase the risk of long-term instability in the real economy.[9] A sudden, unexpected drop in incomes, higher unemployment or other macroeconomic shocks may result in a fall in property prices, creating imbalances between borrowers' debts and the value of leveraged assets.

By incorporating the interest rate level in the loss function, the Bank is seeking to counter the buildup of such imbalances. This does not imply that the interest rate becomes an independent objective of monetary policy. Rather, the purpose is to overcome flaws in our analytical tools related to the effects of low interest rates. Monetary policy will continue to react to shocks that affect the path for inflation, output and employment.[10]

The loss function must be regarded as a simplified representation of the more extensive assessments underlying interest rate decisions. Situations may arise where weight will be given to considerations other than those expressed in the loss function. In certain situations, for example, a more aggressive interest rate response than usual may be necessary to prevent particularly adverse outcomes. In other situations, the Bank may judge that greater caution in interest rate setting is warranted. Formalising the considerations that are given weight by means of a loss function will nonetheless contribute to consistency over time, and can clarify how Norges Bank normally balances various considerations.

Compared with the loss function in previous reports, the weight given to the output gap (λ) has been adjusted upwards. In addition, the weight given to the deviation of the interest rate from simple monetary policy rules has been replaced by the weight of the deviation of the interest rate from a normal interest rate. The changes have been made to enable the Bank's model-based analyses to better capture the monetary policy response pattern since the financial crisis in autumn 2008. A separate box on changes in the projections since *Monetary Policy Report* 3/11 presents the effects of the adjusted loss function on the interest rate path.

As the Bank gains new insights and gathers further evidence, the Bank's assessments of economic relationships may change and its models may be further developed. New insight into the functioning of the economy and enhanced understanding of how to mitigate the risk of financial imbalances may influence the formulation of the loss function. Norges Bank will provide an account of any adjustments of the loss function such changes would imply.

1 See for example Woodford, Michael (2012): "Inflation Targeting and Financial Stability," *Sveriges Riksbank Economic Review* 2012:1, and Svensson, Lars E.O. (2012): "Comment on Michael Woodford, Inflation targeting and Financial Stability", *Sveriges Riksbank Economic Review* 2012:1 and Eichengreen, B., M. El-Erian, A. Fraga, T. Ito, J. Pisani-Ferry, E. Prasad, R. Rajan, M. Ramos, C. Reinhart, H. Rey, D. Rodrik, K. Rogoff. H.S. Shin, A. Velasco, B. Weder di Mauro and Y. Yu (2011): *Rethinking central banking.* Committee on international economic policy and reform, Brookings Institution, Washington DC.

2 See for example *Monetary Policy Report* 3/10 and 3/11

3 See *Monetary Policy Report* 3/11, pp. 20-21

4 In the calculations for this *Report*, $\lambda = 0.75$, $\gamma = 0.25$ and $\tau = 0.05$. In general, the parameters will depend on the specifications of the model and how the model is solved (see further description in Alstadheim, Ragna, Ida Wolden Bache, Amund Holmsen, Junior Maih and Øistein Røisland (2010): "Monetary Policy Analysis in Practice", See *Norges Bank Staff Memo* 11/2010, Norges Bank

5 See forthcoming *Norges Bank Staff Memo* for a more detailed account of the loss function

6 Given well-anchored inflation expectations, the deviation in the nominal interest rate from a normal level may be expressed as a deviation of the real interest rate. Prospects for very low interest rates in the years ahead have pulled down Norges Bank's projections of a normal interest rate. The normal level of the key policy rate a few years further ahead is assumed to be around 4%

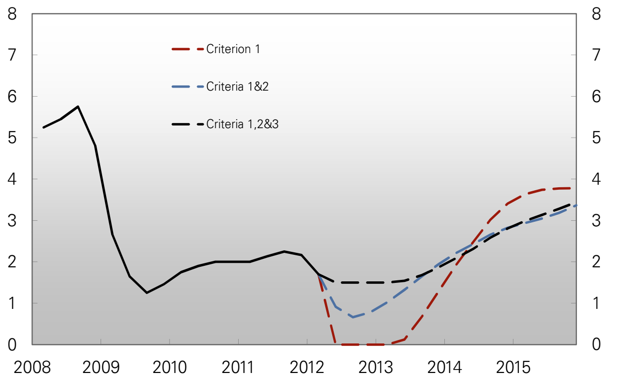
7 See Jordà, Òscar, Moritz Schularick and Alan M. Taylor (2011): "Financial Crises, Credit Booms, and External Imbalances: 140 years of lessons", *IMF Economic Review*, Vol. 59, No.2 and Borio, Claudio and Haibin Zhu (2008): "Capital Regulation, Risk-Taking and Monetary Policy: A Missing Link in the Transmission Mechanism?", Bank for International Settlements Working Paper, No.268. See also Jacobsen, Dag Henning and Bjørn Naug (2004): "What influences the growth of household debt?", *Economic Bulletin*, 3/2004, Norges Bank, for an empirical analysis of the relationship between debt and interest rates

8 See Jiménez, Gabriel, Steven Ongena, José Luis Peydrò and Jesùs Saurina (2008): "Hazardous times for monetary policy: What do twenty-three million bank loans say about the effects of monetary policy on credit risk taking?", Banco de España Working Papers, No. 0833, Banco de España

9 See Reinhart, Carmen M. and Kenneth S. Rogoff (2009): *This time is different*, Princeton University Press

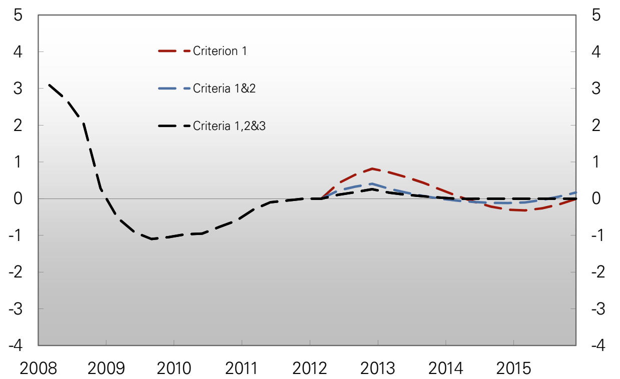
10 See forthcoming *Norges Bank Staff Memo* for a description of the effects of the new loss function in NEMO

Chart 1.18a Key policy rate. Percent. 2008 Q1 – 2015 Q4



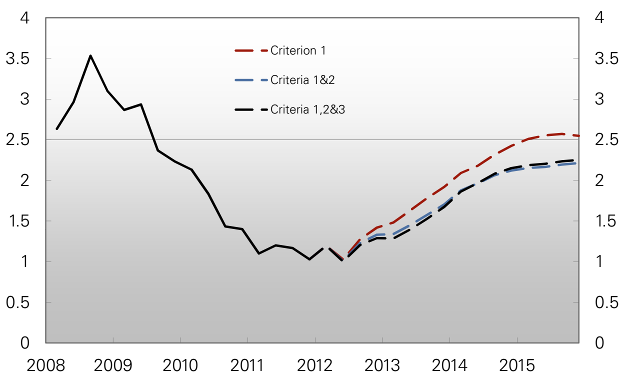
Source: Norges Bank

Chart 1.18b Output gap. Percent. 2008 Q1 – 2015 Q4



Source: Norges Bank

Chart 1.18c CPIXE[1]. Four-quarter change. Percent. 2008 Q1 – 2015 Q4



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

Source: Norges Bank

(see Chart 1.12). Prospects of fairly low interest rates for some time ahead will sustain interest rate burdens at a moderate level.

The interest rate forecast

The interest rate forecast in this *Report* reflects Norges Bank's overall judgement and assessment based on the criteria for an appropriate interest rate path (see discussion of Norges Bank's response pattern in box on pages 15 and 16). Under the criteria, the key policy rate should be set with a view to stabilising inflation at target or bringing inflation back to target after a deviation without giving rise to excessive fluctuations in output and employment. At the same time, interest rate setting should be robust and counter the buildup of financial imbalances in the economy. The interest rate cannot fully satisfy all the criteria simultaneously and the interest rate path is chosen so as to provide a balance between considerations.

Charts 1.18 a-c show forecasts for the key policy rate, the output gap and inflation when taking account of the various criteria.[2]

If monetary policy gave weight only to the current low level of inflation, the key policy rate would be lowered at a swift pace and kept near zero for some time, as illustrated in Chart 1.18a. Inflation may then pick up more quickly, partly owing to a weaker krone, but fluctuations in output and employment may then increase.

When weight is also given to avoiding excessive fluctuations in output and employment, the key policy rate will be somewhat higher in the short term. Inflation will then take somewhat longer to rise towards 2.5%, but developments in output and employment will be more stable.

At the same time, Norges Bank gives weight to the consideration that the interest rate should not be low for too long (see box on Norges Bank's response pattern). Normally, Norges Bank also takes a gradualist approach to interest rate setting to avoid abrupt shifts in the economy and to be able to assess the effects of a change in the key

2 Illustrated using the macroeconomic model NEMO

policy rate. Uncertainty about the economic outlook is considerable, and it goes both ways. Taken together, these considerations bring the forecast for the interest rate to the baseline scenario in this *Report*.

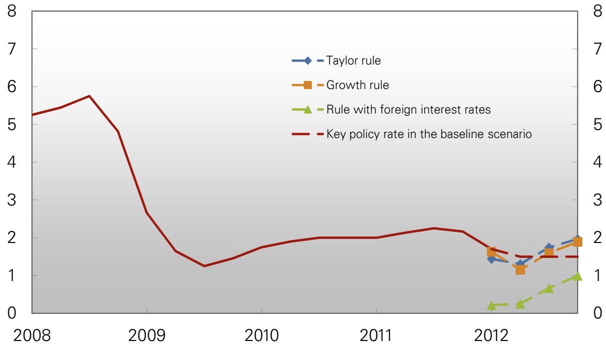
Cross-checks of the interest rate forecast

Simple monetary policy rules can be more robust to different assumptions about the functioning of the economy and are useful for providing cross-checks for the analysis. The Taylor rule applies projections for inflation, the output gap, money market premiums and the normal interest rate level. The Taylor rule calls for a key policy rate at approximately the same level as the interest rate forecast in this *Report* (see Chart 1.19). The growth rule, where the output gap is replaced by a growth gap, produces a nearly identical forecast (orange line). A simple monetary policy rule that gives considerable weight to changes in the interest rate differential against other countries results in a far lower interest rate, especially in the first quarters (see green line in Chart 1.19).

Forward money and bond market rates are another cross-check for the interest rate forecast. Estimated forward rates indicate that financial market participants expect approximately the same developments in money market rates in the coming years as projected in this *Report* (see Chart 1.20).

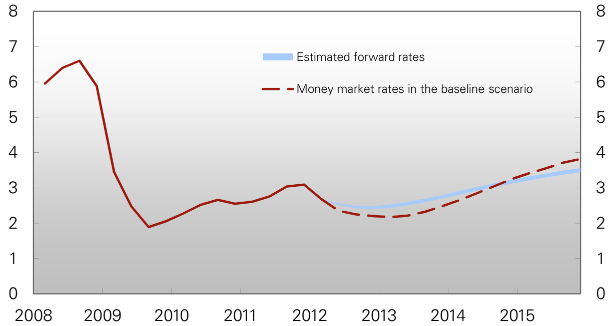
Norges Bank's previous interest rate setting can also serve as a cross-check for the interest rate forecast. Chart 1.21 shows an estimated model that seeks to provide a simple explanation of historical developments in the key policy rate based on inflation, wage growth, mainland GDP and key rates among trading partners. The interest rate in the previous period is also important. The uncertainty in the model is expressed by the blue area. This Report's projections for the four variables above are used as input variables in this estimated model. The chart shows that the interest rate forecast in the baseline scenario closely coincides with the projection from the estimated interest rate rule (see Chart 1.21).

