NORGES BANK

Monetary Policy Report

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Monetary Policy Report
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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 22 April, the Executive Board discussed relevant themes for the *Report*. At the Executive Board meeting on 10 June, the economic outlook was 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 28 October 2009 at the meeting held on 17 June. The Executive Board's summary of the economic outlook and the monetary policy strategy is presented in Section 1. In the period to the next *Report*, the Executive Board's monetary policy meetings will be held on 12 August, 23 September and 28 October.

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This *Monetary Policy Report* is based on information in the period to 11 June 2009.

The monetary policy strategy in Section 1 was approved by the Executive Board on 17 June 2009.

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 main features of the analysis in the *Monetary Policy Report* are presented to the Executive Board for discussion at a meeting about two weeks before the *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 end of Section 1 in 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 every sixth week. 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 announced at 2pm on the day of the meeting. At the same time, the Executive Board's monetary policy statement is published. The statement provides an account of the main aspects of economic developments that have had a bearing on the interest rate decision and the Executive Board's assessments. The Bank holds a press conference at 2:45 pm on the same day. The press release, the Executive Board's monetary policy statement 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 Kredittmeldingen (Credit 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 Credit Report.

Editorial

Approximately as expected, but still fragile

The global economic downturn continues. So far the fall in global activity has been more pronounced than expected. The situation is serious in Europe in particular. Activity is also contracting in Norway and unemployment is rising. Nevertheless, forward-looking indicators are less pessimistic than previously. The functioning of financial markets has improved somewhat.

Norges Bank has cut the key policy rate considerably in response to the challenges generated by the global crisis. The key policy rate has been reduced by 4½ percentage points since September. The projections are approximately the same as in March. It seems likely that domestic output will gradually pick up again, but inflation is expected to fall close to 1½% in the coming year. Against this background, Norges Bank's assessment that the key policy rate can remain close to 1% for a period ahead still applies.

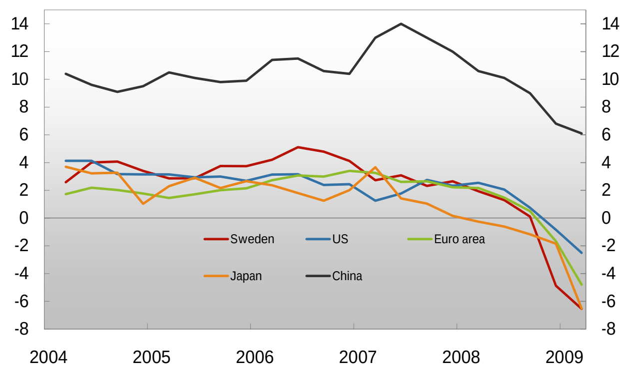
The Executive Board's strategy is that the key policy rate should be in the interval ¾ - 1¾% in the period to the publication of the next *Monetary Policy Report* on 28 October, unless the Norwegian economy is exposed to new major shocks.

The authorities in many countries have implemented a number of measures to shore up money and credit markets. The measures seem to be working. The appropriate time to unwind some of the extraordinary measures is approaching in some countries.

Financial market participants seem increasingly confident that the worst is behind us, and they are taking more risk. If the most optimistic among them should prove to be right, the recovery may be stronger and occur more rapidly than we assume. But the emerging optimism is fragile. Shocks can occur in the future, rekindling fear. Weaker government finances, high levels of excess real capital and risk-averse banks may dampen the global recovery. The recovery expected by the markets may not materialise.

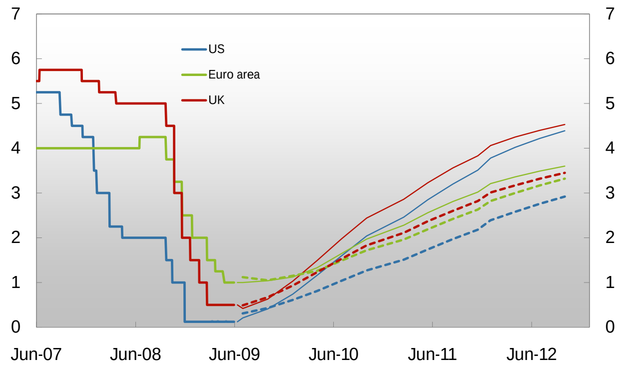
Jan F. Qvigstad
17 June 2009

Chart 1.1 GDP in advanced economies and China. 4-quarter change. Per cent. 2004 Q1 – 2009 Q1



Source: Thomson Reuters

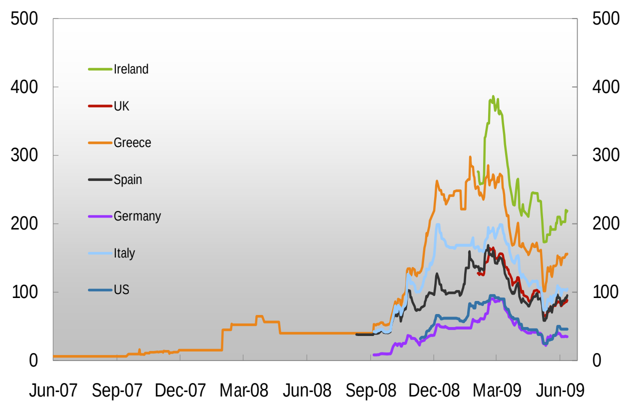
Chart1.2 Key rates and estimated forward rates on 25 March 2009 and 11 June 2009[1)]. Per cent. 1 June 2007 – 31 December 2012



1) Dotted lines show estimated forward rates as at 25 March 2009. Thin lines show forward rates as at 11 June 2009. Forward rates are based on Overnight Indexed Swap (OIS) interest rates.

Sources: Thomson Reuters and Norges Bank

Chart 1.3 Credit risk for sovereign debt. Measured by 5-year CDS prices. Basis points. 1 June 2007 – 11 June 2009



Sources: Bloomberg and Thomson Reuters

1 Monetary policy assessments and strategy

The economic situation

Global trade and total output in advanced economies has fallen markedly since the Lehman Brothers bankruptcy sparked a crisis of confidence in global financial markets in September last year (see Chart 1.1). Households the world over have adjusted their expectations and increased saving. Lower consumption and investment, high risk premiums on lending and tighter credit standards for loans to enterprises and households have had a negative impact on global economic activity.

Activity among our trading partners fell somewhat more than expected in Q1 and unemployment abroad is rising rapidly. At the same time, the fall in activity in advanced economies seems to be slowing. In China and some other emerging market economies, there are indications of renewed growth, and housing markets in some countries are showing signs of stabilising. Business and consumer confidence indicators have improved recently, but still point towards a continued fall in activity ahead.

A number of measures have been implemented by the authorities to boost demand for goods and services, improve banks' financial strength and enable credit markets to function more smoothly. Key rates have been cut aggressively and are now close to zero in many countries. At the same time, market expectations concerning key rates ahead have risen, as reflected in estimated forward rates (see Chart 1.2). As a result of the fiscal measures implemented, government borrowing is rising substantially. This has pushed up risk premiums on government debt in many countries (see Chart 1.3).

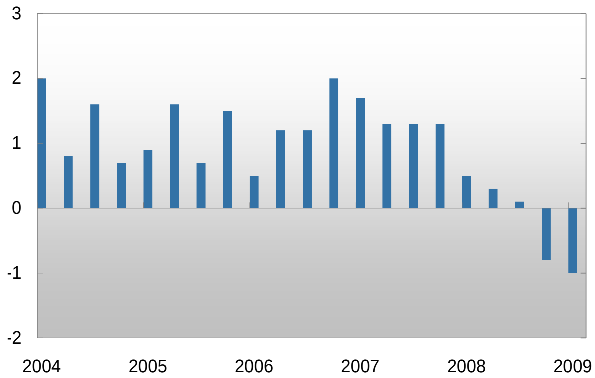
For a long period, it appeared that capacity utilisation in Norway would gradually decline towards a normal level, but the situation rapidly deteriorated as the prospects for global economic growth worsened through last autumn. Total output in mainland Norway has fallen approximately as estimated in the previous *Monetary Policy Report* (see Chart 1.4). The export sector is being particularly hard hit, although low demand is also weighing on domestically oriented production. In addition, Norges Bank's *Survey of Bank Lending* shows that banks have tightened corporate credit standards. Corporate investment is showing a marked decline. As expected, household saving is increasing considerably, in spite of substantial interest rate cuts. The drop in consumer spending now seems to have come to a halt. At the same time, turnover in the housing market has picked up somewhat and house prices have risen so far this year. Households have become more optimistic with regard to developments ahead.

It will take time for the decline in output to feed through to the labour market. Employment has remained fairly stable over the past few months. Unemployment is rising, albeit somewhat less than expected (see Chart 1.5). In manufacturing, layoffs are increasing and the number of people on labour market programs is rising. Unemployment is nevertheless still moderate, particularly in comparison with other advanced economies.

Norges Bank reduced the key policy rate by a total of 2.75 percentage points in the second half of last year. In 2009 the key policy rate was reduced by a further 0.50 percentage point at each of the monetary policy meetings on 4 February, 25 March and 6 May to 1.50%. Norges Bank has also stepped up its supply of liquidity to banks in the form of short-term and long-term loans. The three-month money market rate, which was more than 8% last autumn, is now around 2¼%. Bank lending rates have also decreased considerably (see Chart 1.6).

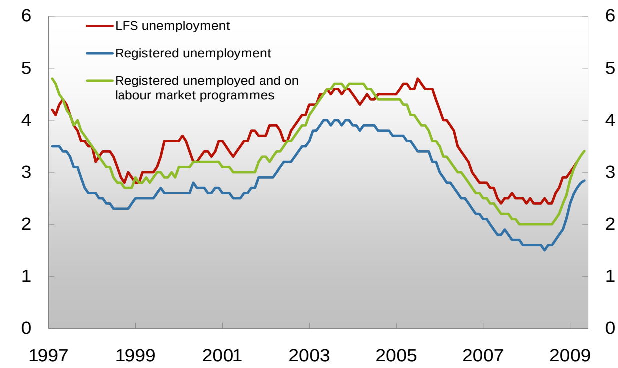
In addition, the government has implemented a range of measures. Under the swap arrangement, the government has provided banks with access to liquid government paper in exchange for covered bonds (OMF). This has improved banks' access to funding, particularly for residential mortgages. The authorities have provided higher loans and guarantees to Norwegian export firms and expanded lending limits for state banks. The establishment of the

Chart 1.4 Mainland GDP. Change in volume from previous quarter. Per cent. Seasonally adjusted. 2004 Q1 – 2009 Q1



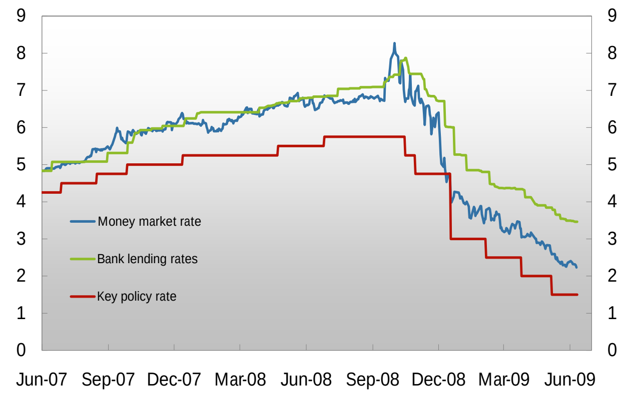
Source: Statistics Norway

Chart 1.5 Unemployed. Percentage of labour force. Seasonally adjusted. February 1997 – May 2009



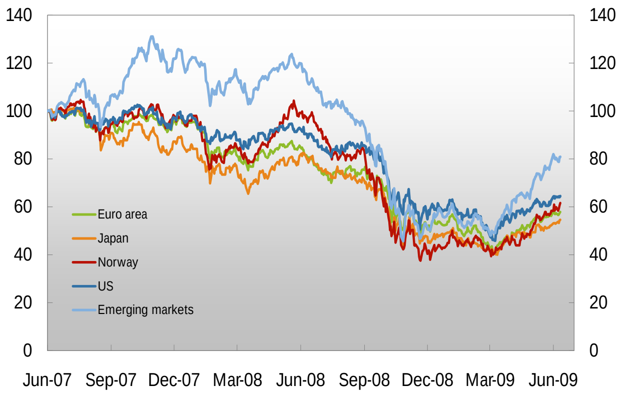
Sources: Statistics Norway, Norwegian Labour and Welfare Administration (NAV) and Norges Bank

Chart 1.6 Key policy rate, money market rate[1)] and bank lending rates on new loans[2)]. Per cent. 1 June 2007 – 11 June 2009



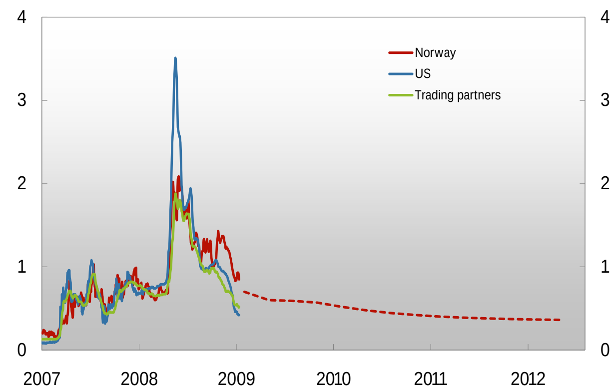
1) 3-month NIBOR (effective).
2) Interest rate on new mortgage loans of NOK 1m within 60% of purchase price with variable interest rate. Figures for the 20 largest banks, weighted according to market share.
Sources: Norsk familieøkonomi AS and Norges Bank

Chart 1.7 Developments in equity markets. Index.
1 June 2007 = 100. 1 June 2007 – 11 June 2009



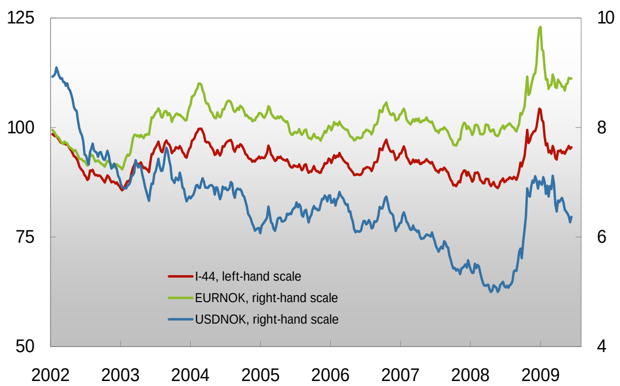
Source: Thomson Reuters

Chart 1.8 Difference between 3-month money market rate and key policy rate expectations in the market[1]. Percentage points. 5-day moving average. Historical (from 1 June 2007) and ahead (as at 11 June 2009)



1) Norges Bank's estimates from Q3 2009.
Sources: Bloomberg, Thomson Reuters and Norges Bank

Chart 1.9 Exchange rates[1]. The import-weighted exchange rate index (I-44), 1995 = 100. EURNOK and USDNOK. Week 1 2002 – Week 24 2009



1) A rising curve denotes a weaker krone exchange rate.
Source: Norges Bank

Government Bond Fund may ease access to capital for private bond issuers, and the supply of risk capital to banks through the Norwegian State Finance Fund may increase banks' capacity and willingness to increase total lending. Fiscal policy is expansionary. Government expenditure is increasing by over 10% from 2008 to 2009.

Financial markets have shown signs of increased optimism and risk appetite in the past few months and global equity markets have risen sharply. Oslo Børs has risen by 32% since March and by 64% since the trough in November last year (see Chart 1.7). Long-term interest rates abroad have risen, albeit from very low levels. Investors no longer seem to fear deflation. Expected real interest rates have probably also increased, which may indicate an improvement in global growth prospects. In addition, expectations of an increase in the supply of government securities may have contributed to the rise in interest rates. The situation in money markets has also improved and premiums have fallen. Money market premiums are now at their lowest since the beginning of 2008, both in the US and the euro area. Norwegian money market premiums have also fallen and are expected to decrease gradually ahead in line with international developments (see Chart 1.8).

In recent months, exchange rate fluctuations have been less pronounced and risk appetite has increased among market participants. Stronger risk appetite is reflected in the depreciation of safe-haven currencies such as the Japanese yen and the US dollar and the appreciation of commodity currencies such as the Australian and the New Zealand dollar. The Norwegian krone has appreciated this year, but is still about 6% weaker than in September last year (see Chart 1.9).

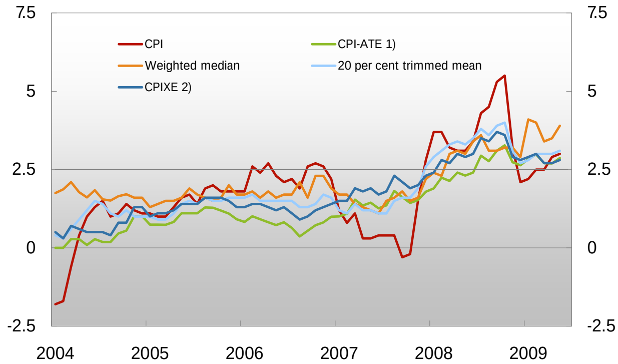
Prices for oil and other commodities fell markedly in the second half of 2008, but stabilised towards the end of the year. Since the previous *Monetary Policy Report* was published in March, the price of oil has risen by more than USD 20 and in mid June was around USD 70 per barrel. Other commodity prices have also increased. Futures prices indicate that commodity prices may rise somewhat ahead. Consumer price inflation among our trading partners has continued to fall and is now close to zero in many countries. Core inflation is somewhat higher. Surveys show that short-term inflation expectations have fallen in Europe, but increased somewhat in the US.

