NORGES BANK

Monetary Policy Report

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Monetary Policy Report
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Norges Bank

Oslo 2008

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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, analyses of selected themes and a summary of Norges Bank's regional network reports.

At its meeting on 3 September, the Executive Board discussed relevant themes for the *Report*. At the Executive Board meeting on 15 October, 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 25 March 2009 at the meeting held on 29 October. The Executive Board's summary of the economic outlook and the monetary policy strategy are presented in Section 1. In the period to the next *Report*, the Executive Board's monetary policy meetings will be held on 17 December, 4 February and 25 March.

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The *Monetary Policy Report* is based on information in the period to 23 October 2008.

The monetary policy strategy in Section 1 was approved by the Executive Board on 29 October 2008.

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 2 pm 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

Lower interest rate curbs impact

Actions taken by the authorities in many countries seem to have warded off a collapse of the world's banking systems. Nevertheless, the uncertainty surrounding economic developments ahead is unusually high. It is fairly certain that the world economy will experience a meagre year ahead. In Norway, the effects of the financial crisis will also occur more rapidly and be more pronounced than the outlook seemed to imply only recently. Norway is still in a better position than most countries. The current account balance and government finances are solid. The Norwegian banking system is not large, and the financial position of Norwegian banks is sound. Moreover, the level of domestic activity remains high and inflation expectations are well anchored.

The krone has depreciated substantially. As long as inflation is low and stable, the krone acts as an automatic stabiliser. Lower prices in foreign currency and reduced demand for our export products are being counteracted by the fall in the value of the krone. However, there have been wide variations, and the krone is expected to appreciate as the conditions in money and foreign exchange markets improve.

The analysis in this *Report* implies, both in the short term and the somewhat longer term, a lower key policy rate than projected in June. Weight is given to moving forward the reduction in the key policy rate so that bank lending rates for households and firms are gradually reduced. Norwegian banks, households and some businesses have increased their borrowings considerably in recent years. It is important that the necessary deleveraging does not take place too abruptly. Lower interest rates, combined with liquidity measures, may curb the impact of the financial crisis on output and inflation.

Svein Gjedrem
29 October 2008

1 Monetary policy assessments and strategy

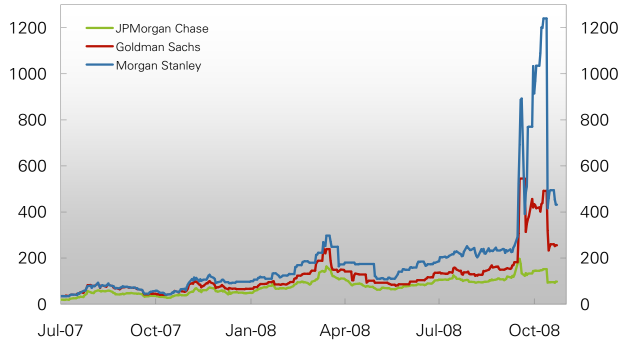
The financial crisis and the economic situation

There is unusually high uncertainty surrounding economic developments ahead. The problems that arose in the US banking system have spread to most markets and countries. US and European financial institutions have suffered large losses. The crisis took a new and dramatic turn after the US investment bank Lehman Brothers failed on 15 September and the largest US savings bank Washington Mutual was split up and partly acquired by JPMorgan Chase on 25 September following large losses on residential mortgages. The price of credit default insurance increased up to mid-October, but has since declined (see Chart 1.1). High counterparty and settlement risk has led to a considerable erosion of confidence between banks, reducing their willingness to lend to each other. Credit channels dried up. Equity prices have declined and oil and commodity prices have fallen.

Money market rate premiums have been high and volatile (see Chart 1.2). The difference between money market rates and central bank key rates has been the widest since the international financial turbulence started in August last year. Norwegian money market rates increased sharply after international risk premiums spilled over into the Norwegian market. After the authorities in many countries announced a range of measures to address the crisis in mid-October, financial market conditions improved somewhat, but there is still limited access to credit and money market risk premiums remain high. According to market pricing, premiums will recede from today's level, but remain high for a period ahead.

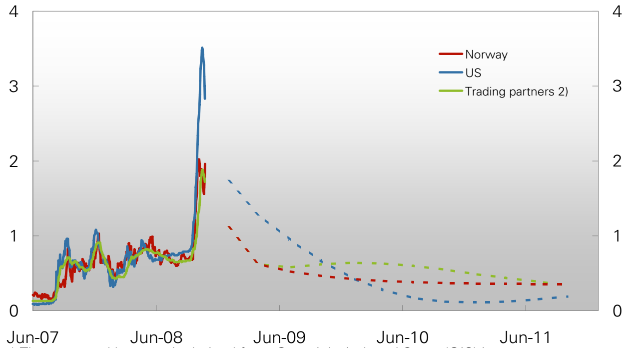
Foreign exchange markets have also been volatile (see Chart 1.3). Investors have shown interest in the large and most liquid currencies. The US dollar has appreci-

Chart 1.1 Price of credit default insurance. A sample of US financial institutions' 5-year CDS[1)] prices. Basis points.
2 July 2007 – 23 October 2008



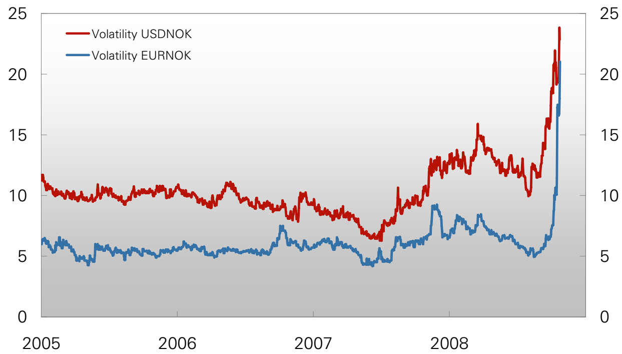
1) Credit Default Swap.
Source: Bloomberg

Chart 1.2 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 (at 23 October 2008)



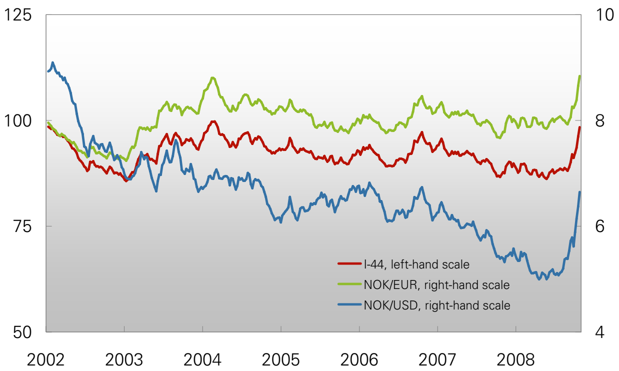
1) The expected key rate is derived from Overnight Indexed Swap (OIS) interest rates. For Norway, the estimates are based on the difference between the projected money market rate and key policy rate in this *Report*.
2) The UK, the euro area, Japan, Sweden and the US.
Sources: Bloomberg, Thomson Reuters and Norges Bank

Chart 1.3 Implied volatility in the Norwegian exchange market.[1)] Based on 1-month currency option prices. Per cent.
1 January 2005 – 23 October 2008



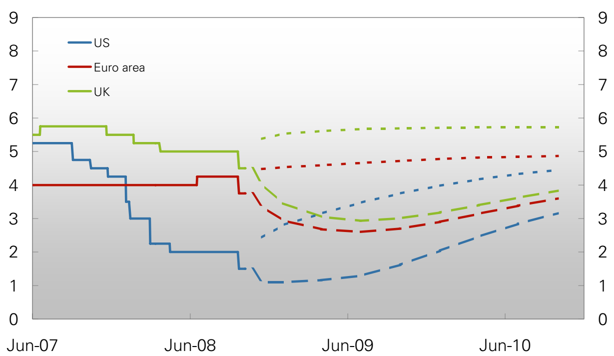
1) Annualised standard deviation. Gives an indication of uncertainty in the exchange market ahead.
Source: Bloomberg

Chart 1.4 Exchange rates.[1] The import-weighted exchange rate index (I-44), 1995 = 100, NOK/EUR and NOK/USD. Week 1 2002 – Week 44 2008



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

Chart 1.5 Policy rates and estimated forward rates on 25 June and 23 October.[1] Per cent. 1 June 2007 – 31 December 2010



1) Dotted lines show forward rates as at 25 June 2008. Broken lines show forward rates as at 23 October 2008.
Forward rates are based on Overnight Indexed Swap (OIS) interest rates.
Sources: Thomson Reuters and Norges Bank

ated from record-low levels. Low risk willingness has prompted participants to reduce their exposure to less liquid currencies such as the Norwegian krone. The krone exchange rate has depreciated since end-June (see Chart 1.4). The fall in the price of oil and other commodities has probably also contributed somewhat to the depreciation. Our projections are based on the assumption that the krone exchange rate gradually appreciates when financial market conditions improve.

The US and European authorities have introduced comprehensive measures to strengthen the liquidity and balance sheets of large financial institutions (see box on page 56). US financial institutions have scaled down their balance sheets and brought dollars back to the US. This has probably contributed to a shortage of dollar liquidity in European markets. The largest central banks have taken coordinated action to secure access to US dollars in the money market. Norges Bank has also supplied US dollars and implemented a range of measures to improve liquidity in the Norwegian money market (see box on page 11).

The financial market crisis has worsened investment and consumption prospects in large parts of the world. Banks have tightened their lending standards, particularly in the US and the UK, but also in the euro area and other European countries. There are prospects for a downturn or stagnation in output and employment in several large OECD countries. Moreover, growth will probably also taper off in emerging market economies and developing countries. The financial crisis is having a dampening impact on world trade and it may take time before an improvement is seen among our trading partners.

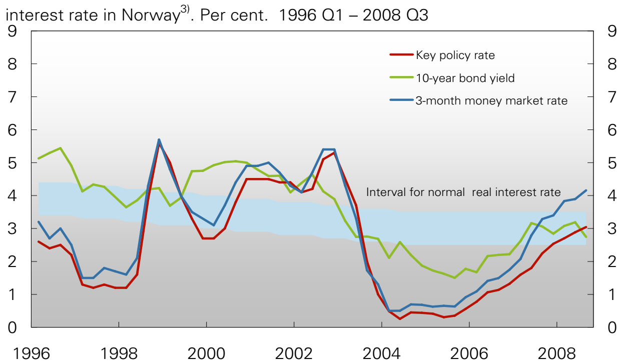
Against the background of weaker growth prospects and lower inflation expectations, central bank interest rate expectations have been lowered internationally. On 8 October the central banks in the US, the UK, Canada, the euro area, Switzerland and Sweden made coordinated rate cuts. China's central bank also cut its key rate. Market participants expect central bank key rates to be reduced further among most of our trading partners (see Chart 1.5). Norges Bank reduced its key policy rate by 0.50 percentage point to 5.25% on 15 October.

Growth is also slowing in the Norwegian economy. Household consumption has stagnated and house prices are falling. Housing starts and order backlogs for new homes have shown a considerable drop. Moreover, household confidence in the future has weakened. On the other hand, petroleum investment is at a high level and government spending growth is high. The real krone exchange rate has depreciated. Activity in some segments of Norwegian manufacturing remains solid, particularly among suppliers of goods and services to the petroleum sector. Nevertheless, there are signs of lower activity also in that industry. The labour market remains tight, but employment growth has come to a halt.

For some time it seemed that growth in Asia and commodity markets would hold up despite the turbulence in US and European financial markets. Since the end of September these markets have also turned. The effects of the financial crisis on the Norwegian economy will probably also be greater than previously assumed and operate through several channels (see box on page 44). Weaker growth in the world economy in the coming year will depress growth in demand for Norwegian exports. Domestic demand will be influenced. House prices and share values on the Oslo Stock Exchange have declined. Combined with lower growth expectations, this may lead to a preference for reducing the debt burden, which will in turn influence business and household decisions concerning investment, saving and consumption.

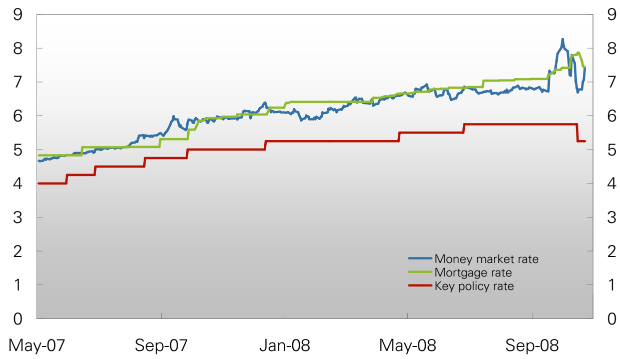
The premiums in the money market have pushed up money market rates, and the real interest rate measured by the money market rate is now higher than what is considered a normal real interest rate in Norway (see Chart 1.6). High premiums for both short-term and long-term funding in money and credit markets resulted in higher bank lending rates (see Chart 1.7). The premiums in money market rates are still high and variable. Comprehensive measures taken by the Norwegian government and Norges Bank have led to some decline in premiums in the past two weeks. At the same time, several banks have reduced their deposit and lending rates or cancelled previously announced increases.

Chart 1.6 Real interest rates based on 3-month money market rate[1)], key policy interest rate[1)], 10-year bond yield[2)] and the normal real interest rate in Norway[3)]. Per cent. 1996 Q1 – 2008 Q3



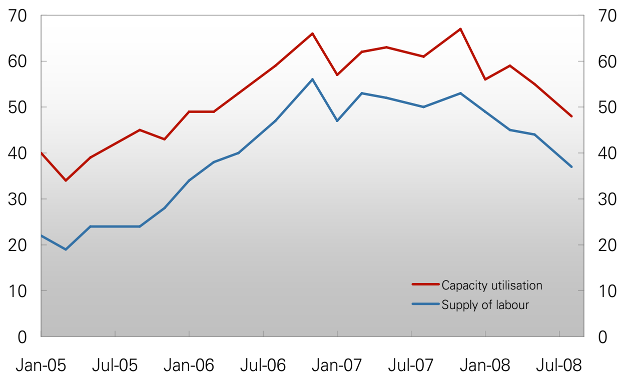
1) Deflated by the 12-quarter moving average (centred) of inflation measured by the CPI. Projections for the CPI from this Report form the basis for this estimate.
2) 10-year swap rate deflated by the inflation target.
3) Calculations may indicate that the normal real interest rate for Norway is currently in the lower end of the interval 2½ – 3½%.
Sources: Statistics Norway and Norges Bank

Chart 1.7 Key policy rate, money market rate[1)] and banks' lending rate on new loans[2)]. Per cent. 3 May 2007 – 23 October 2008



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

Chart 1.8 Capacity utilisation and supply of labour. Share of firms that will have difficulties accommodating growth in demand. Per cent. January 2005 – August 2008



Source: Norges Bank

Norwegian financial crisis measures

Owing to financial turbulence, banks are holding on to their money and are reluctant to lend to each other. This has resulted in higher money market rates globally and in Norway. In order to counteract the effects of the turbulence, Norges Bank has taken a range of actions to strengthen banks' liquidity:

- Norges Bank has increased the volume of loans to banks against collateral in securities, so-called F–loans. At the most, overall surplus liquidity in the banking sector has been close to NOK 90bn. In normal times, the amount is around NOK 20bn.
- Norges Bank has provided F–loans with a longer term than normal:
    - Several of these loans mature early next year. On 1 October and 16 October banks borrowed a total of NOK 44.8bn with a three-month maturity. A new three-month F–loan will be provided on 30 October.
    - On 16 October, Norges Bank provided an F–loan in the amount of NOK 2.85bn with a six-month maturity at a predetermined interest rate of 5.7%. The loan was limited to a maximum of NOK 1bn per bank. A 2-year loan of the same maximum amount will be offered in November.
- Norges Bank has eased the collateral requirements for banks' access to F–loans. The eligibility criteria for certain types of residential mortgage-backed securities requiring that these securities have a credit rating and be listed on the stock exchange have been temporarily suspended. This measure will accelerate banks' access to increased funding from Norges Bank. Norges Bank has also removed the minimum volume requirement for banks' collateral for loans in Norges Bank. Previously, banks were required to furnish as collateral a minimum volume outstanding of NOK 300m for securities issued in NOK.
- Norges Bank has provided Norwegian krone loans against collateral in euros. These loans are also available to foreign banks that are not under Norway's jurisdiction but that are active in the Norwegian money market.
- Norges Bank has provided loans in US dollars to Norwegian banks. Banks' access to US dollar funding in the market has in periods been impaired. Prices in the Norwegian money market depend on the availability of corresponding loans in US dollars. On 16 September, the supply of dollars was so restricted that banks stopped quoting Norwegian money market rates. Norges Bank responded by providing USD 5bn in loans to Norwegian banks, enabling them to resume quoting Norwegian interest rates. Norges Bank has subsequently offered banks one-month and three-month loans in US dollars against collateral in securities.
- Norges Bank has concluded a swap agreement with the Federal Reserve, authorising a loan of up to USD 15bn against collateral in NOK. The agreement strengthens Norges Bank's room for manoeuvre to address the turbulence in financial markets to the end of the year and into next year.

On 24th October, the Storting authorised the Ministry of Finance to exchange government securities with collateral in or in return for Norwegian covered bonds in amounts up to a total of NOK 350bn. Maturities will be up to three years.

In August, contacts in Norges Bank's regional network reported that capacity utilisation was still high, but declining (see Chart 1.8). Our contacts noted that there had been a shift in sentiment in the Norwegian economy. The majority expected almost zero growth in output and employment in the coming half-year. They also reported that it had become easier to procure labour. An extra round of calls to some contacts in October indicated that the outlook had worsened since August.

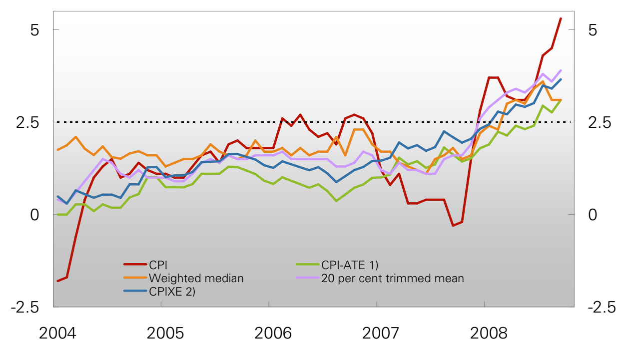
Inflation has picked up markedly since autumn last year. In September, the year-on-year rise in consumer prices was 5.3%. The high rate of inflation partly reflects a sharp rise in electricity prices during autumn, but various indicators of underlying inflation have also increased. Wage growth is markedly higher and productivity growth has slowed considerably. The high rate of cost inflation has led to a faster rise in prices for domestically produced goods and services. Prices for imported consumer goods are no longer falling and are now on the rise. Underlying inflation now appears to be close to 3½% (see Chart 1.9). This is higher than expected and 1 percentage point above the inflation target of 2.5%.