Chart 1.19 Key policy rate and calculations based on simple monetary policy rules.[1] Percent. 2008 Q1 – 2012 Q1



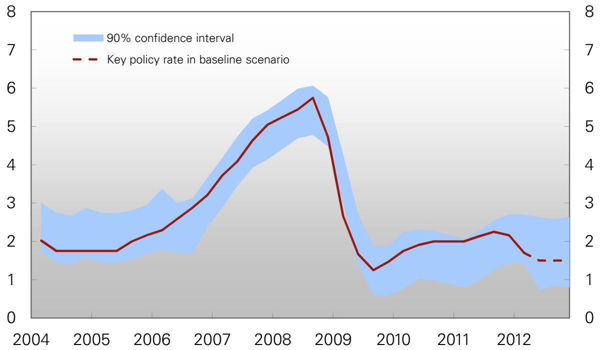
1) The calculations are based on Norges Bank's projections for the output gap, growth gap, consumer prices and 3-month money market rates among trading partners. To ensure comparability with the key policy rate, the simple rules are adjusted for risk premiums in 3-month money market rates
Source: Norges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

Chart 1.20 Three-month money market rates in the baseline scenario[1] and estimated forward rates[2]. Percent. 2008 Q1 – 2015 Q4



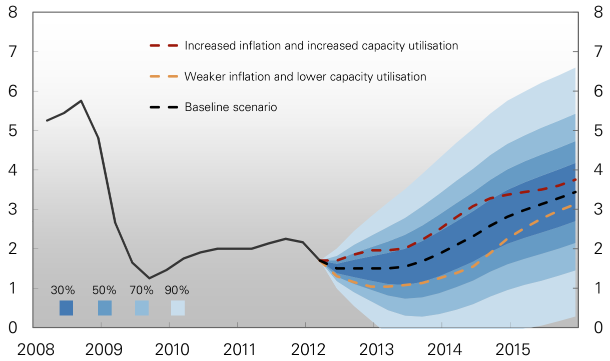
1) Key policy rate in the baseline scenario plus premiums in the Norwegian money market. The calculations are based on the assumption that announced interest rate changes are priced into the money market.
2) Forward rates are based on money market rates and interest rate swaps. The blue band shows the highest and lowest forward rates in the period 27 February – 9 March 2012
Sources: Thomson Reuters and Norges Bank

Chart 1.21 Key policy rate and interest rate developments that follow from Norges Bank's average pattern of interest rate setting.[1]
Percent. 2004 Q1 – 2012 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 – 2011 Q4. See *Staff Memo* 3/2008 for further discussion
Source: Norges Bank

Chart 1.22 Key policy rate in the baseline scenario and in the alternative scenarios. Percent. 2008 Q1 – 2015 Q4



Source: Norges Bank

Uncertainty surrounding the projections

The projections for the key policy rate, inflation, output and other variables are based on Norges Bank's assessment of the economic situation and our perception of the functioning of the economy and monetary policy. If economic developments are broadly in line with projections, economic agents can expect that the interest rate path will also be approximately as projected. However, the interest rate path may differ if the economic outlook changes or if the effect of interest rate changes on inflation, output and employment differs from that projected.

The uncertainty surrounding Norges Bank's projections is illustrated using a fan chart (see Chart 1.22). The width of the fan reflects historical uncertainty.

Implemented solutions and any new measures to resolve the sovereign debt situation in the euro area may restore calm to the markets and reduce uncertainty. This may lead to improved growth prospects in Europe, a faster-than-expected fall in money and credit market premiums and an upward shift in interest rate expectations. Improved prospects and less uncertainty may induce households and enterprises to increase consumption and investment, resulting in a renewed upswing in the Norwegian economy. Unemployment may fall and wage growth may be higher than in the baseline scenario, resulting in a faster pickup in inflation. Chart 1.22 (red line) illustrates an alternative where growth prospects improve and inflation picks up faster than in the baseline scenario. The key policy rate may then rise earlier than currently projected.

On the other hand, renewed turbulence and increased uncertainty may lead to a rise in money and credit market premiums, a deeper downturn abroad than expected and greater caution among Norwegian enterprises and households in their consumption and investment decisions. A substantially stronger krone may also result in prospects for lower output and employment growth and lower inflation. Should the inflation outlook weaken substantially, the key policy rate may be reduced. This is illustrated by the orange line in Chart 1.22.

Changes in the projections since *Monetary Policy Report* 3/11

The interest rate forecast in this *Monetary Policy Report* has been revised down compared with the October 2011 *Report* (see Chart 1). The projections are based on the criteria for an appropriate interest rate path (see box on pages 15 and 16), an overall assessment of the situation in the Norwegian and global economy, and our perception of the functioning of the economy.

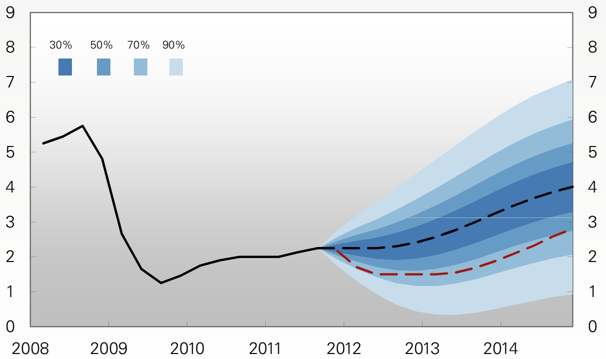
Chart 2 shows a technical illustration of how news and new assessments have affected the changes in the interest rate forecast through their impact on the outlook for inflation, output and employment.[1] The isolated contributions of the different factors are shown by the bars. The overall change in the interest rate forecast is shown by the black line.

Key rates are close to zero among many of Norway's trading partners and market key rate expectations have fallen since October. There are prospects that the downturn abroad will be prolonged and that interest rates could remain low for a long period. Lower interest rates abroad imply that the interest rate in Norway may also be kept low for a longer period to help prevent the krone from appreciating and inflation from becoming too low (dark blue bars).

The krone has appreciated markedly recently and to a greater extent than implied by developments in interest rate differentials against other countries. The krone exchange rate is now approaching the strongest levels ever measured against the I-44 and there are prospects of a stronger krone exchange rate than projected in October. In isolation, this implies lower inflation and weaker exports. This suggests a lower key policy rate (light blue bars). Money market premiums have remained high and are higher than projected in the October *Report*. In isolation, this would suggest a lower key policy rate, because higher premiums, all else being equal, imply higher money market rates (orange bars). Premiums are assumed to gradually revert to a more normal level.

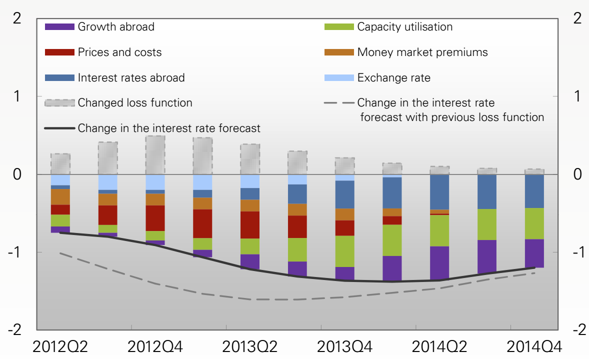
Growth in the Norwegian economy remains steady, but developments have been somewhat weaker than expected. Capacity utilisation is now estimated to be somewhat lower than projected in the October *Report*. Due to weak growth and persistent uncertainty in Europe, Norwegian enterprises are encountering lower demand in export markets. At the same time, the unrest abroad and uncertainty surrounding economic developments are also having a more indirect impact on the Norwegian economy. Uncertainty is causing households and enterprises to be cautious in their consumption and

Chart 1 Key policy rate in the baseline scenario in MPR 3/11 with probability distribution and key policy rate in the baseline scenario in MPR 1/12 (red line). Per cent. 2008 Q1 – 2014 Q4



Source: Norges Bank

Chart 2 Factors behind changes in the interest rate forecast since MPR 3/11. Accumulated contribution. Percentage points. 2011 Q4 – 2014 Q4



Source: Norges Bank

investment decisions. Activity growth ahead is projected to be lower than previously assumed. Lower demand and weaker growth prospects in Norway and abroad suggest a lower key policy rate (green and purple bars).

Inflation remains low. Underlying inflation is likely to remain at around 1¼% - 1½% through 2012, somewhat lower than projected in the October *Report*. Projections for wage growth have also been revised down. Lower inflation and cost growth suggest a lower key policy rate (red bars).

A separate box in this *Report* describes how financial stability considerations may influence interest rate setting. Compared with previous reports, the criteria for an appropriate interest rate path have been adjusted. In view of this, the loss function used in the model-based calculations has also been changed. These changes have been made to enable the Bank's model-based analyses to better capture the monetary policy response pattern since the financial crisis in autumn 2008. The broken grey line shows a technical illustration of how news would have affected changes in the interest rate forecast using the former loss function. The new loss function describes in isolation a somewhat higher interest rate path (grey bars).[2]

1 Illustrated using the macroeconomic model NEMO. Calculations are based on the operational loss function, which is described in the box on pages 15 and 16.
2 See forthcoming *Staff Memo* 10/2012 for a description of the effects of the new loss function.

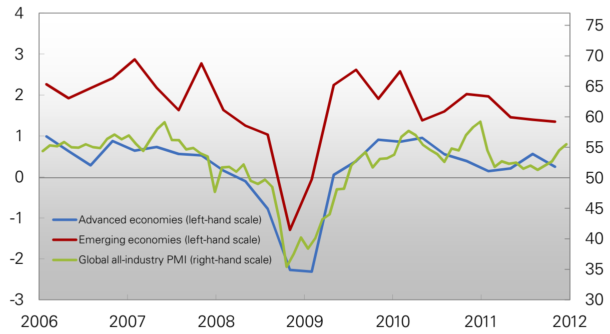
Table 1 Projections for macroeconomic aggregates in *Monetary Policy Report* 3/11. Percentage change from previous year (unless otherwise stated). Change from projections in *Monetary Policy Report* 3/11 in brackets.

	2012	2013	2014	2015
CPI	1 (-½)	1¾ (-¼)	2 (-¼)	2¼
CPI-ATE[1)]	1¼ (-½)	1½ (-¾)	2 (-¼)	2¼
CPIXE[2)]	1¼ (-¼)	1½ (-½)	2 (-¼)	2¼
Annual wages[3)]	3¾ (-½)	4 (-½)	4 (-¾)	4¼
Mainland demand[4)]	3½ (-½)	3 (-¾)	2¾ (0)	2¾
GDP, mainland Norway	3¼ (-½)	3 (-¼)	3 (0)	3
Output gap, mainland Norway (level)[5)]	¼ (0)	0 (-¾)	0 (-¾)	0
Employment, persons, QNA	1½ (¼)	1¼ (0)	1¼ (0)	1¼
Registered unemployment (rate, level)	2½ (0)	2½ (0)	2¾ (¼)	2¾
Level				
Key policy rate[6)]	1½ (-¾)	1¾ (-1¼)	2½ (-1¼)	3¼
Import-weighted exchange rate (I-44)[7)]	87¼ (-1¼)	87¼ (-2)	87¼ (-2½)	87½
Foreign money market rates[8)]	1 (-¼)	1 (-½)	1¼ (-¾)	1¾

1) CPI-ATE: CPI adjusted for tax changes and excluding energy products
2) CPIXE: CPI adjusted for tax changes and excluding temporary changes in energy prices. See Norges Bank *Staff Memo* 7/2008 and *Staff Memo* 3/2009 for a description of the CPIXE
3) Annual wage growth is based on the Technical Reporting Committee on Income Settlements' definitions and calculations
4) Private and public consumption and mainland gross fixed investment
5) The output gap measures the percentage deviation between mainland GDP and projected potential mainland GDP
6) The key policy rate is the interest rate on banks' deposits in Norges Bank
7) The weights are estimated on the basis of imports from 44 countries, which comprise 97% of total imports
8) Forward rates are based on money market rates and interest rate swaps

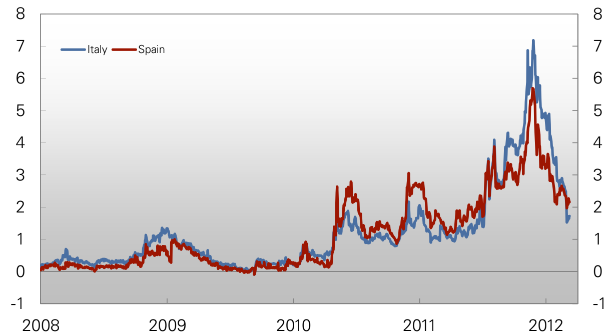
Source: Norges Bank

Chart 2.1 GDP in advanced economies and emerging markets[1] and global all-industry PMI. GDP: quarterly growth, in per cent, 2006 Q1 – 2011 Q4. PMI: diffusion index centered around 50, January 2006 - February 2012



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

Chart 2.2 Yield spreads against German 2-year government bonds. Percentage points. January 1 2008 – March 9 2012



Source: Thomson Reuters

Table 2.1 Projections for GDP growth in other countries. Change from previous year. Per cent. Change from projections in *Monetary Policy Report* 3/11 in brackets.

	Share of world GDP[1] (per cent)	2012	2013	2014 – 2015[2]
US	20	2 (¼)	2½ (-¼)	2¾
Euro area	15	-½ (-1)	¾ (-½)	2
UK	3	¾ (-½)	1¾ (-½)	2½
Sweden	0.5	¾ (-¾)	1½ (-¼)	2¾
China	13	8 (-½)	8 (-½)	8½
Trading partners[3]	65	1 (-¾)	2 (-¼)	2¾
World (PPP)[4]	100	3¼ (-½)	4 (-¼)	4½
World (market exchange rates)[4]	100	2½ (-½)	3¼ (-¼)	3 ¾

1) Purchasing power parity (PPP) GDP in 2010
2) Average annual growth
3) Export weights, 26 largest trading partners
4) GDP weights. Norges Bank's estimates for 26 trading partners, other estimates from IMF and Consensus Economics

Sources: IMF, Consensus Economics, Eurostat and Norges Bank

2 The projections

The global economy

Global growth prospects have weakened further since the publication of the October 2011 *Monetary Policy Report*. There are still wide variations across countries (see Table 2.1 and Chart 2.1). Growth in Europe has been weaker than expected, while growth in the US has been somewhat stronger than expected. Growth is still markedly higher for emerging economies, but slowed in a number of emerging countries towards the end of 2011. The uncertainty linked to the sovereign debt crisis in the euro area heightened last autumn and spread to other countries and regions through a fall in global trade and heightened financial market stress. Market turbulence has eased since the beginning of the year, however, and current economic indicators now point to an improvement in real economic conditions (see Chart 2.1). It is likely that the sharply expanded access to long-term liquidity from the European Central Bank (ECB) has reduced the risk of a banking crisis in the euro area. At the same time, ECB measures have contributed to stabilising government bond markets, and short-term funding costs for Italy and Spain have declined considerably (see Chart 2.2). A debt restructuring agreement has been concluded with Greece. Oil prices have increased markedly recently and are now more than 10% higher than in October. Persistently high oil prices will act as a drag on growth among Norway's main trading partners.