So far, the rise in prices in Norway has held up. The year-on-year rise in consumer prices was 3.0% in May this year (see Chart 1.10). Developments in electricity prices influence the path of overall consumer price inflation. Underlying inflation has been 2¾% so far this year. Overall, prices have moved approximately as expected since the previous *Report*. The rise in prices for domestically produced goods and services has slowed somewhat more sharply than expected, while the rise in prices for imported goods has been somewhat higher than expected. It is likely that the sharp depreciation in the value of the krone towards the end of last year quickly fed through to prices. Preliminary results from this year's wage settlements indicate that wage growth, as expected, will be considerably lower in 2009 than in 2008.

According to Perduco's expectations survey, long-term inflation expectations have edged up over the past year. Inflation expectations five years ahead among the social partners, experts in the financial industry and academia were around 2¾% in 2009 Q2 (see Chart 1.11). We expect long-term inflation expectations to decrease towards 2.5% as actual inflation becomes appreciably lower towards the end of 2009.

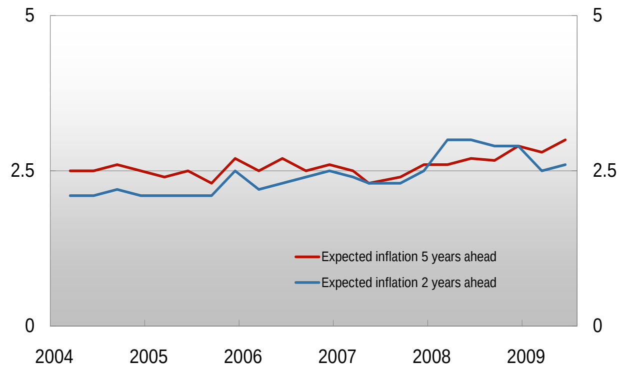
An indicator of inflation expectations in financial markets can be derived from developments in the long-term forward rate differential between Norway and the euro area. Because of a higher inflation target in Norway, this differential will normally be around ½-1 percentage point, depending on risk premiums in the bond market. In recent months, the differential has again stabilised in this range after fluctuating somewhat last autumn and winter (see Chart 1.12).

Chart 1.10 Consumer prices. 12-month change. Per cent. January 2004 – May 2009



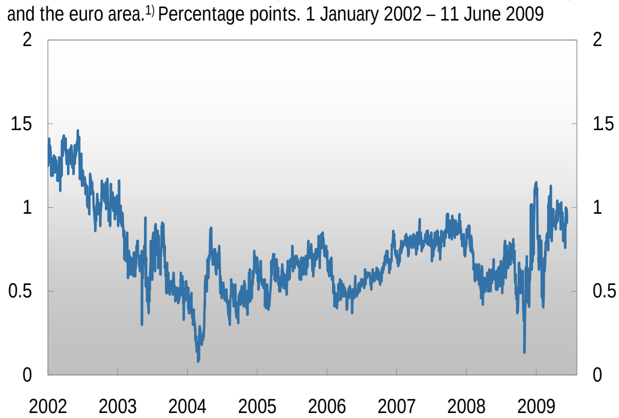
1) CPI adjusted for tax changes and excluding energy products.
2) CPI adjusted for tax changes and excluding temporary changes in energy prices. See *Staff Memo* 2008/7 and *Staff Memo* 2009/3 from Norges Bank for a description of the CPIXE.
Sources: Statistics Norway and Norges Bank

Chart 1.11 Expected consumer price inflation 2 and 5 years ahead.[1] Per cent. 2004 Q1 – 2009 Q2



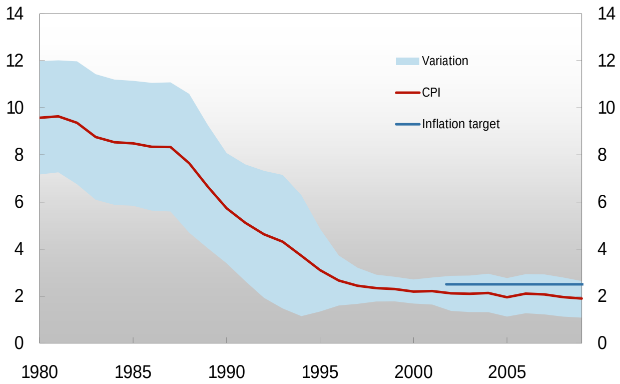
1) Average of expectations of employer/employee organisations and experts (financial industry experts, macro analysts and academics).
Sources: TNS Gallup and Perduco

Chart 1.12 Differential between long-term forward interest rates in Norway and the euro area.[1] Percentage points. 1 January 2002 – 11 June 2009



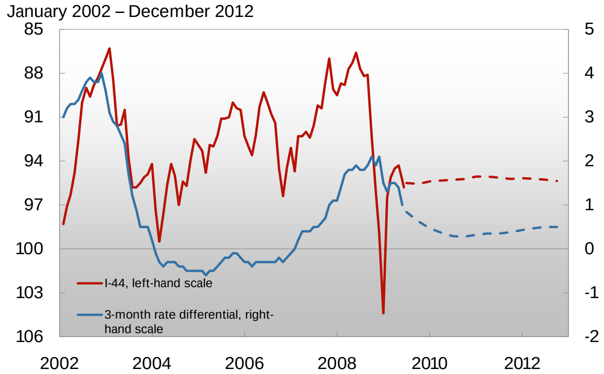
1) 5-year forward rates 5 years ahead.
Sources: Thomson Reuters and Norges Bank

Chart 1.13 Inflation. Moving 10-year average[1)] and variation[2)] in CPI[3)]. Per cent. 1980 – 2009[3)]



1) The moving average is calculated 7 years back and 2 years ahead.
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) Projections for 2009 - 2011 from this *Report* form the basis for this estimate.
Sources: Statistics Norway and Norges Bank

Chart 1.14 Three-month money market rate differential between Norway and trading partners[1)] and the import-weighted exchange rate index (I-44)[2)]. Monthly (historical) and quarterly figures (ahead). January 2002 – December 2012



1) The differential between money market rates in the baseline scenario and a weighted average of forward rates among trading partners in the period 5 - 11 June 2009.
2) A rising curve indicates a stronger krone exchange rate.
Sources: Thomson Reuters and Norges Bank

The outlook ahead and monetary policy assessments

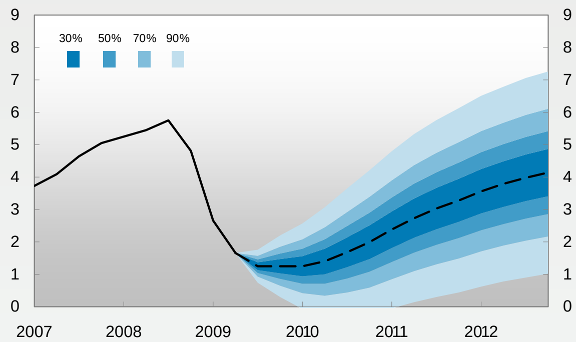
The operational target of monetary policy in Norway is low and stable inflation, with annual consumer price inflation of close to 2.5% over time (see Chart 1.13). Underlying inflation rose through 2008, reaching a peak in September. Since then, inflation has fallen and there are prospects that inflation will fairly rapidly fall below 2.5%.

The key policy rate has been cut substantially to prevent inflation falling too far below target and to mitigate the impact of the global downturn on the Norwegian economy. In the period to the publication of the previous *Monetary Policy Report* in March, developments abroad and the outlook for the Norwegian economy had deteriorated further and the interest rate forecast was revised down. Analyses indicated at that time that the key rate could gradually be reduced towards 1% in the second half of 2009.

There are still prospects for a further decline in output abroad. It appears that the downturn, particularly in Europe and Japan, may be deeper than previously assumed. Activity among our trading partners is now expected to contract by 4% this year. It will probably take time for global growth to pick up again, but the risk of a prolonged downturn in advanced economies may have diminished somewhat.

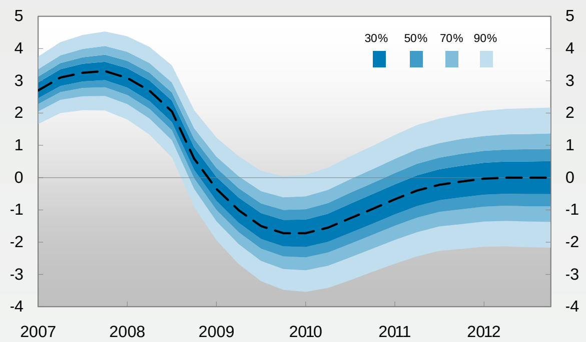
Low global activity is resulting in a marked decline in Norwegian exports with repercussions for other Norwegian business sectors, and corporate investment may fall substantially. Enterprises in Norges Bank's regional network confirm that the level of planned investment projects continues to fall. At the same time, oil investment seems to be holding up better than expected. Employment has been relatively stable so far, and unemployment has not risen to quite the extent projected. House prices and equity prices have risen, and it is easier for households to obtain loans than last autumn. There are prospects that household demand will pick up through autumn. Overall, it appears that capacity utilisation may fall somewhat less than projected in the previous *Report*. Uncertainty with regard to developments ahead is still high.

Chart 1.15a Projected key policy rate in the baseline scenario with fan chart. Quarterly figures. Per cent. 2007 Q1– 2012 Q4



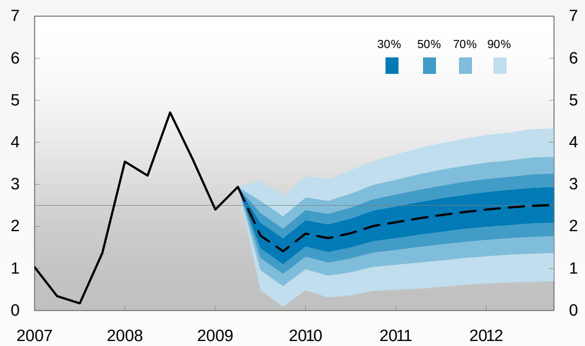
Source: Norges Bank

Chart 1.15b Estimated output gap in the baseline scenario with fan chart. Quarterly figures. Per cent. 2007 Q1 – 2012 Q4



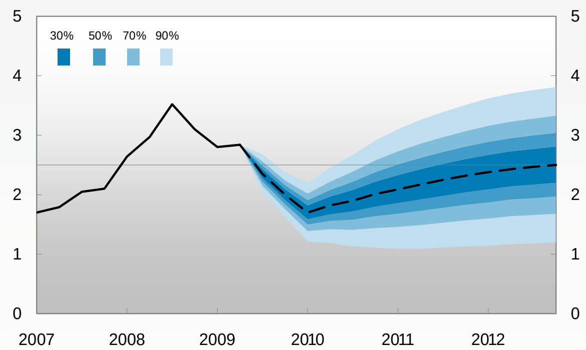
Source: Norges Bank

Chart 1.15c Projected CPI in the baseline scenario with fan chart. 4-quarter change. Per cent. 2007 Q1 – 2012 Q4



Sources: Statistics Norway and Norges Bank

Chart 1.15d Projected CPIXE[1)] in the baseline scenario with fan chart. 4-quarter change. Per cent. 2007 Q1 – 2012 Q4



1) CPI adjusted for tax changes and excluding temporary changes in energy prices. See *Staff Memo* 2008/7 and *Staff Memo* 2009/3 from Norges Bank for a description of the CPIXE.
Sources: Statistics Norway and Norges Bank

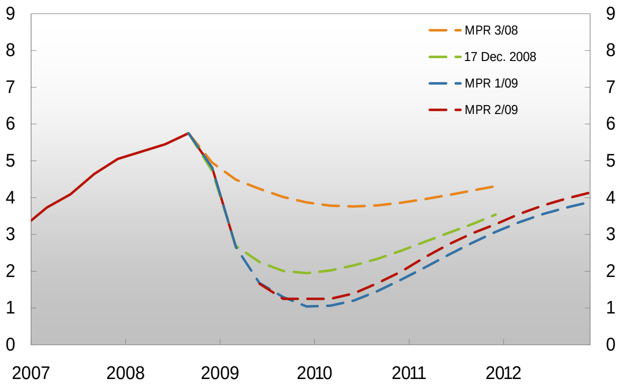
Underlying inflationary pressures have not changed substantially since March. Inflation will be curbed by lower capacity utilisation in Norway. Wage growth is slowing. Weaker corporate earnings and higher unemployment will probably result in low local pay increases again next year. At the same time, productivity growth is projected to pick up as firms adjust their workforces to accommodate demand, and this may curb the rise in firms' costs.

Global inflation is slowing somewhat faster than expected. With weak growth prospects and low capacity utilisation, global inflation is projected to be low in the years ahead. Our assumptions are based on a scenario with a relatively stable krone (see Chart 1.14).

To curb the decline in activity and prevent inflation from falling too far below target, a further reduction in the key policy rate may be appropriate. On the other hand, the key policy rate has already been cut substantially and money market premiums have decreased since March. We have limited experience of how the interest rate operates at such low levels.

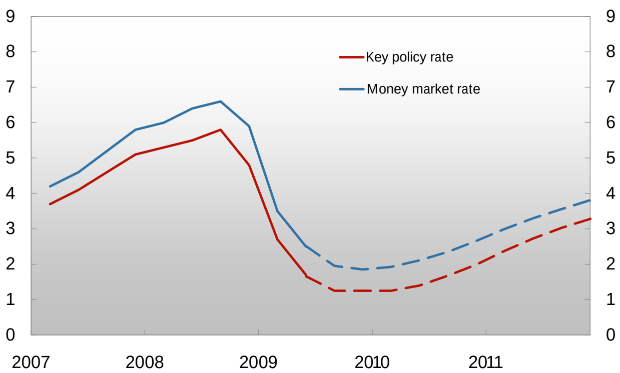
The swap arrangement whereby banks can exchange covered bonds (OMF) for government securities has made a substantial contribution to ensuring banks' access to long-term funding. A gradual adjustment of the minimum price in the swap arrangement will be appropriate as the situation in money and credit markets improves and banks have had the opportunity to increase core Tier 1 capital through the Norwegian State Finance Fund. Banks can then increasingly revert to funding sources in money and bond markets.

Chart 1.16 Key policy rate in the baseline scenario in MPR 3/08, 17 December 2008, MPR 1/09 and MPR 2/09. Per cent. 2007 Q1 – 2012 Q4



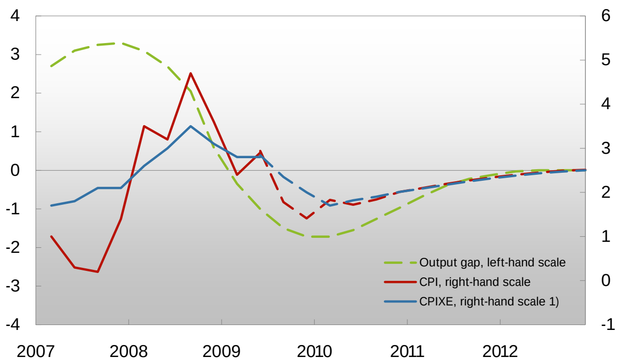
Source: Norges Bank

Chart 1.17 Key policy rate and three-month money market rate in the baseline scenario. Per cent. 2007 Q1 – 2012 Q4



Source: Norges Bank

Chart 1.18 Projected inflation and output gap in the baseline scenario. Per cent. Quarterly figures. 2007 Q1 – 2012 Q4



1) CPI adjusted for tax changes and excluding temporary changes in energy prices. See *Staff Memo* 2008/7 and *Staff Memo* 2009/3 from Norges Bank for a description of the CPIXE.
Sources: Statistics Norway and Norges Bank

Overall, the outlook and balance of risks suggest that the key rate can remain close to 1% for a period ahead (see Chart 1.15 a-d). This is broadly the same interest rate path as outlined in the previous *Monetary Policy Report* (see Chart 1.16 and box on page 20). It is likely that money market rates will fall somewhat further towards the end of the year as money market premiums are reduced (see Chart 1.8 and 1.17). Banks' earnings requirements, competition for deposits and developments in banks' funding costs indicate that neither bank deposit rates nor bank lending rates will decrease as much as money market rates. On the other hand, the fall in money market rates may have an impact on short-term funding costs for the corporate sector.

The projections indicate that mainland GDP may begin to grow again in the second half of this year. Growth in demand will be driven by strong growth in public expenditure and a rise in consumer spending as a result of low interest rates, growth in real wages and increased state transfers. After several years of rapid growth in spending and borrowing, household debt has reached a high level. Debt growth is now easing. The household saving ratio has increased considerably so far in 2009. Household deleveraging is expected to come to a halt towards the end of this year. Low interest rates reduce interest payments for indebted households and increase their disposable income. Access to bridging loans for home purchases has become easier and this has had a stabilising effect on house prices. A low key policy rate also makes it easier for firms to service debt, limiting the number of bankruptcies.

It will probably take time for growth to pick up in some business sectors. The decline in Norwegian exports will persist for a period ahead, and lower prices for some of our export goods will continue to exert pressure on profit margins. Difficult funding conditions and lower capacity utilisation as a result of weak domestic and external demand will probably lead to a marked fall in corporate investment in 2009. Thereafter, lower lending rates, fiscal measures and the various measures geared towards the banking sector are expected to gradually curb the fall in investment in 2010.