According to TNS Gallup's expectations survey for the third quarter, experts in the financial industry and academia have revised up their long-term inflation expectations somewhat, but they have been lowered by the social partners (see Chart 1.10). Shorter-term inflation expectations also fell between Q2 and Q3 among the social partners, while they continued to rise among experts in the financial industry and academia. An indicator of inflation expectations among financial market participants can be derived from developments in long-term forward rate differentials between Norway and the euro area. Because Norway has a higher inflation target, this differential will normally lie in the range ½ - 1 percentage point, depending on risk premiums in the bond market. The differential has been in this range in recent years (see Chart 1.11).

Monetary policy assessments

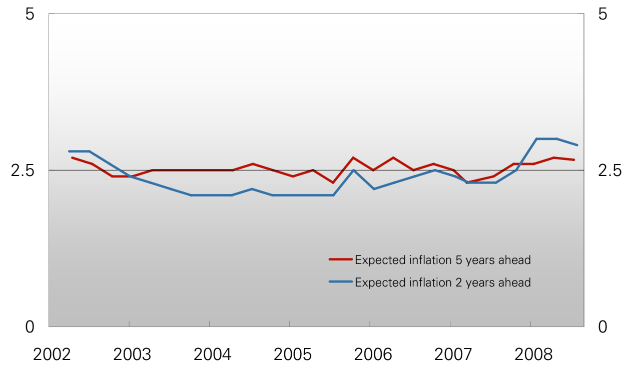
Monetary policy in Norway is oriented towards annual consumer price inflation of close to 2.5% over time. In recent years, inflation has on average been somewhat lower, but fairly close to 2.5% (see Chart 1.12). Low and

Chart 1.9 Consumer prices. 12-month change. Per cent. January 2004 – September 2008



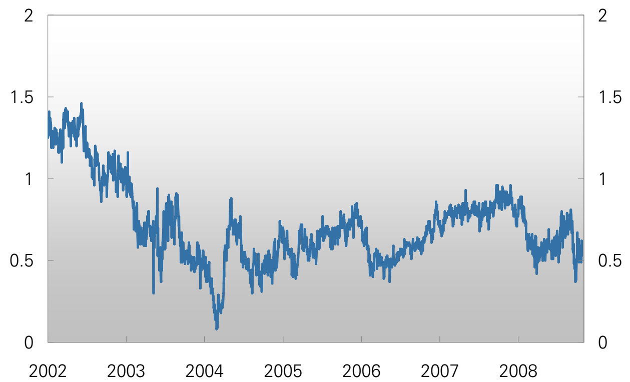
1) CPI adjusted for tax changes and excluding energy products.
2) CPI adjusted for tax changes and excluding temporary changes in energy prices. See *Staff Memo* 2008/7 from Norges Bank for a description of the CPIXE.
Sources: Statistics Norway and Norges Bank

Chart 1.10 Expected consumer price inflation 2 and 5 years ahead.[1] Per cent. 2002 Q2 – 2008 Q3



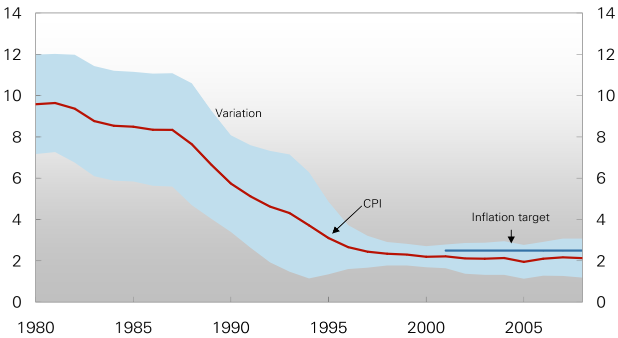
1) Average of expectations of employer/employee organisations and experts (financial industry employees, macro analysts and academics).
Source: TNS Gallup

Chart 1.11 Differential between long-term forward interest rates in Norway and the euro area.[1] Percentage points. 1 January 2002 – 23 October 2008



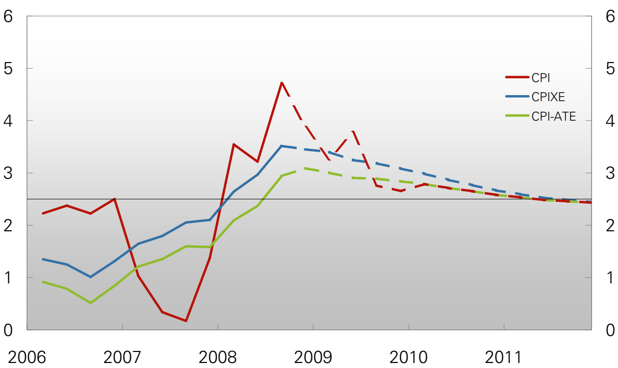
1) 5-year forward rates 5 years ahead.
Sources: Thomson Reuters and Norges Bank

Chart 1.12 Inflation. Moving 10-year average[1)] and variation[2)] in CPI. Per cent. 1980 – 2008[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 2008 - 2010 from this *Report* form the basis for this estimate.
Sources: Statistics Norway and Norges Bank

Chart 1.13 Projected CPI, CPI-ATE[1)] and CPIXE[2)] in the baseline scenario. 4-quarter change. Per cent. 2006 Q1 – 2011 Q4



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 from Norges Bank for a description of the CPIXE.
Sources: Statistics Norway and Norges Bank

stable inflation is the most important contribution monetary policy can make to sound economic developments. This provides firms and households with an anchor for their inflation expectations. The path for the key policy rate should provide a reasonable balance between the path for inflation and the path for capacity utilisation (see box on page 19).

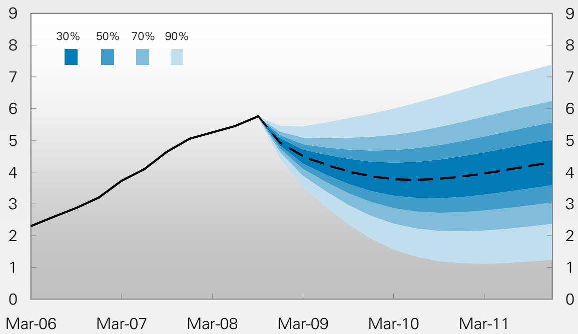
Global growth is projected to be considerably lower than assumed in the previous *Report*. Lower growth and inflation expectations abroad have led to a reduction in expectations concerning our trading partner's key rates.

The depreciation of the krone can act as an automatic stabiliser for profitability among Norwegian exporters. It may still become more difficult to find market outlets for export goods when growth in other countries slackens. The enterprises in Norges Bank's regional network report that growth is slowing and in some cases falling in most regions and industries. Higher funding costs, tight credit conditions, falling equity prices, lower prices for export goods and lower demand will probably lead to a considerable decline in mainland business investment compared with the levels seen in recent years. On the other hand, it appears that activity in petroleum-related industries will remain robust.

The financial market crisis has led to higher funding costs for banks and has kept bank lending rates at a higher level than developments in the key rate would imply. Combined with falling asset prices and lower growth expectations, this may increase household preferences and need for building up financial buffers. Private consumption is projected to show close to zero growth in the coming quarters. Falling housing starts, reduced order backlogs and assessments from the enterprises in Norges Bank's regional network indicate that housing investment will continue to show a pronounced fall next year.

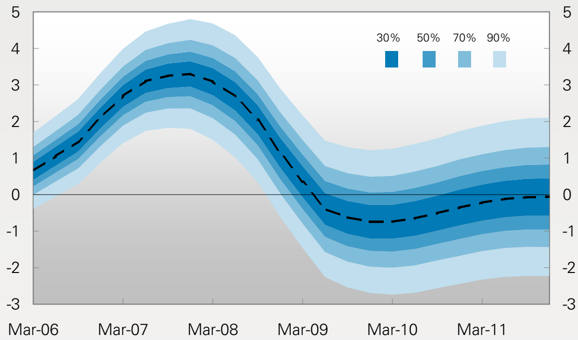
On the other hand, underlying inflation is high, and higher than expected in June. Inflation this year has been the highest since the period of high inflation ended in 1990. Consumer price inflation will probably edge down this winter, but there are prospects that inflation measured by the CPI will remain between 3% and 4% in the period to

Chart 1.14a Projected key policy rate in the baseline scenario with fan chart. Per cent. 2006 Q1– 2011 Q4



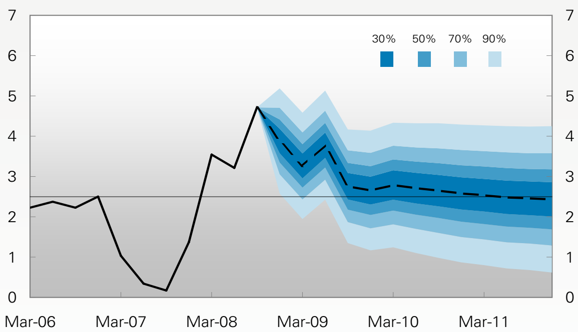
Source: Norges Bank

Chart 1.14b Estimated output gap in the baseline scenario with fan chart. Per cent. 2006 Q1 – 2011 Q4



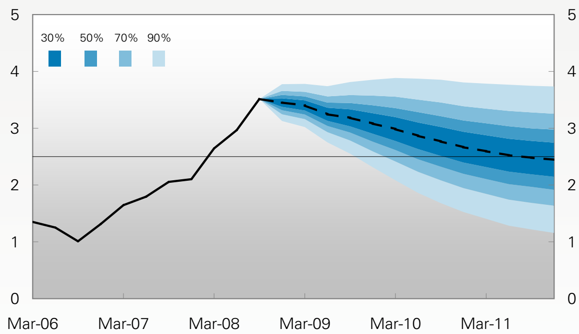
Sources: Statistics Norway and Norges Bank

Chart 1.14c Projected CPI in the baseline scenario with fan chart. 4-quarter change. Per cent. 2006 Q1 – 2011 Q4



Sources: Statistics Norway and Norges Bank

Chart 1.14d Projected CPIXE[1)] in the baseline scenario with fan chart. 4-quarter change. Per cent. 2006 Q1 – 2011 Q4

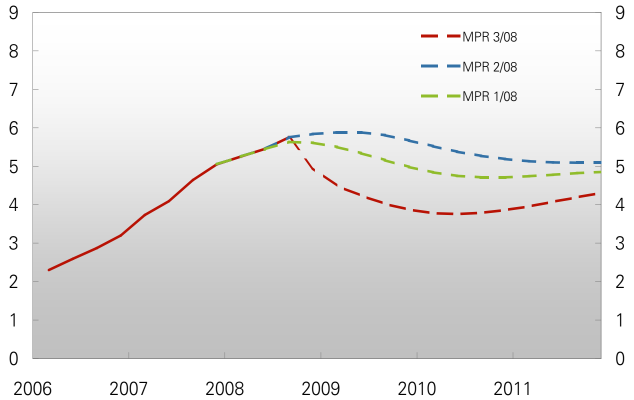


1) CPI adjusted for tax changes and excluding temporary changes in energy prices. See Staff Memo 2008/7 from Norges Bank for a description of the CPIXE.
Sources: Statistics Norway and Norges Bank

summer 2009 (see Chart 1.13). The high rate of increase in consumer prices may trigger demands for compensation in next year's wage settlement, but we believe the slowdown in the Norwegian economy envisaged at present will weigh more heavily when the social partners gather next spring. Wage growth is projected to move down to 4¾% in 2009, which is ¾ percentage point lower than projected in the previous *Report*. At the same time productivity is expected to recover fairly quickly again after a pronounced fall this year, which is normal in this phase of the business cycle. This would then result in lower overall growth in firms' costs ahead and hence lower domestic price pressures. The fall in global commodity prices will probably contribute to curbing the rise in prices for imported goods, while the depreciation of the krone will in isolation contribute to higher imported inflation. A weaker krone will also contribute to underpinning output and employment in the internationally exposed sector and to countering the effects of the fall in commodity prices.

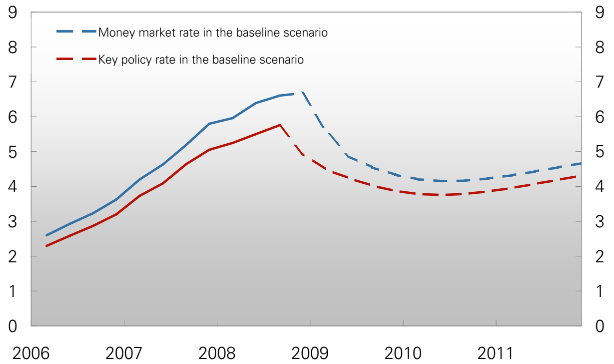
On the whole, the slowdown in the Norwegian economy appears to be occurring faster and to be more pronounced than previously projected. Combined with lower expected key rates abroad, this suggests a lower key rate in Norway as well. Inflation is now high, but the forces that have fuelled inflation have diminished. Even though there are wide fluctuations in the krone exchange rate, probably driven by the unrest in financial markets, we must take

Chart 1.15 Key policy rate in the baseline scenario in MPR 1/08, MPR 2/08 and MPR 3/08. Per cent. 2006 Q1 – 2011 Q4



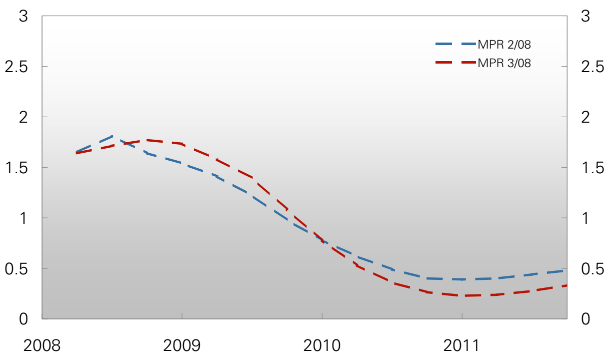
Source: Norges Bank

Chart 1.16 Key policy rate and 3-month money market rate[1] in the baseline scenario. Per cent. 2006 Q1 – 2011 Q4



1) Projected key policy rate including projected risk premium in the 3-month money market rate.
Source: Norges Bank

Chart 1.17 Projected differential between money market rates in Norway and among trading partners in MPR 2/08 and MPR 3/08.[1] Per cent. 2008 Q2 – 2011 Q4



1) Differential between money market rate in baseline scenario and weighted average of trading partners' forward rates in the period 17 October – 23 October 2008.
Source: Norges Bank

into account that a weaker krone over time could lead to higher inflation. When setting the key policy rate, we must also take account of developments in money market rates, other bank funding costs and bank deposit and lending rates. These are the rates that influence household and business behaviour. Since the previous *Report*, money market premiums have increased substantially.

Monetary policy cannot fine-tune developments in the economy, but curb the largest effects when the economy is exposed to shocks. Monetary policy must be predictable. This will have a stabilising effect on output and employment. With confidence in monetary policy, expected inflation over time will be close to the inflation target. This in itself makes a contribution to stabilising inflation and economic developments.

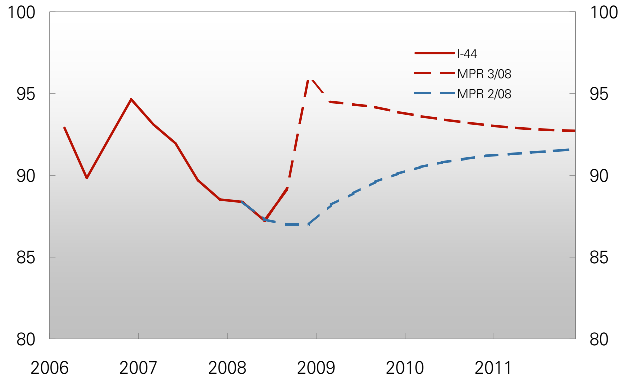
When the economy is exposed to major shocks, as is the case now, it may be important to distinguish between different types of uncertainty in the assessment of monetary policy. Normally, the uncertainty is of a nature that makes it possible to shed light on the probability of various outcomes. In that case, businesses, households and the authorities do not have to give decisive weight to the least probable outcomes. In other words, it is possible to judge the potential risk associated with different decisions, at least to some extent. In a crisis situation such as the present one, we are facing a more fundamental uncertainty where it is very difficult to estimate the probability of different outcomes. In such decision-making situations, it may be appropriate to implement measures that can reduce the uncertainty and stave off a particularly adverse outcome for the economy. This now suggests a more active monetary policy than normal, both in interest rate setting and through liquidity policy measures. Weight is given to moving forward the reduction in the key policy rate so that lending rates for households and firms can gradually be reduced.

Overall, the outlook and the balance of risks suggest that the key policy rate should fairly rapidly be brought down to a lower level than indicated in the previous *Report* (see Charts 1.14a-d). The key policy rate is projected at 3¾% - 4% at the end of 2009. This is about 1¾ percentage points lower than in the previous *Report* (see Chart 1.15). The contributions to the changes in the key rate forecast are discussed in a box on page 20. It is assumed that the premiums in money market rates will edge down somewhat around the turn of the year from the very high levels recently witnessed, but that they will remain high somewhat longer than implied by market pricing. Overall, money market rates are expected to show a larger decline than the key rate (see Chart 1.16). The interest rate differential between Norway and other countries is expected to narrow gradually (see Chart 1.17). The turbulence in financial markets is having an impact on the krone. The krone exchange rate is assumed to appreciate when financial market conditions improve (see Chart 1.18).

When facing such sharp turning points as now, it is essential for stability in inflation, output and employment to give weight to the outlook a few quarters ahead when setting the interest rate. The objective of low and stable inflation is weighed against developments in the real economy (see Chart 1.19). Compared with the projections in June, underlying inflation is now expected to remain somewhat higher in the coming period. At the same time, capacity utilisation is falling at a faster pace. If Norges Bank attempted to bring inflation to target more rapidly, the interest rate would have to be kept markedly higher. This might lead to a more pronounced shift in output and employment, and could influence stability in consumers', price-setters' and market-makers' expectations in many markets. A considerably lower interest rate and a more expansionary monetary policy would have increased the risk of persistently high inflation. This could have resulted in a weaker and more unstable krone. Expectations of continued low and stable inflation in Norway are decisive for stability in the economy.