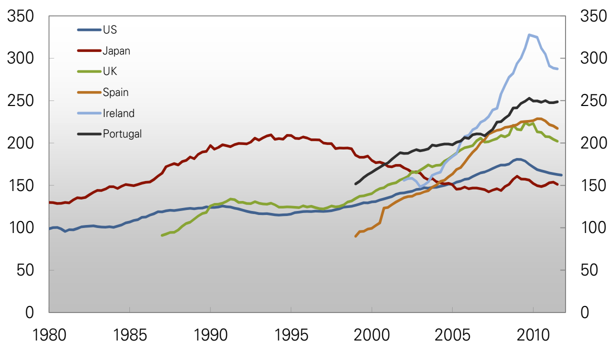
A number of central banks have eased monetary policy further. Both the ECB and the Swedish central bank have cut their key rates by 0.5 percentage point since the October *Report*. The Federal Reserve has communicated that it will keep its key rate at a very low level to the end of 2014. Other countries have also deferred the normalisation of the historically low key rates further ahead. Monetary policy easing has started in many emerging economies.

Since the financial crisis, global economic developments have been marked by short-term forces such as expansionary economic policies and a rebound in spending on goods and services in the business and household sectors. Production costs have been low as a result of a high level of available resources. At the same time, a number of conditions have had a dampening impact on economic growth. In many advanced economies, both the private and public sectors have been deleveraging after many years of rapid debt accumulation (see Chart 2.3). Moreover, tighter lending standards and higher capital requirements will limit the supply of credit from banks. Many countries also have to regain competitive strength after many years of high cost growth prior to the financial crisis. In practice, this implies a long period of low wage growth, where unemployment will also remain high as it takes time to shift resources to sectors that yield a higher return. On balance, this will also weigh on growth in the years ahead.

There is considerable uncertainty surrounding developments ahead. The projections in this *Report* assume that the sovereign debt crisis in Europe does not worsen and that measures by the ECB and other authorities will lead to a gradual improvement. In spite of the recent improvement in both financial markets and real economic conditions, euro-area output is expected to decline in 2012. There are wide variations within the euro area, with moderate growth in France and Germany and declining activity levels in southern European countries. High levels of government debt are forcing many countries to implement austerity progammes, and for the euro area the scope of fiscal tightening is expected to be the same in 2012 as in 2011 (see Chart 2.4). Moreover, banks are tightening lending standards for both businesses and households (see Chart 2.5). Weak developments in the euro area have already affected other parts of Europe, and compared with the October *Report* growth is also expected to be clearly lower in Sweden and the UK.

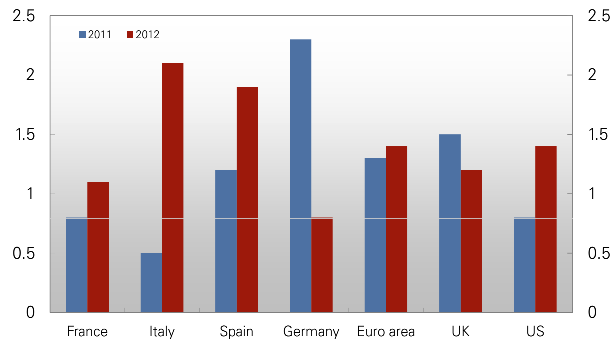
Developments have been somewhat more favourable than expected in the US, and the growth forecast for 2012 has been revised up to 2%. Unemployment has continued to drift down to the lowest level in three years and lower consumer price inflation has improved household purchasing power. On the other hand, growth in private consumption is projected to edge down between 2011 and 2012. Income growth is set to remain weak and saving is unlikely to fall, as was the case in 2011. Business investment is expected to continue to rise, but is likely to be restrained by the high degree of uncertainty linked to economic developments ahead. The scope of fiscal tightening is assumed to be limited by temporary growth

Chart 2.3 Non-financial private sector gross debt[1]. As a percentage of GDP. 1980 Q1 – 2011 Q3[2]



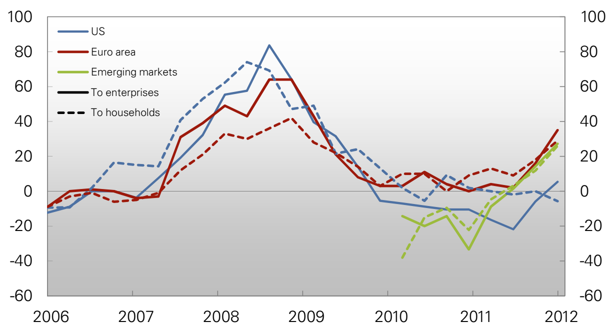
1) Figures for Ireland, Portugal and Spain include debt in public non-financial corporations.
2) US to end 2011 Q4
Sources: ECB, Thomson Reuters and Norges Bank

Chart 2.4 Fiscal tightening. Change in structural budget balance (as a percentage of GDP) from one year earlier. Percentage points



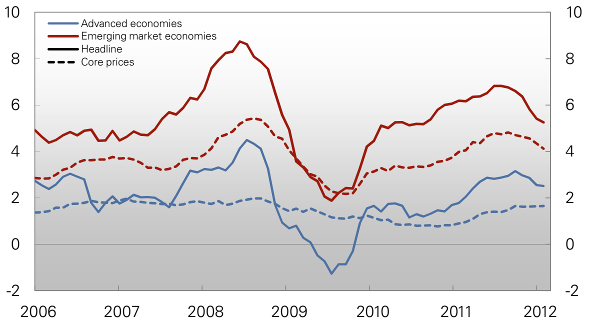
Source: IMF

Chart 2.5 Bank lending conditions. Net balance[1]. 2006 Q1 – 2012 Q4



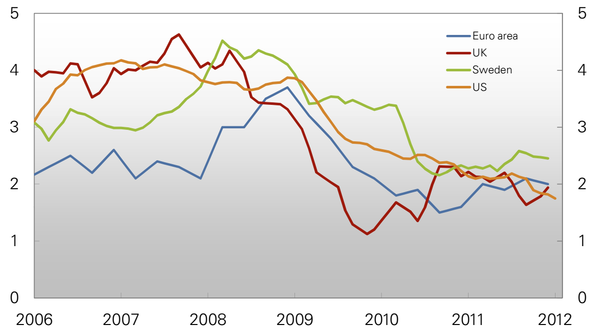
1) Values above 0 indicate tighter lending conditions
Sources: Thomson Reuters, Institute of International Finance and Norges Bank

Chart 2.6 Consumer prices in advanced economies and emerging markets.[1] 12-month change. Per cent. January 2006 – January 2012



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

Chart 2.7 Wages.[1] 12-month change, 3-month moving average. Per cent. January 2006 – January 2012



1) Total economy wages. US to end January, UK and Sweden to end December. For the euro area quarterly figures to end 2011 Q4.
Source: Thomson Reuters

Table 2.2. Projections for consumer prices in other countries (change from previous year, per cent) and oil price. Change from projections in *Monetary Policy Report* 3/11 in brackets

	2012	2013	2014–15[1]
US	2 (¼)	1¾ (¼)	2
Euro area[2]	1¾ (¼)	1½ (0)	1¾
UK	2½ (0)	1¾ (0)	2
Sweden	1½ (-½)	1¾ (-½)	2¼
China	3½ (-¼)	3 (½)	2½
Trading partners[3]	1¾ (-¼)	1¾ (0)	2
Oil price Brent Blend[4]	121	115	103

[1] Average annual rise
[2] Weights from Eurostat (each country's share of euro area consumption)
[3] Import weights, 26 largest trading partners
[4] Futures prices (average for the past five trading days). USD per barrel. For 2011, an average of spot prices so far this year and futures prices for the rest of the year are used
Sources: Eurostat, Thomson Reuters and Norges Bank

measures extended through this year, while a tighter stance is expected next year.

Emerging Asia is feeling the effects of the crisis in Europe through a decline in goods exports. In addition, banks report that lending standards are tighter, partly as a result of a more difficult international funding situation (see Chart 2.5). Overall, net exports made a negative contribution to growth in 2011, while growth in private consumption picked up on the previous year. Continued solid growth in retail trade indicates that growth in private consumption is holding up. Growth forecasts have been revised down somewhat, but growth is still considerably higher than in advanced economies. If growth in advanced economies turns out to be clearly lower than expected, the effects on small, open economies will be amplified. The impact of variations in foreign trade in goods on large countries such as China and India is smaller, but growth in these countries has also stalled.

Overall, growth among Norway's main trading partners is projected to start recovering gradually from about zero growth around the turn of the year. The recovery will, however, start from a lower level and will be somewhat slower than assumed in the October *Report*. GDP growth for trading partners as a whole is revised down to 1% in 2012 and 2% in 2013. Lower growth in Europe represents the main drag on growth. Global GDP projections have been revised down to 3¼% in 2012 and 4% in 2013.

Inflation among Norway's trading partners as a whole has receded somewhat since the October *Report*, partly reflecting a slower rate of increase in prices for food and energy products. In many advanced economies, however, core inflation has not moved down (see Chart 2.6). Wage growth is moderate among Norway's main trading partners (see Chart 2.7). Looking ahead, inflation is expected to continue to drift down. In advanced economies, high levels of available resources will continue to curb cost growth. For Norway's trading partners as a whole, consumer price inflation has been revised down by ¼ percentage point to 1¾% in 2012 (see Table 2.2).

Commodity markets

Oil prices are slightly above USD 125 per barrel, more than 10% higher than at the time of the October *Report*.

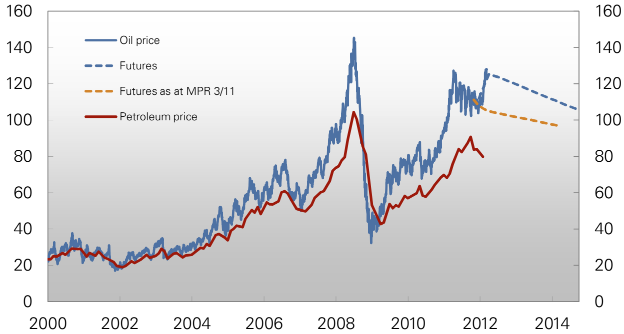
The projections in this *Report* are based on the assumption that oil prices will move in line with futures prices (see Table 2.2 and Chart 2.8). Futures prices now imply prices above USD 100 per barrel in 2014-2015. Oil markets are still fairly tight. According to the International Energy Agency (IEA), OECD oil stocks were lower in December than the average for the past five years for the sixth consecutive month, despite high OPEC production levels and broadly unchanged global oil demand between 2010 Q4 and 2011 Q4. This partly reflects substantially lower-than-expected oil production in non-OPEC countries in 2011. In addition, there was a shortfall in oil production in some OPEC countries, particularly in Libya. Even though Libya's oil production has rebounded faster than expected, there is now a high degree of uncertainty surrounding oil exports from Iran as a result of the introduction of stricter US and EU sanctions. At the same time, there is a risk of, or actual, disruptions in oil exports from a number of other countries such as Sudan, Syria and Yemen. On the whole, this is contributing to holding up oil prices. On the other hand, oil prices may be substantially lower than implied by current futures prices should the economic situation in Europe worsen further and spill over to the rest of the world.

Prices for Norwegian gas exports remain high (see Chart 2.9), reflecting the increase in oil prices and gas spot prices in Europe through 2011. A large share of Norwegian gas is still sold on long-term contracts where prices are linked to oil prices with a lag. A portion of Norwegian gas is sold at spot prices, particularly in the UK.[1] Oil prices have continued to climb so far in 2012. If futures prices for oil and British gas remain relatively high, Norwegian gas prices are likely to remain elevated. If oil prices fall markedly, gas prices will also decline after a period.

The Economist commodity-price index has edged up since the October *Report*. Metal prices, in particular, have increased a good deal recently as a result of improved economic prospects for some countries, including the US and China. Prices for agricultural products have stabilised. Futures prices for various commodities indicate that prices may remain at today's level ahead (see Chart 2.10). Metal prices may also show a pronounced fall in the event of a renewed deterioration in global economic prospects.

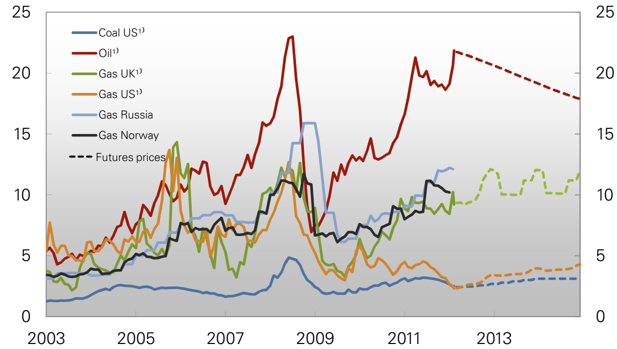
1 See *Economic Commentary* 2011/4: *Increased gas exports, but what about prices?* Pål Winje, Bjørn E. Naug and Astrid Stavseng, Norges Bank Monetary Policy.