It appears that wage growth will decrease to close to 4% this year. Weak corporate profitability and rising unemployment through autumn may lead to wage growth somewhat below 4% next year. Despite the prospects for overall output growth from the second half of this year, unemployment will continue to rise for a period ahead. LFS unemployment is expected to peak at around 4½% in the first half of 2010. Higher capacity utilisation and a decrease in unemployment may push up wage growth somewhat towards the end of the projection period. Inflation is projected to fall to close to 1½% in 2010, before gradually moving up to around 2.5% towards the end of the projection period (see Chart 1.18).

Norges Bank has for a number of years emphasised the importance of anchoring inflation expectations to the inflation target, of being predictable and of following a recognisable response pattern. This strengthens confidence that inflation will remain close to target, which is essential to monetary policy's contribution to stabilising output and employment. The rate of inflation is now very low in a number of countries, and there are prospects that inflation will slow further. Real interest rates will then remain high even if key rates are lowered, reducing the effectiveness of monetary policy.

Owing to the global downturn, capacity utilisation in the Norwegian economy will be lower than normal for a period. In addition, inflation may temporarily fall below 2.5%. The outlook for the Norwegian economy is nevertheless considerably more favourable than for most other advanced economies. Activity will probably pick up more quickly and inflation may remain higher and closer to target than in many other countries.

The projections are uncertain. The interest rate forecast is therefore assessed in the light of simple rules that can be robust to various assumptions about the functioning of the economy. The Taylor rule is based on the output gap and inflation. The growth rule is based on GDP growth and inflation. The rule involving external interest rates also takes account of changes in the interest rate level among our trading partners that can result in changes in the exchange rate and thereby influence the inflation

Criteria for an appropriate interest rate path

The operational target of monetary policy is low and stable inflation, with annual consumer price inflation of approximately 2.5% over time. In interest rate setting, the forecast for future interest rate developments should satisfy the following main criteria:

1) The interest rate should be set 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 the prospects for the path for inflation and the real economy.

2) The interest rate path should provide a reasonable balance between the path for inflation and the path for capacity utilisation.

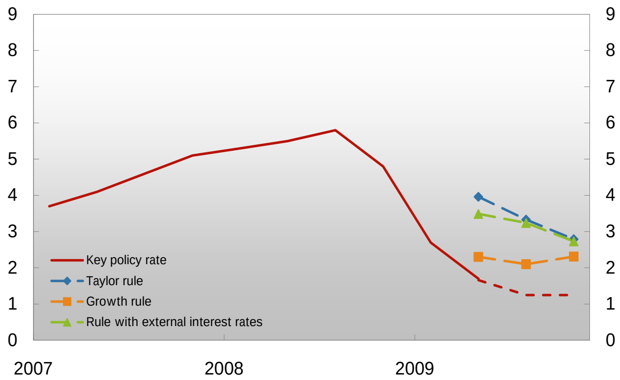
In the assessment, potential effects of asset prices, such as property prices, equity prices and the krone exchange rate on the prospects for output, employment and inflation are also taken into account. Assuming the criteria above have been satisfied, the following additional criteria are useful:

3) Interest rate developments should result in acceptable developments in inflation and output also under alternative, albeit not unrealistic assumptions concerning the economic situation and the functioning of the economy.

4) Interest rate adjustments should normally be gradual and consistent with the Bank's previous response pattern.

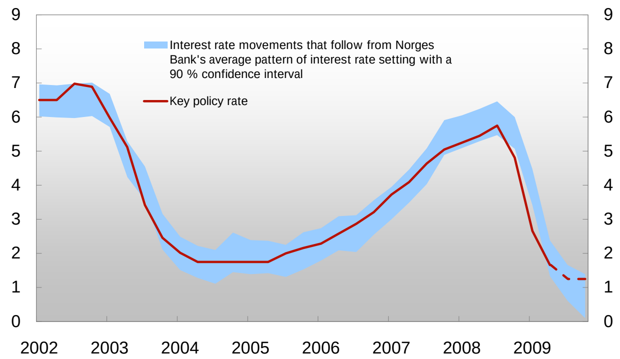
5) As a cross-check for interest rate setting, it should be possible to explain any substantial and systematic deviations from simple monetary policy rules.

Chart 1.19 Key policy rate, Taylor rule, growth rule and rule with external interest rates.[1)] Per cent. 2007 Q1 – 2009 Q4



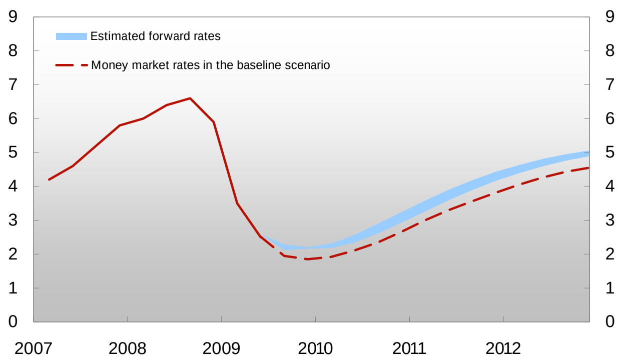
1) The calculations are based on Norges Bank's projections for the output gap, consumer prices adjusted for tax changes and excluding temporary changes in energy prices (CPIXE) and 3-month money market rates. To ensure comparability with the key policy rate the simple rules are adjusted for risk premiums in 3-month money market rates.
Source: Norges Bank

Chart 1.20 Key policy rate and interest rate developments that follow from Norges Bank's average pattern of interest rate setting.[1)] Per cent. 2002 Q1 – 2009 Q4



1) Interest rate movements are explained by developments in inflation, mainland GDP growth, wage growth and key policy rates among trading partners. See *Staff Memo* 2008/3 for further discussion.
Source: Norges Bank

Chart 1.21 Money market rates in the baseline scenario and estimated forward rates[1)]. Per cent. Quarterly figures. 2007 Q1 – 2012 Q4



1) Forward rates are based on money markets rates and interest rate swaps. The blue band shows the highest and lowest forward rates in the period 5 - 11 June 2009.
Source: Norges Bank

outlook. The calculations take account of actual and expected money market premiums.

The different rules yield somewhat divergent results as to what the key policy rate should be, but indicate a rate of 2-3% in the second half of 2009 (see Chart 1.19). Even though such simple rules can be more robust, it could be argued that they are not sufficiently sensitive to a fall in demand. Today, a severely negative impulse from lower global demand is the primary influence on the Norwegian economy. There may therefore be reason to deviate from such rules in the current situation. On the other hand, monetary policy could be more robust if the interest rate forecast does not deviate too far from that indicated by the simple rules. This consideration has been given some weight.

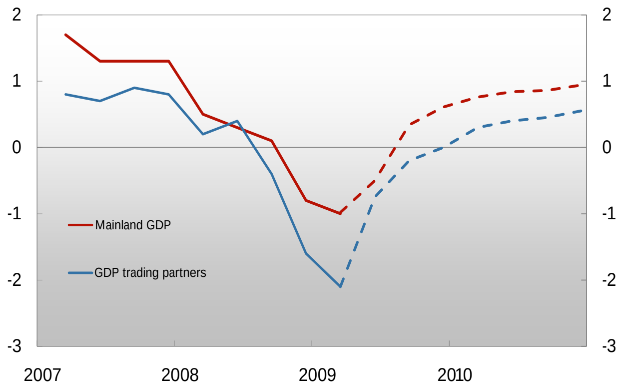
Norges Bank has estimated a simple interest rate rule based on the Bank's previous interest rate setting. The rule includes inflation developments, wage growth, mainland GDP and central bank key rates abroad. The interest rate in the previous period is also important. This rule projects an interval for the key policy rate. The key policy rate is now at the upper end of this interval (see Chart 1.20).

Forward money market rates provide another cross-check for the interest rate forecast. Estimated forward rates indicate that financial market participants expect a somewhat more rapid rise in money market rates than currently projected (see Chart 1.21).

Uncertainty surrounding the projections

The projections for the key rate, inflation, output and other variables are based on our assessment of the economic situation and our perception of the functioning of the economy and of monetary policy. If economic developments are broadly in line with our projections, economic agents can expect that the interest rate path will also be approximately in line with that 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 assumed.

Chart 1.22 Actual and projected GDP for mainland Norway and trading partners. Growth from previous quarter. Per cent. 2007 Q1 – 2010 Q4



Sources: Statistics Norway and Norges Bank

The uncertainty surrounding our projections is illustrated using fan charts (see Chart 1.15a-d). The width of the fan charts is based on previous disturbances and therefore expresses an average that includes periods of high and low uncertainty.[1]

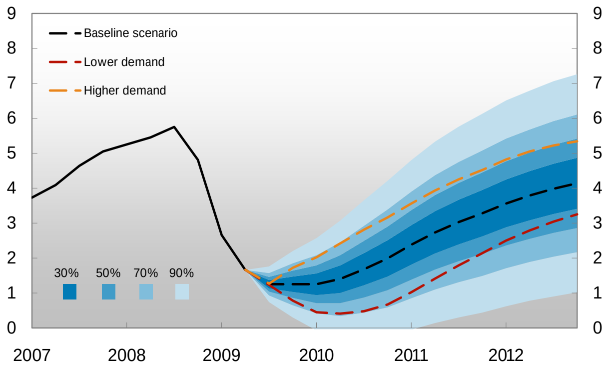
Activity in the economy is now projected to pick up towards the end of this year. For those business sectors that are hardest hit by low global demand, the decline in activity will probably be somewhat deeper and more prolonged. On the whole, the Norwegian economy is likely to navigate the downturn somewhat more successfully than most of our trading partners (see Chart 1.22). Since government finances in Norway are solid, fiscal measures may be more effective than in many other countries. In countries with a high level of debt, the effects of more expansionary fiscal policy will be diluted by expectations of higher taxes or lower government transfers in the future. In addition, reductions in the key policy rate in Norway probably have a stronger effect on household demand for goods and services because the majority are owner-occupiers with variable-rate mortgages. The petroleum sector is now also having a stabilising effect on overall demand. As long as oil prices remain around the level prevailing today, it is likely that oil companies will largely maintain their level of activity and demand for goods and services from Norwegian firms.

Our projections are based on the assumption that the global situation will gradually improve and that growth among our trading partners will begin to pick up in 2010. If the global downturn proves to be deeper and more prolonged than envisaged, activity in the export industry in Norway will be reduced more than currently projected and inflation will be even lower.

Charts 1.23a-c (red lines) illustrate a scenario where the global downturn becomes deeper and more prolonged, with more pronounced effects on the Norwegian economy

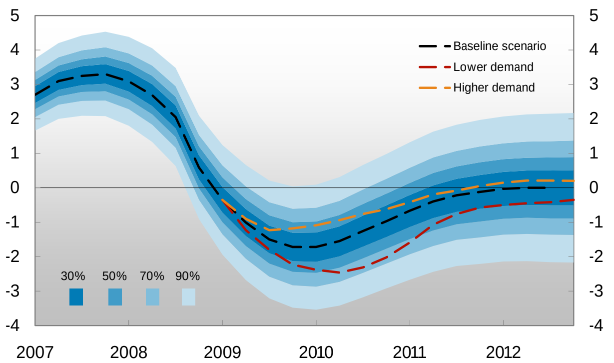
1 A more detailed review of fan charts is provided in *Inflation Report* 3/05. Since the sight deposit rate in practice has a lower bound close to zero, we have as a technical assumption set the outcomes, which in the usual symmetrical distribution would have resulted in negative values, at zero. Technically, the mean for the interest rate will be marginally higher than the interest rate forecast, which can be interpreted as the median in the distribution.

Chart 1.23a Key policy rate in the baseline scenario and the alternative scenarios with higher and lower demand. Per cent. Quarterly figures. 2007 Q1 – 2012 Q4



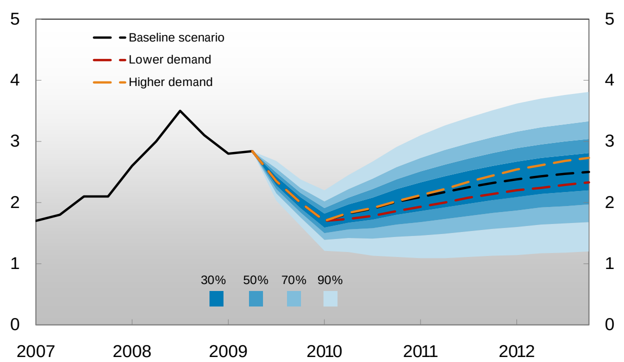
Source: Norges Bank

Chart 1.23b The output gap in the baseline scenario and the alternative scenarios with higher and lower demand. Per cent. Quarterly figures. 2007 Q1 – 2012 Q4



Source: Norges Bank

Chart 1.23c CPIXE[1)] in the baseline scenario and the alternative scenarios with higher and lower demand. 4-quarter change. Per cent. 2007 Q1 – 2012 Q4



1) CPI adjusted for tax changes and excluding temporary changes in energy prices. See *Staff Memo* 2008/7 and *Staff Memo* 2009/3 from Norges Bank for a description of the CPIXE.
Sources: Statistics Norway and Norges Bank

than assumed. It will then be appropriate to set a lower interest rate in order to stimulate the Norwegian economy and thereby prevent inflation from becoming too low. Experience shows that bank lending margins increase when the interest rate level is low, while deposit margins decrease. This effect will probably gain momentum in pace with the decrease in the key rate. The effect on bank lending rates of a considerable decrease in the key rate may therefore be limited. A key rate close to zero will probably primarily have an impact via a weaker krone.

If the global growth outlook should deteriorate again, oil prices may fall markedly. This might lead to a substantial decline in oil investment and also have an adverse impact on other segments of the Norwegian economy. The downturn in Norway might then be more severe and prolonged than illustrated in the example above, pushing inflation even lower. On the other hand, a fall in oil prices normally results in a depreciation of the krone. Should the krone depreciate for an extended period, higher inflation may result. With lower oil prices, the economic outlook will deteriorate, but the overall effect on inflation of a marked fall in oil prices and a weaker krone is not clear cut.

Household spending is expected to pick up in autumn. The decline in household credit growth has come to a halt and house prices have risen so far this year, which may signal an increase in household optimism. A faster-than-expected rise in spending and household sector borrowing cannot be excluded. Demand and output will then be higher and the rise in wages and prices will be sharper than assumed (see box on household behaviour on page 40).

Charts 1.23a-c (yellow lines) illustrate the effects of stronger-than-expected growth in the Norwegian economy and lower-than-projected unemployment. In this case, the interest rate will remain at a higher level than currently envisaged, contributing to stabilising the rise in prices and costs so that inflation remains close to 2.5%.

Changes in the projections since *Monetary Policy Report* 1/09

The interest rate forecast in this *Report* is approximately the same as the forecast in *Monetary Policy Report* 1/09 (see Chart 1). Changes in the projections for other key variables are summarised in Table 1. The projections are based on an overall assessment of the situation in the Norwegian and global economies and on our perception of the functioning of the economy.

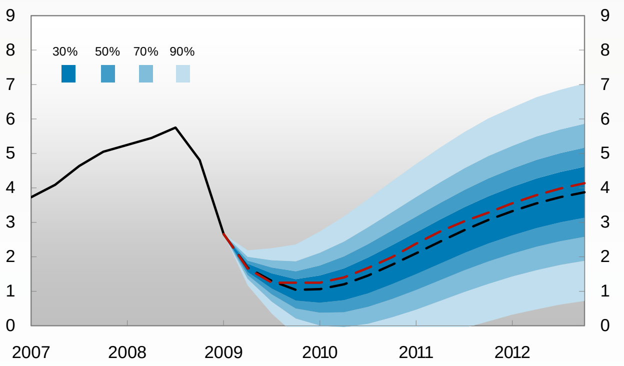
Chart 2 shows a technical illustration of how news and judgement have affected the changes in the interest rate forecast. The calculation provides an indication of how various factors have influenced the interest rate forecast through their effect on the outlook for inflation, output and employment. The isolated contributions from the different factors are shown by the bars. The overall change in the interest rate forecast is shown by the black line.

Activity among our trading partners fell more than expected in 2009 Q1 and there are prospects of a further fall in output ahead. Lower external demand may lead to a more pronounced decline in Norwegian exports than previously assumed. In the event, this will result in further repercussions for other Norwegian business sectors and suggests a lower key policy rate in the short term. On the other hand, long-term global interest rates have risen. This would suggest a somewhat higher key policy rate in Norway towards the end of the forecast period.

Premiums in the Norwegian money market are now lower than at the time of publication of the previous *Report* and are expected to edge down ahead and normalise somewhat more rapidly than assumed in MPR 1/09. This indicates a somewhat higher key policy rate.

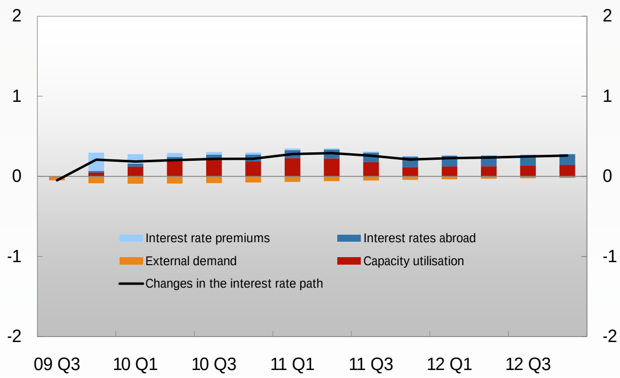
So far in the downturn, employment has been more stable and unemployment has risen to a lesser extent than expected. The number of hours worked has fallen more in line with output. Unemployment is expected to edge up through autumn and winter, approximately in line with projections in the previous *Report*. Oil investment seems to holding up better than expected. Capacity utilisation in the Norwegian economy may fall somewhat less than previously assumed. This would suggest a somewhat higher key policy rate.