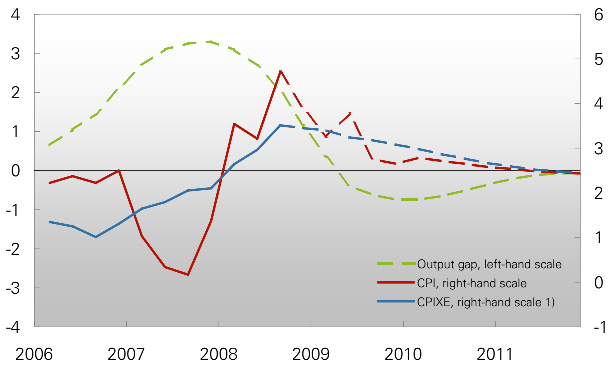
Interest-rate setting can also be assessed using simple monetary policy rules, which roughly prescribe an interest rate path based on actual inflation and output. The interest rate estimates derived from the simple rules are based on the projections for output and inflation in the next few quarters in this *Report*. The Taylor rule applies the output gap and inflation. The growth rule instead applies GDP growth and inflation. The rule involving external interest

Chart 1.18 Import-weighted exchange rate (I-44) in the baseline scenario in MPR 2/08 and 3/08.[1] Index, 1995 = 100. 2006 Q1 – 2011 Q4



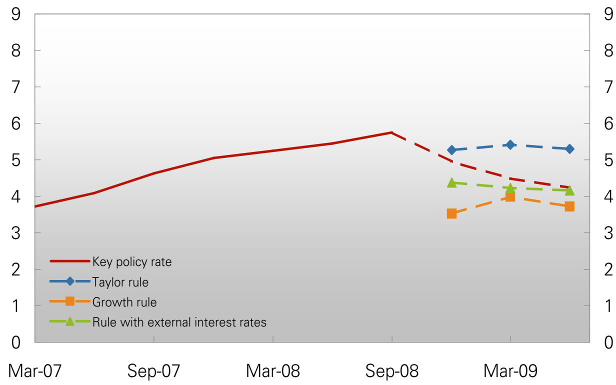
1) A rising curve denotes a weaker krone exchange rate.
The exchange rate path is based on uncovered interest rate parity.
Source: Norges Bank

Chart 1.19 Projected inflation and output gap in the baseline scenario. Per cent. 2006 Q1 – 2011 Q4



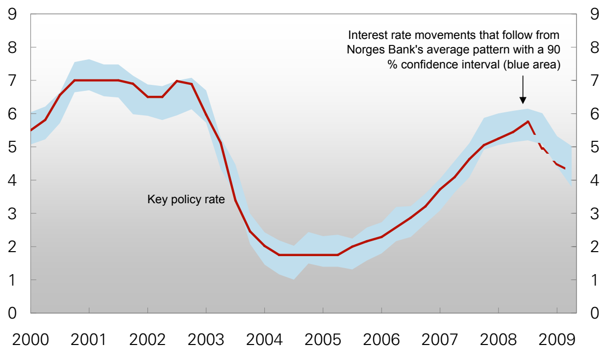
1) CPI adjusted for tax changes and excluding temporary changes in energy prices.
See *Staff Memo* 2008/7 from Norges Bank for a description of the CPIXE.
Sources: Statistics Norway and Norges Bank

Chart 1.20 Key policy rate, Taylor rule, growth rule and rule with external interest rates[1]. Per cent. 2007 Q1 – 2009 Q2



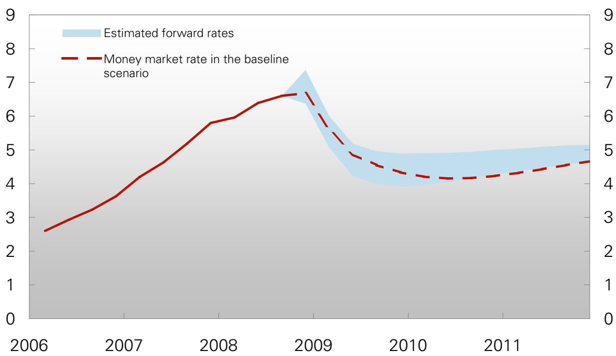
1) The calculations are based on Norges Bank's projections for the output gap, consumer prices adjusted for tax changes and excluding temporary changes in energy prices (CPIXE) and 3-month money market rate. To ensure comparability with the key policy rate the simple rules are adjusted for the risk premium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

Chart 1.21 Key policy rate and interest rate developments that follow from Norges Bank's average pattern of interest rate setting.[1)] Per cent. 2000 Q1 – 2009 Q2



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* 2008/03 for further discussion.
Source: Norges Bank

Chart 1.22 Money market rate in the baseline scenario and estimated forward rates[1)]. Per cent. 2006 Q1 – 2011 Q4



1) Forward rates are based on money market rates and interest rate swaps. The blue interval shows the highest and lowest forward rates in the period 10 October – 23 October 2008.
Source: Norges Bank

rates also takes into account that changes in the interest rate level may result in changes in the exchange rate, thereby influencing the inflation outlook. The simple rules are not forward-looking but only look at current economic developments. The different rules yield somewhat divergent results, but all of them indicate a decline in the interest rate. The interest rate path in this *Report* is somewhat lower than the Taylor rule in the short term, but somewhat higher than the rule involving external interest rates and the growth rule (see Chart 1.20). In the calculations, we have taken account of actual and expected premiums in money market rates. However, the rules do not capture that the supply of credit may now be limited.

Norges Bank has estimated a simple interest rate rule based on the Bank's previous interest rate setting.[1] The rule includes developments in inflation, wage growth, Norges Bank's projection of mainland GDP growth and central bank key rates abroad. The interest rate in the previous period is also important. The key rate is now at the lower end of the interval projected (see Chart 1.21).

Forward interest rates can provide another cross-check of Norges Bank's interest rate forecast. Under certain assumptions about risk premiums, estimated forward interest rates may reflect market interest rate expectations. Estimated forward rates indicate that financial market participants expect a clear interest rate decline (see Chart 1.22). The interest rate forecast in this *Report* is on a par with estimated forward rates.

Uncertainty surrounding the projections

The projections for the key rate, inflation, output, and other variables are based on our assessment of the current situation and our perception of the functioning of the economy. If economic developments are broadly in line with our projections, economic agents can also expect that the interest rate path will be closely in line with that projected. However, the interest rate path may shift if economic prospects change, or if the effect of interest rate changes on inflation, output and employment is different from that assumed.

1 See box in *Inflation Report* 3/04

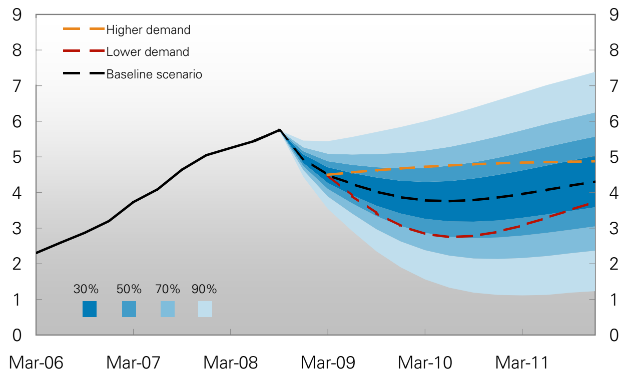
As previously, we have attempted to illustrate the uncertainty surrounding our projections in the fan charts (see Charts 1.14a-d). The width of the fan charts is based on historical disturbances, and therefore expresses the average that covers periods of high and low uncertainty.[2] There is now unusually high uncertainty surrounding future developments in inflation and output and hence surrounding interest rate developments. It is difficult to form a clear view concerning the probability of different outcomes of the ongoing financial crisis.

As a basis for our projections, we have assumed that the situation in financial markets will normalise somewhat in the first half of next year. We believe the crisis will have pronounced effects on growth both abroad and at home. The risk of a substantially deeper and longer cyclical downturn in industrial countries has increased since the financial market turbulence intensified in mid-September. In this *Report*, importance has been attached to conducting analyses that may provide an indication of a range of outcomes for the Norwegian economy. Events may occur ahead that may again change the economic outlook, and Norges Bank will continuously assess the possible implications for monetary policy. The impact may be greater than that experienced in the recent past. Monetary policy can contribute to curbing the effects of shocks to the Norwegian economy, but cannot prevent them.

A deep and protracted global downturn may drag down activity in Norwegian export industries further and have ripple effects on other business sectors. Moreover, the risk of a further fall in oil prices and prices for other Norwegian export goods will increase. This may affect petroleum investment and investment in other business sectors in Norway. High funding costs, limited access to credit, and heightened uncertainty may result in an even sharper fall in domestic demand than projected. Norwegian households may reduce their consumption further and increase saving to build up financial buffers. Overall, this may lead to a pronounced downturn in the Norwegian economy.

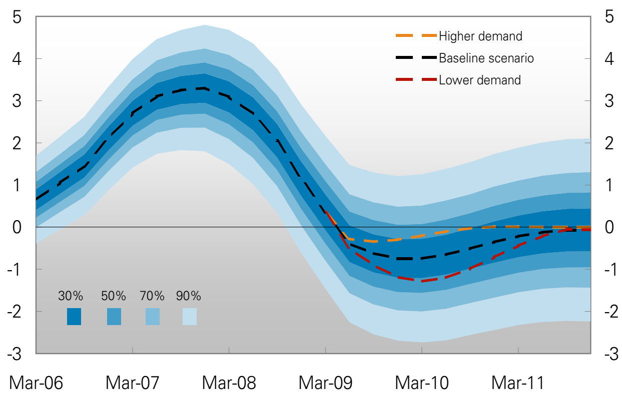
Charts 1.23a-c (red lines) illustrate a scenario where the effects of the financial crisis on the Norwegian economy

Chart 1.23a Key policy rate in the baseline scenario and the alternative scenarios with higher and lower demand. Per cent. 2006 Q1 – 2011 Q4



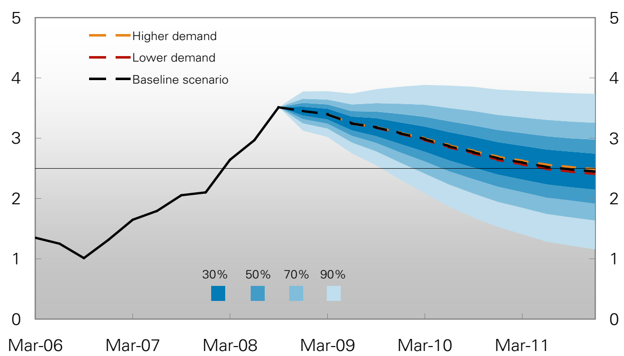
Source: Norges Bank

Chart 1.23b The output gap in the baseline scenario and the alternative scenarios with higher and lower demand. Per cent. 2006 Q1 – 2011 Q4



Sources: Statistics Norway and Norges Bank

Chart 1.23c CPIXE[1)] in the baseline scenario and the alternative scenarios with higher and lower demand. Per cent. 2006 Q1 – 2011 Q4



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

2 A further description of the fan charts is provided in *Inflation Report* 3/05

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.

are more pronounced than projected. In the technical calculations, this has been done by assessing the effects of a further deterioration through winter in the outlook for demand. It will then be appropriate to reduce the key policy rate faster and to a further extent than in the baseline scenario in order to stimulate the Norwegian economy, so that inflation does not become too low.

It is also possible that the effects of the financial crisis prove to be less severe than expected at present. Financial markets conditions may normalise more rapidly and the effects on the world economy may be less pronounced than would appear to be the case at present. The interest rate differential between Norway and other countries will then have a stronger impact on the krone exchange rate and the interest rate.

Charts 1.23a-c (yellow lines) illustrate a scenario where the effects of the financial crisis on the Norwegian economy are more moderate than projected. The projections are based on the technical assumption that the outlook for domestic demand improves through winter. It will then be appropriate to reduce the key policy rate to a lesser extent than in the baseline scenario in order to bring price and cost inflation down towards 2.5%.

Changes in the interest rate path

The interest rate forecast in this *Report* is lower than the forecast in *Monetary Policy Report* 2/08 (see Chart 1).[1] The forecasts are based on an overall assessment of the situation in the Norwegian and global economy 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 path. The calculation is intended to provide 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 in the columns. The overall change in the interest-rate forecast is shown by the black line.

Inflation in Norway has been higher than projected, and the short-term inflation outlook has been revised upwards. In isolation, the consideration of anchoring inflation expectations suggests a higher interest rate at the beginning of the period. The forces that have fuelled inflation have now diminished. Productivity growth is expected to pick up again quickly and wage growth is expected to slow. Even though underlying inflation is now higher, it is moderating somewhat more quickly than assumed in the previous *Report*. This suggests a lower interest rate further out in the period (dark blue columns).

The krone has depreciated. This may gradually lead to higher inflation and increased activity in the Norwegian economy. A weaker krone suggests a higher interest rate (light blue columns). However, a substantial portion of the krone depreciation is assumed to be temporary and to be related to financial market turbulence. Thus the contributions to changes in the interest-rate path will be smaller than if the krone depreciation had been more persistent.

The slowdown in the Norwegian economy appears to be occurring more rapidly and to be more marked than previously assumed. The growth outlook for the global economy has deteriorated substantially. In isolation, this will also contribute to lower activity and demand in the Norwegian economy, and eventually lower price and cost inflation. Household saving is expected to increase, while mainland corporate investment will decline. With falling asset prices and lower expectations with regard to economic developments, the need to build up financial buffers increases. This will result in lower growth in demand than previously projected in the period ahead. Reduced global and domestic demand suggests a lower interest rate (red columns).

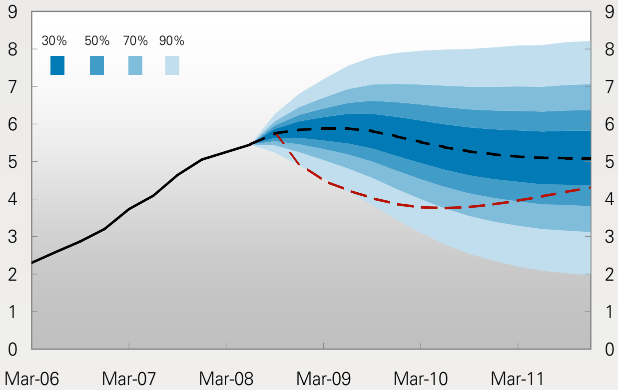
Lower global growth and inflation expectations have resulted in a marked decline in key policy rate expectations among our trading partners. In isolation, this also suggests a lower interest rate in Norway (orange columns).

Money market rates in Norway have risen since the last *Report*, while the key policy rate has been reduced. Interest rate premiums are assumed to remain high ahead. This suggests a lower key policy rate (green columns).

There is an unusually high degree of uncertainty concerning developments ahead and it is difficult to determine probabilities for the different outcomes. In such decision-making situations it may be appropriate to implement measures that can reduce the uncertainty and stave off particularly adverse outcomes for the economy. This now implies a more active monetary policy than normal, both in interest rate setting and through liquidity policy measures, and suggests a lower interest rate. Weight is therefore given to moving forward the reduction in the key policy rate (purple columns).

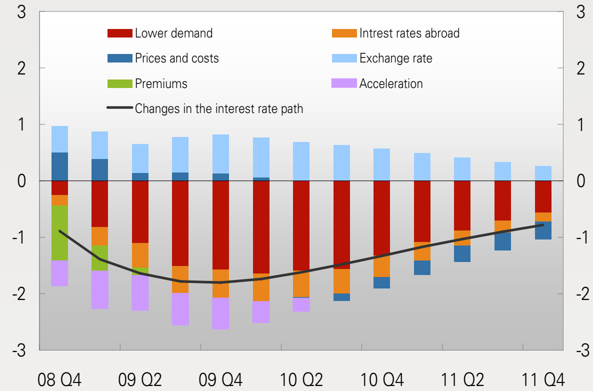
1 Changes in the projections for inflation and capacity utilisation are discussed on page 60.

Chart 1 Key policy rate in the baseline scenario in MPR 2/08 with fan chart and key policy rate in the baseline scenario in MPR 3/08 (red line). Per cent. 2006 Q1 – 2011 Q4



Source: Norges Bank

Chart 2 Factors behind changes in the interest rate path since MPR 2/08. Accumulated contribution. Percentage points. 2008 Q4 – 2011 Q4



Source: Norges Bank

Summary

The effects of the financial crisis will most likely be more pronounced than envisaged only recently. The financial market turmoil has affected household and business confidence in the future and worsened investment and consumption prospects in many parts of the world. Equity prices have declined sharply. Oil and commodity prices have fallen. Money market premiums have increased. Against the background of lower growth and inflation expectations, key interest rates have been reduced in a number of countries.

The slowdown in the Norwegian economy appears to be occurring rapidly and is likely to be pronounced. Combined with expectations of lower central bank interest rates abroad, this implies a lower key rate also in Norway. On the other hand, the krone exchange rate has depreciated substantially. A weaker krone may also contribute to underpinning output and employment in internationally exposed sectors and help counter the effects of the fall in commodity prices. The projections in this *Report* are based on the assumption that the krone gradually appreciates when financial markets conditions improve.

Inflation remains high, but the forces that have fuelled inflation have now diminished. Should the krone remain weak for a long period, inflation may remain high. This may affect inflation expectations and influence interest rate setting. Expectations of low and stable inflation in Norway are decisive for stability in the economy and the effectiveness of monetary policy measures.

There is now unusually high uncertainty surrounding economic developments ahead. It is difficult to provide an indication of the likelihood of different outcomes. In such decision-making situations, it may be appropriate to implement measures that can reduce the uncertainty and stave off a particularly adverse outcome for the economy. This now implies a more active monetary policy than normal, both in interest rate setting and through liquidity policy measures. When setting the key policy rate, we must also take account of developments in premiums in money market rates, other bank funding costs and bank deposit

and lending rates. Weight is given to moving forward the reduction in the key policy rate so that lending rates for households and firms can gradually be reduced.

Monetary policy cannot fine-tune developments in the economy, but curb the largest effects when the economy is exposed to shocks. Overall, the outlook and the balance of risks suggest that the key policy rate should fairly rapidly be brought down to a lower level than indicated in the previous *Report.*

Executive Board's strategy

The key policy rate should be in the interval 4% – 5% in the period to the publication of the next *Monetary Policy Report* on 25 March 2009, unless the Norwegian economy is exposed to new major shocks.

Monetary policy since the previous *Report*

Norges Bank's projections for economic developments in ***Monetary Policy Report*** 2/08 – presented on 25 June 2008 – implied a key policy rate in the interval 5¼% – 6¼% in the period to 29 October 2008, unless the Norwegian economy was exposed to major shocks. The analyses in the ***Report*** implied that the key policy rate might remain at the same level as in June or perhaps somewhat higher in the coming year. The upturn in Norway was entering a new phase. Low inflation and high growth were being followed by somewhat higher inflation and lower growth.