Chart 2.8 Oil price (Brent Blend) and prices for Norwegian petroleum exports[1]. USD/barrel. January 2000 – December 2015



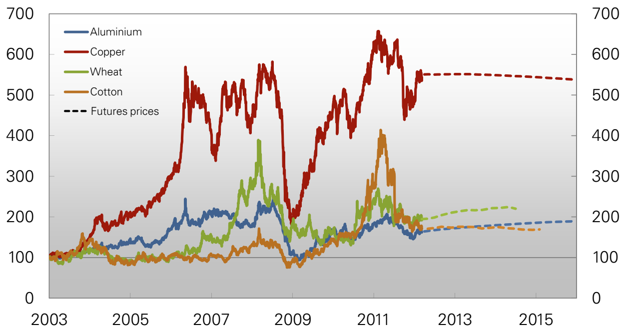
1) Weighted average of Norwegian crude oil and gas exports
Sources: Statistics Norway, Thomson Reuters and Norges Bank

Chart 2.9 Prices for coal, crude oil and natural gas. USD per MMBTU. January 2003 – January 2015



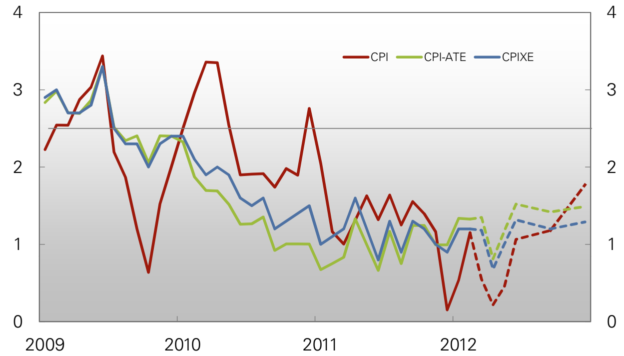
1) For March 2012 calculated as daily average
Sources: IMF, Thomson Reuters, Statistics Norway and Norges Bank

Chart 2.10 Commodity prices. USD. Index, January 2003 = 100. January 2003 – December 2015



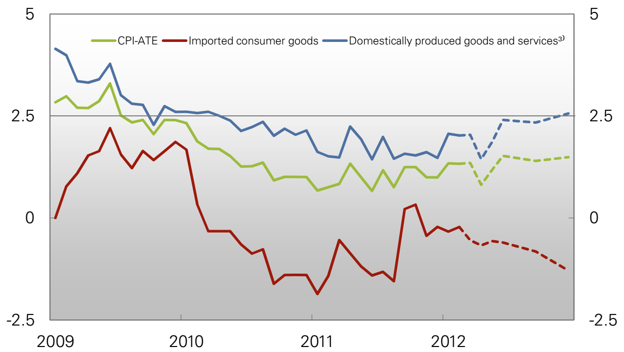
Sources: CME Group and Thomson Reuters

Chart 2.11 CPI, CPI-ATE[1)] and CPIXE[2)]. 12-month change. Per cent. January 2009 – December 2012[3)]



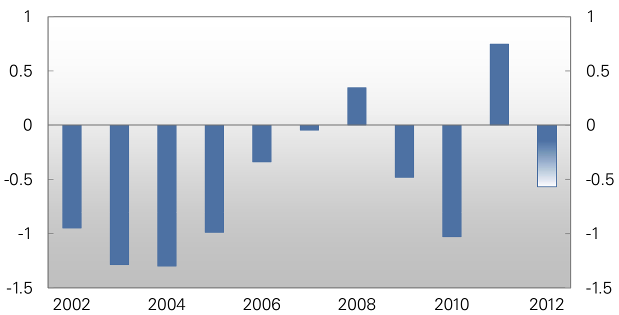
1) CPI adjusted for tax changes and excluding energy products
2) CPI adjusted for tax changes and excluding temporary changes in energy prices. Real-time figures. See Norges Bank *Staff Memo* 7/2008 and 3/2009
3) Projections for March 2012 – December 2012 (broken lines). Monthly figures to June 2012, then quarterly figures
Sources: Statistics Norway and Norges Bank

Chart 2.12 CPI-ATE[1)]. Total and by supplier sector. 12-month change. Per cent. January 2009 – December 2012[2)]



1) CPI adjusted for tax changes and excluding energy products
2) Projections for March 2012 – December 2012 (broken lines). Monthly figures to June 2012, then quarterly figures
3) Norges Bank's estimates
Sources: Statistics Norway and Norges Bank

Chart 2.13 Indicator of external price impulses to imported consumer goods measured in foreign currency. Annual change. Per cent. 2002 – 2012[1)]



1) Projections for 2012
Source: Norges Bank

The Norwegian economy in the year ahead

Prices

Inflation is low. In February, the annual rise in consumer prices (CPI) was 1.2% (see Chart 2.11), 0.1 percentage point higher than projected in the October 2011 *Monetary Policy Report*. Petrol prices have risen faster than expected, while prices for imported consumer goods rose at a somewhat slower pace than projected. Inflation adjusted for tax changes and excluding energy products (CPI-ATE) was 1.3% in February, 0.1 percentage point lower than projected. Inflation adjusted for tax changes and excluding temporary changes in energy prices (CPIXE) was 1.2%, 0.2 percentage point lower than projected in the October *Report*.

The rise in prices for domestically produced goods and services in the CPI-ATE have shown some increase from the previous year and CPI-ATE inflation is now around 2% (see Chart 2.12). The increase likely reflects higher capacity utilisation and rising cost growth through last year. The prospect of stable cost growth implies in isolation no further increase in inflation this year. However, the rise in food prices is assumed to be more normal this year following a decline in 2011. As a result, domestic price inflation may edge up through the year. Overall, the rise in prices for domestically produced goods and services is projected to move up to 2½% in 2012 Q4.

Prices for imported consumer goods increased through the latter half of 2011. In February, the annual rate of increase was negative 0.2%, up by close to 1 percentage point from February 2011 (see Chart 2.12). The increase is likely attributable to a rise in international commodity prices. Further ahead, inflation abroad is expected to drift down, with an easing of external price impulses to Norwegian consumer prices (see Chart 2.13). With the past appreciation of NOK, a fall in prices for imported goods in NOK terms is expected this year. The rise in prices for imported consumer goods, as measured by the CPI-ATE, is projected to slow to negative 1¼% in 2012 Q4.

CPI-ATE inflation is projected to increase from 1¼% in 2012 Q1 to 1½% in 2012 Q4. The projections are somewhat lower than in the October *Report*, particularly for the latter half of 2012. This primarily reflects the appreciation of NOK and a downward revision of projected growth in demand and wages in this *Report* compared with the October *Report*. The expectations surveys from Opinion Perduco and Norges Bank's regional network could indicate that business managers expect a rather stable inflation ahead (see Chart 2.14).

The projections for CPI-ATE are in line with the projections derived from Norges Bank's System for Averaging short-term Models (SAM) (see Chart 2.15).

Futures electricity prices have declined since the October *Report*. Annual CPIXE and CPI inflation is now projected at 1¼% and 1¾%, respectively, in the 2012 Q4.

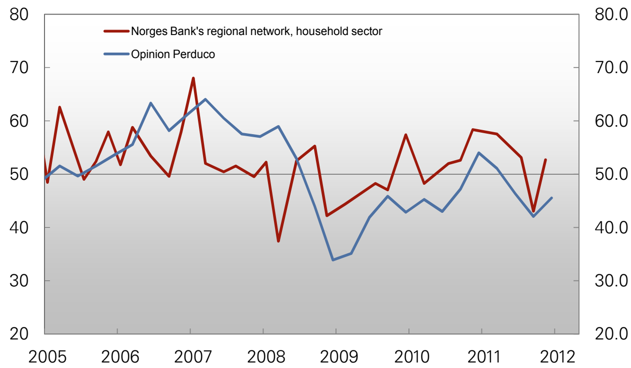
Output and demand

According to national accounts figures, mainland GDP increased by ¾% on average per quarter in 2011 (see Chart 2.16). Growth in the Norwegian economy is being driven by rising activity in the petroleum sector and construction industry, favourable terms of trade (see Chart 2.17) and high population growth. Against the background of weaker growth prospects for Europe, growth in the Norwegian economy is not expected to pick up further in the coming quarters, as projected in the October *Report*. The downward adjustment reflects both lower growth in household demand and in mainland exports. Total mainland GDP growth is now projected at 3¼% in 2012.

Norges Bank's regional network contacts expect production growth at around ¾% over the coming quarters (see Chart 2.16). The export industry and retail trade expect production growth to slow down, while the oil supplier industry expects increasing growth ahead.

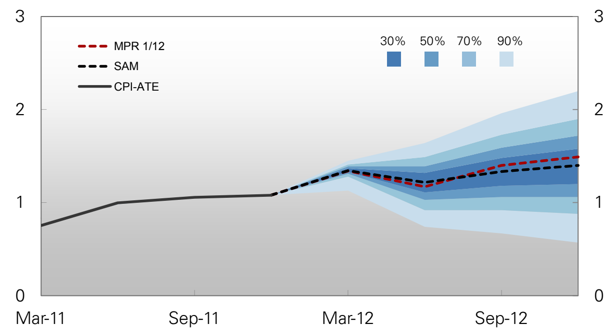
The projections for mainland GDP growth are in line with the SAM-based projections (see Chart 2.18).

Chart 2.14 Expected change in retail prices next 12 months. Diffusion index.[1)] 2005 Q1 – 2012 Q1



1) Share that expects higher price growth + (0.5*share that expects unchanged price growth)
Sources: Opinion Perduco and Norges Bank

Chart 2.15 CPI-ATE[1)]. Actual figures, baseline scenario and projections from SAM[2)] with fan chart. Four-quarter change. Per cent. 2011 Q1 – 2012 Q4[3)]

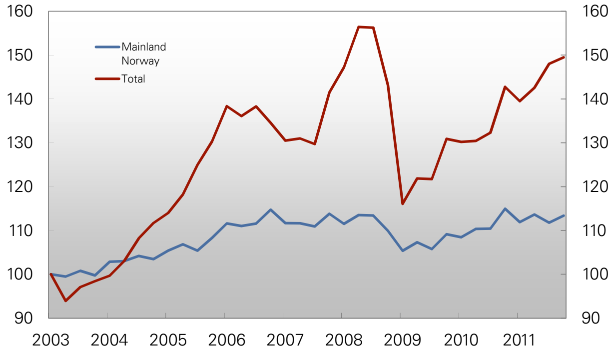


1) CPI adjusted for tax changes and excluding energy products
2) System for averaging models
3) Projections for 2012 Q1 – 2012 Q4 (broken lines)
Sources: Statistics Norway and Norges Bank

Chart 2.16 GDP mainland Norway[1)] and Norges Bank's regional network's indicator of change in production past three months and expected change in production next six months. Per cent. 2003 Q1 – 2012 Q4[2)]

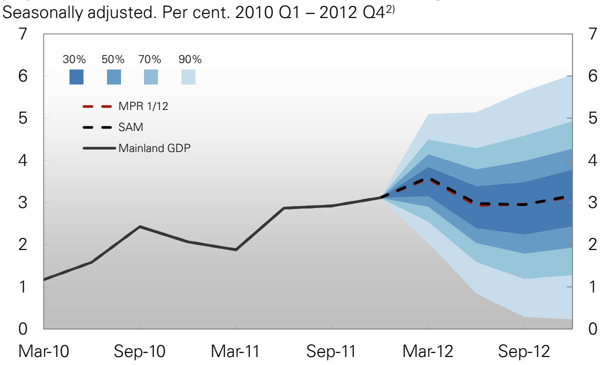
1) Seasonally adjusted quarterly change. Volume
2) Latest observation in the regional network is February 2012. Latest GDP observation is 2011 Q4, projections for 2012 Q1 – 2012 Q4 (broken line)
Sources: Statistics Norway and Norges Bank

Chart 2.17 Terms of trade. Index. 2003 Q1 = 100.
2003 Q1 – 2011 Q4



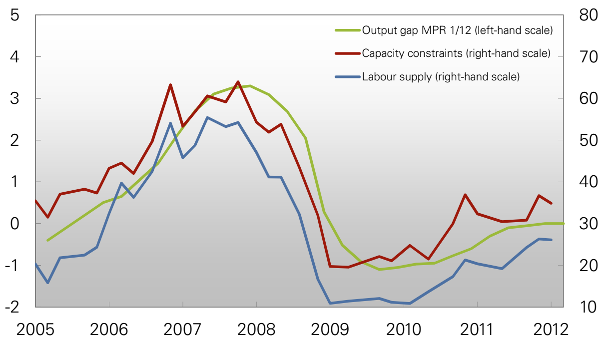
Sources: Statistics Norway and Norges Bank

Chart 2.18 GDP mainland Norway. Actual figures, baseline scenario and projections from SAM[1)] with fan chart. Four-quarter change. Volume. Seasonally adjusted. Per cent. 2010 Q1 – 2012 Q4[2)]



1) System for averaging models
2) Projections for 2012 Q1 – 2012 Q4 (broken lines)
Sources: Statistics Norway and Norges Bank

Chart 2.19 Capacity constraints and labour supply[1)] reported by the regional network and estimated output gap. Per cent. 2005 Q1– 2012 Q1



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

The downturn in Norway following the financial crisis was moderate. Growth recovered fairly rapidly and capacity utilisation started rising already towards the end of 2009. Capacity utilisation is now estimated to be around normal. Unemployment is close to its average for the past 15 years. According to Norges Bank's regional network, the proportion of enterprises with capacity problems is now at close to a historical average level (see Chart 2.19). Statistics Norway's business tendency survey shows that capacity utilisation in manufacturing is around the average since 1990.