Chart 1 Key policy rate in the baseline scenario in MPR 1/09 with fan chart and key policy rate in the baseline scenario from MPR 2/09 (red line). Per cent. Quarterly figures. 2007 Q1 – 2012 Q4



Source: Norges Bank

Chart 2 Factors behind changes in the interest rate path since MPR 1/09. Accumulated contribution. Percentage points. 2009 Q3 – 2012 Q4



Source: Norges Bank

Table 1 Projections for macroeconomic aggregates in *Monetary Policy Report* 2/09. Percentage change from previous year (unless otherwise stated). Change from projections in *Monetary Policy Report* 1/09 in brackets.

	2009	2010	2011	2012
Mainland demand	-1¼ (0)	2¾ (-¼)	4½ (-½)	3¼ (-¼)
GDP mainland Norway	-1½ (-½)	2½ (0)	3½ (-¼)	3 (0)
Employment	-½ (1)	-½ (-¼)	¾ (-¼)	1 (¼)
LFS unemployment (rate)	3½ (-¾)	4½ (-¼)	4 (-¼)	3¾ (0)
CPIXE[1)]	2½ (0)	1¾ (0)	2¼ (¼)	2½ (0)
CPI-ATE	2½ (0)	1¾ (-¼)	2¼ (0)	2½ (0)
CPI	2¼ (¼)	1¾ (-¼)	2¼ (0)	2½ (0)
Annual wage growth	4 (0)	3¾ (0)	4¼ (0)	4¾ (0)

1) CPIXE: CPI adjusted for tax changes and excluding temporary changes in energy prices. See *Staff Memo* 2008/7 and *Staff Memo* 2009/3 from Norges Bank for a description of the CPIXE.

Source: Norges Bank

Summary

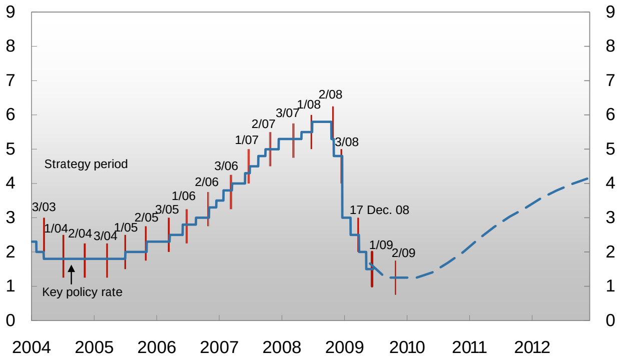
The decline in the global economy is continuing. It appears that the downturn in Europe and Japan will be deeper than previously assumed, but the fall in activity in advanced economies is slowing. There are also some signs of renewed growth in China and other emerging market economies. Global inflation is slowing, but prices for oil and other commodities have risen. Many countries have reduced their key rates to very low levels to mitigate the impact of the crisis. Public authorities the world over are continuing to take action to boost demand for goods and services, improve banks' financial strength and enable credit markets to function more smoothly. There is increased optimism and risk appetite in financial markets.

Production in the Norwegian economy has declined so far this year. The contraction in global activity may lead to a more pronounced decline for Norwegian exports than previously assumed, with repercussions for other business sectors. At the same time, oil investment appears to be holding up better than expected. Unemployment has increased, albeit to a lesser extent than projected. House prices and equity prices have risen and it is easier for households to obtain loans than last autumn. Capacity utilisation will probably fall somewhat less than projected in the previous *Report*.

Overall, inflation has been broadly in line with projections, with no substantial change in the underlying driving forces. There are prospects that inflation will slow sharply and fall below 2.5% for a period. Lower global inflation and lower capacity utilisation in the Norwegian economy will curb inflation ahead.

To curb the decline in activity and prevent inflation from falling too far below target, a further reduction in the key policy rate may be appropriate. On the other hand, the key policy rate has already been cut substantially and money market premiums have decreased since March. We have limited experience of how the interest rate operates at such low levels.

Chart 1.24 Interval for the key policy rate at the end of each strategy period, actual developments[1] and projection. Per cent. January 2004 – December 2012



1) The Executive Board's decision of 17 June 2009 is not shown in the chart.
Source: Norges Bank

The swap arrangement whereby banks can exchange covered bonds (OMF) for government securities has made a substantial contribution to ensuring banks' access to long-term funding. A gradual adjustment of the minimum price in the swap arrangement will be appropriate as the situation in money and credit markets improves and banks have had the opportunity to increase core Tier 1 capital through the Norwegian State Finance Fund. Banks can then increasingly revert to funding sources in money and bond markets.

The projections are uncertain. New information may reveal aspects of economic developments that suggest the Norwegian economy is following a different path than projected. A more rapid turnaround or a weaker krone may, on the one hand, result in higher-than-projected inflation. On the other hand, inflation may be lower than projected if the krone appreciates markedly or the global downturn proves to be even deeper and more prolonged than expected.

Monetary policy cannot fine-tune developments in the economy, but it can mitigate the most severe effects when the economy is exposed to shocks. Overall, the outlook and the balance of risks suggest that the key rate can remain close to 1% for a period ahead (see Chart 1.24).

Executive Board's strategy

The key policy rate should be in the interval ¾ - 1¾% in the period to the publication of the next *Monetary Policy Report* on 28 October, unless the Norwegian economy is exposed to new major shocks.

A gradual adjustment of the minimum price in the swap arrangement will be appropriate as the situation in money and credit markets improves and banks have had the opportunity to increase core Tier 1 capital through the Norwegian State Finance Fund.

The arrangement for the exchange of government securities for bonds

On 24 October 2008, the Storting (Norwegian parliament) authorised the Ministry of Finance to establish a scheme whereby banks can exchange covered bonds (OMF) for government securities up to a total limit of NOK 350bn. Norges Bank administers the arrangement on behalf of the Ministry of Finance.

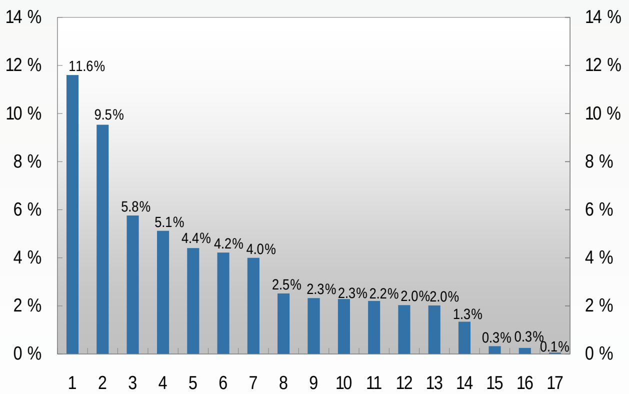
The swap arrangement was established to improve banks' access to long-term funding and to reduce problems in the money market. The scheme also facilitates the redistribution of liquidity in the market since banks can sell the government securities or borrow directly with the securities as collateral. Over time, the swap arrangement may also foster the development of a market for collateralised NOK loans. Similar schemes were established in a number of countries in autumn 2008.

Initially, the arrangement was only open to banks and the longest swap period offered was three years. The arrangement was subsequently expanded to include bank-owned mortgage companies and the maximum swap period was extended to five years.

The arrangement has functioned well and as intended. Fourteen auctions have been held, normally every other week. Twenty-two institutions have so far concluded agreements with the Ministry of Finance and can take part in the arrangement. Norges Bank has allotted a total of more than NOK 132bn in government securities to 15 banks and 2 mortgage companies. The largest users of the scheme have concluded swap agreements equivalent to 10% of their total assets (see Chart 1). Around 90% of the agreements were allotted at the longest maturities available at the time of auction. If the same frequency and scale is maintained as in the first half of the year, swaps may be auctioned in the amount of NOK 100-130bn in the remainder of 2009.

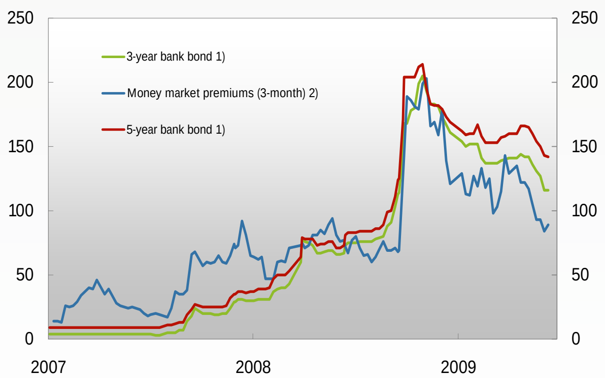
The swap arrangement has eased banks' funding situation, and Norwegian money market rates fell sharply when the arrangement came into effect. It is difficult to quantify the effects of the swap arrangement on the money market in general and on premiums in particular. Norwegian money market premiums have largely varied in tandem with premiums in similar markets in other currencies. However, there is little doubt that the announcement of the Norwe-

Chart 1 Allotment per bank under the swap arrangement. Percentage of total assets



Source: Norges Bank

Chart 2 Interest rate premiums on bank bonds and three-month money market rates. Basis points. Week 1 2007 – week 24 2009



1)Premium on bonds above swap rate
2)Norges Banks' projections
Sources: DnB NOR Markets, Thomson Reuters and Norges Bank

gian swap arrangement and other international measures to stabilise financial markets have contributed to eliminating much of the uncertainty in the markets and thus to reducing premiums (see Chart 2). The scheme has also reduced the pressure on commercial paper and bond markets. Premiums on bank bonds have decreased approximately in pace with money market premiums.

Norges Bank's *Survey of Bank Lending* indicates that the swap arrangement has in turn primarily affected loan conditions for residential mortgages.

Activity in global bond markets has picked up somewhat. Even though premiums in the covered bond market have edged down, the terms banks can achieve in the market are still less favourable than the terms in the swap arrangement. In the Norwegian market, indicative prices for five-year covered bonds range from 50 to 80 basis points above swap rates. The extent of trading at these prices is uncertain. Pricing of covered bonds in the euro market indicates premiums of around 100 basis points.

Under the swap arrangement, Norges Bank sets a minimum price linked to money market rates (NIBOR) prior to each auction. The lower limit for the minimum price is set at the Treasury bill yield plus 40 basis points. The minimum price was set based on normal prices in the covered bond market before the financial market turbulence began.

So far, the minimum price in the swap arrangement has been NIBOR minus 20 basis points. With the exception of modest amounts in one or two agreements, the minimum price has been the prevailing agreed price at all auctions.

A gradual adjustment of the minimum price in the swap arrangement will be appropriate as the situation in money and credit markets improves and banks have had the opportunity to increase core Tier 1 capital through the Norwegian State Finance Fund. Banks can then increasingly revert to funding sources in money and bond markets.

Structural liquidity

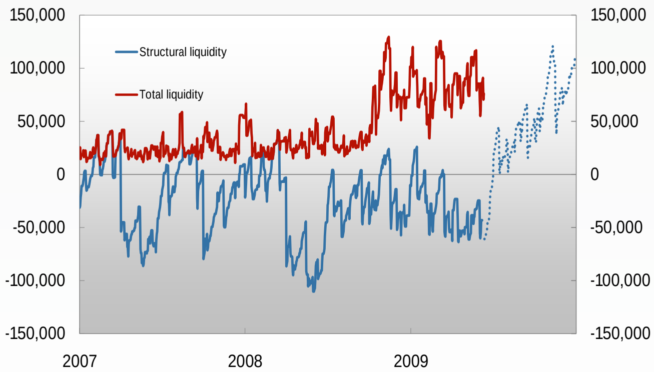
Total liquidity in the banking system at any time equals the sum of banks' sight deposits in Norges Bank. The interest rate on these deposits is the key policy rate, which forms a floor for Norwegian money market rates. Norges Bank manages banking system liquidity by auctioning F-loans (fixed-rate loans) or F-deposits (fixed-rate deposits) to banks. So far, banks have normally needed a supply of liquidity. Norges Bank supplies liquidity by auctioning F-loans against collateral in approved securities. Interest rates on short-term F-loans (maturities of up to 6 weeks) are normally slightly higher than the key policy rate.

Banks' liquidity requirements depend on underlying structural liquidity in the banking system. Structural liquidity is influenced by ingoing and outgoing government account payments in Norges Bank. When the government disburses funds to purchase goods or services or to make transfers or loans, structural liquidity increases, since outgoing payments ultimately become deposits in the banking system. Ingoing payments to the government have the opposite effect. When the government collects taxes or raises loans, structural liquidity in the banking system is reduced. When government revenues exceed expenditure, or government net debt increases, liquidity is withdrawn from the banking system. Over time, withdrawal due to a government surplus is offset by converting the government surplus to foreign currency for transfer to the Government Pension Fund – Global. NOK liquidity reverts to the banking system through foreign exchange purchases. Net withdrawal as a result of capital transactions, however, is not offset by the foreign exchange purchases.

Chart 1 shows developments in overall liquidity and structural liquidity in the banking system. The difference between the two curves is the supply from Norges Bank and shows that Norges Bank supplied considerably more liquidity than usual during and after the crisis last autumn. Redistribution of interbank liquidity was impaired. Banks sought to hedge against counterparty and settlement risk by increasing surplus liquidity in their accounts in Norges Bank.

Structural liquidity in the banking system is estimated to be far higher in 2009 than in the past few years. In 2008 structural liquidity in the banking system averaged minus NOK 30bn, while it is estimated to be close to NOK

Chart 1 Developments in structural and total liquidity. In millions of NOK. 1 June 2007 – 11 June 2009



Source: Norges Bank

100bn towards the end of 2009. The increase primarily reflects the assumption that transactions in the Norwegian State Bond Fund and the State Finance Fund will be financed by drawing on the government's deposits in Norges Bank. Since these are capital transactions, they are not offset by reducing the foreign exchange purchases.

The forecast for 2009 in Chart 1 is based on the assumption that the funds' combined total capital of NOK 100bn will be fully allotted. Although this is uncertain, both because the amount allotted may be smaller than anticipated and because disbursement dates are unknown, it is nevertheless highly probable that structural liquidity in the banking system will become positive in the second half of this year. Norges Bank will execute market operations as usual to adjust overall liquidity in the banking system.

With positive structural liquidity, sources of bank's surplus liquidity will shift from loans from Norges Bank to customer deposits. This will also influence the composition of banks' balance sheets and allow access to securities that would otherwise have to be used as collateral for loans from Norges Bank. Banks' deposit-to-loan ratios will rise, while their need for liquidity provision will be reduced, which may also reduce the need for short-term funding in the money market.

2 The projections

The global economy

Economic activity among trading partners is now projected to decline by 4% in 2009 and to grow by ¾% in 2010 (see Table 2.1).

Activity in the world economy continued to fall in 2009 Q1, faster than projected in *Monetary Policy Report* 1/09. This decline in activity has contributed to lower growth projections for 2009. Capacity utilisation in advanced economies is at historically low levels (see Chart 2.1). According to statistics for private consumption, world trade and industrial production that have been released through spring, the rate of decline in activity is moderating in line with that expected in the previous *Report*. Confidence indicators for manufacturing, services and the household sector indicate that the fall in activity will continue to moderate in the coming months (see Chart 2.2). Since the previous *Report*, risk appetite in financial markets has increased, credit availability has improved and interest rates have been reduced. Prices for many commodities have increased.

Against the background of the sharp cyclical downturn, banks and other financial institutions will most likely continue to record large losses as a result of higher unemployment and more business failures. This will reduce banks' capacity and willingness to provide credit. Moreover, deleveraging in both the private and public sector will probably be necessary in many countries. Few, if any, countries can expect a large contribution from exports in the coming years as the downturn is affecting virtually all countries. There is still a considerable risk of further setbacks in financial markets, housing markets and the real economy among trading partners.