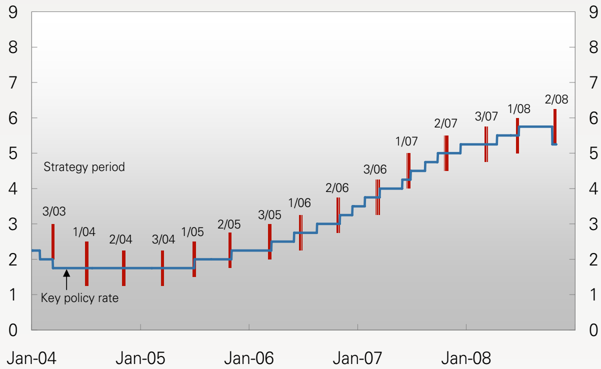
At the monetary policy meeting on 25 June, the Executive Board stated that inflation had been slightly higher than expected and that there were prospects of a further rise. On the whole, underlying inflation was close to, but somewhat higher than 2.5%. Capacity utilisation was still high. Global growth prospects had weakened. At the same time, inflation had picked up in many countries, and interest rate expectations abroad had shown a marked upward shift. Money market rates were considerably higher than developments in central bank key rate expectations would normally imply. Weaker global and domestic growth prospects could in isolation have suggested that the interest rate should be kept unchanged. The increase in inflation, prospects of rising inflation and the consideration of anchoring inflation expectations close to the inflation target nevertheless indicated that the key policy rate should be raised to 5.75%.

At the monetary policy meeting on 13 August, the Executive Board noted that inflation had picked up and that it was likely to remain high over the coming year. Underlying inflation had been higher than expected and appeared to be close to 3½%. The krone was somewhat weaker than expected. On the other hand, growth in the world economy had slowed markedly. Expectations concerning future inflation had been lowered. Combined with lower growth prospects, this had led to a downward adjustment of market expectations concerning central bank interest rates. Capacity utilisation in the Norwegian economy was still high, but there were also, as expected, signs of slower growth in the Norwegian economy. The key policy rate was kept unchanged at 5.75%.

At the monetary policy meeting on 24 September, the Executive Board emphasised that underlying inflation was higher than expected and well above the inflation target. At the same time, there were clear signs that economic growth was slowing. There was an unusually high degree of uncertainty linked to the turbulence in financial markets. There were wide daily swings in money market rates, equity prices, the krone exchange rate and oil and commodity prices, and it was difficult to determine how long this pressure would last and the effects on inflation and activity in the Norwegian economy. An overall assessment indicated that it was appropriate to maintain the interest rate unchanged at 5.75% at this meeting.

An extraordinary monetary policy meeting was held on 15 October. The crisis in international financial markets had deepened and would therefore have greater effects on the Norwegian economy. Despite comprehensive measures by the authorities, the problems that arose in the US banking system had spread to most markets and countries, particularly after 15 September. Many countries had lowered their key rates. The Norwegian economy was exposed to fairly major shocks. The slowdown in the Norwegian economy appeared to be occurring faster and to be more pronounced than previously projected. Inflation remained high, but the forces that had fuelled inflation had diminished. It had become more expensive and to some extent more difficult for banks, enterprises and households to obtain funding. Banks had increased their lending rates. Pricing in the market indicated that interest rate premiums might remain high for a period ahead and that it would take time to restore confidence between banks. Credit channels had dried up. The most robust approach was considered to be to implement measures that could reduce the uncertainty and stave off particularly adverse outcomes for the economy. This implied a more active monetary policy than normal, both in interest-rate setting and through liquidity policy measures. The key policy rate was reduced by 0.50 percentage point to 5.25%.

Chart 1 Interval for the key policy rate at the end of each strategy period and actual developments.[1] Per cent.
2 January 2004 – 29 October 2008



1) The Executive Board's decision of 29 October is not shown in the chart (see Table on page 75).
Source: Norges Bank

2 The global economy, financial markets and commodity markets

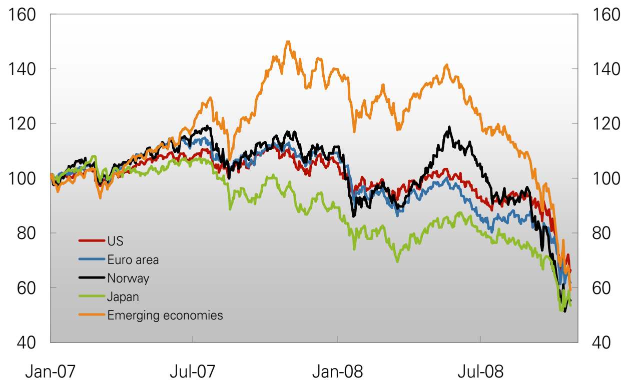
Turbulent autumn in financial markets

The crisis in financial markets has deepened considerably since the summer. Since *Monetary Policy Report* 2/08, both global equity indices and the Oslo Stock Exchange have plummeted, the latter falling by more than 50% during the period (see Chart 2.1). A number of banks in the US and Europe have had such extensive problems that they have been taken over by other banks or partially nationalised.

Investor confidence in banks has declined. Interbank lending has also fallen sharply. Banks have largely held on to their money and are reluctant to lend to each other. This has led to a marked increase in money market rates, to levels considerably higher than central bank interest rates. This effect has been particularly visible in the US, but European money market rates have also risen sharply. The flow of dollars between banks has dried up at times. In particular, there has been a shortage of dollar liquidity during European business hours. Authorities worldwide have taken steps to restore market confidence in financial stability (see box on page 56).

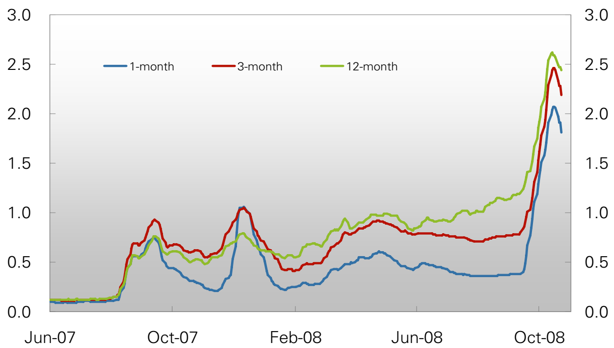
The spread between money market rates and expected key rates has widened substantially for all maturities (see Chart 2.2). The increase in risk premiums was particularly sharp after Lehman Brothers was forced to file for bankruptcy protection in mid-September. Three-month money market rates in the US have been more than 3 percentage points above the expected federal funds rate. Market pricing suggests that premiums are expected to fall somewhat in the coming quarters. Premiums are nevertheless expected to be higher than normal into 2010. This is a reflection of market participants' belief that it will take time for confidence in banks to be restored, and a decrease in risk appetite.

Chart 2.1 Developments in equity markets. Index. 1 January 2007 = 100. 1 January 2007 – 23 October 2008



Source: Thomson Reuters

Chart 2.2 Spreads between money market rates and expected key policy rates[1] for different maturities. Average for the US, the euro area and the UK. Percentage points. 5-day moving average. 1 June 2007 – 23 October 2008



1) The expected key policy rate is derived from the Overnight Index Swap (OIS).
Sources: Bloomberg and Norges Bank

Chart 2.3 CDS prices for companies in US and the euro area[1]. Basis points. 1 January 2007 - 23 October 2008

1) Companies with investment grade rating.
Source: Bloomberg

The NIBOR market

Norges Bank's key policy rate, the sight deposit rate, is the interest rate on banks' deposits in the central bank. The sight deposit rate forms a floor for short-term money market rates. The money market is an important source of funding for Norwegian banks. Banks that are active in the Norwegian money market raise loans in US dollars and exchange them for NOK. This is called the NIBOR market. Since the mid-1980s both Norwegian and foreign banks have used the NIBOR market to procure NOK liquidity.

Norwegian money market rates are set in the NIBOR market. The price of a loan in NOK depends on two factors. The first is the price of borrowing US dollars, the LIBOR rate. The second is the difference between the price for exchanging US dollars for NOK at the time the loans are raised and converting to US dollars again at maturity. This difference is called the forward premium.

NIBOR rate = LIBOR rate + forward premium

Changes in central bank key rate expectations in Norway or the US will affect the forward premium. Movements in the LIBOR rate owing to changes in expectations concerning the US federal funds rate will normally be matched by a corresponding change in the forward premium. The NIBOR rate will in that case not change. A large proportion of the change in the LIBOR rate over the past year stems from higher risk premiums in the US money market. These higher risk premiums have spilled over into the NIBOR market. Risk premiums have also increased in countries with money markets based on their own currency, for example Sweden. As the interest rate on the US dollar is included directly in the setting of Norwegian money market rates, the pass-through to Norwegian rates has been faster and more pronounced.

In credit markets, risk premiums remain high in both Europe and the US. Prices for bond credit default insurance (CDSs) are also considerably higher than at the end of June for both banks and other enterprises (see Chart 2.3). Higher risk premiums have led to higher funding costs for banks and other enterprises in Norway.

Central banks in both Europe and the US have injected large amounts of liquidity into the banking system. The lending facilities for banks have also been expanded. For example, loans are being issued with longer maturities than earlier, and a wider range of securities are being accepted as collateral for these loans. A number of central banks, including Norges Bank, have entered into credit agreements with the Federal Reserve so that they can lend US dollars in their markets. To improve banks' access to funding, the authorities in a number of countries are guaranteeing loans extended to banks. The terms of these guarantees vary from country to country. In the US, the Federal Reserve is also lending directly to enterprises because of their limited access to short-term funding. The Federal Reserve provides these loans by purchasing commercial paper issued by the enterprises.

Risk premiums abroad are feeding through to the Norwegian market. Norwegian money market rates have increased markedly, partly because dollar rates are included when setting these rates (see box on this page). If Norwegian banks do not have sufficient access to dollar liquidity it can be difficult for banks to quote prices. Norges Bank has therefore lent dollars to Norwegian banks in several phases. The global financial turmoil has also led to reduced activity in the Norwegian money market. Norges Bank has recently issued large loans in NOK so that Norwegian banks' aggregate liquidity is higher than normal, thereby reducing their need to borrow from each other. The Storting has also approved a scheme allowing banks to swap Norwegian covered bonds for government securities. NOK 350bn has been allocated for this scheme. The government securities can be used as a guarantee for deposits, as collateral for loans, or can be sold on (see box on page 11).

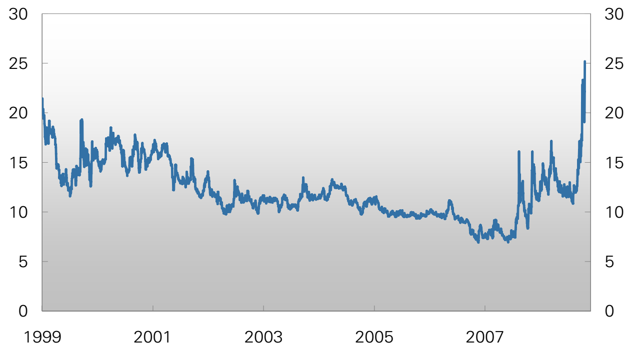
The crisis in global capital markets have resulted in expectations of very low growth in a number of countries, and a drop in prices for many commodities has eased inflation expectations in industrial countries since summer. Expectations of future central bank interest rates have therefore fallen markedly in both the US and Europe. Interest rate expectations in Norway have also fallen sharply. Money market rate expectations in Norway one year ahead are around 2½ percentage points lower than at the time of the previous *Report*. Expected risk premiums on money market rates are considerably higher in the short term than at the time of the previous *Report*. Risk premiums are expected to edge down around the turn of the year.

Fluctuations in exchange rates have increased markedly as a result of the financial turmoil. Volatility between the main currencies is at record-high levels (see Chart 2.4). The US dollar has appreciated from low levels. This has coincided with a deterioration in the growth outlook of countries other than the US and a sharp drop in oil prices. Greater uncertainty about future exchange rates has caused investors to reduce their exposure to the foreign exchange market. While some investors previously borrowed in low-yielding currencies to invest in high-yielding ones, there is now increased interest in investing in more liquid or domestic currencies. Since June, low-yielding currencies such as the Japanese yen and Swiss franc have strengthened, while high-yielding ones such as the Australian and New Zealand dollars have weakened (see Chart 2.5).

The Norwegian krone has depreciated markedly since the publication of the previous *Report* (see Chart 2.6). There have been substantial movements in the exchange rate and the depreciation has been particularly pronounced since mid-September. This has coincided with increased concern and uncertainty linked to the problems in the financial sector. The krone has depreciated by 40% against the US dollar and 15% against the euro. By historical standards, the krone has weakened significantly more than movements in interest rate differentials and oil prices would imply.[1] Lower risk appetite has led investors to reduce their exposure to less liquid currencies such as

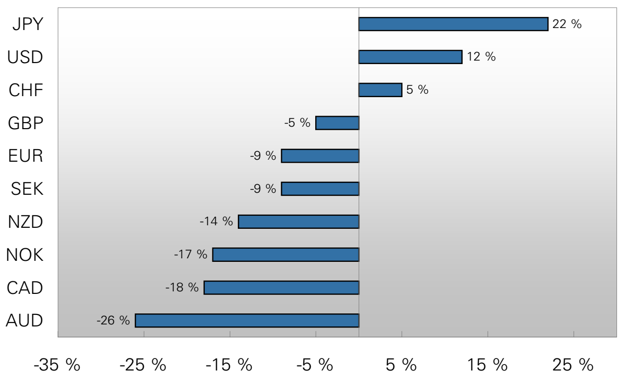
1 See box on page 46 of ***Monetary Policy Report*** 1/08 for a discussion of a model where oil prices and interest rate differentials help explain movements in the krone exchange rate.

Chart 2.4 Global Risk Index (GRI)[2]. Expected volatility between USD, EUR and JPY in per cent. 4 January 1999 – 23 October 2008



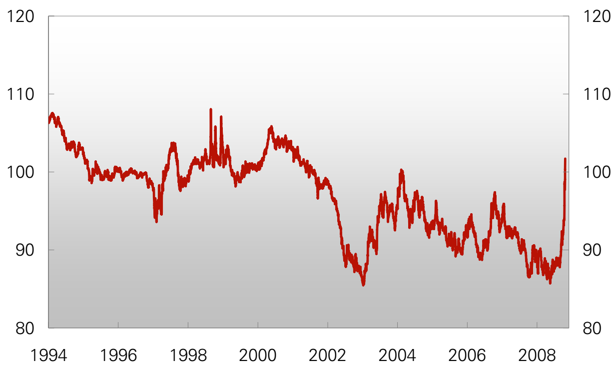
1) The GRI reflects uncertainty in currency markets by weighting implied volatility from options on exchange rates between the USD, EUR and JPY. See Economic Bulletin 3/2000 for a more detailed account.
Sources: Thomson Reuters and Norges Bank

Chart 2.5 Changes in effective exchange rates since MPR 2/08[1]



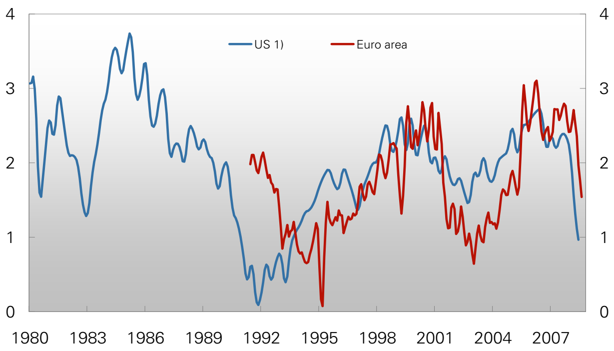
1) Positive (negative) figure denotes a stronger (weaker) exchange rate.
Sources: Bloomberg and Norges Bank

Chart 2.6 Import-weighted exchange rate I-44[1].
3 January 1994 - 23 October 2008



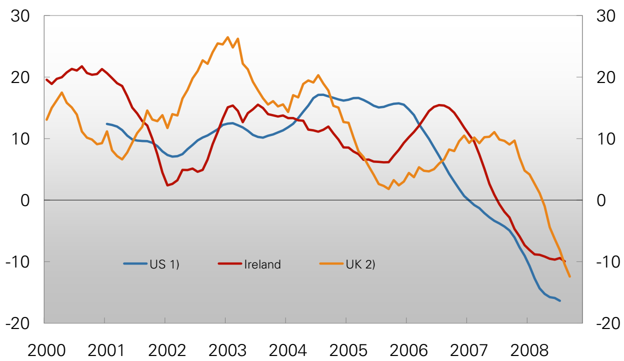
1) A rising curve denotes a weaker krone exchange rate
Source: Norges Bank

Chart 2.7 Loans to private sector. Change over the last three months. Three month moving average. Per cent. January 1980 – August 2008



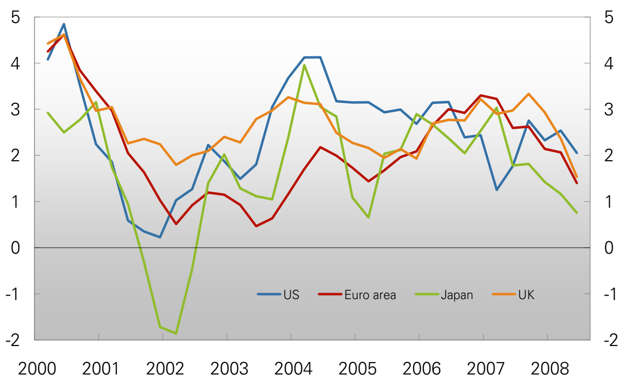
1) Converted from quarterly data.
Sources: Thomson Reuters and Norges Bank

Chart 2.8 House prices. 12-month change. Per cent. January 2000 – September 2008



1) Case-Shiller 20 metro areas.
2) Nationwide Building Society.
Sources: Thomson Reuters and Norges Bank

Chart 2.9 GDP in industrial countries. 4-quarter change. Per cent. 2000 Q1 – 2008 Q2



Sources: Thomson Reuters and Norges Bank

the Norwegian krone. Norway's current account deficit, adjusted for transfers to the Government Pension Fund – Global and oil companies' estimated cash surplus,[2] may also have contributed to a weaker krone. Looking ahead, movements in the krone exchange rate are likely to be influenced primarily by the situation in global financial markets.

Prospect of markedly lower growth

The financial turmoil is weakening the outlook for investment and consumption in many parts of the world. Losses and structural changes in the financial sector mean that, for a period ahead, many and large financial institutions will be seeking to increase their interest margins and charges, scale back their lending, and take less risk. Credit standards have been tightened, especially in the US and the UK, but also in the euro area. Credit growth is slowing (see Chart 2.7), and the interest rates charged to households and enterprises remain high. Financial institutions in emerging market economies (EMEs) have had little direct involvement in the financial crisis. Reduced risk appetite among foreign investors and a weaker growth outlook have nevertheless led to falling equity prices, reduced capital inflows, and lower volumes of debt issues. Credit growth is also slowing in EMEs.