Productivity growth has been weak in recent years (see Chart 2.20), which might imply available scope for better utilising the existing workforce. The rapid growth in employment indicates, however, that available resources in the enterprise sector are limited. This suggests that underlying productivity growth has also been low since the financial crisis. Reduced risk willingness, lower investment and high immigration may be among the factors behind this development.

Capacity utilisation is expected to edge up during 2012, but still be fairly close to a normal level. Economic growth in the coming quarters is expected to be slightly higher than growth in potential output, which is projected at around 3% in 2012. Population growth is expected to boost potential output by a little more than 1% in 2012, while underlying productivity growth is projected to move up to almost 1¾% towards the end of the year.

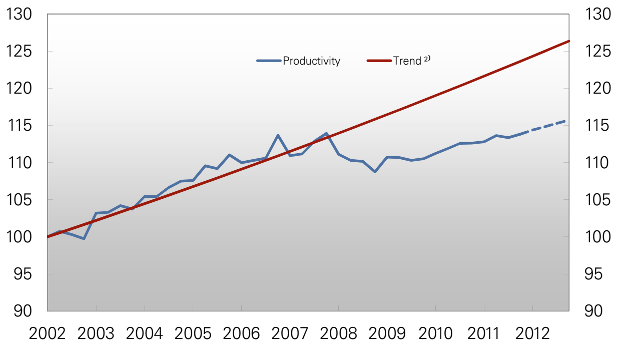
Traditional goods exports fell in the latter half of 2011. The outlook for the global economy suggests that demand for Norwegian export products will show weak growth also in the period ahead. Moreover, Norwegian exporters are likely to lose market shares as a result of high cost growth. Exports from suppliers to the petroleum industry may show a further increase, however, driven by strong growth in global petroleum investment. Export firms in Norges Bank's regional network expect moderate growth in production through first half of 2012. Overall, the volume of traditional goods exports is projected to remain unchanged between 2011 and 2012 (see Chart 2.21).

Private consumption has grown at a slower pace than projected in the October *Report*. The turbulence in financial markets towards the end of 2011 led to a drop in household confidence indicators to low levels. Spending on goods has shown a relatively moderate increase since the financial crisis, but was particularly weak towards the end of last year. Households may become more cautious in response to heightened uncertainty and in particular postpone purchases of durables. A heavy debt burden is probably amplifying this effect. Confidence indicators have improved somewhat recently, but are still at a moderate level. Even though spending on goods has picked up again in January, the uncertainty surrounding developments abroad is expected to continue to act as a brake on household consumption ahead and growth in private consumption is projected to be lower than in the October *Report*. Real disposable income is projected to rise at a slower pace in 2012 than in 2011 owing to lower wage growth. Private consumption is projected to grow somewhat faster in the latter half of 2012, bringing the overall increase to 3% in 2012 (see Chart 2.22). The saving ratio is projected to move up further in the course of the year (see Chart 2.23).

Housing investment increased sharply in 2011, but housing starts are still lower than the pre-crisis level. In 2011, Statistics Norway data show that 20 000 dwellings were completed, which is lower than the rise in the number of households in Norway (see Chart 2.24). Tighter bank lending standards may dampen demand in the housing market to some extent, but strong population growth, low interest rates and rising house prices point to a further pickup in housing investment. The enterprises in Norges Bank's regional network expect strong growth in building activity over the next six months. Housing investment is projected to increase by 7½% in 2012 (see Chart 2.26).

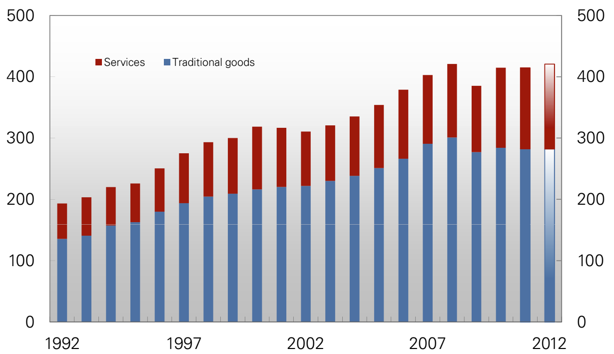
Mainland business investment has picked up over the past two years, reflecting low interest rates, improved earnings and increased capacity utilisation. The enterprises in Norges Bank's regional network are planning a moderate increase in investment over the coming year (see Chart 2.25). Weak external prospects, increased

Chart 2.20 Productivity in mainland Norway. GDP per hour. Index 2002 Q1 = 100. 2002 Q1 – 2012 Q4[1)]



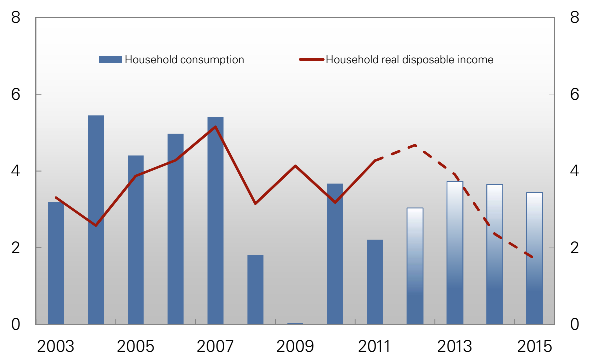
1) Projections for 2012
2) The trend is based on a long-term historical average (1970 – 2011)
Sources: Statistics Norway and Norges Bank

Chart 2.21 Exports from mainland Norway. Constant 2009 prices. In billions of NOK. 1992 – 2012[1)]



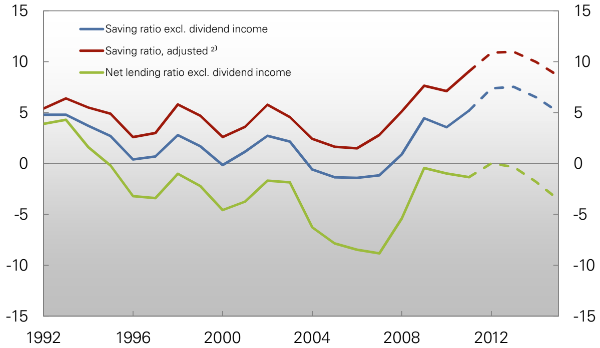
1) Projections for 2012
Sources: Statistics Norway and Norges Bank

Chart 2.22 Household consumption[1)] and real disposable income[2)]. Annual change. Per cent. 2003 – 2015[3)]



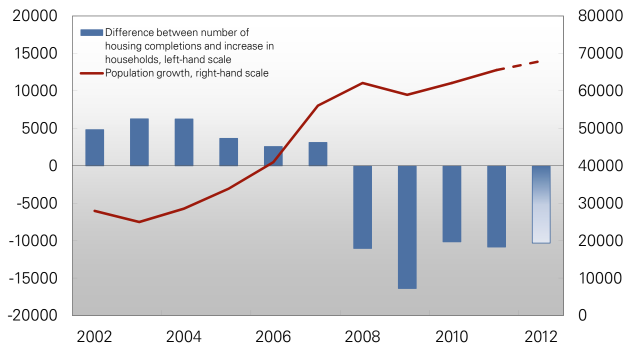
1) Includes consumption among non-profit organisations. Volume
2) Excluding dividend income. Including income in non-profit organisations
3) Projections for 2012 – 2015 (broken line)
Sources: Statistics Norway and Norges Bank

Chart 2.23 Household saving and net lending as a share of disposable income. Per cent. 1992 – 2015[1)]



1) Projections for 2012 – 2015 (broken lines)
2) Adjusted for estimated reinvested dividend income for 2000 – 2005 and redemption/reduction of equity capital for 2006 – 2015
Sources: Statistics Norway and Norges Bank

Chart 2.24 Difference between number of housing completions and increase in households, and population growth. Annual figures. 2002 – 2012[1)]



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

Chart 2.25 Planned growth in investment for next 12 months compared with past 12 months. Index.[1)] October 2002 – February 2012

1) The scale runs from -5 to +5, where -5 denotes a sharp fall and +5 denotes strong growth. See article "Norges Bank's regional network: fresh and useful information" in *Economic Bulletin* 2/2009 for further information
Source: Norges Bank

uncertainty and tighter bank lending standards are likely to curb investment growth. Mainland business investment is projected to increase by 3% between 2011 and 2012 (see Chart 2.26). Investment in services and the power sector are the main contributors to growth, while manufacturing investment is projected to be at about the same level as in 2011.

Labour market

Both labour supply and demand have increased more than assumed in the October *Report*. As a result, unemployment has been fairly stable and in line with projections. In February, a seasonally adjusted 2.5% of the labour force was registered as unemployed. According to the labour force survey (LFS), the seasonally adjusted unemployment rate was 3.3% in December.

Employment growth is projected to remain firm ahead. The projection is in line with that expected by the contacts in Norges Bank's regional network (see Chart 2.27). Expectations surveys conducted by the Confederation of Norwegian Enterprise and Opinion Perduco also point to continued growth in employment. In addition, the number of vacancies registered with the Norwegian Welfare and Labour Service has increased somewhat in recent months. Labour demand is holding up owing to the prospect of continued moderate productivity growth. Employment is projected to rise by 1½% in 2012.

High labour immigration accounts for a large share of the growth in the labour force. According to Statistics Norway's population statistics, net inward migration to Norway came to 47 000 in 2011 (see Chart 2.28). The largest inflows are from Poland and the Baltic countries. Low unemployment and a high wage level make Norway an attractive country for foreign job-seekers. The high level of inward migration is expected to persist in the years ahead.

The large post-war cohorts, which are now approaching retirement age, suggest in isolation that labour force participation will edge down ahead. On the other hand, the high level of labour immigration is paving the way for continued strong growth in the labour supply. The labour force is projected to grow in pace with the working-age population in 2012 (see Table 2.3). The supply of labour increased sharply towards the end of 2011 and the prospect of some improvement in economic conditions through the year may hold up growth in the labour force. Employment is projected to increase in pace with the labour force through the remainder of 2012 so that unemployment will remain at about today's level (see Chart 2.29).

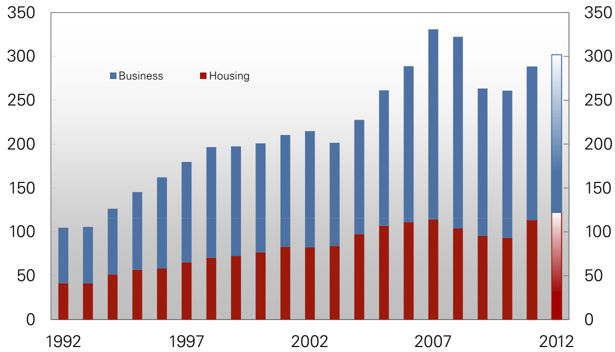
Wages

Wage growth was 4.3% in 2011. The Technical Reporting Committee on Income Settlements estimates the wage carry-over into 2012 at 1¼% for the groups covered by the main settlements. This is lower than in 2011, but about the same as before the main settlement two years ago when overall annual wage growth turned out to be 3.7%.

According to Opinion Perduco's expectations survey, the social partners expect average wage growth of 3.7% in 2012. In the January regional network survey, enterprises expected wage growth of somewhat below 4%. Wage expectations are highest in the service sector and lowest in retail trade.

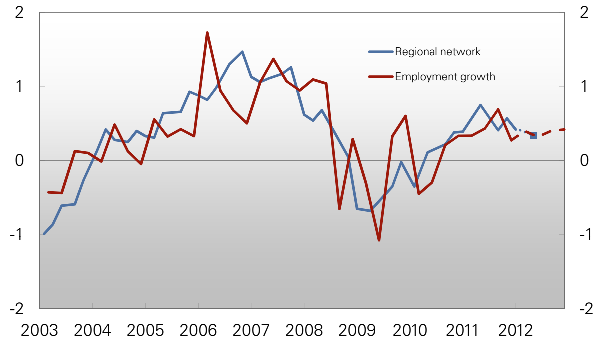
Weaker developments abroad and a strong krone are likely to have a dampening impact on wage growth. At the same time, there is strong demand for certain categories of labour and unemployment is at a relatively low level. Overall annual wage growth is projected at 3¾% in 2012. The projections imply real wage growth in 2012 of around 2¾%.