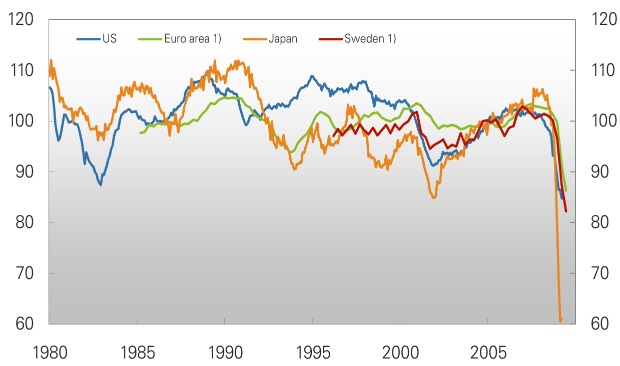
A gradual and cautious rebound in activity in advanced economies is expected through 2010 and 2011. The considerable fall in household wealth and continued rising unemployment will weigh on both consumption and fixed

Tabel 2.1 Projections for GDP growth in other countries. Change from previous year. Per cent

	2009	2010	2011-12 [1]
US	-3	¾	2½
Euro area	-4½	0	2¼
Japan	-7	¼	1¼
UK	-4	0	2¼
Sweden	-5¾	¾	3
China	7¼	8¼	9¾
Trading partners [2]	-4	¾	2¾

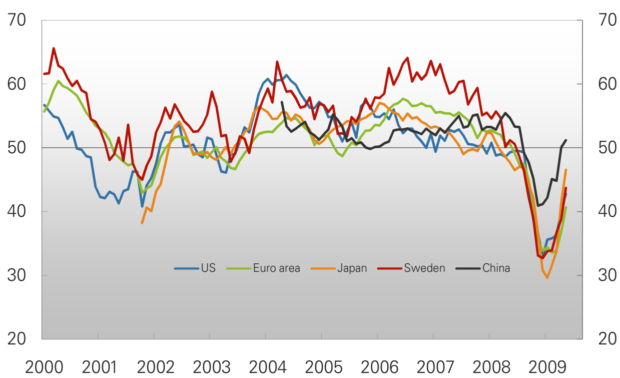
[1] Average annual growth.
[2] Export weights, 26 important trading partners.
Sources: Eurostat and Norges Bank

Chart 2.1 Capacity utilisation in manufacturing. Seasonally adjusted index. 2005 = 100. January 1980 – June 2009



1) Converted from quarterly data.
Source: Thomson Reuters

Chart 2.2 PMI[1] in advanced economies and China. Index. Seasonally adjusted. January 2000 – May 2009



1) Manufacturing.
Source: Thomson Reuters

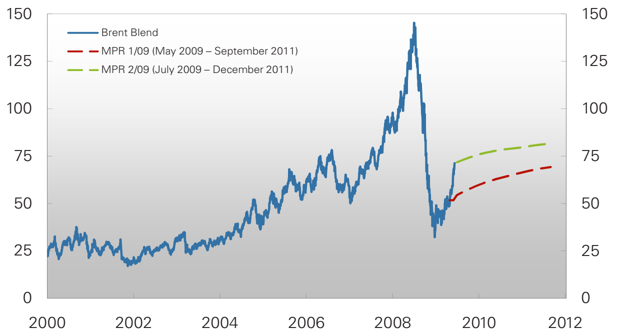
Table 2.2. Projections for consumer prices in other countries (change from previous year, per cent) and oil price

	2009	2010	2011-12[1)]
US	- 1	¾	1½
Euro area [2)]	¼	1	1¼
Japan	-1¼	-¾	¼
UK	1¼	1	1¼
Sweden	- ½	¾	1¾
China	-¼	1¼	2
Trading partners [3)]	¼	1	1½
Oil price Brent Blend [4)]	61.2	76.3	80.8

1) Average annual rise.
2) Weights from Eurostat (each country's share of total euro area consumption).
3) Import weights, 26 important trading partners.
4) USD per barrel. Average future price for the last five trading days. For 2009, an average of spot prices so far this year and future prices for the rest of the year is used.

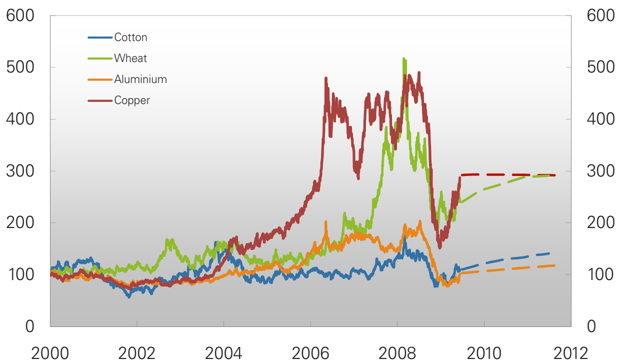
Sources: Eurostat, Thomson Reuters and Norges Bank

Chart 2.3 Oil price (Brent Blend) in USD per barrel. 3 January 2000 – 11 June 2009. Futures prices (broken lines) MPR 1/09 and MPR 2/09



Sources: Thomson Reuters and Norges Bank

Chart 2.4 Commodity prices in USD. Index. 4 January 2000 = 100. 4 January 2000 – 11 June 2009. Futures prices from 11 June 2009 (broken lines). July 2009 – December 2011



Sources: Thomson Reuters, Chicago Board of Trade and Norges Bank

investment in the private sector in the coming two years. Activity in the US is expected to begin to recover in the latter half of this year. Growth in Europe is not expected to resume until the first half of 2010 owing to a continued fall in business fixed investment. Economic growth in China is expected to remain fairly robust in the period ahead. Other emerging market economies, particularly in Asia and Latin America, will probably contribute to positive growth in international trade in the latter half of 2009.

Consumer price inflation among trading partners is expected to be low (see Table 2.2). As a result of considerably lower-than-normal capacity utilisation throughout the projection period, goods and services prices, excluding food and energy, are expected to decelerate over the coming year and a half to two years. For consumer prices as a whole, food and energy prices are expected to increase as implied by futures prices and counter the fall in prices for other goods and services.

Oil prices have increased by USD 20 per barrel since the previous *Report*, and are now around USD 70. The projections in this *Report* are based on an oil price on a par with futures prices (see Chart 2.3 and Table 2.2). Average futures prices for 2010 and 2011 are now around USD 20 higher than at the time of the previous *Report*. The rise in oil prices partly reflects the considerable OPEC production cuts that have occurred over a short period. A brighter global economic outlook and a weaker US dollar have also contributed. However, OECD oil stocks and OPEC spare production capacity remain high and oil demand is very low. Should growth in the world economy prove to be weaker than currently assumed by market participants, or OPEC's quota discipline should slip, oil prices may move down again. On the other hand, lower prices may inhibit non-OPEC oil supply and result in higher prices when demand gradually picks up.

The Economist commodity-price index has increased since the previous *Report* (see Chart 2.4). Aluminium prices have risen by about 20%, and *The Economist* metals sub-index has increased by around 35%. Futures prices for most commodities are now higher than spot prices (see Chart 2.4).

The Norwegian economy in the year ahead

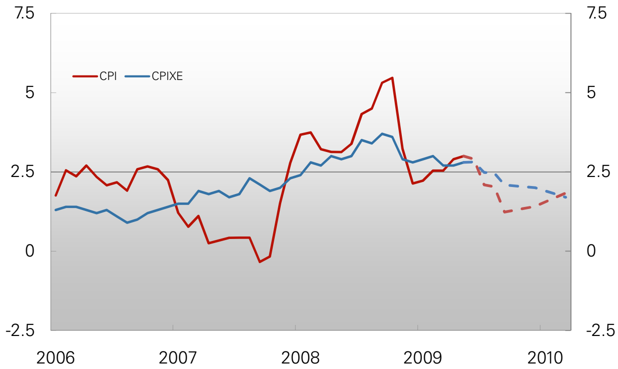
Prices

Consumer prices (CPI) in May were 3.0% higher than in the same month one year earlier. Adjusted for tax changes and excluding temporary changes in energy prices (CPI-XE), inflation was 2.8% (see Chart 2.5). Inflation adjusted for tax changes and excluding energy products (CPI-ATE) was 2.9%. Overall inflation through spring was broadly in line with the projections in the previous *Report*, while the rise in prices for domestically produced goods and services was lower than projected and the rate of increase for import goods prices was higher than projected.

The rise in prices for domestically produced goods and services slowed markedly towards the end of 2009 Q1 (see Chart 2.6). A slower rate of increase for house rents, food prices and air passenger fares contributed to the decline. In May, the annual rate of increase was 3.4%, up from 3.3% in April. House rents pushed up the rate of increase in May. In the latter half of this year and into next year, continued relatively low commodity prices, increased productivity growth and lower wage growth will push down inflation (see Chart 2.7). Spare capacity in many industries will also curb inflation. This year's Agricultural Settlement will make a limited contribution to inflation in the latter half-year, and house rent inflation will be pushed down by the decline in landlords' interest expenses. The rise in prices for domestically produced goods and services may be around 2½% in 2010 Q1.

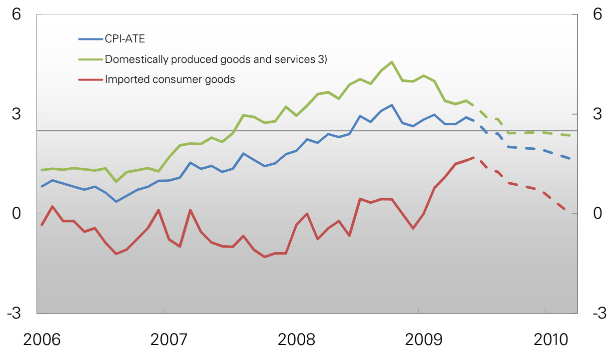
The rise in prices for imported consumer goods has picked up further in recent months. In May, prices were 1.6% higher than in the same month one year earlier. The increase in import prices cannot be attributed to higher external price impulses. Commodity prices remain low and inflation has edged down in most countries. Prices for imported consumer goods measured in a common currency are now projected to fall by 1¾% this year (see Chart 2.8). The main contribution to the rise in prices for imported consumer goods is probably the krone depreciation through autumn 2008. The exchange rate depreciation seems to have fed through more rapidly than

Chart 2.5 CPI and CPIXE[1]. 12-month change. Per cent. January 2006 – March 2010[2]



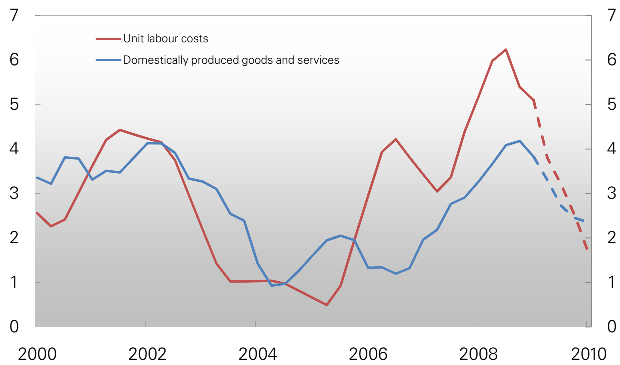
1) CPI adjusted for tax changes and excluding temporary changes in energy prices. See *Staff Memo* 2008/7 and *Staff Memo* 2009/3 from Norges Bank for a description of the CPIXE.
2) Projections for June 2009 – March 2010 (broken lines). Monthly figures to September 2009, then quarterly figures.
Sources: Statistics Norway and Norges Bank

Chart 2.6 CPI-ATE[1]. Total and by supplier sector. 12-month change. Per cent. January 2006 – March 2010[2]



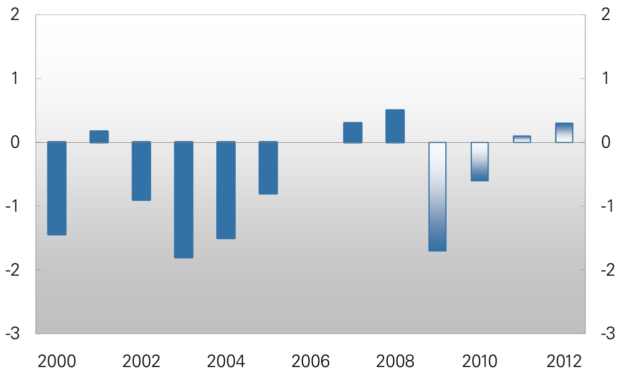
1) CPI adjusted for tax changes and excluding energy products.
2) Projections for June 2009 – March 2010 (broken lines). Monthly figures to September 2009, then quarterly figures.
3) Norges Bank's estimates.
Sources: Statistics Norway and Norges Bank

Chart 2.7 Unit labour costs, mainland Norway and domestically produced goods and services in CPI-ATE[1]. Four-quarter growth. Smoothed. Per cent. 2000 Q1 – 2010 Q1[2]



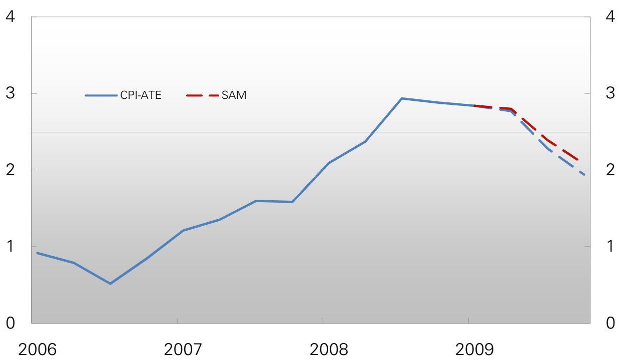
1) Norges Bank's estimates.
2) Projections for 2009 Q2 – 2010 Q1 (broken lines)
Sources: Statistics Norway and Norges Bank

Chart 2.8 Indicator of external price impulses to imported consumer goods measured in foreign currency. Annual change. Per cent. 2000 – 2012[1)]



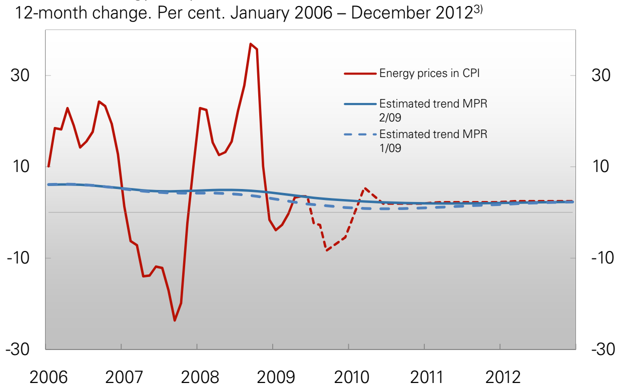
1) Projections for 2009 – 2012.
Sources: Thomson Reuters, Statistics Norway and Norges Bank

Chart 2.9 CPI-ATE[1)]. Actual figures, baseline scenario and projections by SAM[2)]. Four-quarter change. Per cent. 2006 Q1 – 2009 Q4[3)]



1) CPI adjusted for tax changes and excluding energy products.
2) System of models for short-term forecasting.
3) Projections for 2009 Q2 - 2009 Q4 (broken lines).
Sources: Statistics Norway and Norges Bank

Chart 2.10 Energy component of the CPI[1)] and estimated trend[2)]. 12-month change. Per cent. January 2006 – December 2012[3)]



1) The product groups Electricity, gas and other fuels and Fuels and lubricants.
2) The trend is estimated using an HP-filter on the actual and projected movements of energy prices in the CPI, see *Staff Memo* 2008/7 and *Staff Memo* 2009/3 from Norges Bank.
3) Projections for June 2009 – December 2012 (broken lines).
Sources: Nord Pool, Statistics Norway and Norges Bank

experienced earlier in spite of weak demand growth. The impact of the krone depreciation is assumed to fade gradually through the latter half of this year. The krone appreciated somewhat at the beginning of the year, but the effect on inflation will probably be limited this year. The overall rise in prices for imported goods is projected to slow gradually through the year and approach zero early next year.

CPI-ATE inflation will be around 2¾% in Q2 and is projected to edge down to around 2% towards the end of the year, before drifting down further towards 1¾% in 2010 Q1. The CPI-ATE projections are close to the projections derived from SAM, which is our system for averaging short-term models (see Chart 2.9).

Energy prices fell through the first four months of this year, but edged up slightly again in May. There are prospects that energy prices will edge up somewhat ahead, pushing up the estimated energy price trend which is incorporated in the CPIXE projections (see Chart 2.10). Annual CPIXE inflation is nevertheless estimated to fall to around 1¾% in 2010 Q1. Annual CPI inflation is expected to fall markedly through autumn before edging up in 2010 Q1. The path is influenced by developments in electricity prices in 2008.

Output and demand

Quarterly national accounts figures show that mainland GDP fell markedly in 2008 Q4 and in 2009 Q1. The drop in output primarily reflects reduced exports, lower building activity and a contraction in retail trade. Mainland GDP is projected to fall by a further ½% in Q2 before edging up in the latter half-year, resulting in a decline in activity of 1½% in 2009. Excluding electricity production, the decline comes to 1¼%. The downturn is moderating somewhat. The fall in household demand seems to be coming to a halt. Petroleum investment is holding up and growth in public demand is rising. House prices have increased and turnover in the housing market has edged up. There are also signs that financial markets are stabilising somewhat. Risk premiums in capital markets have drifted down, equity prices have advanced and banks report that they are not planning a further tightening of credit standards for households.

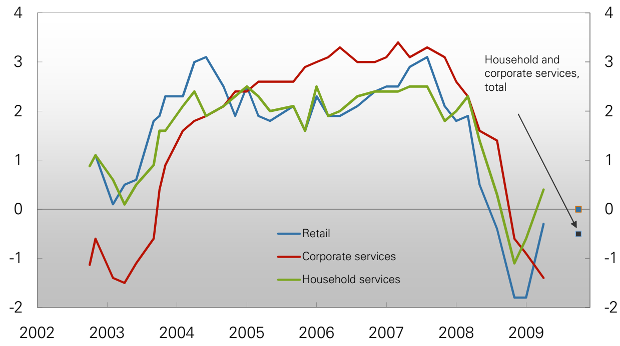
According to Statistics Norway's business sentiment survey and the Purchasing Managers Index (PMI), business leaders expect a further, albeit slower, fall in production in Q2. The enterprises in Norges Bank's regional network expect activity to contract in the coming months, but more moderately. The contacts in household services report growth in production, while contacts in retail trade expect the decline in activity to come to a halt (see Chart 2.11).

Our system for averaging short-term models (SAM) projects a somewhat slower decline in mainland GDP in the near term and a more pronounced turnaround in growth in the latter half of this year than projected in this *Report* (see Chart 2.12), reflecting projections from many of the models that the economy will rapidly resume a normal growth path.