Tighter lending standards among financial institutions are exacerbating the decline in house prices in a number of countries. House prices in the US have been falling since the second quarter of 2006 (see Chart 2.8). The number of non-performing mortgages is rising, and many homes have been repossessed by lenders, which may lead to a further drop in prices. Real house prices are also falling sharply in many other OECD countries. The price falls are undermining activity in construction sectors, and are also eroding the value of the collateral that households can use for borrowing, thereby reducing the potential to finance consumption by borrowing against homes. Developments in housing markets are decreasing the value of financial institutions' collateral, and new loan losses

2 The adjusted current account, the basic balance, is defined here as the surplus on the current account adjusted for the year's transfers to the Government Pension Fund – Global and the portion of oil companies' foreign currency revenue that is retained in foreign currency (see box in *Inflation Report* 3/04). The basic balance is a very uncertain variable, but is estimated at around NOK -87bn in 2008

resulting from housing may necessitate a further tightening of lending standards.

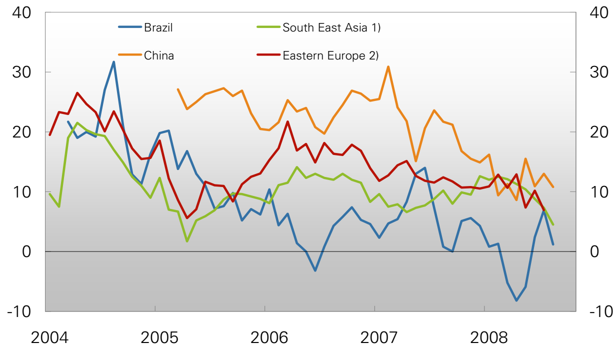
The rapid increase in energy and food prices up to last summer has reduced real income and household demand in both industrial countries and EMEs. Energy and food commodity prices have fallen back sharply since summer. As this feeds through to consumer prices, the decrease in real income may moderate. The prospect of lower inflation also provides greater scope for the use of policy measures to counter lower growth in the real economy in both industrial countries and EMEs.

We anticipate very low growth in economic activity in the US ahead. Growth may be negative in the coming quarters. The impact of the tax rebates on private consumption has probably almost been exhausted. Dwindling employment, stagnating wage growth, falling house and equity prices, and tighter lending standards will depress household consumption. The financial turmoil, a stronger dollar, and slower growth in other countries will put a damper on US exports and business investment.

The financial turmoil is also contributing to a clear drop in economic growth in Europe (see Chart 2.9). Both household and business confidence has fallen. High consumer price inflation and a sharp decrease in the value of financial assets are curbing household demand. Business investment is being eroded by tighter credit standards and lower profitability. Growth may also be negative in many European countries in the coming quarters.

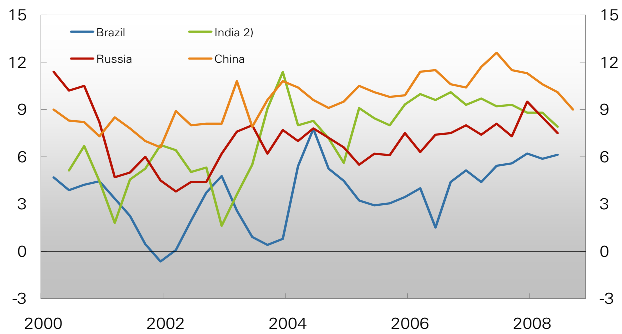
Growth has slowed markedly in newly industrialised countries in Asia. The economic downturn has also become more pronounced in EMEs, partly in the form of weaker export growth (see Chart 2.10). GDP growth has held up well in Brazil, but has slowed in Russia, India and China (see Chart 2.11). In several EMEs, economic growth is being hampered by lower market growth in other countries and more difficult funding conditions. Funding costs have risen, particularly in EMEs with current account deficits. Many EMEs in Asia and Latin America have current account surpluses and solid public finances. In recent years, they have reduced their foreign

Chart 2.10 Emerging economies. Export volume. 12-month change. Three-month moving average. Per cent. January 2004 – August 2008



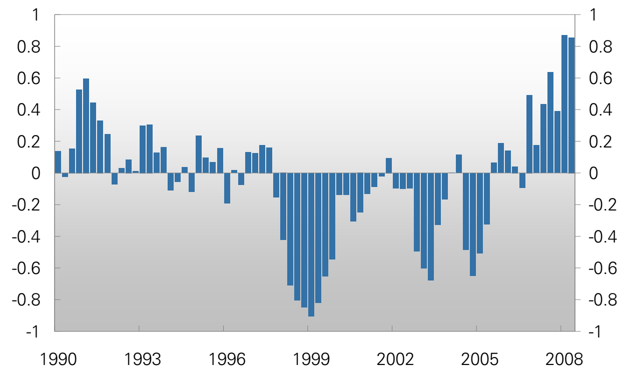
1) Hong Kong, South Korea, Singapore, Thailand and Taiwan.
2) Poland, Czech Republic and Hungary.
Sources: Thomson Reuters, CEIC and Norges Bank

Chart 2.11 GDP in BRIC countries[1]. 4-quarter growth. Per cent. 2000 Q1– 2008 Q3



1) Brazil, Russia, India and China.
2) Factor costs.
Sources: Thomson Reuters and Norges Bank

Chart 2.12 G7 countries. Contribution from net exports to GDP growth. Percentage points. 1990 Q1 – 2008 Q2



Sources: OECD and Norges Bank

Chart 2.13 China. House prices and building activity indicator. January 2005 – September 2008

Source: Thomson Reuters

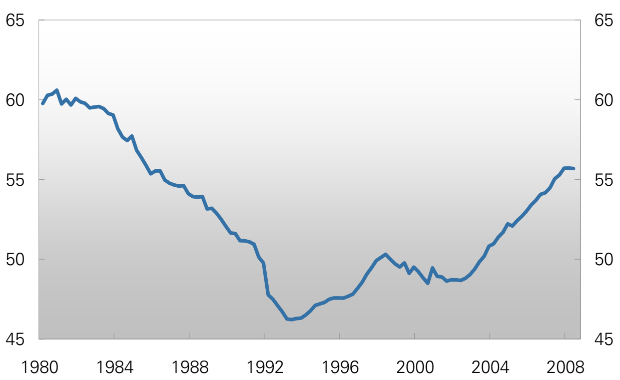
Table 2.1 Projections of GDP growth in other countries. Change from previous year. Per cent

	2008	2009	2010-2011 1)
US	1½	-½	2¼
Euro area	1	0	1¾
Japan	½	¼	1¼
UK	1	-½	2
Sweden	1¼	¼	2¼
China	9½	8½	8¾
Trading partners 2)	1¾	½	2¼

1) Average annual growth.
2) Export weights, 26 trading partners.

Sources: Eurostat and Norges Bank

Chart 2.14 US. Equity ratio for non-financial non-farm corporations. Per cent. 1980 Q1 – 2008 Q2



Sources: Thomson Reuters and Norges Bank

debt and increased their foreign exchange reserves. These countries are therefore in a better position to cope with lower export revenues than during previous global downturns. As a result of strong domestic demand in EMEs, the contribution from net exports to GDP growth in the G7 countries[3] is larger now than during the downturns of the early 1990s and 2000s (see Chart 2.12).

In China, export growth is falling due to low market growth. We expect weak growth in the OECD countries to put a damper on the upturn in China. A weakening housing market may also reduce growth in private consumption and investment (see Chart 2.13). We nevertheless assume that continued strong growth in domestic demand will partially compensate for reduced external demand.

Developments in financial markets, especially in the past month, have markedly worsened the outlook for global economic growth. The deterioration in housing markets points to the same. In isolation, the drop in commodity prices since the previous *Report* is improving the outlook. All in all, our projections for economic growth among our trading partners have been revised down by around ½ percentage point to 1¾% in 2008 and by 1½ percentage points to ½% in 2009 (see Table 2.1). We anticipate particularly low growth up to autumn 2009.

Against the background of the global financial crisis, these projections are associated with a high degree of uncertainty. If risk premiums on lending and the tightening of credit standards for enterprises and households increase further and persist longer than assumed, the consequences for the real economy will be greater than envisaged at present. The recent turmoil may also cause more households to quickly reverse several years of debt accumulation, especially in the US and the UK, in which case consumption may be substantially reduced. On the other hand, official measures to ease the effects of the crisis may have an impact more quickly than we have assumed in our projections. Households in the euro area have a solid financial position, and the same applies to non-financial enterprises in the US (see Chart 2.14). Real interest rates

3 The US, Japan, Germany, France, the UK, Italy and Canada.

are lower than during previous downturns, and EMEs in Asia and Latin America appear to be more robust.

High inflation expected to ease

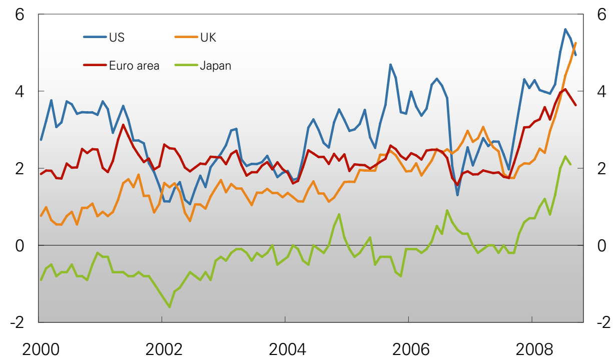
Consumer price inflation picked up in the period to summer in industrial countries. However, in the past few months, inflation has slowed somewhat in most countries (see Chart 2.15). Energy and food prices, which have pushed up consumer price inflation over the past couple of years, are now falling. Producer prices are still rising sharply.

Excluding energy and food, there has been little change in consumer price inflation over the past few years in industrial countries. The rise in labour costs has been moderate (see Chart 2.16). Strong growth in EMEs has contributed to commodity shortages and a sharp rise in prices for a number of commodities, and high overall consumer price inflation in industrial countries. On the other hand, policy reforms in a number of industrial countries and intensified competition from low-cost countries have contributed to more flexible labour and product markets. As a result, the sharp increases in energy and food prices have not to any extent been compensated by higher wage growth and a higher rise in prices for other goods and services. The second-round effects of higher commodity prices have therefore been limited.

In addition, weaker growth prospects and the fall in prices for oil and other commodities have reduced the risk that rising inflation in the period to summer 2008 will spill over into inflation expectations and hence lead to persistently higher inflation. Since summer, household inflation expectations have declined in both the short and longer term. Prices for inflation-linked bonds indicate that long-term inflation expectations (five-year inflation expectations five years ahead) in the US and the euro area have fallen markedly since the previous *Report* (see Chart 2.17).

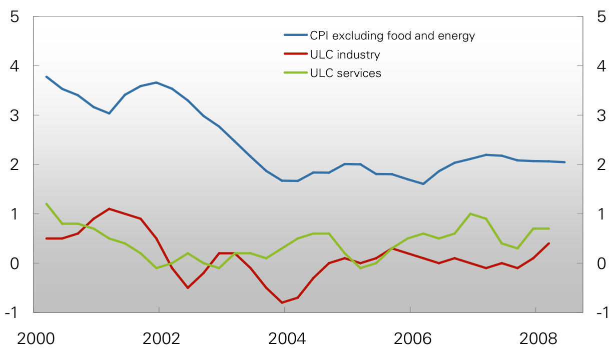
In EMEs and developing countries, inflation has risen at a faster pace than in industrial countries. In these countries, inflation has primarily been fuelled by the sharp rise in food prices, but has also been influenced by higher energy

Chart 2.15 Consumer prices in industrial countries. 12-month change. Per cent. January 2000 – September 2008



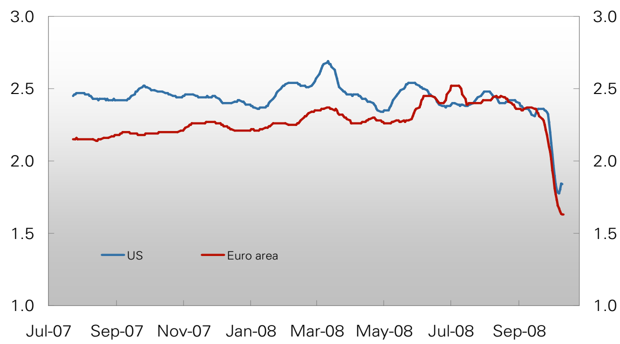
Source: Thomson Reuters

Chart 2.16 Consumer prices (CPI) excluding food and energy, and unit labour costs (ULC) in OECD countries. 4-quarter change. Per cent. 2000 Q1 – 2008 Q2



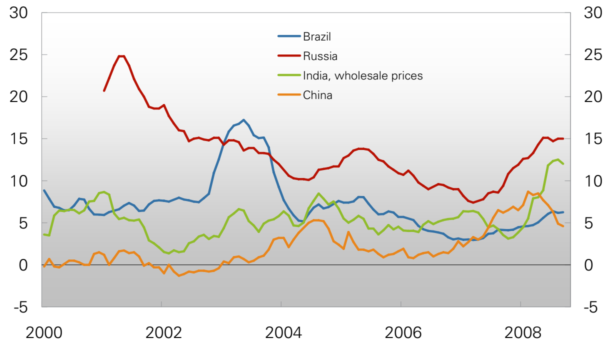
Sources: OECD and Norges Bank

Chart 2.17 Market participants' long-term inflation expectations.[1] Per cent. 23 July 2007 – 11 October 2008



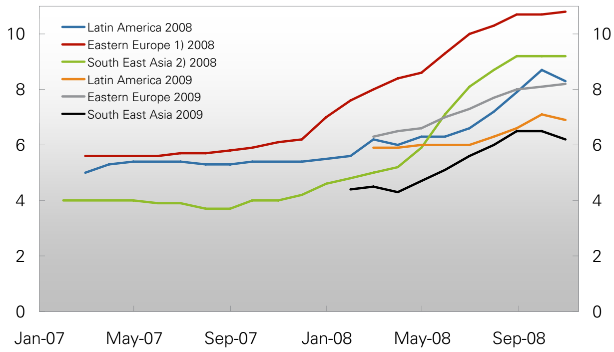
1) 5 years in 5 years. 10-day average of daily observations.
Sources: Thomson Reuters and Norges Bank

Chart 2.18 Consumer prices in BRIC countries[1]. 12-month change. Per cent. January 2000 – September 2008



1) Brazil, Russia, India and China.
Source: Thomson Reuters

Chart 2.19 Emerging markets. Consensus Economics' consumer price inflation forecasts for 2008 and 2009. Per cent. January 2007 – October 2008



1) Eastern Europe includes Russia.
2) Indonesia, Malaysia, Singapore, Thailand, the Philippines and Vietnam.
Source: Consensus Economics

Table 2.2 Projections of consumer prices in other countries. Change from previous year. Per cent

	2008	2009	2010-2011[1]
US	4½	2	1¾
Euro area[2]	3½	1¾	2
Japan	1½	¾	¾
UK	4	3	2
Sweden	3¾	2¼	2
China	6½	4½	4
Trading partners[3]	3¾	2¼	2

1) Average annual rise.
2) Weights from Eurostat (each country's share of total euro area consumption).
3) Import weights. 26 trading partners.
Sources: Eurostat and Norges Bank

prices and little spare production capacity after several years of high economic growth. In some countries, subsidies and other price-regulating measures have curbed the effect of higher commodity prices on consumer prices for energy and food. A number of countries have scaled back these measures over the past six months. Earlier price rises in commodity markets may therefore continue to push up consumer prices in these countries for a period. The recent exchange rate depreciations in many EMEs may also contribute to higher inflation.

In recent months, consumer price inflation has stabilised in Brazil, Russia and India (see Chart 2.18). Inflation in China has decreased markedly, particularly for food prices. In many EMEs, including the BRIC countries, wage growth is high. Yet in China, wage growth has edged down. According to Consensus Forecasts, most analysts have in the past year revised up their inflation forecasts for EMEs for this year and next (see Chart 2.19).

Our projections are based on prices for oil and other commodities moving in line with futures prices and remaining at a lower level than in the first half-year. It is also assumed that inflation expectations in industrial countries are still firmly anchored, limiting second-round effects in price formation. Weaker economic growth will make it more difficult for businesses to raise prices and for employees to achieve high pay increases. Since inflation has been higher than expected so far this year, we have nonetheless revised up projected consumer price inflation among our trading partners in 2008 by ¼ percentage point to 3¾%. The inflation projection for 2009 has been revised down by ¼ percentage point to 2¼%. The projections imply that the year-on-year rise in consumer prices among our trading partners as a whole will edge down from the fourth quarter this year.

Sharp fall in energy and commodity prices

The price of Brent Blend oil has fallen by USD 69 since the previous *Report*. The average price so far in October is USD 76 per barrel, approximately the same as in summer 2007.

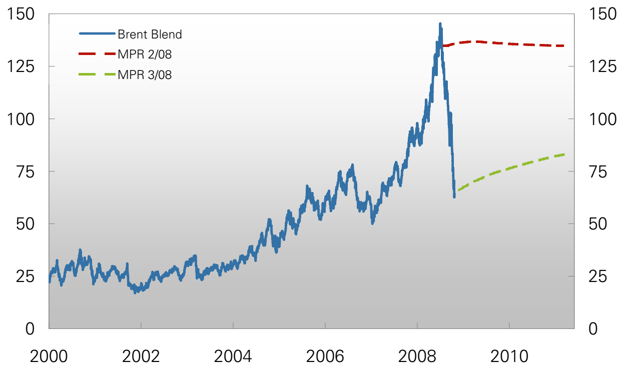
The projections in this *Report* are based on oil prices moving in line with futures prices. These prices indicate that oil prices will be somewhat lower in the next two years than the average for 2008 (see Chart 2.20), around USD 60 lower than assumed in the previous *Report*.

Growth in oil demand has slowed, reflecting weaker economic prospects and probably also changes in corporate and household behaviour after the sharp rise in prices in the period to summer. In addition, non-OPEC oil production is expected to increase. OECD oil inventories may therefore rise in the period to end-2008 and in 2009. At the same time, there are prospects that OPEC will have more spare production capacity in 2009 (see Chart 2.21). A stronger US dollar, heightened uncertainty, and reduced risk willingness and capacity among financial investors in oil futures markets have also exerted downward pressure on oil prices.

OPEC increased production last summer, but decided on a reduction in September. If production is not reduced further, OECD oil inventories may increase more quickly than previously assumed. Oil prices may then fall further. OPEC is expected to decide on new cuts in production at OPEC's extraordinary meeting on 24 October.