Chart 2.26 Investment in mainland Norway excluding public sector. Constant 2009 prices. In billions of NOK. 1992 – 2012[1)]



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

Chart 2.27 Employment[1)] and Norges Bank's regional network's indicator of change in employment and expected change in employment next three months. Per cent. 2003 Q1 – 2012 Q4[2)]



1) Seasonally adjusted quarterly change in Quarterly National Accounts
2) Latest observation in the regional network is February 2012. Latest observation in the Quarterly National Accounts is 2011 Q4, projections for 2012 Q1 – 2012 Q4 (broken line)
Sources: Statistics Norway and Norges Bank

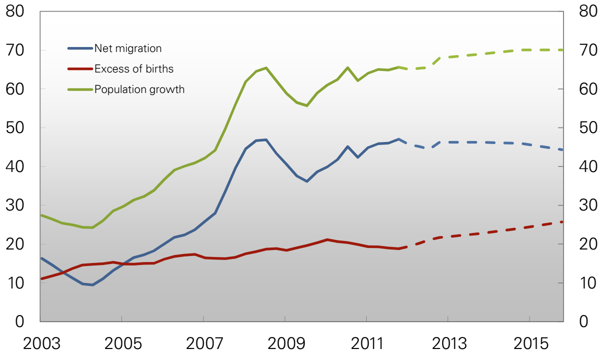
Table 2.3. Population and labour force growth. Change from previous year. Per cent

	2011	2012
Population growth in the age group 15–74	1.7	1¾
Growth in labour force conditional on unchanged labour force participation[1)]	1.3	1¼
Labour force growth	1.0	1¾

[1)] Unchanged labour force participation in every age group since the 2007 level

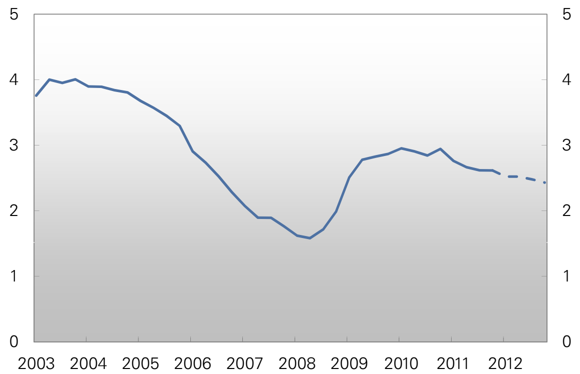
Sources: Statistics Norway and Norges Bank

Chart 2.28 Population growth, net migration and excess of births. Sum of four previous quarters. In 1000s of persons. 2003 Q1 – 2015 Q4[1)]



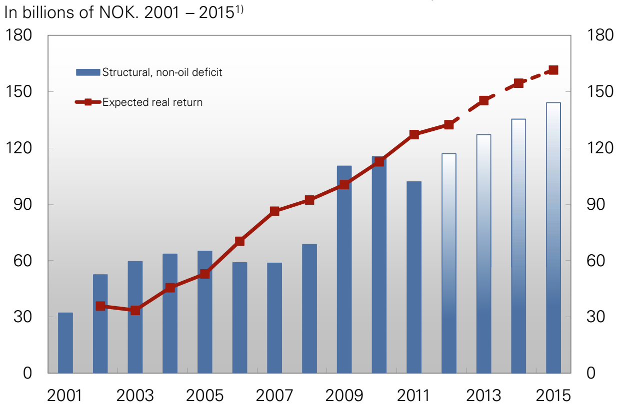
1) Projections for 2012 Q1 - 2015 Q4
Sources: Statistics Norway and Norges Bank

Chart 2.29 Registered unemployment. Percentage of labour force. Seasonally adjusted. 2003 Q1 – 2012 Q4[1)]



1) Projections for 2012 Q1 – 2012 Q4 (broken line)
Sources: Norwegian Labour and Welfare Administration, Statistics Norway and Norges Bank

Chart 2.30 Structural non-oil deficit and expected real return on the Government Pension Fund Global. Constant 2012 prices. In billions of NOK. 2001 – 2015[1)]



1) Projections for 2012 – 2015
Sources: Ministry of Finance and Norges Bank

Assumptions concerning fiscal policy and petroleum investment from 2012 to 2015

Fiscal policy

Recent years' tax revenues from the mainland economy have been unexpectedly high. The structural non-oil budget deficit – which is a measure of underlying petroleum revenue spending – is provisionally revised down by NOK 29bn in 2011. The structural deficit is projected at NOK 117bn in 2012 in this *Report*, or about NOK 5bn lower than assumed in the National Budget for 2012.

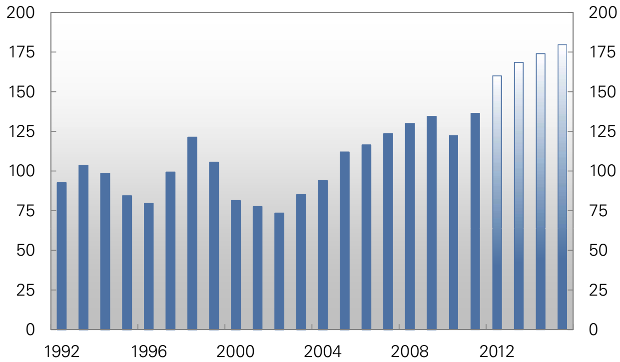
Owing to a pickup in global markets towards the end of 2011, the value of the Government Pension Fund Global (GPFG) was higher at the beginning of 2012 than assumed in the National Budget for 2012. Looking ahead, petroleum revenue spending is assumed to increase in line with the value of the Fund as estimated in the budget documents. This results in a structural deficit of somewhat below 4% of the GPFG (see Chart 2.30). Petroleum revenue spending will rise faster than activity in the non-oil economy, but public consumption and investment are still expected to show moderate growth owing to a sharp increase in transfers for old-age pension expenditures.

The actual departure from the 4% path may be greater than indicated in Chart 2.30. The estimates for the GPFG in the budget are among other things based on an oil price assumption that is lower than today's futures prices.

Petroleum investment

Investment in the petroleum sector fell in 2010, but picked up sharply through 2011. The contraction through 2010 primarily reflected the postponement of a number of projects owing to the financial crisis and the subsequent fall in oil and gas prices. Export prices for Norwegian oil and gas have increased markedly since summer 2009 and are expected to remain high moving forward. This has contributed to a pickup in activity on the Norwegian continental shelf. A number of development projects on new and older fields will continue to fuel strong growth in investment in the coming years. However, growth may be limited by a shortage of available drilling rigs and skilled labour. Petroleum investment is projected to be almost 50% higher in 2015 than in 2010 (see Chart 2.31).

Chart 2.31 Petroleum investment. Constant 2009 prices. In billions of NOK. 1992 – 2015[1)]



1) Projections for 2012 – 2015
Sources: Statistics Norway and Norges Bank

Box

Evaluation of the projections for 2011

Evaluation of the projections for 2011

The conduct of monetary policy is based on projections of economic developments. It is thus important to evaluate the projections. Evaluation of the projections can enhance our insight into the functioning of the economy and contribute to improving Norges Bank's projections and analytical tools. This box looks at Norges Bank's projections for economic developments in 2011 as published from and including *Monetary Policy Report* 3/10.[1]

The projections in the October 2010 *Monetary Policy Report* reflected somewhat faster-than-expected growth in the world economy, but also the high degree of uncertainty that surrounded developments abroad. Growth in the Norwegian economy was still moderate, but seemed to have gained a firm footing.

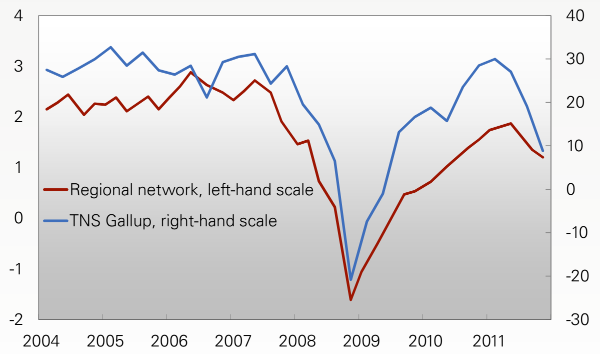
There were prospects that the key policy rate would be held at a low level in the following quarters, but that it would be raised in the course of summer 2011, and then gradually increase towards a more normal level.

In October 2010, mainland GDP growth was projected at 3% in 2011. The growth projection was revised up a little in the March *Report,* but revised down somewhat in June and further down to 2¾% in October 2011 (see Table 1). According to preliminary national accounts figures, mainland GDP growth was 2.6% in 2011.

The GDP growth projection reflected among other things the prospects for high population growth and strong investment growth in the petroleum industry and the housing sector, which broadly followed the projected path in 2011. Developments through winter and spring also pointed to robust growth in other demand components. Unemployment fell and both household and business confidence indicators climbed (see Chart 1).

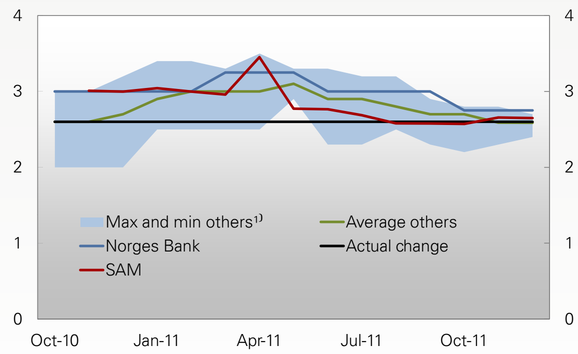
Consumption grew at a slower pace than expected, however, despite solid income growth and low interest rates, probably owing to high household indebtedness. Growing uncertainty concerning international economic developments prompted a pronounced shift in sentiment from summer and both households and businesses became more pessimistic (see Chart 1). Households with high debt burdens likely became more cautious. Growth in mainland exports of goods and services also turned out to be weaker than

Chart 1 Outlook in production in the Regional network and TNS Gallup indicator for households. January 2004 - December 2011



Sources: TNS Gallup and Norges Bank

Chart 2 Projections for GDP mainland Norway. Annual change. Volume. Per cent. October 2010 – December 2011



1) Based on the institutions surveyed by Consensus Forecast
Sources: Statistics Norway, Consensus Forecasts and Norges Bank

projected. According to preliminary national accounts figures, exports did not increase between 2010 and 2011.

Norges Bank's projections for growth in the mainland economy in 2011 were high compared with the projections derived from the Bank's system for averaging short-term models, SAM, and compared with other institutions (see Chart 2).

Although mainland activity did not pick as fast as projected in 2011, employment showed a marked increase. The supply of labour also showed solid growth owing to record-high immigration. Employment grew at a somewhat faster pace than the labour supply so that unemployment fell between 2010 and 2011. The level of unemployment in 2011 was broadly in line with that projected in the reports. Capacity utilisation was likely near a normal level and showed little change through 2011.

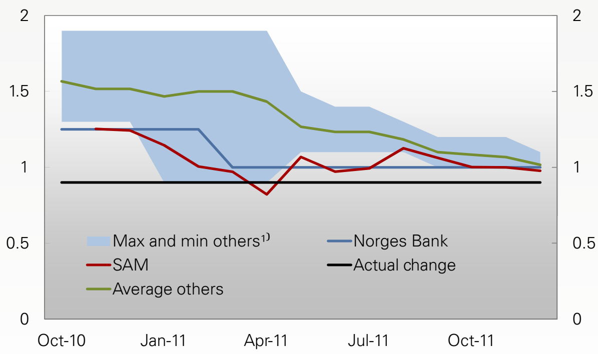
Inflation was low through 2011. CPI inflation rose by 1.2% between 2010 and 2011. Adjusted for tax changes and excluding energy products (CPI-ATE), inflation was 0.9%. CPI-ATE inflation in 2011 was lower than projected in *Monetary Policy Report* 3/10, but the projections for annual inflation published at different points in time last year were fairly close to the mark. Norges Bank's projections were also more closely in line with actual developments than the average of projections from other institutions (see Chart 3).

Inflation was nevertheless lower than projected at the end of 2011. The projections through the year were based on the assumption that CPI-ATE inflation would move up through the year as a result of rising inflation for domestically produced goods and services. The rise in prices for domestically produced goods and services remained at a low level, however, despite an increase in wage growth from 2010. The rate of increase in prices 2011 seems low given the rise in costs, but lower-than-projected growth in demand likely had a dampening impact on prices.

Norges Bank's key policy rate remained at a low level throughout 2011. The key policy rate was raised from 2.00% to 2.25% in May in response to the many positive economic signals through winter and spring. Financial market strains intensified again through summer and autumn. Norwegian money market premiums rose considerably and the outlook for the Norwegian economy worsened. In December, the key policy rate was reduced to 1.75%.

1 For a further analysis of Norges Bank's projections for 2011 and actual economic developments, see Nordbø (2012): "Evaluation of Norges Bank's projections for 2011", *Norges Bank Staff Memo* (forthcoming).

Chart 3 Projections for CPI-ATE. Annual change. Per cent. October 2010 – December 2011



1) Projections from fra DnB, Handelsbanken, Ministry of Finance, Nordea, SEB and Statistics Norway
Sources: Statistics Norway, reports from the different institutions and Norges Bank

Table 1. Projections for main economic aggregates. Percentage change from previous year (unless otherwise stated).