The output gap is estimated to have turned negative in 2009 Q1. This is in line with the information from Norges Bank's regional network where only a little more than 20% of the enterprises report that they would encounter problems in accommodating growth in demand. Rising unemployment and higher spare capacity as indicated by the business sentiment survey supports the picture of falling capacity utilisation. The downswing is having varying effects within manufacturing (see Chart 2.13). GDP growth is expected to be lower than potential growth up to 2010 Q1. The output gap will then be -1¾%.

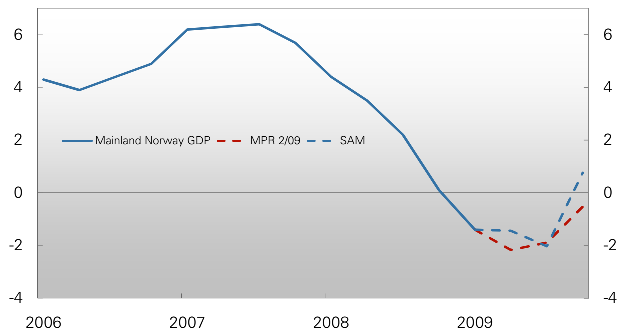
Mainland exports are projected to fall by about 10% between 2008 and 2009 (see Chart 2.14). According to quarterly national accounts figures, exports fell sharply in Q1. New orders and order reserves in the export industry are on the decline, and both Statistics Norway's business sentiment survey and Norges Bank's regional network point to a further fall in exports in Q2. GDP for trading partners is expected to fall by 4% in 2009. After contracting rapidly in the first half-year, GDP for trading partners is expected to flatten out in the course of the latter half-year and start to edge up at the beginning of 2010. Norwegian exports are projected to follow approximately the same path. The fall in external demand has had a particularly strong impact on finished goods, which

Chart 2.11 Indicators for actual change in production last 3 months and expected change in production in next 6 months. Index[1]. October 2002 – October 2009



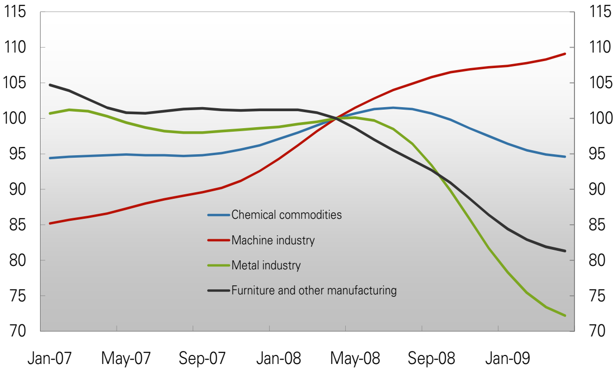
1) The scale runs from -5 to +5, where -5 indicates a sharp fall and +5 indicates strong growth. See article "Norges Bank's regional network" in *Economic Bulletin* 2/05 for further information.
Source: Norges Bank's regional network

Chart 2.12 Mainland GDP. Actual figures, our baseline scenario and projections by SAM[1]. Four-quarter change. Volume. Seasonally adjusted. Per cent. 2006 Q1 – 2009Q4[2]



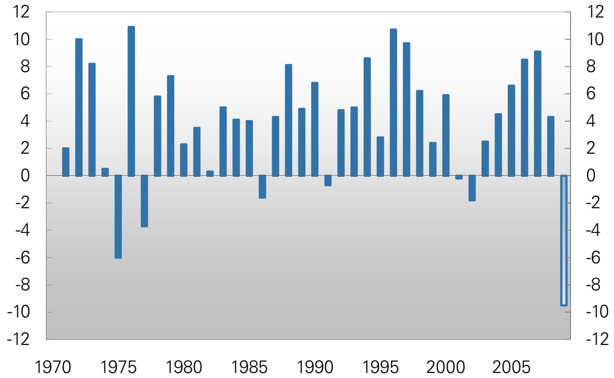
1) System of models for short-term forecasting.
2) Projections for 2009 Q2 – 2009 Q4 (broken lines).
Sources: Statistics Norway and Norges Bank

Chart 2.13 Manufacturing. Different groups. Trend. Index[1]
January 2007 – April 2009



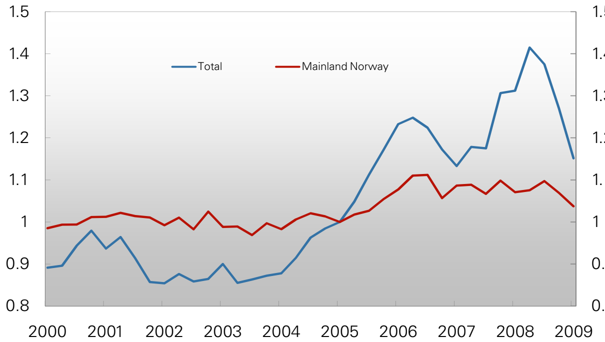
1) April 2008 = 100.
Source: Statistics Norway and Norges Bank

Chart 2.14 Exports from mainland Norway. Annual volume change. Per cent. 1971 – 2009[1)]



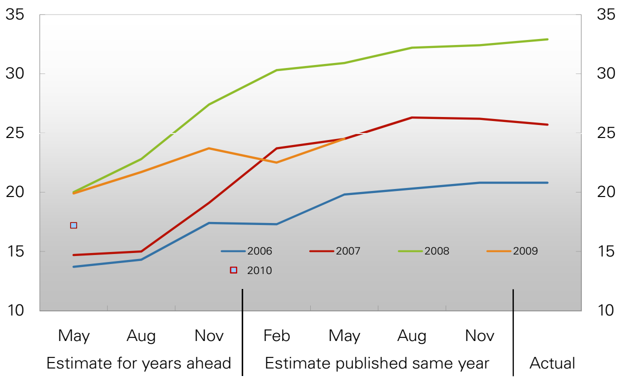
1) Projections for 2009.
Sources: Statistics Norway and Norges Bank

Chart 2.15 Terms of trade. Index[1)]. 2000 Q1 – 2009 Q1



1) 2005 Q1 = 1.
Sources: Statistics Norway and Norges Bank

Chart 2.16 Manufacturing investment statistics. Estimated and actual investment (current prices). In billions of NOK. 2006 – 2010



Source: Statistics Norway

account for a relatively small share of Norwegian manufacturing. But the fall in demand for finished goods has translated into a sharp fall in metal exports. Exports of machinery and salmon have held up, and it is thus likely that the fall in Norwegian exports will be less pronounced than in many other countries. Norway's terms of trade have worsened, but are still relatively high (see Chart 2.15).

Business investment is projected to fall by about 20% in 2009. The investment intentions survey indicates a fall in manufacturing investment in value terms of close to 20% this year (see Chart 2.16). The regional network enterprises report that their investment plans have been scaled back and that spare capacity in the commercial building industry is rising. According to the business tendency survey, capacity utilisation in manufacturing has moved to its lowest level since 2002-2003. Corporate credit growth is falling and Norges Bank's bank lending survey for 2009 Q1 indicates a further tightening of credit standards for enterprises. On the other hand, lower interest rates have reduced funding costs. Equity markets have picked up. This may improve access to equity capital. For export firms, the krone depreciation has eased the fall in profitability. The decline in business investment will probably come to a halt in the course of 2010 as growth prospects and funding availability improve.

Housing investment is projected to fall by about 15% this year (see Chart 2.17). According to quarterly national accounts figures, housing investment fell by 2.6% in Q1. The fall was restrained by an increase in building renovation and the still fairly large stock of home building projects that are under way or nearing completion. However, there is a large stock of unsold homes. Looking ahead, housing starts are expected to remain low and fewer homes are expected to be completed. This will result in a further fall in housing investment in Q2 and Q3. Housing starts are assumed to come to a little more than 20 000 in 2009. This is lower than the underlying demand for housing. Statistics Norway's order statistics show that new housing orders picked up from a low level in Q1. There are also further signs of improvement in the housing market, such as an increase in prices and higher turnover.

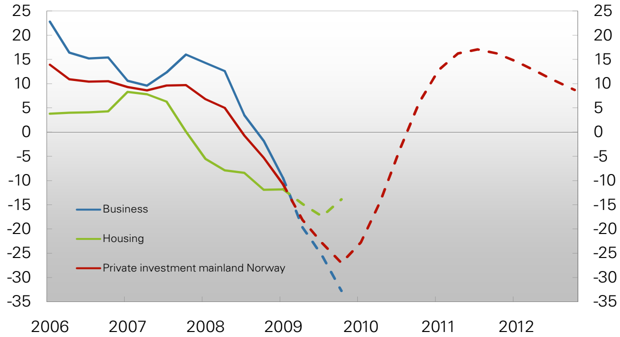
Interest rates are also low. On balance, this may lead to a pick-up in housing starts towards the end of the year and into 2010. Against this background, the decline in investment is expected to moderate through the year, followed by a levelling-off in the course of 2010 Q1.

Private consumption has dropped since spring 2008 and the household saving ratio has increased sharply in recent quarters. A high debt level and the prospect of higher unemployment, combined with falling asset prices, have contributed to this. Saving has come through increased net lending. Looking ahead, the upswing in the saving ratio will probably taper off (see Chart 2.18). While low wage growth and a fall in employment are reducing growth in wage earnings, lower inflation and reduced lending rates will still result in growth in real disposable income of 3¾% this year (see Chart 2.19). Consumption is expected to pick up slightly in Q2. In April and May, car sales were still low, but have increased since Q1. The latest surveys from TNS Gallup and MakroSikt show that the household pessimism prevailing towards the end of 2008 has been followed by a more neutral or slightly positive perception of the outlook. The upswing in the housing market may point in the same direction. The downswing in household credit growth has slowed and Norges Bank's bank lending survey for Q1 indicates that banks are not planning a further tightening of credit standards for households. Growth in household consumption is expected to pick up further in the latter half of 2009 and into 2010. The saving ratio and net lending are projected to start moving down in early 2010. With prospects for a longer period of low interest rates, financial saving is less attractive (see box on household behaviour on page 40).

The labour market

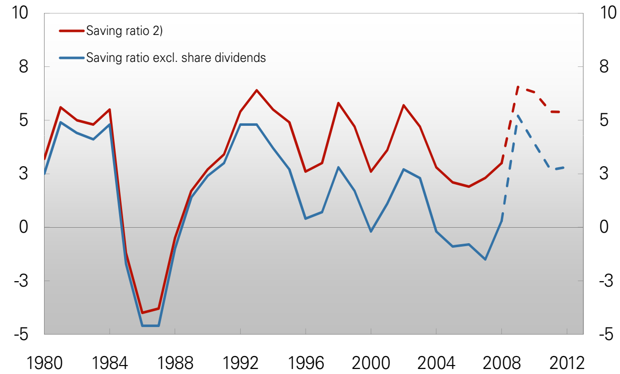
According to quarterly national accounts figures, employment fell by 0.5% in Q1, while the level of employment remains high in relation to output. Normally, there is some time lag before a slowdown in production feeds fully through to employment. Employment is therefore expected to continue drifting down to the end of the year even if output starts edging up again. This profile is in line with the expectations of the enterprises in Norges Bank's

Chart 2.17 Private investment mainland Norway. Total and broken down into business and housing investment. Seasonally adjusted. Four-quarter growth. Per cent. 2006 Q1 – 2012 Q4[1)]



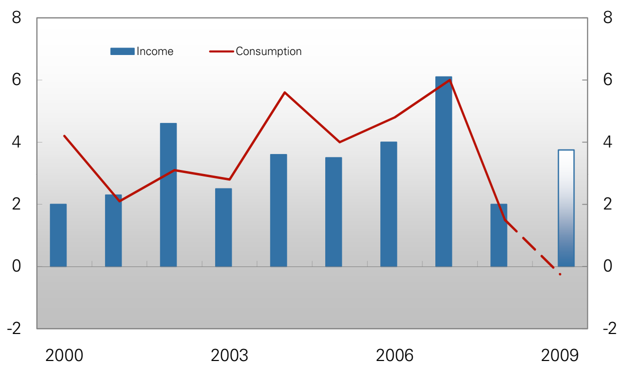
1) Projections for 2009 Q2 – 2012 Q4 (broken lines).
Source: Statistics Norway and Norges Bank

Chart 2.18 Household saving. Share of disposable income. Per cent. Annual figures. 1980 – 2012



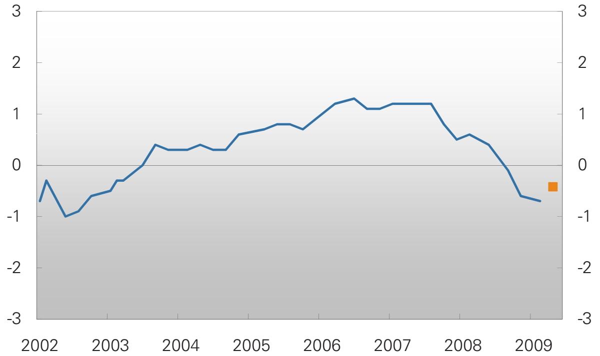
1) Projections for 2009 - 2012 (broken lines).
2) Adjusted for estimated reinvested share dividends for 2000 – 2005 and redemption/reduction of equity capital for 2006 – 2012.
Sources: Statistics Norway and Norges Bank

Chart 2.19 Household real disposable income[1)] and consumption[2)]. Annual growth. Per cent. 2000 – 2009[3)]



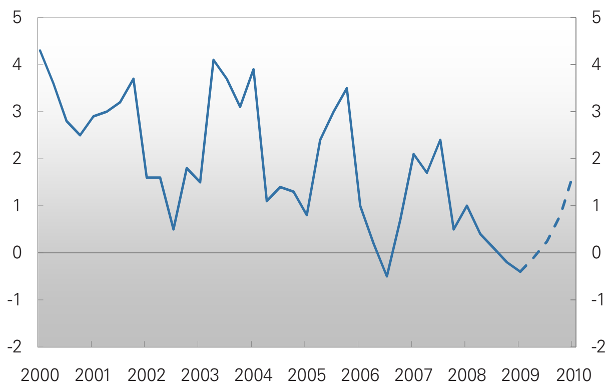
1) Adjusted for estimated reinvested share dividends for 2000 – 2005 and redemption/reduction of equity capital for 2006 – 2009.
2) Includes consumption in non-profit organisations. Volume.
3) Projections for 2009 (broken lines).
Sources: Statistics Norway and Norges Bank

Chart 2.20 Indicator for actual change in employment and expected change in employment in next 3 months. Index[1].
October 2002 – July 2009



1) The scale runs from -5 to +5, where -5 indicates a sharp fall and +5 indicates strong growth. See article "Norges Bank's regional network" in *Economic Bulletin* 2/05 for further information.
Source: Norges Bank's regional network

Chart 2.21 Hourly productivity.
Four-quarter change. Seasonally adjusted. Base value. 2000 Q1 – 2010 Q1[1]



1) Projections for 2009 Q1 – 2010 Q1 (broken line).
Sources: Statistics Norway and Norges Bank

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

	2009	2010
Population growth in the age group 15–74	1½	1
Contribution from change in population composition	-¼	-¼
Cyclical contribution	-¾	-½
Labour force growth	½	¼

Source: Norges Bank

regional network (see Chart 2.20). The business sentiment surveys conducted by Statistics Norway, the Confederation of Norwegian Enterprises and the Norwegian Labour and Welfare Administration also indicate a fall in labour demand in 2009. All in all, employment is projected to fall by ½% in 2009.

The number of lay-offs has increased and the use of overtime hours has decreased, resulting in a fall of 0.8% in the number of hours worked in Q1. Looking ahead, the number of hours worked is expected to fall in pace with employment. The number of hours worked is projected to decline by 1¼% in 2009.

It has taken time for companies to adapt their workforces to the abrupt fall in production. In the year to 2009 Q1, productivity dropped by 0.4% (see Chart 2.21). Productivity is expected to increase through the remainder of 2009 and into 2010 as workforces are adjusted.

Labour force growth flattened out in Q1. Normally, labour force participation moves down when labour demand slows, partly reflecting a higher proportion of young people opting for education. Record-high university applicant numbers indicate that this is also the case in this downturn. On the other hand, population growth is holding up well. Population growth is projected at 1½% this year, with attendant slightly positive growth in the labour force this year (see Table 2.3). The decline in labour force participation through 2008 will continue through 2009 and into 2010. Our projections are based on lower immigration flows.

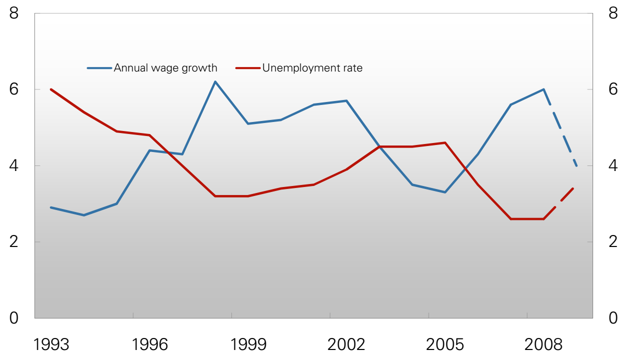
Unemployment has increased considerably over the past year, but nevertheless at a slower pace than projected in the previous *Report*. The number of registered unemployed rose from 1.6% of the labour force in May 2008 to 2.8% in May this year. With a continued fall in employment, unemployment will continue to rise until the beginning of 2010. Registered unemployment is projected to move up to 3¾%, or about 100 000 persons, around the end of 2009. As measured by the labour force survey (LFS), unemployment will then increase to 4½% in the course of the first half of 2010.