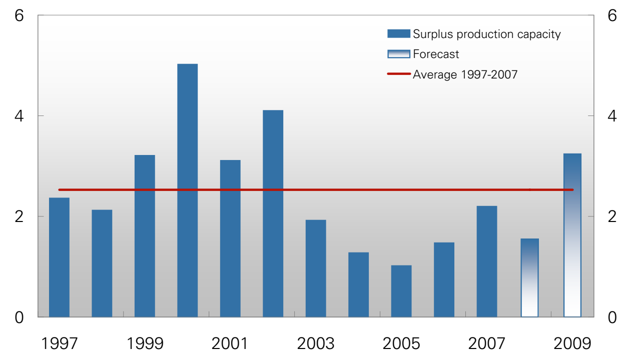
An average of analysts regularly surveyed by Bloomberg expected in the second half of October that oil prices in 2009 and 2010 would be somewhat higher than futures prices. On the other hand, US options prices for oil implied that participants in this market considered that the probability that oil prices would fall below USD 50 was about the same as the probability that they would exceed USD 90 at end-2009.

Chart 2.20 Oil price (Brent Blend) in USD per barrel.
3 January 2000 – 23 October 2008.
Futures prices (broken lines). 20 June 2008 (August 2008 – March 2011) and 23 October 2008 (December 2008 – May 2011)



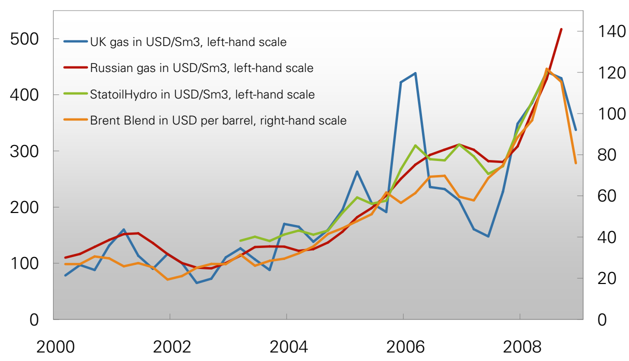
Sources: Thomson Reuters and Norges Bank

Chart 2.21 OPEC surplus crude oil production capacity. Million barrels per day. 1997 – 2009[1)]



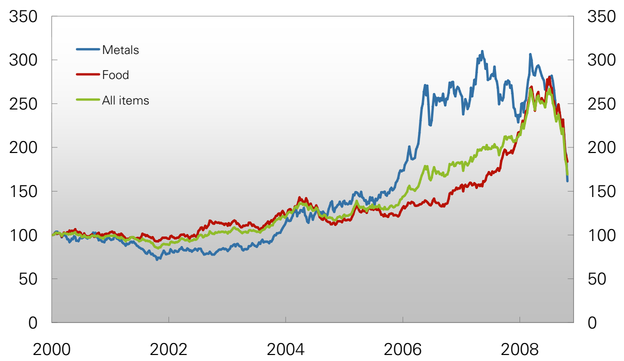
1) Forecast for 2008 and 2009.
Source: Energy Information Administration

Chart 2.22 Prices for natural gas and crude oil. 2000 Q1 – 2008 Q4[1)]



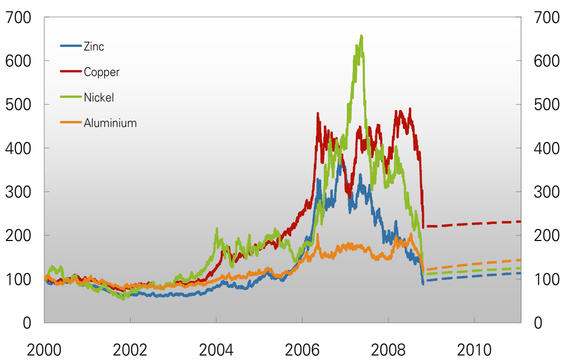
1) For 2008 Q4 the average of daily figures from 1 October to 23 October are used for Brent Blend and UK gas.
Sources: Statistics Norway, Thomson Reuters, StatoilHydro, IMF and Norges Bank

Chart 2.23 International commodity prices in USD. Index. Week 1 2000 = 100. Week 1 2000 – week 43 2008



Sources: Thomson Reuters and *The Economist*

Chart 2.24 Metal prices in USD. Index. 4 January 2000 = 100.
4 January 2000 – 23 October 2008. Futures prices from 23 October 2008 (broken lines).
December 2008 – February 2011



Sources: Thomson Reuters and Norges Bank

In July this year, the International Energy Agency (IEA) presented oil market forecasts for the period to end-2013.[4] According to the IEA, non-OPEC supply will increase in the years ahead. The downturn in the global economy and high oil prices will curb oil demand. The outlook for the world economy has deteriorated further since the IEA released its report. The demand for OPEC oil is therefore likely to be more subdued over the next few years.[5]

When economic growth eventually recovers, oil demand will increase. Continued industrialisation, urbanisation and higher consumption will result in strong growth in demand from non-OECD countries. However, the IEA envisages that growth in non-OPEC supply will not persist. In addition, with steadily higher costs linked to new oil projects in these countries, OPEC may be able to keep oil prices high.

Prices for Norwegian gas have continued to rise (see Chart 2.22). Norwegian gas is mostly sold on long-term contracts where prices track oil product prices with some lag. Some Norwegian gas is sold at market prices in the UK, where gas prices have fallen, albeit far less than oil prices. Prices for Norwegian gas are expected to fall as the decrease in oil prices passes through to gas prices in continenal Europe and in the UK.

Prices for other commodities have also declined from high levels since the previous *Report* (see Chart 2.23). *The Economist* commodity-price index has fallen by 32% in USD terms. The sub-index for industrial metals has decreased by 31%. Lower metal prices reflect prospects for lower growth in the global economy. Stocks of industrial metals listed on the London Metal Exchange (LME) have risen through summer and into autumn. Forward prices indicate that market participants expect industrial metal prices to remain at the current level in the years ahead (see Chart 2.24).

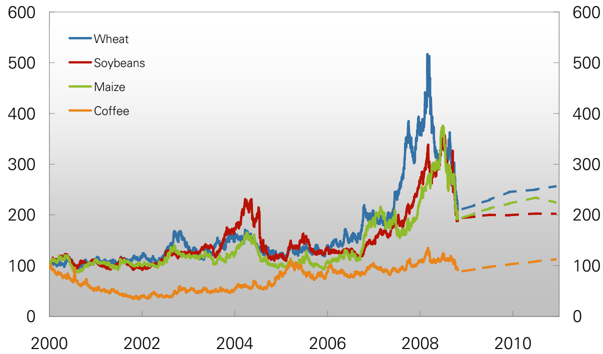
4 International Energy Agency: ***Medium-Term Oil Market Report (MTOMR)*** - July 2008
5 The demand for OPEC oil – or 'call on OPEC' – is global demand for oil less non-OPEC supply and less OPEC production of NGLs and condensates. The latter is also deducted because OPEC production quotas include crude oil production. When OPEC produces more (less) than the Call on OPEC, inventories increase (fall).

Food prices have fallen in recent months. *The Economist* food-price index has declined by 32% since the previous *Report*, primarily because production has increased. An increase in cultivated area and favourable weather conditions this season will probably result in high yields, particularly for cereals. As the use of food crops in biofuel production has increased, oil prices have had a greater impact on food prices. The decline in oil prices has also contributed to lower food prices.

Forward prices indicate that market participants expect food prices to rise somewhat in the years ahead (see Chart 2.25). Continued solid growth in demand for food from EMEs and increased use of biofuels may contribute to holding up prices.

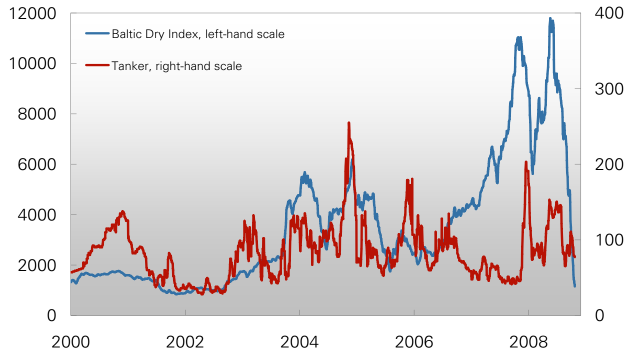
Dry freight rates (Baltic Dry Index) have fallen by 88% since the previous *Report*, while tanker rates have fallen by 44% (see Chart 2.26). The marked decrease in freight rates and metal prices indicates that growth in the global economy is now slowing sharply.

Chart 2.25 Food commodity prices in USD. Index. 4 January 2000 = 100. 4 January 2000 – 23 October 2008. Futures prices from 23 October 2008 (broken lines). December 2008 – December 2010



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

Chart 2.26 Freight rates. Index based on rates in USD. Tanker: World Scale MidEast-West. Dry bulk: Baltic Dry Index. 4 January 2000 – 23 October 2008



Source: Thomson Reuters

3 Developments in the Norwegian economy

High inflation

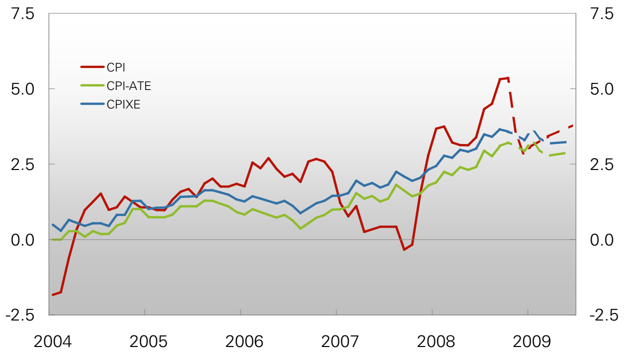
Growth in the Norwegian economy has slowed, while inflation has accelerated. It will take time for a turnaround in the real economy to influence inflation. The slowdown in the real economy is expected to start pushing down inflation towards next summer.

In September, the consumer price index (CPI) was 5.3% higher than in the same month last year (see Chart 3.1). Electricity prices rose sharply during the summer from unusually low levels through much of last year. Petrol prices peaked when oil prices were at their highest in July, but have since fallen back somewhat. Nevertheless, petrol prices have been significantly higher so far this year than in the same period last year. CPI inflation from 2007 to 2008 is projected at 3¾%. The various indicators of underlying inflation ranged from 3.1% to 3.9% in September. Inflation adjusted for tax changes and excluding energy products (CPI-ATE) was 3.1%, while inflation adjusted for tax changes and excluding temporary fluctuations in energy prices (CPIXE) was 3.7%.[1] Underlying inflation is now estimated to be close to 3½%, which is higher than projected in *Monetary Policy Report* 2/08 and 1 percentage point above the 2.5% inflation target.

Underlying inflation has accelerated rapidly since summer 2006, primarily reflecting a sharp rise in prices for domestically produced goods and services (see Chart 3.2). In September, prices for domestically produced goods and services were 4.3% higher than in the same month last year, while prices for imported consumer goods were 0.4% higher. Recent price developments are discussed further in a box on page 40.

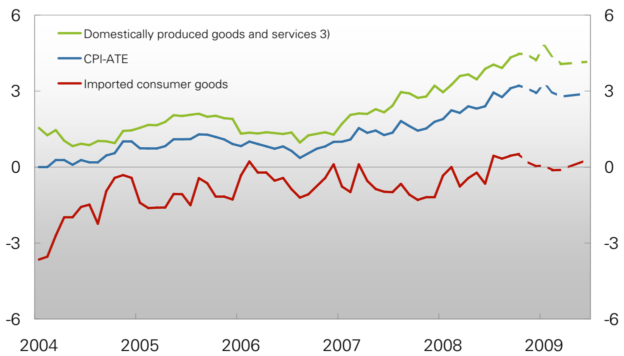
1 The CPIXE estimates in September are based on futures prices for oil and electricity the 10 last trading days in September. The estimation of CPIXE is described in Staff Memo 2008/7.

Chart 3.1 CPI, CPI-ATE[1)] and CPIXE[2)]. 12-month change. Per cent. January 2004 – June 2009[3)]



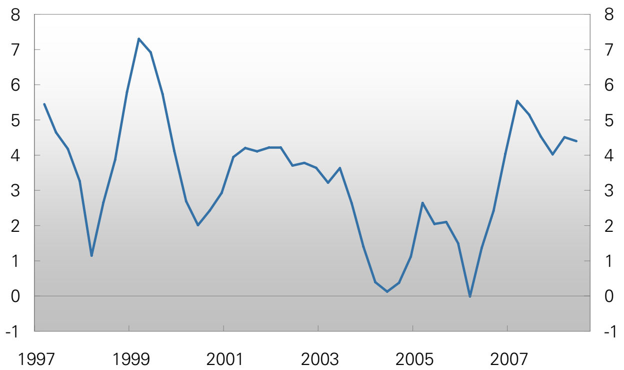
1) CPI adjusted for tax changes and excluding energy products.
2) CPI adjusted for tax changes and excluding temporary changes in energy prices. See Staff Memo 2008/7 from Norges Bank for a description of the CPIXE.
3) Projections for October 2008 – June 2009.
Sources: Statistics Norway and Norges Bank

Chart 3.2 CPI-ATE [1)]. Total and by supplier sector. 12-month change. Per cent. January 2004 – June 2009[2)]



1) CPI adjusted for tax changes and excluding energy products.
2) Projections for October 2008 – June 2009.
3) Norges Bank's estimates.
Sources: Statistics Norway and Norges Bank

Chart 3.3 Unit labour costs, mainland Norway. Four-quarter growth. Four-quarter moving average. 1997 Q1 – 2008 Q2



Sources: Statistics Norway and Norges Bank

Wage growth has quickened, and productivity growth has stalled. Unit labour costs have risen substantially over the past two years (see Chart 3.3). This year's Agricultural Settlement resulted in large price increases for many food products. Recent years' strong growth in demand may also have made it easier for firms to pass on higher costs to customers.

It is assumed that the rise in prices for domestically produced goods and services will remain high into 2009. This year's Agricultural Settlement will also result in a further increase in prices for Norwegian farm products at the beginning of 2009. Mergers in the grocery trade may make it easier for grocery chains to increase their margins, which may also contribute to higher food prices ahead. The rise in rents may accelerate further. Expectations of low house price inflation may make it more attractive to rent. Many existing leases are indexed to the CPI, and so the recent high rate of CPI inflation may contribute to higher rents ahead. Landlords' interest costs have also risen.

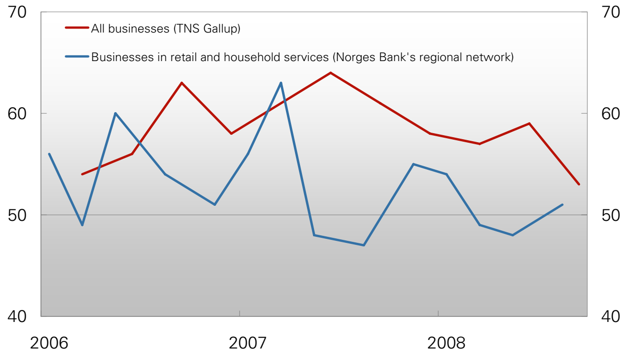
According to TNS Gallup's expectations survey for Q3, business leaders still expect a higher rise in firms' selling prices in the next 12 months (see Chart 3.4). However, the proportion of business leaders expecting a higher rise in prices has decreased, and the proportion expecting a lower rise has increased. Firms in Norges Bank's regional network that operate in the retail trade and household services anticipate an unchanged rise in prices.

Low growth in household demand may make it harder to pass on higher costs to customers. In the event of a sharp downturn in the Norwegian economy, wage growth will probably fall more quickly than previously assumed. Productivity growth is projected to pick up next year, which may gradually put a damper on the rise in prices for domestically produced goods and services.

After falling for several years, prices for imported consumer goods measured in foreign currency have climbed since 2007 (see Chart 3.5).[2] Inflation among trading part-

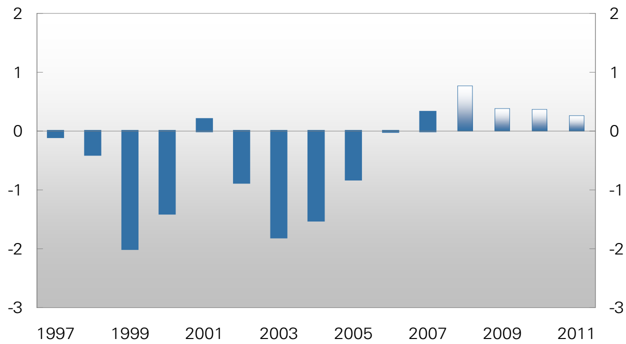
2 The rise in prices for imported consumer goods measured in foreign currency has historically been revised up since the previous *Report*. This is because new calculations from the World Bank have shown that price levels in China and other low-cost countries have been higher than previously assumed. This means that the estimated negative effect on price levels from the shift towards imports from low-cost countries has been smaller.