	MPR 3/10	MPR 1/11	MPR 2/11	MPR 3/11	Actual
Prices and wages					
CPI	1¼	1½	1¾	1½	1.2
CPI-ATE	1¼	1	1	1	0.9
CPIXE	1½	1¼	1¼	1¼	1.1
Annual wages[1)]	3¾	4	4¼	4¼	4.3
Real economy					
GDP, mainland Norway	3	3¼	3	2¾	2.6
Output gap, mainland Norway (level)	-¼	0	0	0	-0.1[3)]
Employment, persons (QNA)	1	1¼	1¼	1	1.4
Labour force, LFS	1	1¼	1	¾	1
Registered unemployment (rate, level)	2¾	2¾	2½	2¾	2.7
Demand					
Mainland demand	4	4¼	3¾	3½	3.1
- Private consumption	3¼	3½	3½	2¾	2.2
- Fixed investment, mainland Norway	10	9¾	8¼	8	8.2
Petroleum investment	7	12½	15	12¾	11.4
Mainland exports	2¾	6¼	2¼	1½	-0.1
Interest rate and exchange rate					
Key policy rate (level)	2¼	2¼	2¼	2¼	2.1
Import-weighted exchange rate (I-44) (level)	90¾	88¾	88	88	88.1
International economy					
GDP for trading partners	2½	2½	3	2½	2.3[3)]
External price impulses[2)]	0	-¼	¼	½	0.7[3)]

1) Annual wage growth is based on the Technical Reporting Committee on Income Settlements' definitions and calculations
2) Indicator of external price impulses to imported goods measured in foreign currency
3) Norges Bank's estimates

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

Annex

Boxes 2006 – 2012

Publications 2009 – 2012 on Norges Bank's website

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Boxes 2006 – 2012

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3/2011
The system for managing bank reserves

1/2011
Population growth and labour immigration
Evaluation of the projections for 2010

3/2010
Why are long-term interest rates so low?
CPIM: A model-based indicator of underlying inflation

2/2010
Criteria for an appropriate interest rate path

1/2010
The level of the normal interest rate
Evaluation of the projections for 2009

3/2009
Unwinding of extraordinary measures
CPI adjusted for the frequency of price changes

2/2009:
The arrangement for the exchange of government securities for bonds
Structural liquidity
Household behaviour

1/2009:
Deep downturn in the global economy
Evaluation of the projections for 2008

3/2008:
The NIBOR market
Norwegian financial crisis measures
How does the financial crisis affect developments in the real economy?
A summary of financial market events since June

2/2008:
Underlying inflation
SAM - System of models for short-term forecasting

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Cross-checks for the krone exchange rate
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Central bank response to financial turbulence
Household saving
Fiscal policy and local government finances
High petroleum investment
NEMO - a new projection and monetary policy analysis model

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Developments in productivity growth
How often do firms change their prices?

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Uncertainty surrounding wage growth ahead
Competition and prices
Evaluation of projections for 2006

3/2006:
Output gap uncertainty

2/2006:
Money, credit and prices – a monetary cross-check
Foreign labour in Norway
Short-term forecasts for mainland GDP in Norway

1/2006:
Choice of interest rate path in the work on forecasting
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Regional network: enterprises and organisations interviewed

07 Gruppen AS
3B-fiberglass Norway AS
7. himmel AS
ABB AS
ABCenter eiendom AS
Accenture AS
Account-IT AS
Adecco Norge AS, Trondheim
Aditro HRM
Adresseavisen AS
Advokat Ole Morten Husmo AS
Advokatfirmaet Schjødt AS
Ahead frisør
Ahlsell Norge AS, Trondheim
Aibel AS
Air Products AS
Aker Midsund AS
Aker Offshore Partner AS, Kristiansund
Aker Pusnes AS
Akershus universitetssykehus HF
Aktietrykkeriet AS
Aktiv365
AKVA Group ASA
Alcoa Norway ANS, Lista
Alfr. Nesset AS
Alfsen og Gunderson AS
Alleen auto AS
Alliero AS
Alta kommune
American Express Business Travel AS
A-møbler AS
Anleggsgartnerfirma Strandman AS
Apollo reiser
Apply TB AS
Apropos internett AS
APS Norway AS
Arendal auto AS
Arendal kommune
Arendal kulturhus AS
Arki arkitektar AS
Arntzen de Besche advokatfirma AS
Asker kommune
Asko Hedmark AS
Asko Norge AS
Askøy kommune
Asplan Viak AS, Stavanger
AT Group AS
Atelier Ekren AS
Aurora Group Norge AS
Austevoll Seafood ASA
Avantor AS
Avinor AS
Avinor AS, Bergen lufthavn
Avinor AS, Kristiansund lufthavn
Avinor AS, Trondheim lufthavn
Bates United AS
BearingPoint Norway AS
Beitostølen Resort AS
Bennet Nord-Norge AS avd. Bodø
Berg Jacobsen gruppen
Bergans fritid AS
Berge & Co AS
Bergen Group ASA
Bergen kino AS
Bergen kommune
Bergene Holm AS
Bergens tidende AS
Berg-Hansen reisebureau Vestfold AS
Bernhard Olsen AS
Bertel O. Steen Rogaland AS
Betong Øst AS
Biltema Sørlandsparken
Biobag International AS
BioMar AS
Biotec Pharmacon ASA
Birkenes byggsenter AS
Birkenes kommune
Bjerkreim kommune
Bjørn bygg AS
Block Berge bygg AS
BN entreprenør AS
Bohus Bomøbler AS
Bohus Møbelhuset AS
Br. Reme AS
Bravida AS
Bravida AS, Sørvest
Brude Safety AS
Brunvoll AS
Brødrene Dahl AS
Brødrene Pedersen AS
Brødrene Ulveseth AS
Bunnpriskjeden AS
Byggma ASA
Byggmakker Norge AS
Bø kommune
Bølgen og Moi AS
Børstad transport AS
Båtsfjordbruket AS
Capgemini Norge AS, Trondheim
Carshine AS
CC Mart'n Gjøvik drift AS
Cegal AS
Celsa Steel Service AS
Cermaq ASA
Chiron AS
Clarkes AS
Clas Ohlson AS
Clas Ohlson AS, region Nord
Clas Ohlson AS, region Sør
Clas Ohlson AS, region Sør
Coop Hordaland BA
Coop NKL SA
Coop Nord SA
Coop Nordland SA
Coop Steinkjer SA
Coop Vest SA
Cowi AS, Trondheim
Cramo AS
CrediCare AS, Førde
CSC Norge AS
Dark AS
Deloitte AS, Sogn og Fjordane

Devold of Norway AS
Din Tur AS
DnB eiendom AS
DnB næringsmegling AS, Trondheim
DNH Den norske høyttaler-fabrikk AS
Dokka Fasteners AS
Dokken og Moen murmesterforretning AS
Drammen kommune
EDB ErgoGroup ASA
EDB Ergogroup ASA, region Innland
EDB ErgoGroup ASA, Trondheim
EFD Induction AS
Eidskog kommune
Eidsvoll kommune
Eiendomsmegler 1 Nord Norge AS
Eiendomsmegler 1 SR-eiendom AS
Eiendomsør og bygg AS
Eigedomsmekling Sogn og Fjordane AS
Ekornes ASA
Elektro AS
Elkem ASA, Salten Verk
Elkem Thamshavn AS
Elkjøp Finnsnes AS
Elkjøp giganten Forus
Elkjøp giganten Åsane
Elkjøp Norge AS
Elkjøp stormarked Bodø
Elmo AS
Eramet Norway AS, Sauda
Eramet Norway Kvinesdal AS
Ernst & Young AS, Stavanger
Esko-Graphics Kongsberg AS
Euronics Norge AS
Evensen & Evensen AS
Ewos AS
Exbo Sørlandet AS
Expert Molde
Fabelaktiv AS
Farstad Shipping AS
Farsund bygg AS
Finn.no AS
Finneid sveiseverksted AS
Finsbråten AS
Firda media AS
Fjord Line AS
Fjord1 Nordvestlandske AS
FK Butikken Felleskjøpet Rogaland
Flekkefjord kommune
FM Gruppen AS
Fokus bank
Fokus bank, Bodø
Fokus Krogsveen AS
Fokus Krogsveen AS, Trondheim
Folk i husan eiendomsmegling AS
Follestad Oslo AS
Forus næringspark AS
Fossberg hotell AS
FotoKnudsen AS
Frank Mohn AS
Franzefoss pukk AS
Fresenius Kabi Norge AS
Fretex butikkutsalg, Kristiansand
Friskhuset Holding AS
Fugro Oceanor AS
Fædrelandsvennen AS
Førde kommune
Gausdal Bruvoll BA
GE Healthcare AS
Geomatikk IKT AS
GERA Technology AS
Gilstad trelast AS
Gipling AS
Gjøvik kommune
Glamox ASA
Glava AS
Glåmdalen AS
Goman bakeriet AS, Trondheim
Gran kommune
Gran Taralrud AS
Grande entreprenør AS
Granit kleber AS
Gravdahl AS
Grenland Group ASA
Gresvig ASA, Sport
Grilstad AS, Brumunddal
Grunnarbeid AS
G-Sport Nord AS
Gudbrandsdalens uldvarefarbrik AS
Gunnar Hippe AS
Gunnar Klo AS
H. & O. Bernhardsen AS
H. Mydland AS
Hafjell alpinsenter AS
Halliburton Norge Holding AS
Hamar kommune
Hammerfest kommune
Hammerø & Storvik Molde AS
Hamworthy AS
Handelsbanken, Trondheim
Hapro
Haram kommune
Hauans AS
Hedalm Anebyhus AS
Hedalm Anebyhus AS, Nord-Vest
Hedmark eiendom AS
Hedmark fylkeskommune
Helgelandssykehuset HF
Helse Bergen HF
Helse Førde
Helse Midt-Norge RHF
Helse Stavanger HF
Herregalleriet AS
Hi-Fi klubben AS, Grimstad
Hogg Robinson Nordic AS
Holm grafisk AS
Holmen fjordhotell
Hordaland fylkeskommune
House of Beauty AS
Hunton fiber AS
Hydraulikk Finnmark AS
Hydro Aluminium AS, Årdal
Hydro Aluminium Profiler AS
IBM Norge
ICA Norge Rimi Vest
Ide møbler Bodø AS
IKEA AS
IKEA AS, Forus
IKM gruppen AS
Indre Sogn sparebank
Innoventi AS

Innvik Sellgren industrier AS
Interfil AS
Intra AS
Itab industrier AS
ITet AS
Ivar Mjåland AS
Jak Restaurantdrift A/S
JC Decaux Norge AS
Jemar Norpower AS
Jensen møbler AS
Jernbaneverket
Jernia AS
Jiffy Products International AS
JM Norge AS
JMS Mediasystems AS
Jobzone AS
Johansen Th & Sønner AS
John Galten AS
Jotun AS
Jotunheimen og Valdresruten bilselskap AS
Julius Jakhelln AS
Kappahl AS
Karmøy kommune
Kirkestuen transport AS
Kjøpmannshuset Norge AS
Kleive betongbygg AS
Klæbu kommune
Knutsen Jørgensen & Skjelbred Servering AS
Kongsberg Automotive AS
Kongsberg Automotive AS, Raufoss
Kongsberg kommune
Kontali analyse AS
Kosbergs arkitektkontor AS
KPMG AS
KPMG AS, Trondheim
Kraft Foods Norge AS
Kristiansand Cementstøperi
Kristiansand kommune
Kristiansund kommune
Kristiseter M Entreprenør AS
Kruse Smith AS
Kvalitet & Ledelse AS
Kverneland Group ASA
Kværner Verdal AS
Landteknikk fabrikk AS
Lantmannen Cerealia AS
Larvik kommune
Leiv Eiriksson nyskapning AS
Lena maskin AS
Lenvik kommune
Lerum AS
Lerøy Midnor AS
Lilleborg AS, profesjonell
Lindex AS
Link signatur AS
Lom kommune
Lom og Skjåk sparebank
Lundegården Bar & Brasserie AS
Lunner kommune
Løype Anleggsdrift AS
Madsen bil AS
Madshus AS
Magneten kjøpesenter
Mainstream Norway AS
Malvik kommune
Manpower AS
Manpower AS, Bodø
Manpower AS, Hedmark og Oppland
Manpower AS, Nordmøre og Romsdal
Manpower AS, Trondheim
Mapei AS
Marine Cybernetics AS
Marine installasjoner AS
Mascot Electronics AS
MaxMat AS
Melhus kommune
Meny Krøgenes
Meyergården Turisthotell AS
Meyership AS
Mezina AS
Miljøbygg AS
Miras multimaskin AS
Modern Design AS
Moderne Byggfornyelse AS
Moelven Nordia AS
Moi rør AS
Molab AS
Molde kommune
Moldjord Bygg og Anlegg AS
Moss kommune
Multiconsult AS
Multiconsult AS, Stavanger
MX Sport
Møbelringen AS
MøllerGruppen AS
Møre båtservice AS
Møre eiendomsmegling AS
Møre Trafo AS
Mørenot AS
Møretre AS
Nammo AS
NAV Aust-Agder
NAV Oppland
NAV Rogaland
NAV Sogn og Fjordane
NAV Sør-Trøndelag
NAV Vest-Agder
Nexans Norway AS
Nexans Norway AS, Rognan
Nikkers AS
Nils Williksen AS
Nobia AS
Nofi Tromsø AS
Nor tekstil AS
Norconsult AS, Bodø
Norconsult AS, Trondheim
Nord Norsk dekkimport AS
NorDan AS
NorDan AS, Hedmark/Oppland
Nord-Aurdal kommune
Nordea bank Norge ASA
Nordea bank Norge ASA, Kristiansand
Nordek AS
Nordic Paper AS
Nordlaks AS
Nordland betong AS
Nordox AS
Nord-Tre entreprenør AS
Norengros Kjosavik AS