Wage growth

According to the social partners, the private sector wage settlement will result in annual wage growth between 3½% and 4%. At the centralised level, pay increases were relatively moderate and with reduced corporate profitability and rapidly rising unemployment, locally negotiated increases in the private sector are likely to be low. In the local settlements, employees have been given the right to refrain from accepting the pay increases agreed at the centralised level. In the public sector, wage growth was high towards the end of last year, and in the local government sector high pay increases were agreed last year which will carry over into this year. The pay increase in the local government wage settlement is 4¾%, while the figure for the central government sector is a little less than 4½%. Annual wage growth for the public sector will therefore be higher than in the private sector. Overall wage growth is projected at 4% this year (see Chart 2.22).

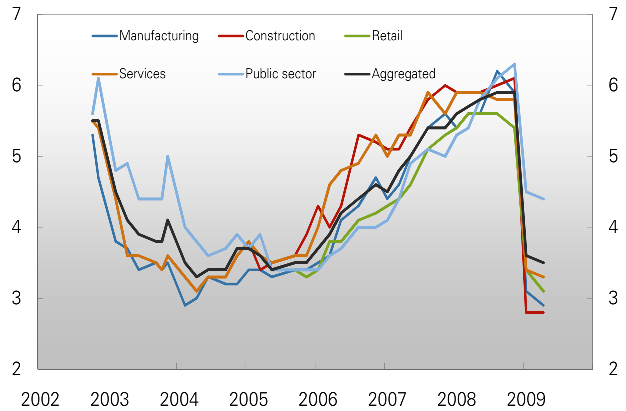
Contacts in Norges Bank's regional network expect annual wage growth to range between 2.8% and 4.5% across the different industries (see Chart 2.23). Perduco's expectations survey for Q2 shows that the social partners expect wage growth of 3.8% in 2009.

Chart 2.22 Annual wage growth[1] and LFS unemployment. Per cent. 1993 – 2009[2]



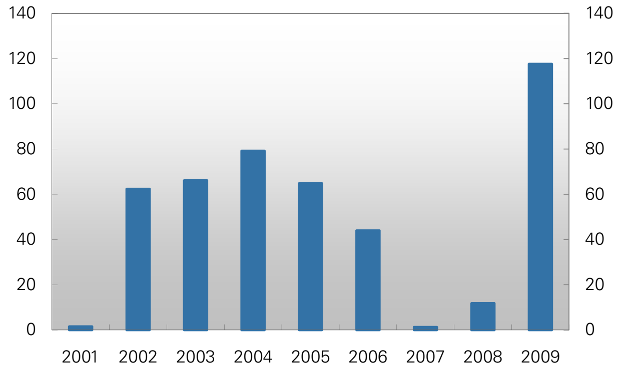
1) Average for all groups. Including estimated costs of increase in number of vacation days and introduction of mandatory occupational pensions.
2) Projections for 2009 (broken lines).
Sources: Statistics Norway, Technical Reporting Committee on Income Settlements and Norges Bank

Chart 2.23 Expected annual wage growth same year. Per cent. October 2002 – April 2009



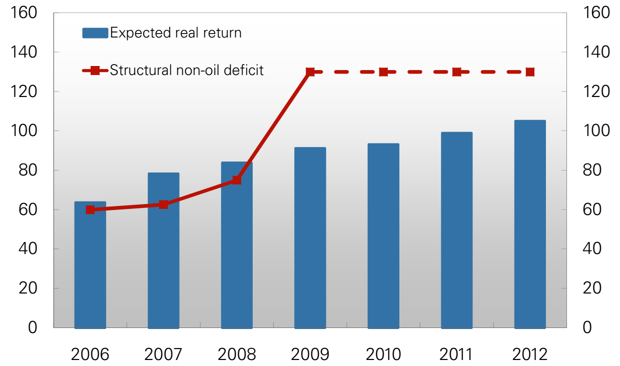
Source: Norges Bank's regional network

Chart 2.24 Non-oil deficit. In billions of NOK. 2001 – 2009



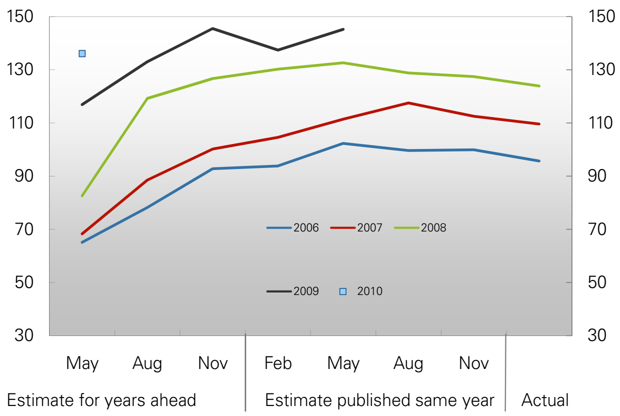
Source: Ministry of Finance

Chart 2.25 Structural non-oil deficit[1)] and expected real return on the Government Pension Fund – Global. In billions of 2009 NOK. 2006 – 2012



1) Norges Bank's projections for 2010 – 2012 (broken lines).
Sources: Ministry of Finance and Norges Bank

Chart 2.26 Investment statistics for the petroleum industry. Estimated and actual investment (current prices). In billions of NOK. 2005 – 2010



Source: Statistics Norway

Assumptions concerning fiscal policy and oil investment from 2009 to 2012

Fiscal policy

Growth in general government expenditure and revenues in 2009 is assumed to be in line with the Revised National Budget for 2009. Nominal growth in general government consumption is estimated at 9½% and general government investment at 14¾% from 2008 to 2009.

The fiscal stance is highly expansionary this year and is helping to maintain overall demand. Growth in underlying central government expenditure is estimated at 10.8% in the Revised National Budget. The non-oil budget deficit is projected to increase by NOK 105.8bn, or 5½% of trend GDP, from 2008 to 2009 (see Chart 2.24). The structural, non-oil budget deficit for 2009 is estimated at NOK 129.9bn (see Chart 2.25). This is NOK 38.7bn higher than the expected real return on the Government Pension Fund – Global and 5.7% of the Fund's capital. From 2008 to 2009 the structural budget deficit is projected to increase by 3 percentage points of trend GDP.

Between 2010 and 2012, the fiscal stance is assumed to be neutral. In line with the fiscal rule, the structural, non-oil budget deficit is expected to gradually return to 4% of the Government Pension Fund – Global as cyclical conditions return to normal. With the estimated growth in the Government Pension Fund – Global in the Revised National Budget, this will not occur until 2016.

As a technical assumption, direct and indirect taxes are held unchanged in 2010-2012. General government consumption in nominal terms is projected to grow by 7¼% in 2010, with the pace of growth slowing further in 2011 and 2012. General government investment is expected to remain at a relatively high level in 2010 and then fall somewhat in 2011 and 2012.

Oil investment

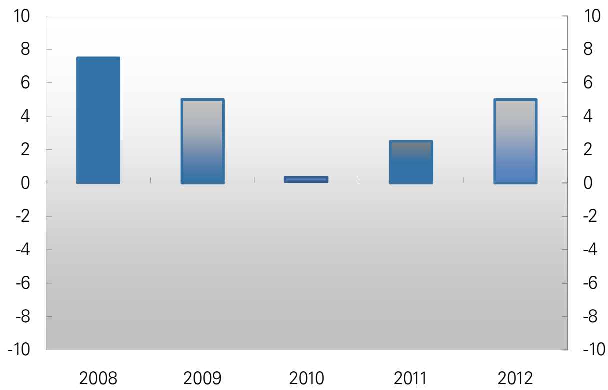
Investment in the Norwegian continental shelf has been substantial in recent years (see Chart 2.26). It is assumed that growth in oil investment will slow in 2009 (see Chart 2.27). In the wake of the sharp oil price decline in autumn

2008, oil companies reviewed their investment plans and sought to postpone planned investments. For small oil companies, credit availability may also have been a limiting factor in recent months.

Futures prices point to an increase in oil prices, and so far this year developments have been in line with these expectations. Several field development projects on the Norwegian continental shelf have been planned for the coming years. There are indications that some of these require an oil price of more than USD 60-70 per barrel to be profitable. If oil prices follow futures prices, investment may remain high for several years ahead. However, if oil prices fall back down again, investment on the Norwegian continental shelf may shrink substantially in the coming years.

Oil prices are assumed to rise in pace with oil futures prices. In line with this, the level of investment is projected to remain approximately unchanged in 2010, before starting to rise again from 2011 (see Chart 2.27).

Chart 2.27 Petroleum investment. Annual volume change. Per cent. 2008 – 2012[1)]



1) Projections for 2009 – 2012.
Sources: Statistics Norway and Norges Bank

Box

Household behaviour

Household behaviour

The household debt burden[1] has increased over the past ten years and saving has declined since 2002. The household debt burden reached a temporary peak in 2008 at close to 200% (see Chart 1). The previous peak was reached in 1988 with a debt burden of 150%, and was followed by the banking crisis in the beginning of the 1990s. Household saving increased sharply at that time, primarily through deleveraging, and the debt burden diminished in subsequent years. Both consumption and housing investment fell markedly.

The high level of debt raises the question of whether a period of weak demand and deleveraging can again be expected. Housing investment has fallen since summer 2007, and from summer 2008 to spring this year private consumption exhibited a decline. Saving has increased and debt growth has eased (see Chart 2.18 on page 34 of this *Report*).

Interest rates have been reduced markedly since autumn. Lending rates charged to households are now low and there are prospects of low interest rates for some time ahead. Low interest expenses increase the scope for household borrowing. In addition, it will become more attractive to borrow rather than save.

Despite low interest rates, household debt is not expected to accumulate at a fast pace. Banks' credit standards have been tightened in the past year. The prospect of higher unemployment is also likely to restrain debt accumulation. Moreover, the high debt level may induce households to build up financial buffers rather than increasing the debt burden further.

The household interest burden[2] reflects the debt level of households and varies with changes in bank lending rates. The observed interest burden over time may be an expression of the preferred interest burden. Chart 2 shows that the interest burden for the four middle income groups in the 1990s has seldom been higher than 8% for very long.[3]

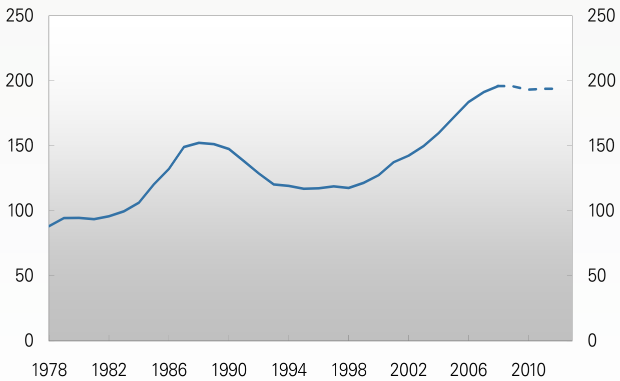
In 2008, the interest burden exceeded 8%. Household saving

1 The debt burden is measured as loan debt in per cent of disposable income adjusted for estimated reinvested share dividends.

2 Interest expenses after tax in per cent of disposable income adjusted for estimated reinvested share dividend plus interest expenses after tax.

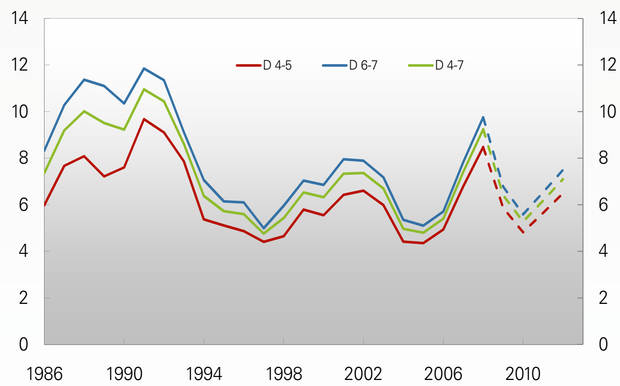
3 We focus on the middle deciles because these groups have been influenced by tax-related changes to a limited extent. The increased debt burden towards the end of the 1980s primarily reflected a high rate of debt accumulation by high-income households.

Chart 1 Loan debt as a percentage of disposable income[1)]. Annual figures. 1978 – 2012[2)]



1) Adjusted for estimated reinvested share dividends for 2000 – 2005 and redemption/reduction of equity capital for 2006 – 2012.
2) Projections for 2009 – 2012 (broken lines).
Sources: Statistics Norway and Norges Bank

Chart 2 Interest burden across household groups.[1)] Grouped in deciles by after-tax income. Per cent. Annual figures. 1986 – 2012[2)]



1) Projected from 2006.
2) Projections for 2009 – 2012 (broken lines).
Sources: Statistics Norway and Norges Bank

then increased and debt growth subsided. The interest burden in 2008 was approximately the same as in the period 1988-1992. That period was followed by a sharp reduction in debt. Unlike at that time, when the real interest rate after tax was close to 5% for these groups of households, interest rates were low in 2008 and closer to what we consider to be a normal level.

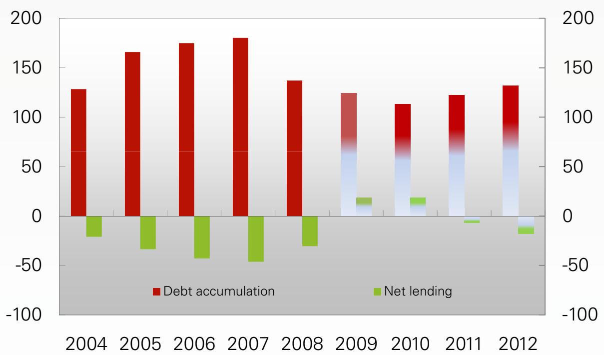
With a lending rate at around 6% and income growth of about 5%, a debt burden twice that of income – corresponding to the 2008-level – results in an interest burden of around 8%. The reaction from 2008 may indicate that some households were of the view that the debt to income ratio was too high even if the interest rate had only increased to about the normal level. Today, some households may thus choose to reduce their debt in order to better cope with interest rate increases in the future.

Any reduction in debt will be reflected in an increase in net lending. For instance, if households want to reduce debt so that the interest burden over time is brought down to 7%, debt has to be reduced from 200% to 170% of income, i.e. by close to NOK 300bn or almost a third of one year's consumption. Such a change will necessarily take time and could restrain growth in household demand for a longer period.

A change in household behaviour ahead depends partly on the interest rate level applied. If households base their decisions on expected low interest rates in the coming 2-3 years, debt may increase again. In that case, net lending may fall and consumption and housing investment will pick up faster and to a further extent than projected in this *Report*. On the other hand, if households base their decisions on a more normal interest rate level, deleveraging may prove to be sharper than projected. Household demand will then remain weak.

Our projections are based on a pronounced upswing in household demand ahead. The sharp increase in net lending is expected to level off. Net lending will subsequently edge down, but this time without a sharp increase in borrowing (see Chart 3). Overall household saving is expected to remain positive throughout the projection period. Annual debt growth is projected at a good 5½% during the projection period, approximately in line with growth in household nominal disposable income.

Chart 3 Household net lending[1)] and gross debt accumulation. In billions of NOK. Annual figures. 2004 – 2012[2)]



1) Net lending is from Statistics Norway's institutional sector accounts. Adjusted for estimated reinvested share dividends 2000 – 2005 and redemption/reduction of equity capital for 2006 – 2012.
2) Projections for 2009 – 2012.
Sources: Statistics Norway and Norges Bank

Annex

Boxes 2005 – 2009

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Evaluation of the projections for 2008

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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

1 / 2008:
Factors driving the rice in domestic and global food prices
Cross-checks for the krone exchange rate
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Foreign labour in Norway
Short-term forecasts for mainland GDP in Norway

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Choice of interest rate path in the work on forecasting
Productivity growth in Norway
The yield curve and economic outlook in the US
Evaluation of Norges Bank's projections for 2005

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Uncertainty surrounding future interest rate developments
Accuracy of short-term interest rate expectations

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Criteria for an appropriate future interest rate path
Why are long-term interest rates so low?
Low inflation in the Nordic countries
Developments in household debt
Evaluation of Norges Bank´s projections for 2004

Publications in 2008 and 2009 on Norges Bank's website

Economic commentaries

This series consists of short, signed articles on current economic issues.

2009/4 *Are household debt-to-income ratios too high?* Tor Oddvar Berge and Bjørn Helge Vatne
2009/3 *Norwegian krone no safe haven.* Alexander Flatner
2009/2 *Relationship between key rates and money market rates.* Ida Wolden Bache and Tom Bernhardsen
2009/1 *Higher risk premiums on government debt.* Tom Bernhardsen and Terje Åmås
2008/6 *Asset prices, investment and credit – what do they tell us about financial vulnerability?* Magdalena D. Riiser
2008/5 *Has residential construction been too high in recent years?* Marita Skjæveland
2008/4 *Downturn in the US – crisis or welcome moderation for the world economy?* Hans Petter Wilse
2008/3 *CPIXE, a new indicator of underlying inflation.* Einar W. Nordbø
2008/2 *Effects of higher oil prices on the Norwegian economy.* Haakon Solheim
2008/1 *The rise in oil prices - fundamental and financial factors.* Farooq Akram and Pål Winje

Staff Memo

Staff Memos present reports and documentation written by staff members and affiliates of Norges Bank, the central bank of Norway.