Chart 3.4 Expected rise in firms' selling prices over the next 12 months. TNS Gallup and Norges Bank's regional network. Diffusion indices[1)]. January 2006 – September 2008



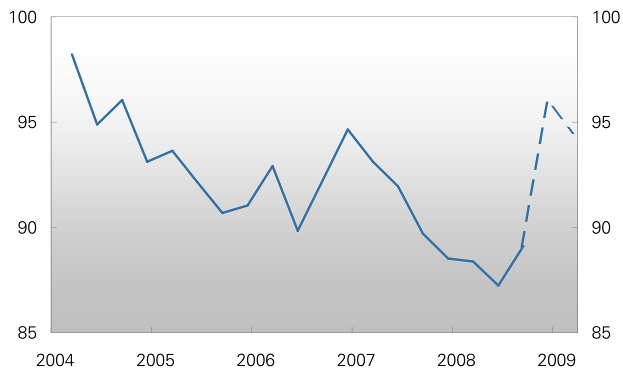
1) Share expecting rise + 0.5*share expecting the same rise.
Numbers over 50 indicate expectations of a higher rise.
Sources: TNS Gallup and Norges Bank's regional network

Chart 3.5 Indicator of external price impulses to imported consumer goods measured in foreign currency. Annual change. Per cent. 1997 – 2011[1)]



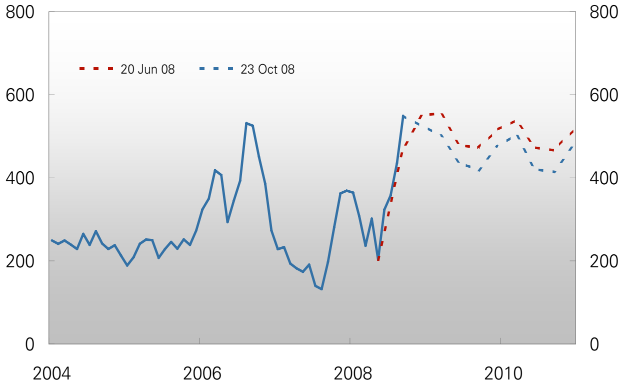
1) Projections for 2008 – 2011.
Sources: Thomson Reuters, Statistics Norway and Norges Bank

Chart 3.6 Import-weighted exchange rate (I-44).[1)] Actual figures and projections. Index. 2004 Q1 – 2009 Q1



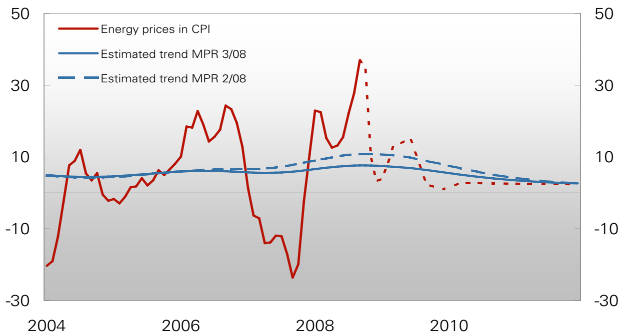
1) A rising curve denotes a weaker krone exchange rate.
Source: Norges Bank

Chart 3.7 Electricity prices. Nord Pool. NOK/MWh. Actual prices. January 2002 – September 2008. Forward prices, average of the last ten days (broken line). 2009 Q1 – 2010 Q4



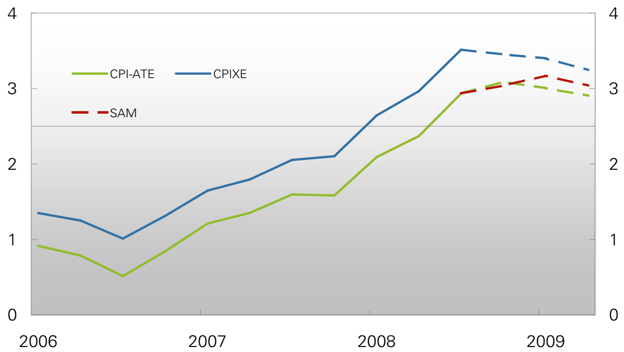
Sources: Nord Pool and Norges Bank

Chart 3.8 Energy component of the CPI[1]. Actual and calculated trend[2]. 12-month change. Per cent. January 2004 – December 2011[3]



1) The consumer groups Electricity, gas and other fuels and Fuels and lubricants.
2) The trend is calculated by an HP-filter (lamda = 14400) on the actual and projected movements of energy prices in the CPI.
3) Projections for October 2008 – December 2011.
Sources: Nord Pool, Statistics Norway and Norges Bank

Chart 3.9 CPI-ATE[1] and CPIXE[2]. Actual figures and projections by SAM[3]. Four-quarter change. Per cent. 2006 Q1 – 2009 Q2



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 from Norges Bank for a description of the CPIXE.
3) System of models for short-term forecasting.
Sources: Statistics Norway and Norges Bank

ners has accelerated, and the shift towards imports from low-cost countries has been less pronounced than earlier. Norwegian retail prices for imported consumer goods nevertheless continued to fall until a few months ago. Inflation is probably being restrained by the appreciation of the krone from the end of 2006 to summer 2008 (see Chart 3.6). The krone exchange rate normally affects prices of imported consumer goods with a lag. The krone has weakened considerably in recent months, which will gradually lead to a higher rise in prices for imported consumer goods. In addition, prices for these goods measured in foreign currency are expected to continue to climb in the coming years, albeit at a slightly lower rate than this year. It is assumed that the rise in prices for imported consumer goods will be close to zero towards next summer.

There are prospects of slightly lower electricity prices than assumed in the previous *Report* (see Chart 3.7). Lower prices for energy products such as coal and oil have pulled down electricity price expectations in continental Europe, and this is contributing to lower price expectations in Norway too. The drop in oil prices may lead to lower petrol prices. The estimated trend energy price included in the CPIXE is lower than assumed in the previous *Report* (see Chart 3.8).[3]

A continued rapid rise in prices for domestically produced goods and services will keep CPI-ATE inflation close to 3% over the next six months. The projections for CPI-ATE are somewhat lower than the projections from SAM[4], the Bank's system for averaging short-term models (see Chart 3.9). CPI inflation will slow towards the end of this year and will probably be between 3% and 4% in the coming quarters. CPIXE inflation will move down to slightly below 3½% towards next summer. CPI-ATE, CPI and CPIXE inflation are expected to gradually converge and stabilise around the inflation target towards the end of the forecast period.

3 The projection of CPIXE from the beginning of October is based on futures prices for oil and electricity in the period 10 October – 23 October.

4 The System for Averaging Models (SAM) is presented in a box in ***Monetary Policy Report*** 2/08.

Recent price developments

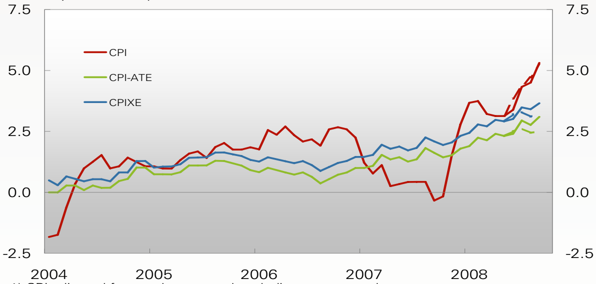
The 12-month rise in the consumer price index (CPI) was above 3% in the first half of 2008. In the past three months, the CPI has picked up further and was 5.3% higher in September than in the same month one year earlier. This is the most rapid rise in consumer prices since 1988 and is partly due to the sharp rise in electricity prices in recent months, compared with the same time last year when they were unusually low. The year-on-year rise in electricity prices was over 60% in September. Adjusted for tax changes and excluding temporary changes in energy prices (CPIXE), inflation was 3.7% in September, or 0.5 percentage point higher than assumed in the June *Report*, primarily because of higher-than-expected consumer price inflation adjusted for taxes and excluding energy products (CPI-ATE). The projection for the trend energy price remained fairly stable from June to end-September.

CPI-ATE has been higher than assumed in the June *Report* (see Chart 1). In September, the year-on-year rise in the CPI-ATE was 3.1%, 0.6 percentage point higher than projected in the previous *Report*. Other indicators of underlying inflation have also picked up since the previous *Report*. The weighted median showed a rise of 3.1% in September. The year-on-year rise in a trimmed mean of the sub-groups in the CPI was 3.9% in September, up from 3.6% in August[1]. CPI-ATE and trimmed-mean inflation have not been higher since 1991[2].

Sharper rise in prices for domestically produced goods and services

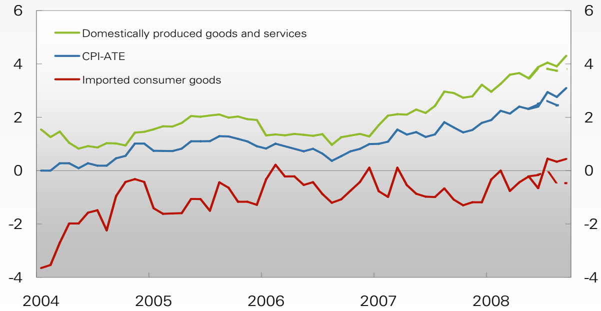
The rise in prices for domestically produced goods and services has picked up further and has been somewhat stronger than expected (see Chart 2). In September the year-on-year rise in prices for domestically produced goods and services was 4.3%, up from 3.5% in May, which was the most recent figure available when MPR 2/08 was released. Prices for services with other dominating price factors than wages were 4.4% higher in September than in the same month a year earlier, up from 1.6% in May (see Chart 3). Air fares have accelerated in particular as a result of higher fuel prices. However, air fares, as measured by Statistics Norway, are highly volatile (see Chart 4). The rise in prices for services with wages as the most important cost factor has remained relatively stable since the June *Report*. In September the twelve-month rise was 5.6%, unchanged from May. The rise in prices for domestically produced consumer goods and services is still high, with the twelve-month rise in September at 5.0%. Book prices rose considerably in September, but these prices also vary widely (see Chart 4). Food prices are still climbing and the twelve-month rise in September was 4.7%. Prices for

Chart 1 CPI, CPI-ATE[1)] and CPIXE[2)]. Projections from MPR 2/08 (broken line) and actual. 12-month change. Per cent. January 2004 – September 2008



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 from Norges Bank for a description of the CPIXE.
Sources: Statistics Norway and Norges Bank

Chart 2 CPI-ATE.[1)] Total and by supplier sector[2)]. Projections from MPR 2/08 (broken line) and actual. 12-month change. Per cent. January 2004 – September 2008



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

domestically produced food are still showing the sharpest rise (see Chart 5). The year-on-year rise in house rents has been around 3% in the past six months. Actual rents are still rising more rapidly than imputed rents[3].

Rising prices for imported consumer goods

In the past three months, the year-on-year rise in prices for imported consumer goods was positive and higher than expected in the previous *Report* (see Chart 2). In September, prices were 0.4% higher than in September last year, the strongest twelve-month rise since 2001. The sharp rise in prices for audiovisual equipment has probably pushed up the rise in prices for imported consumer goods. It is difficult to estimate an exact figure for the rise in prices for telephone and telefax equipment in the CPI as the index has not yet been published, but we assume that the rise from June to July was around 40%[4], which would push up CPI inflation by about a tenth. Prices for imported consumer goods are still being restrained by the fall in prices for clothing and footwear, and audiovisual equipment (see Chart 6).

1 146 product groups in the CPI, adjusted for tax changes, are included in the calculation of the weighted median and the trimmed mean. In both indicators the different product groups are ranked each month in ascending order by the size of their price movement. Weighted median inflation is the inflation rate for the product group in the middle of the distribution, taking account of the different product groups' weights in the CPI. In the trimmed mean, the product groups that account for the 10% at the top and bottom of the distribution are removed. Inflation is calculated as a weighted average of the rise in prices for the remaining product groups.

2 The year-on-year-rise in the CPI-ATE for September is the highest since Statistics Norway began to publish the indicator in 2000. According to our calculations, a stronger year-on-year rise has not occurred since 1991.

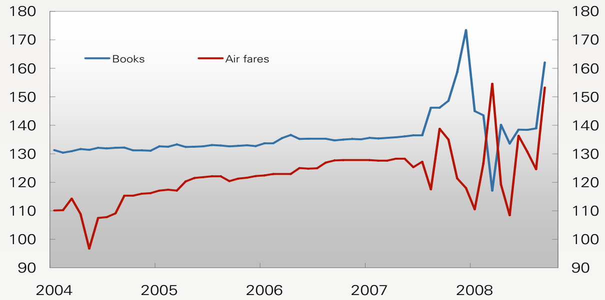
3 Actual rents measure price movements for households that rent dwellings, whereas imputed rents are a measure of housing costs for those who own their own homes.

4 Statistics Norway began publishing the sub-index for telephone and telefax equipment as from August this year.

Chart 3 Domestically produced goods and services1). 12-month change. Per cent. January 2004 – September 2008

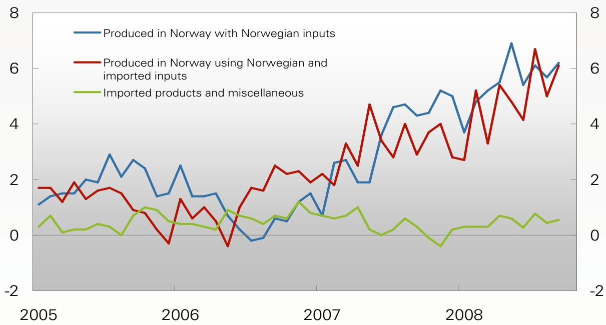
1) Adjusted for tax changes and excluding energy products.
Sources: Statistics Norway and Norges Bank

Chart 4 Price level for product groups in the CPI that were restructured from August 2007. Indices, 1998 = 100. January 2004 – September 2008



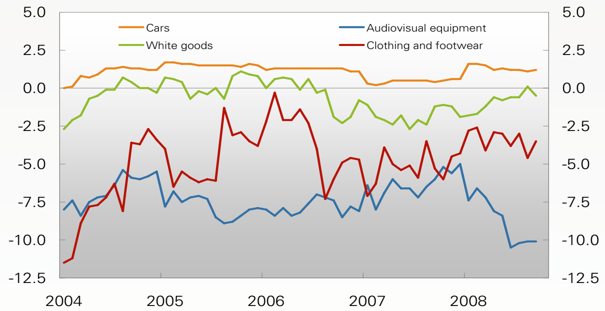
Source: Statistics Norway

Chart 5 Developments in food prices in Norway. 12-month change. Per cent. January 2005 – September 2008



Sources: Norwegian Agricultural Economic Research Institute and Norges Bank

Chart 6 Prices for product groups in the CPI that are mainly imported. 12-month change. Per cent. January 2004 – September 2008



Source: Statistics Norway

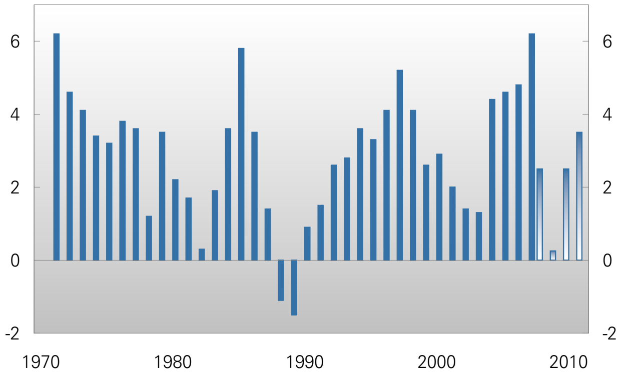
Financial crisis leads to lower economic growth

The Norwegian economy is influenced by the abnormal conditions in financial markets. Domestic demand is influenced through several channels. Owing to higher risk premiums in money and bond markets, firms' and households' funding costs have increased recently. Banks have tightened their lending standards. House prices and share values on the Oslo Stock Exchange have declined. Lower growth expectations may lead to a preference for reducing the debt burden. These conditions will influence business and household investment, saving and consumption decisions. In addition, weaker global growth will depress growth in demand for Norwegian export goods in the coming year. The different channels are discussed in a box on page 44.

Growth in the Norwegian economy slowed markedly in the first half of 2008. According to quarterly national accounts figures, annualised seasonally adjusted mainland GDP growth was 1.6% in the first half-year compared with the second half of 2007, following growth of 6.2% between 2006 and 2007 (see Chart 3.10). Annualised growth in private consumption was 1.3%, and housing investment fell by 15.6% between the latter half of 2007 and the first half of 2008.

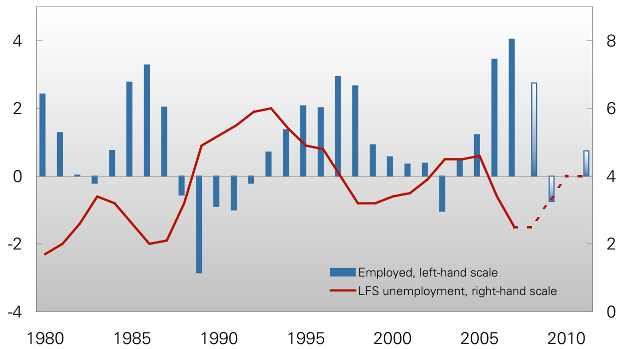
The labour force survey (LFS) indicates that employment growth came to a halt in Q2 of this year. Employment is expected to fall between 2008 and 2009 (see Chart 3.11). According to the Norwegian Labour and Welfare Administration, job vacancies have shown a marked fall. Norges Bank's regional network conducted its latest ordinary round in August. The enterprises in the regional network reported at that time that the need for increasing employment ahead had been reduced. In retail trade and the construction industry, many enterprises reported a decline in employment. It had generally become easier to recruit labour. In an extra round in mid-October, which included a limited number of contacts, it was reported that the considerable uncertainty surrounding developments ahead may induce some firms to cancel or postpone plans to recruit new staff.

Chart 3.10 Mainland GDP. Annual growth in volume. Per cent. 1971 – 2011[1)]



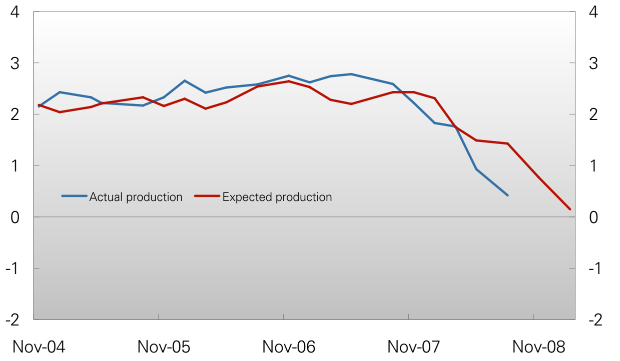
1) Projections for 2008 – 2011.
Sources: Statistics Norway and Norges Bank

Chart 3.11 Change in employment (QNA) on previous year (per cent) and unemployment (LFS) as a percentage of the labour force. 1980 – 2011[1)]



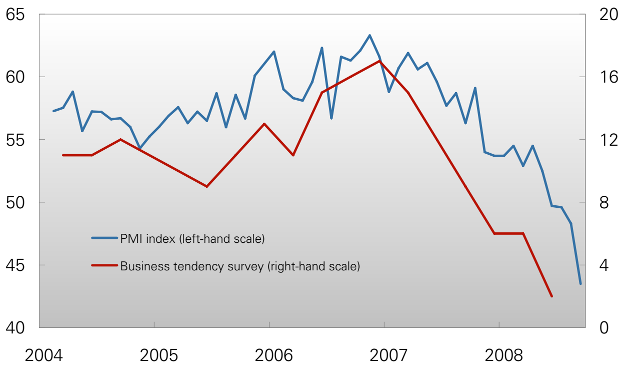
1) Projections for 2008 – 2011.
Sources: Statistics Norway and Norges Bank

Chart 3.12 Actual production and production as expected last quarter. Index[1]. November 2004 – February 2009



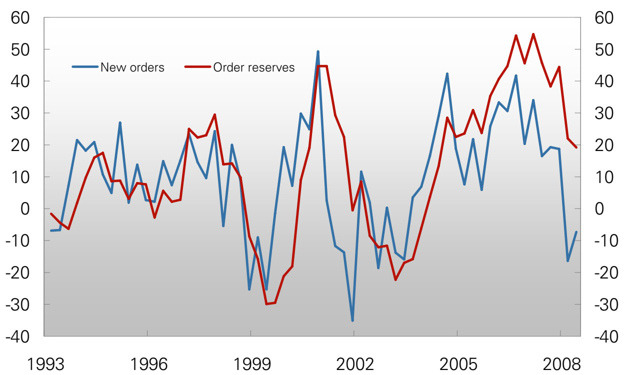
1) The scale runs from -5 to +5, where -5 indicates a large fall and +5 indicates a strong rise. See article "Norges Bank's regional network" in Economic Bulletin 2/05 for further information.
Source: Norges Bank's regional network

Chart 3.13 Industrial confidence indicator in the business tendency survey and Purchasing Managers Index (PMI). Seasonally adjusted diffusion indices. Quarterly and monthly figures.
2004 Q1 – 2008 Q2 (February 2004 – September 2008)



Sources: Statistics Norway and NIMA/Fokus Bank

Chart 3.14 New orders and order reserves in manufacturing (current prices). Four-quarter change. Per cent. 1993 Q1 – 2008 Q2



Source: Statistics Norway

In August, the enterprises in Norges Bank's regional network reported that activity in distributive trades and the construction sector had fallen. Growth had stagnated in the household services sector. In the extra round in October many enterprises reported a fall in turnover towards the end of the third quarter.