Norsk kulde AS
Norsk stål AS, Brumunddal
Norsk tipping AS
Norske Skog Skogn AS
Norske Skogindustrier ASA
Norspace AS
Nortrans Touring AS
NOR-WAY bussekspress AS
Norway Seafoods AS, Hammerfest
Norwegian Air Shuttle ASA
Notar AS, Nordmøre
Nylander & Partners AS
Nysted AS
Næringsråd i Arendal kommune
Nøsted kjetting AS
Ocean Supreme AS
Officelink AS
Olav Thon eiendomsselskap ASA
Oppegård kommune
Optimera AS, region Sør
Oras AS
Oras AS, Bodø
Oras AS, Trondheim
Orica Norway AS
Oslo kommune
Oslo sportslager AS
Oslo Universitetssykehus HF
Oswo AS
Ottadalen mølle AL
PA Consulting Group AS
Pallin AS
Panalpina Grieg AS
Pedagogisk vikarsentral AS
Per Knudsen arkitektkontor AS
Per Aaland AS
Petter Gagama AS
Pharmaq AS
Pitney Bowes Norge AS, Eidsiva Gjøvik
Polarbase AS, Hammerfest
Pon Power
PricewaterhouseCoopers AS, Stavanger
PricewaterhouseCoopers AS
Proaktiv eiendomsmegling AS
Proffice AS, Gjøvik
Proffice Nord-Norge AS
Prognosesenteret AS
Promens AS, Kristiansand
Pronova Biopharma Norge AS
PS Data
På håret frisør AS
Q-Free ASA
Qvam Eigedom AS/Handelshuset Førde
Radisson Blu Caledonien Hotel, Kristiansand
Radisson Blu Hotel Norge, Bergen
Radisson Blu Lillehammer Hotel
Radisson Blu Scandinavia Hotel, Oslo
Rambøll Norge AS
Rambøll Norge AS, Lillehammer
Rambøll Unico AS
Ramirent AS, Trøndelag
Rana kommune
Rapp Bomek AS
Reber Schindler heis AS
Refa Frøystad Group AS
Relacom AS
REMA 1000 Norge AS
REMA 1000 Norge AS, Nordre Vestland
Renates hudpleie
Renés barnevogner AS
Retura Sør AS
Rica Hotels AS
Rica Nidelven Hotel
Rica Park Hotel
Rica Sunnfjord Hotel
Ringnes AS
Rissa kommune
Rofiskgruppen AS
Rogne bygg AS
Rosenborg malerteam AS
RUUD AS
Rype AS
Røra fabrikker AS
Rørlegger D Åsheim AS
Rørleggeren AS
Røstad entreprenør AS
S&B Stenersen AS
Sandnes sparebank
Sarpsborg kommune
SB transport AS
Scandic Hotels AS
Scandinavian Business Seating AS
ScanPartner AS
Schenker AS
Schenker AS, Trondheim
Seald Air Norge AS
Sel kommune
Selvaag gruppen AS
Sentrum bygg AS
Servi Cylinderservice AS
SF kino Stavanger/Sandnes AS
Ship Equip International AS
Sibelco Nordic AS
Siemens Oil & Gas Norway
Sig. Halvorsen AS
SIVA selskapet for industrivekst SF
Skagen AS
Skandinavisk høyfjellsutstyr Trondheim AS
Skanska Norge AS
Skanska Norge AS, Buskerud, Vestfold og Telemark
Skanska Norge AS, bygg region Sør
Skanska Norge AS, Midt-Norge
Skanska Norge AS, Møre og Romsdal
Skeikampen Resort
Skibsplast AS
Skien kommune
Sko Huuse AS
Smurfit Kappa Norpapp AS
Snadder og Snaskum AS
Snap Drive AS
Solhaug bygg AS
Solsiden spa og velværesenter AS
Solstad Offshore ASA
Sortland entreprenør AS
Sortland kommune
Sortlandhotellene AS

Sparebank 1 Nord-Norge, Bodø
Sparebank 1 Vestfold
Sparebanken Hedmark
Sparebanken Møre
Sparebanken Nord-Norge
Sparebanken Sogn og Fjordane
Sparebanken Sør, Farsund
Sparebanken Vest
Sparebanken Øst
Spenncon AS
Spicheren Treningssenter
Spor design AS
Sport & rekreasjon AS
Sportshuset AS, Tromsø
Sportshuset AS, Øvre Årdal
Stadion AS
Stange kommune
Stantek Kongsvinger AS
Start Toppfotball
Startour-stjernereiser AS
Statens vegvesen
Statens vegvesen, Region Vest
Statoil ASA
Stavanger aftenblad ASA
Steinkjer kommune
Stoltz entreprenør AS
Stordal kommune
Stor-Elvdal kommune
Storvik salong AS
Strand Sea Service AS
Strandtorget kjøpesenter
Stream AS
Studentsamskipnaden i Agder
STX OSV AS
Sulland gruppen AS
Sundvolden Hotel
Sunnmørsposten AS
Svinøya Rorbuer AS
Sweco Norge AS
Sykehuset i Vestfold HF
Sylteosen Holding AS
Synnøve Finden ASA
Synsam Norge AS
Södera Timber, Jessheim
Sølvtrans AS
Sönnichsen AS
Sørbø gruppen AS
T Kverneland & sønner AS
T. Stangeland maskin AS
Taxi Sør AS
Teeness ASA
Tele-Connect Gjøvik AS
Telemark sykehus
Teliasonera Norge AS
Tema eiendomsselskap AS
Terra forsikring AS
Thon Hotel Bergen brygge
Tilbords AS
Time kommune
Tine meieriet Vest BA
Tine meieriet Øst BA
Titania AS
To rom og kjøkken
Tollpost Globe AS
Toma gruppen
Tools Nord AS
Torghatten trafikkselskap AS
Toten bygg og anlegg AS
Toyota Førde AS
Toyota Nordvik AS
Toyota Norge AS
Toyota Sørvest AS
Trehuseksperten AS
Trelleborg Offshore Norway AS
Tren
Treningssenteret Moldehallen
Trioving AS
Triplex AS
Tromsø kommune
Trondheim torg
Tronrud Engineering AS
Try reklamebyrå
TT anlegg AS
TTS Group ASA
Tysvær kommune
Ulstein verft AS
Umoe Restaurant Group AS
Union Hotel Geiranger AS
Universitetssykehuset
Nord-Norge HF
Valdres last AS
Valdres regnskap AS
Valdresbygg AS
Vale Manganese Norway AS
Valldal høvleri AS
Varner-gruppen AS
Veidekke ASA
Verdal kommune
Vestbase AS
Vesteråls-revisjon AS
Veøy AS
Viju Norge AS
Vikeså Glassindustri AS
Vintervoll AS
Vågå kommune
Westre bakeri AS
Widerøe's flyveselskap AS
Wikborg, Rein & Co
Wikborg, Rein & Co, Bergen
YC rør AS
YIT AS, Ålesund
YIT Building Systems AS
YIT Building Systems AS, Gjøvik
YIT Building Systems AS,
Nordmøre og Romsdal
Ø M Fjeld AS
Øglænd industrier AS
Økonor Flisa AS
Ørland transport AS
Øster hus gruppen AS
Østereng & Benestad AS
Øystre Slidre kommune
Ålesund storsenter AS
Aas mek verksted AS
Åsen & Øvrelid AS
Aasen bygg AS

Monetary policy meetings

with changes in the key policy rate

Date	Key policy rate[1]	Change
20 June 2012		
10 May 2012		
14 March 2012	**1.50**	**-0.25**
14 December 2011	1.75	-0.50
19 October 2011	2.25	0
21 September 2011	2.25	0
10 August 2011	2.25	0
22 June 2011	2.25	0
12 May 2011	2.25	+0.25
16 March 2011	2.00	0
26 January 2011	2.00	0
15 December 2010	2.00	0
27 October 2010	2.00	0
22 September 2010	2.00	0
11 August 2010	2.00	0
23 June 2010	2.00	0
5 May 2010	2.00	+0.25
24 March 2010	1.75	0
3 February 2010	1.75	0
16 December 2009	1.75	+0.25
28 October 2009	1.50	+0.25
23 September 2009	1.25	0
12 August 2009	1.25	0
17 June 2009	1.25	-0.25
6 May 2009	1.50	-0.50
25 March 2009	2.00	-0.50
4 February 2009	2.50	-0.50
17 December 2008	3.00	-1.75
29 October 2008	4.75	-0.50
15 October 2008	5.25	-0.50
24 September 2008	5.75	0
13 August 2008	5.75	0
25 June 2008	5.75	+0.25
28 May 2008	5.50	0
23 April 2008	5.50	+0.25
13 March 2008	5.25	0
23 January 2008	5.25	0

[1] The key policy rate is the interest rate on banks' sight deposits in Norges Bank. This interest rate forms a floor for money market rates. By managing 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
2007		2.7	5.3	5.4	2.7	13.3	6.1	6.3	10.0
2008		0.0	1.5	1.8	2.7	-1.3	5.2	4.5	3.9
2009		-1.7	-1.6	0.0	4.3	-13.2	3.4	-8.4	-12.5
2010		0.7	1.9	3.7	1.7	-2.5	-9.0	7.7	9.9
2011		1.6	2.6	2.2	1.5	8.2	11.4	-0.1	2.5
2011[3]	Q1	-0.3	0.4	0.2	-0.3	2.6	2.8	-1.9	7.7
	Q2	0.5	1.3	0.5	1.6	-0.4	2.6	2.8	-7.1
	Q3	1.1	0.8	0.3	0.7	0.1	7.7	1.7	1.6
	Q4	0.5	0.6	0.6	0.5	4.4	-4.4	-2.1	-0.6
2010-level, in billions of NOK		2 410	1 960	1 089	548	368	136	415	744

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

Source: Statistics Norway

Table 2 Consumer prices

Annual rise/ twelve-month rise. Per cent		CPI	CPI-ATE[1]	CPIXE[2]	CPI-AT[3]	CPI-AE[4]	HICP[5]
2007		0.8	1.4	1.9	0.5	1.6	0.7
2008		3.8	2.6	3.1	3.9	2.5	3.4
2009		2.1	2.6	2.6	2.1	2.7	2.3
2010		2.5	1.4	1.7	2.4	1.4	2.4
2011		1.2	0.9	1.1	1.1	1.1	1.2
2012	Jan	0.5	1.3	1.2	0.4	1.5	0.3
	Feb	1.2	1.3	1.2	1.0	1.5	1.0

[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. As of August 2008, the CPIXE is a real-time series. 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			
	2011	2011	2012	2013	2014	2015
Prices and wages						
CPI		1.2	1	1¾	2	2¼
CPI-ATE[1)]		0.9	1¼	1½	2	2¼
CPIXE[2)]		1.1	1¼	1½	2	2¼
Annual wages[3)]		4.3	3¾	4	4	4¼
Real economy						
GDP	2711	1.6	2¾	2¼	2¼	2¼
GDP, mainland Norway	2088	2.6	3¼	3	3	3
Output gap[4)], mainland Norway (level)		-0.1	¼	0	0	0
Employment, persons, QNA		1.4	1½	1¼	1¼	1¼
Labour force, LFS		1.0	1¾	1¼	1¼	1¼
LFS unemployment (rate, level)		3.3	3¼	3½	3½	3½
Registered unemployment (rate, level)		2.7	2½	2½	2¾	2¾
Demand						
Mainland demand[5)]	2102	3.1	3½	3	2¾	2¾
- Private consumption	1127	2.2	3	3¾	3½	3¼
- Public consumption	585	1.5	2¼	2¼	.	.
- Fixed investment, mainland Norway	390	8.2	3¾	4	.	.
Petroleum investment[6)]	142	11.4	17¼	5¼	3¼	3¼
Mainland exports[7)]	455	-0.1	1½	2¼	.	.
Imports	764	2.5	3½	4½	.	.
Interest rate and exchange rate						
Key policy rate (level)[8)]		2.1	1½	1¾	2½	3¼
Import-weighted exchange rate (I-44)[9)]		88.1	87¼	87¼	87¼	87½

1) CPI-ATE: CPI adjusted for tax changes and excluding energy products
2) CPIXE: CPI adjusted for tax changes and excluding temporary changes in energy prices. See Norges Bank *Staff Memo* 7/2008 and *Staff Memo* 3/2009 for a description of the CPIXE
3) Annual wage growth is based on the Technical Reporting Committee on Income Settlements' definitions and calculations
4) The output gap measures the percentage deviation between mainland GDP and projected potential mainland GDP
5) Private and public consumption and mainland gross fixed investment
6) Extraction and pipeline transport
7) Traditional goods, travel and exports of other services from mainland Norway
8) The key policy rate is the interest rate on banks' deposits in Norges Bank
9) Level. The weights are estimated on the basis of imports from 44 countries, which comprise 97% of total imports

· Not available

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

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2012