2009/6 *Solvensavstand og andre risikoindikatorer for banker (*Distance to insolvency and other risk factors for banks). Per Atle Aronsen and Kjell Bjørn Nordal. Norwegian only
2009/5 *Costs in the Norwegian payment system: questionnaires.* Olaf Gresvik and Harald Haare
2009/4 *Costs in the Norwegian payment system.* Olaf Gresvik and Harald Haare
2009/3 *Teknisk beregning av KPIXE* (Technical calculation of the CPIXE). Marius Nyborg Hov. Norwegian only
2009/2 *Renter og rentemarginer* (Interest rates and interest margins). Asbjørn Fidjestøl. Norwegian only
2009/1 *Effekten av en inndragning av 50-øremynten på inflasjonen* (The effect on inflation of the withdrawal of the 50-øre coin from circulation). Fredrik Wulfsberg. Norwegian only
2008/10 *Comparing monetary policy transparency. The Eijffinger and Geraats index - a comment.* Carl Andreas Claussen
2008/9 *Costs in the Norwegian payment system 2007 – a brief overview of the surveys and results*. Olaf Gresvik and Harald Haare
2008/8 *Trondhjem som hovedsete for Norges Bank – noen faktiske og kontrafaktiske betraktninger* (Trondheim as the location of Norges Bank's headquarters – some factual and counterfactual comments). Lars Fredrik Øksendal. Norwegian only
2008/7 *CPIXE and projections for energy prices*. Einar W. Nordbø
2008/6 *Payment habits at point of sale. Different methods of calculating use of cards and cash in Norway.* Olaf Gresvik and Harald Haare
2008/5 *Stress testing the enterprise sector's bank debt - a micro approach.* Eivind Bernhardsen and Bjørne Dyre Syversten
2008/4 *Improving and evaluating short term forecasts at the Norges Bank.* Hilde C. Bjørnland, Anne Sofie Jore, Christie Smith and Leif Anders Thorsrud
2008/3 *The relationship between the key policy rate and macroeconomic variables: A simple cross-check for Norway.* Tom Bernhardsen

2008/2 *A suite-of-models approach to stress-testing financial stability.* Henrik Andersen, Tor O. Berge, Eivind Bernhardsen, Kjersti-Gro Lindquist and Bjørn Helge Vatne
2008/1 *Simple cross-check models for the krone exchange rate.* Tom Bernhardsen

Economic Bulletin

The articles are written by Norges Bank employees and are peer-reviewed.

2009/1:

Evaluation of Norges Bank's projections for 2008. Bjørn E. Naug
Costs in the payment system. Olaf Gresvik og Harald Haare
Macroeconomic shocks – effects on employment and the labour supply. Haakon Solheim
Economic perspectives. Address by Governor Svein Gjedrem at the meeting of Norges Bank's Supervisory Council on 12 February 2009
NEMO – a new macro model for forecasting and monetary policy analysis. Leif Brubakk and Tommy Sveen

2008/2:

Who is borrowing – for what – and can they afford it? A study of comprehensive micro data for Norwegian households through 2006. Bjørn Helge Vatne
Price-setting behaviour of Norwegian firms – results of a survey. Nina Langbraaten, Einar W. Nordbø and Fredrik Wulfsberg
Rising food prices – a driving force behind inflation? Tove Katrine Sand and Bente Støholen
Stress testing of banks' profit and capital adequacy. Henrik Andersen and Tor Oddvar Berge
Economic implications of copulas and extremes. Lorán Chollete

2008/1:

Jarle Bergo: A professional monetary policymaker steps down. Arne Jon Isachsen
Economic perspectives. Address by Governor Svein Gjedrem
Collateral for loans from Norges Bank – consequences of changes in the rules. Bjørn Bakke, Knut Sandal and Ingrid Solberg
On commodity derivatives and the Norwegian initiatives to create a fish derivatives market. Gunnvald Grønvik
The effects of economic news on Norwegian market interest rates. Knut Eeg
Evaluation of Norges Bank's projections for 2007. Raymond Lokshall

Regional network: enterprises and organisations interviewed

Adecco Norge AS, Bodø
Advanced Production and Loading AS
Aibel AS
Airlift AS
Aker Seafoods J. M. Johansen AS
Aker Solutions ASA
Aker universitetssykehus HF
Akershus fylkeskommune
Akershus universitetssykehus HF
Aktiv eiendomsmegling AS
Alfr. Nesset AS
American Express Business Travel AS
Applica AS
Atelier Ekren AS
Atlantic auto AS
Barel AS
BDT Viken revisjon AS, Horten
Bedriftskompetanse Bodø AS
Bekk Consulting AS
Bergen Group Kimek AS
Bergen kommune
Bertel O. Steen AS
Bewi produkter AS
Bilalliansen AS
Block Berge bygg AS
Block Watne AS
Bodø Transport & Caravan AS
Bohus interiørsenter AS
Boliden AS
Bomek Consulting AS
Bring Logistics AS
Brødrene Midthaug AS
Brødrene Sperre AS
Buer entreprenør AS, Skien
Bulldozer maskinlag entreprenør AS
Bunnpriskjeden AS
Byggmo eiendom AS
Bølgen og Moi AS
Celsa armeringsstål AS
Cerpus AS
CHC Helikopter service AS
Christie & Opsahl AS
Clear Channel Norway AS
CrediCare AS, Førde
Deloitte AS
DnB NOR Bank ASA, Tønsberg
DnB NOR Eiendom AS, Bodø
Domstein ASA
Domstein Enghav Haugesund AS
Drag industrier AS
EFG Hov Dokka AS
Eidsmo slakteri AS
Eidsvaag AS
Einar Valde AS
Elektro AS
Elektro Team AS
Elkem AS, Materials Kristiansand
Elkjøp Norge AS
Elmo AS
Elvemo og Hjertås bygg AS
ErgoGroup AS, Trondheim
Ernst & Young AS, Bergen
Ernst & Young AS, Lillehammer
Fabi Group AS
Farstad Shipping AS
Farveringen AS
Finnøy Gear & Propeller AS
Fjord 1 Nordfjord-Ottadalen AS
Fjällräven AS
Fokus bank
Frank Mohn AS
Fresenius Kabi Norge AS
Frøya havbruksservice AS
Frøya kommune
Frøysland industriservice AS
Geomatikk AS, Trondheim
Gjesdal kommune
Gjøco AS
GK Norge AS
Glava AS
Glava AS, Stjørdal
Gunnar Øye AS
Hagen og Godager AS
Hagen treindustri AS
Handelsbanken, Tromsø
Hank sport AS
Hatteland Display AS
Haugesund sparebank
Havila AS
Hedmark eiendom AS
Heimdal eiendomsmegling AS
Heimdal gruppen AS
Helgeland sparebank
Helgelandssykehuset HF
Helse Nordmøre og Romsdal HF
Hennig-Olsen is AS
Herregalleriet AS
Hitra kommune
Hotelldrift Ålesund AS
Hunter Douglas Norge AS
Hustadmarmor AS
H-vinduet Vatne AS
Hymax AS
I. P. Huse AS
Ica distribusjon AS, Arendal
Idecon AS
Impec AS
Indre Sogn sparebank
Ineos Norge AS, Rafnes
Island Offshore AS
ISS Facility Services AS, Kristiansand
Istad kraft AS
Jadargruppen AS
Jangaard Export AS
Jemar Norpower AS
Johan G. Olsen betong AS

Johansen Th & Sønner AS
Jonas B. Gundersen AS, Mandal
Julius Jakhelln AS
Jørstad AS
Jøtul ASA
K. Lund AS
Kantega AS
Kappahl AS
Keno reklame AS
Kewa Invest AS
Kirkenes byggservice AS
Kitron Arendal AS
Kiwi Norge As
KL regnskap Hitra AS
Kluge advokatfirma DA
Klaastad brudd DA
Kontali analyse AS
Kristiansand næringsforening
Kristiansund kommune
Kverneland Group ASA
Leiv Eiriksson nyskapning AS
Lenvik kommune
Lerøy Seafood Group ASA
Lillrent AS
Linjebygg Offshore AS
Living AS
Livsforsikringsselskapet Nordea
Liv Norge AS
Lunde Group AS
Løvenskiold Handel AS
Løvenskiold-Fossum
Løvold Bodø AS
Madla handelslag
Magnor glassverk AS
Mainstream Norway AS
Mandal kommune
Maritime hotell, Flekkefjord
Martin M. Bakken AS
Meca Norway AS
Melhus sparebank
Mesterjobb Human Resources AS
Meyergården hotell AS
Min Boutique gruppen AS
Mindus AS
Moelven Østerdalsbruket AS
Møller bil Sør-Rogaland AS
Mørenot AS
Narud Stokke Wiig
NAV Telemark
Net Transe Services AS, Tønsberg
Neumann bygg AS
Nexans Norway AS
Norcem AS
Norconsult AS
Nordbohus Vinstra AS
Norisol Norge AS
Nortura BA
Nycomed Pharma AS
Nymo AS
Oppegård kommune
Oppland entreprenør AS
Os kommune
Parker ScanRope AS, Tønsberg
Parkettpartner AS
Pedersens lastebiltransport AS
Peterson Linerboard AS
Petroleum Geo-Services ASA
Petters sjømat AS
PricewaterhouseCoopers AS, Førde
PricewaterhouseCoopers AS, Trondheim
Proaktiv eiendomsmegling AS
Proffice AS
Profil lakkering AS
Profilhuset Meny-Ultra
Profilteam AS
Prosjekt- og teknologiledelse AS
På håret frisør AS
Radisson SAS Royal Garden hotell
Ramsvik frisør AS
Rana gruber AS
Rana trevarefabrikk AS
Rapp Bomek AS
Retro AS
Rica Arctic Hotel AS
Rica hotel Hamar
Rieber & Søn ASA
Rieber & Søn ASA, Elverum
Ring mekanikk AS
Ringsaker kommune
Rogaland fylkeskommune
Rolfs elektro AS
Rolfsen AS
Rolls-Royce Marine AS
Rosenvold klær AS
Ruukki Norge AS, Trondheim
Rygge kommune
Rygge Vaaler sparebank
Rørlegger D Åsheim AS
Salmar AS
SATS Norge AS, Langnes
Scandic Hotels AS
Schenker AS, Trondheim
Schibsted ASA
Schlumberger Oilfield Services
Securinet AS
Selfa Arctic Trondheim AS
Selstad AS, LNT
Sengemakeriet Gullaksen møbler AS
SG Finans, Brumunddal
Sintef MRB AS
Sjåtil og Fornæss AS
Skeidar AS
Skeidar Ålesund AS
Skeikampen Resort
Skipsteknisk AS
Slagen gruppen
Solstrand fjordhotell AS
Soundgarden AS, Bodø
Sparebanken Hedmark
Sparebanken Sør, Arendal
Sperre støperi AS
Spice AS
Sport 1 gruppen AS

St. Olavs hospital HF
Statens vegvesen
Statens vegvesen, region Sør
Stavanger aftenblad ASA
Steertec Raufoss AS
Stiftelsen Sintef
Stjern AS
Støren trelast AS
Swix sport AS
Sykehuset i Vestfold HS
Sykehuset Innlandet HF
Sønnico installasjon AS
Sørensen maskin AS
Sør-Varanger kommune
Team trafikk AS
Teeness ASA
Tibe reklamebyrå AS
Tine BA
Tine meierier øst BA
Topp auto AS
Toten transport AS
Totens sparebank
Trebetong AS
Tromsø kommune
Trysilfjellet alpin AS
TV 2 gruppen AS
Tysvær kommune
Tønsberg kommune
Uberthur AS
Umoe IKT AS, region Vest, Bergen
Umoe Itet AS
Veidekke ASA
Velvære-grossisten AS
Veolia transport Sør AS
Vesteråls-revisjon AS
Vestre Toten kommune
Via Travel, Bodø
Ving Norge AS
Vital næringseiendom AS
Vizrt Ltd.
Våler kommune
Widerøes flyveselskap AS
Wiersholm Mellbye & Bech Adv. AS
XXL sport og villmark AS, Forus, Lagunen og Åsane
Yamaha senter Sør AS
Yara International ASA
Øveraasen AS
Øyer kommune
Ålesund kommune
Aarbakke AS
Aas mek verksted AS
Åsen & Øvrelid AS
Øveraasen AS
Øyer kommune

Monetary policy meetings
with changes in the key interest rate

Date	Key policy rate[1)]	Change
28 October 2009		
23 September 2009		
12 August 2009		
17 June 2009	**1.25**	**-0.25**
6 May 2009	1.5	-0.5
25 March 2009	2	-0.5
4 February 2009	2.5	-0.5
17 December 2008	3	-1.75
29 October 2008	4.75	-0.5
15 October 2008	5.25	-0.5
24 September 2008	5.75	0
13 August 2008	5.75	0
25 June 2008	5.75	+0.25
28 May 2008	5.5	0
23 April 2008	5.5	+0.25
13 March 2008	5.25	0
23 January 2008	5.25	0
12 December 2007	5.25	+0.25
31 October 2007	5	0
26 September 2007	5	+0.25
15 August 2007	4.75	+0.25
27 June 2007	4.5	+0.25
30 May 2007	4.25	+0.25
25 April 2007	4	0
15 March 2007	4	+0.25
24 January 2007	3.75	+0.25
13 December 2006	3.5	+0.25
1 November 2006	3.25	+0.25
27 September 2006	3	0
16 August 2006	3	+0.25
29 June 2006	2.75	0
31 May 2006	2.75	+0.25

[1)] The key policy rate is the interest rate on banks' sight deposits in Norges Bank. This interest rate forms a floor for money market rates. By managing banks' access to liquidity, the central 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
2004		3.9	4.4	5.6	1.5	9.3	10.2	4.5	8.8
2005		2.7	4.6	4.0	0.7	12.7	18.8	6.6	8.7
2006		2.3	4.9	4.8	1.9	11.9	4.3	8.5	8.4
2007		3.1	6.1	6.0	3.4	9.3	5.5	9.1	7.5
2008		2.1	2.6	1.4	3.8	2.4	6.6	4.6	4.4
2008[3)]	Q1	0.4	0.5	0.3	0.7	-6.3	1.7	0.5	0.2
	Q2	0.1	0.3	-0.5	0.9	0.4	-2.2	-0.1	-1.3
	Q3	-0.8	0.1	-1.0	1.2	1.7	3.9	-0.2	1.0
	Q4	0.8	-0.8	-0.6	1.2	-2.1	5.0	-1.0	-3.8
2009[3)]	Q1	-0.4	-1.0	-0.2	1.6	-7.7	2.0	-7.2	-5.9
2008-level, in billions of NOK		2548	1830	991	490	380	122	459	733

1) Extraction and pipeline transport.
2) Other goods, travel and other services.
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)]
2005		1.6	1.0	1.4	1.2	1.4	1.5
2006		2.3	0.8	1.2	2.0	1.0	2.5
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	Jan	2.2	2.8	2.9	2.2	2.8	2.6
	Feb	2.5	3.0	3.0	2.4	3.1	2.8
	Mar	2.5	2.7	2.7	2.5	2.7	2.6
	Apr	2.9	2.7	2.7	2.9	2.8	2.9
	May	3.0	2.9	2.8	2.9	2.9	2.9

1) CPI-ATE: CPI adjusted for tax changes and excluding energy products.
2) CPIXE: CPI adjusted for tax changes and excluding temporary changes in energy prices. See *Staff Memo* 2008/7 and *Staff Memo* 2009/3 from Norges Bank 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.

Source: Statistics Norway

Table 3 Projections for main economic aggregates

	In billions of NOK	Percantage change from previous year (unless otherwise stated)				
			Projections			
	2008	2008	2009	2010	2011	2012
Prices and wages						
CPI		3.8	2¼	1¾	2¼	2½
CPI-ATE[1)]		2.6	2½	1¾	2¼	2½
CPIXE[2)]		3.1	2½	1¾	2¼	2½
Annual wage growth[3)]		6	4	3¾	4¼	4¾
Real economy						
GDP	2548	2.1	-1½	2¼	3¼	2¾
GDP, mainland Norway	1830	2.6	-1½	2½	3½	3
Output gap, mainland Norway[4)]		2¼	-1¼	-1½	-¼	0
Employment		3.1	-½	-½	¾	1
Labour force, LFS		3.4	½	¼	½	½
LFS unemployment (rate)		2.6	3½	4½	4	3¾
Demand						
Mainland demand[5)]	1861	2.2	-1¼	2¾	4½	3¼
- Private consumption	991	1.4	-¼	5¼	4	2½
- Public consumption	490	3.8	5¾	3¾	.	.
- Fixed investment, mainland Norway	380	2.4	-13	-6¾	.	.
Petroleum investment[6)]	122	6.6	5	0	2½	5
Mainland exports[7)]	459	4.8	-9½	¼	.	.
Imports	733	4.4	-6¾	½	.	.
Interest rate and exchange rate						
Key policy rate (level)[8)]		5.3	1¾	1½	2¾	3¾
Import-weighted exchange rate (I-44)[9)]		90.8	96	95	95	95

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 *Staff Memo* 2008/7 and *Staff Memo* 2009/3 from Norges Bank 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) Other goods, travel and other services.
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 comprises 97% of total imports.

· Not available

Sources: Statistics Norway, the Technical Reporting Committee on Income Settlements and Norges Bank

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