Manufacturing sectors that produce for the Norwegian market are also experiencing lower demand. Consumer goods production has fallen. Growth in commercial services and the export industry remained robust in the first half of this year. There was still solid growth in sectors supplying goods and services to the petroleum industry and in parts of the chemical industry.

Against the background of lower growth in real disposable income and increased net lending, household demand is projected to fall in the third quarter. In August, the enterprises in Norges Bank's regional network expected weak growth and lower investment in all industries over the next half-year (see Chart 3.12). In home market manufacturing and the construction industry, the regional network enterprises expected a fall in production. Business leaders' expectations, as measured in the business tendency survey for manufacturing and the Purchasing Managers Index (PMI), confirm this picture (see Chart 3.13). Housing start figures, order statistics and signals from contacts in Norges Bank's regional network indicate that housing investment will continue to fall in the coming quarters.

Prices for Norway's commodity exports are now exhibiting wide swings. It has been observed earlier that Norwegian manufacturing production reacts to changes in commodity prices. Petroleum investment is still growing at a solid pace. In some industries, particularly the production of ships and platforms and the chemical industry, large new orders over a long period have resulted in sizeable order reserves for enterprises (see Chart 3.14). If these orders are filled, some enterprises may maintain a high level of activity for some time ahead. High order reserves are not, however, a guarantee for maintaining production. Increased funding costs and greater uncertainty surrounding developments in the world economy may lead to a halt in planned projects and order cancellations.

How does the financial crisis affect developments in the real economy?

The effects of the financial crisis on activity in the Norwegian household and business sector primarily operate through four different channels:

The interest rate and credit channel

- Funding costs for firms and households have risen somewhat more than implied by developments in the key policy rate since the previous *Report*. This contributes to lower growth in household disposable income and lower demand for capital goods in the household and business sector.
- Banks are applying stricter collateral and debt servicing capacity requirements, and they have limited access to new loans. This influences both housing and business investment.

Expectations channel

- Expectations of weaker economic developments and higher unemployment may lead to a preference among households to reduce their debt or build up their financial buffers. This may lead to higher saving and lower consumption.
- Increased uncertainty about developments ahead may induce firms and households to postpone or cancel investment decisions.

Wealth channel

- A fall in house prices and share values reduces private wealth. Lower collateral values of dwellings may prompt households to reduce debt, and it may become more difficult to obtain loans. This may have a dampening impact on consumption and fixed investment.
- Lower equity prices and high volatility in equity markets may make it more difficult for enterprises to raise new equity capital.

Export channel

- The financial crisis is also affecting our trading partners. This will curb global demand for Norwegian goods.
- Falling prices on world markets result in lower profitability. This may lead to lower business investment in Norway.

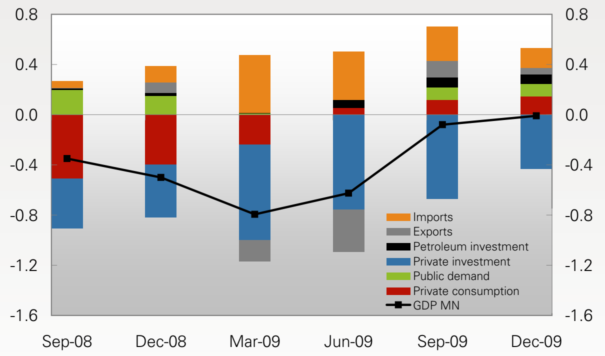
There is uncertainty linked to both the severity and duration of the financial crisis and how quickly and to what extent it will affect the real economy. Our projections are based on the assumption that the financial crisis will primarily be reflected in the Norwegian economy towards the end of 2008 and in 2009. Our growth projections for the Norwegian economy have therefore been revised down considerably for this period. From the beginning of 2010, monetary policy will contribute to somewhat higher growth in consumption and investment compared with the projections in our previous *Report.*

The chart shows how our projections for various demand components – private consumption, private investment, exports, imports and public consumption – have changed between ***Monetary Policy Report*** 2/08 and this ***Report***.[1] Annualised mainland GDP growth has been revised down by ¾ percentage point this year and 1¾ percentage points next year. We have made the largest downward revisions for private consumption and private investment. Our projections for the third quarter of 2008 have also been revised down, even though this period was affected to a limited extent by the latest developments in the financial crisis. Consumption has been revised down most for the current half-year, while we assume that the greatest effects on private investment will occur in 2009. Housing investment, which has already fallen considerably, will continue to decline in the first half of 2009.

The projections are based on the assumption that the negative effects on exports will be concentrated in the first half of 2009. A weak krone exchange rate will curb some of the effects associated with lower global demand. At the same time, slower growth in private consumption and domestic investment will contribute to reducing import growth. This will reduce the negative contribution to mainland GDP growth of weaker demand. All in all, we assume that changes in net exports will make a positive contribution to growth in the mainland economy through most of 2009.

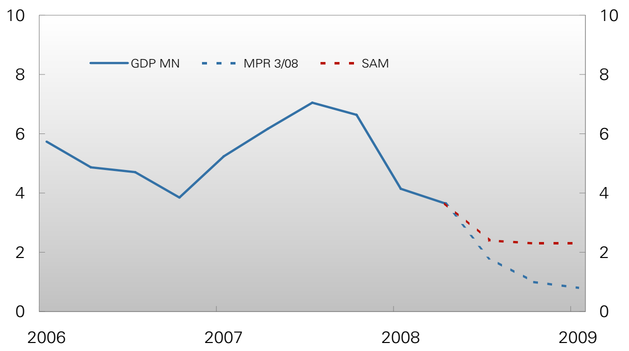
1 A more detailed review of the changes in the projections is presented in the box "Projections in Monetary Policy Report 2/08 and 3/08" on page 60.

Chart 1 Decomposition of changes in our projection for mainland GDP growth



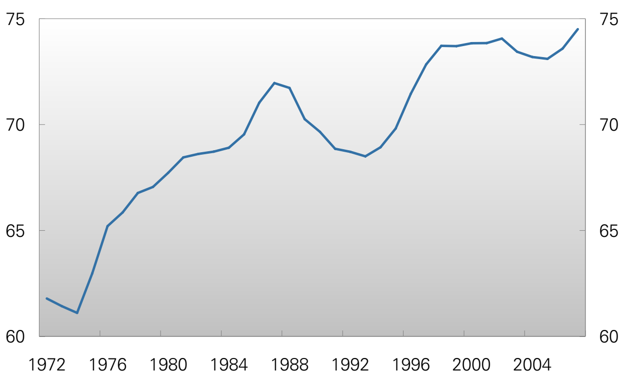
Sources: Statistics Norway and Norges Bank

Chart 3.15 Mainland GDP in terms of market value.[1)] Actual figures and projections by SAM[2)]. Constant 2005-prices. Four-quarter change. Seasonally adjusted. Per cent. 2006 Q1 – 2009 Q1



1) Projections for 2008 Q3- 2009 Q1.
2) System of models for short-term forecasting.
Sources: Statistics Norway and Norges Bank

Chart 3.16 Labour force as share of population between 16 and 74. Annual data. Per cent. 1972 – 2007



Sources: Statistics Norway and Norges Bank

Mainland GDP growth is projected at close to zero in the coming quarters. Our system for averaging short-term models, SAM, projects lower growth ahead than earlier (see Chart 3.15). Our projections are lower than the projections derived from SAM. The short-term models do not fully capture the effects of increased funding costs, tighter lending standards in the banking sector, and developments in October. Information from the enterprises in Norges Bank's regional network provide further support for the projection of lower growth in the coming quarters. Growth in mainland GDP is projected to be low in 2009, but to pick up in 2010 and 2011.

Weaker growth in labour supply

For a long period, strong growth in the labour supply provided room for rapid growth in the Norwegian economy. Labour force participation in the 16 – 74 age group in 2007 was at its highest since measurements began in 1972 (see Chart 3.16), and labour immigration has risen sharply since 2004. Seasonally adjusted, the labour supply continued to grow in Q1, but since April it has been largely unchanged.

Higher participation rates among the under-25s and over-55s have made a significant contribution to the labour force in recent years. The proportion of over-55s in the population is increasing, which may mean that the number of people on early retirement pensions will rise. To date, most people opting for early retirement have withdrawn completely from the labour force. Participation rates among the under-25s fluctuate more with activity levels than those in other age groups. When demand for labour is strong, there tends to be a growing proportion that chooses to work rather than continue their education. When demand for labour slows, a larger proportion of this group will probably choose higher education.

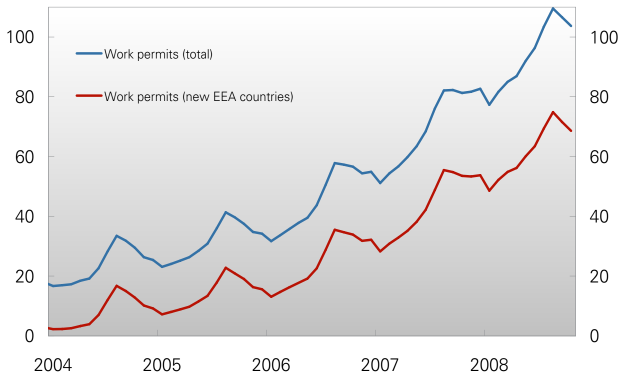
High immigration has been the main factor behind the strong growth in the labour force in recent years. Immigration accelerated rapidly after the enlargement of the EEA in 2004. The number of work permits issued by the Norwegian Directorate of Immigration has continued to grow in 2008, but the rate of growth has slowed somewhat in recent months (see Chart 3.17). The number of foreign workers registered with the Central Office – Foreign Tax Affairs has also continued to increase in 2008 (see Chart 3.18).

Many of these labour immigrants choose to settle in Norway. In the past four years, net immigration has been higher than the natural increase in the population. The population grew by around 55 000 in 2007, of which net immigration accounted for 73%.

The UK and Ireland have seen the largest inflows of labour from Eastern Europe, and it is now being reported that labour immigrants in these countries have begun to return to their home countries. There have also been considerable fluctuations in the number of new EEA citizens moving in and out of Norway, but immigration is still substantially higher than emigration. The experience of previous periods of high immigration suggests that a large share of the immigrants will remain in Norway. On the other hand, a large proportion of these labour immigrants have been employed in the construction sector. A drop in employment in this sector may mean that labour immigration will fall somewhat, and that a share will return to their home countries. It is assumed that labour immigration will slow gradually in the coming years.

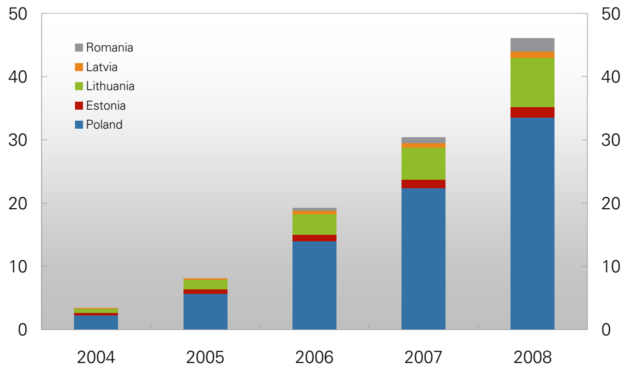
Population growth will probably remain high this year. We then expect it to slow slightly, but to remain at his-

Chart 3.17 Work permits issued by the Norwegian Directorate of Immigration (UDI), total and to citizens from new EEA countries. In thousands. January 2004 – October 2008



Source: Norwegian Directorate of Immigration (UDI)

Chart 3.18 Registered employees from new EU countries. In thousands at end – September. 2004 – 2008



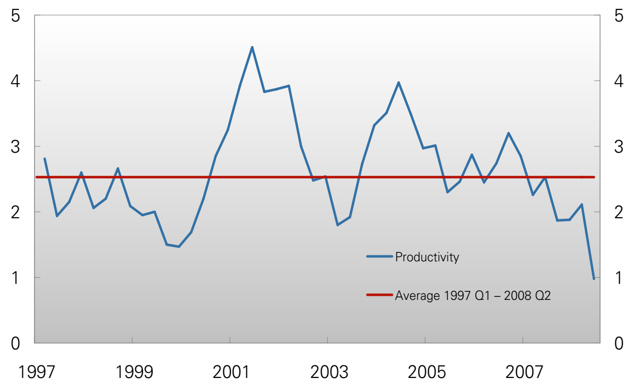
Source: Central Office – Foreign Tax Affairs

Table 3.1 Population and labour force growth. Change from previous year. Per cent

	2008	2009	2010	2011
Population growth in the age group 15-74 years	1¾	1¼	1¼	1¼
Contribution from change in population composition	-¼	-¼	-¼	-¼
Cyclical contribution	1¼	-1	-½	-¼
Labour force growth	2¾	0	½	¾

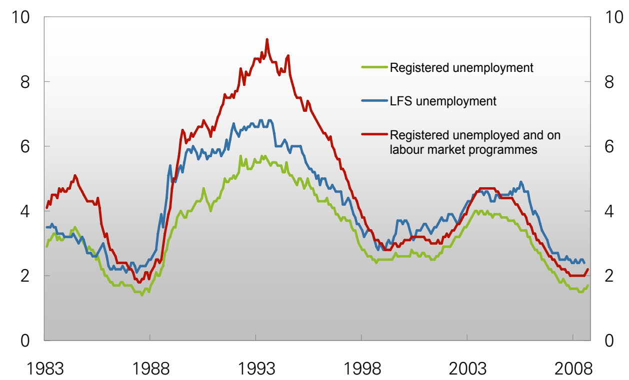
Source: Norges Bank

Figur 3.19 Hourly productivity, mainland Norway. Four-quarter change (volume). Five-quarter moving average. Per cent. 1997 Q1 – 2008 Q2



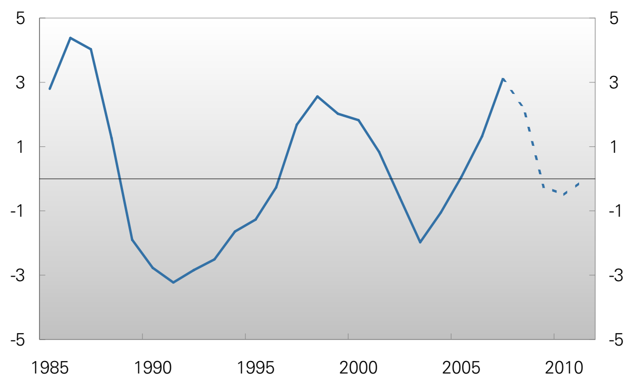
Sources: Statistics Norway and Norges Bank

Chart 3.20 Unemployed. Percentage of labour force. Seasonally adjusted. February 1983 – September 2008



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

Chart 3.21 Estimates for the output gap. Per cent. 1985 – 2011



Source: Norges Bank

torically high levels. The labour force has proved to be flexible, expanding when demand for labour has been strong. Historical experience suggests that the labour force will shrink somewhat when demand slackens. Owing to demographic effects, growth in the labour force will be slightly lower than population growth over the next few years (see Table 3.1).

Weaker capacity utilisation

Preliminary quarterly national accounts figures indicate that productivity growth will be very low this year (see Chart 3.19). Towards the end of a cyclical upturn, firms tend to respond to increased demand by expanding their workforce or increasing the number of hours worked. It normally takes some time for firms to adjust their workforce to lower production growth. Productivity growth can therefore be weak when output slows. The number of hours worked is expected to fall, helping productivity growth to recover relatively quickly.

Over the past year, unemployment has been as low as in the mid-1980s (see Chart 3.20). Seasonally adjusted registered unemployment was 1.7% in September, while LFS unemployment was 2.4% in the period from June to August.

The number of new vacancies registered with the Norwegian Labour and Welfare Administration has fallen in recent months. The enterprises in Norges Bank's regional network signal a slight decrease in their workforce ahead and there has been a slight increase in lay-offs. Firms will probably adapt their workforce gradually to lower growth in output and reduce their use of overtime. We project a decrease in employment in the period to next spring and expect unemployment to climb to 3¼% in 2009 and 4% in 2010 and 2011.

The output gap, an expression of Norges Bank's assessment of capacity utilisation in the economy, peaked in the second half of 2007. The gap has decreased in 2008, and will continue to decline through 2009 in line with weak growth in output (see Chart 3.21). The output gap is projected to be negative in 2009 and 2010 and close to zero in 2011.

Wage growth will moderate

Wage growth has been rising since 2004 and is projected to be around 6% in 2008. For a long period, productivity growth and improving terms of trade allowed capital owners to increase their share of value added even though employees were earning higher real wages (see Chart 3.22). Now employees' share of value added is growing again.

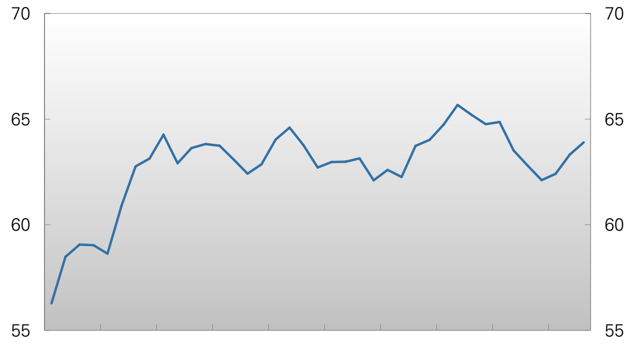
The outcome of the negotiations between the Norwegian Confederation of Trade Unions, the Confederation of Vocational Unions and the Confederation of Norwegian Enterprise during the spring implies annual wage growth of 5.6% in 2008. Wage drift is estimated at 2½%, which is slightly lower than in 2007 but still higher than during the previous cyclical upturn in 1996 – 1999. Strong profitability and wage growth in some sectors, such as the oil sector, may have affected wage demands in other sectors.

The results of the public sector negotiations imply wage growth of around 6¼%, based on the assumption of low wage drift. It has also been observed earlier that wage growth in the public sector is higher than in the private sector late in a cyclical upturn.

In previous upturns, high pay rises for some groups have fed through to wage demands from other groups and led to wage spirals, with the result that it has taken time for wage growth to come down. In the local government sector, pay increases have already been agreed for 2009. Combined with a high carry-over, this is expected to make a contribution of about 4½% to wage growth in the local government sector even before the wage negotiations for 2009 begin.

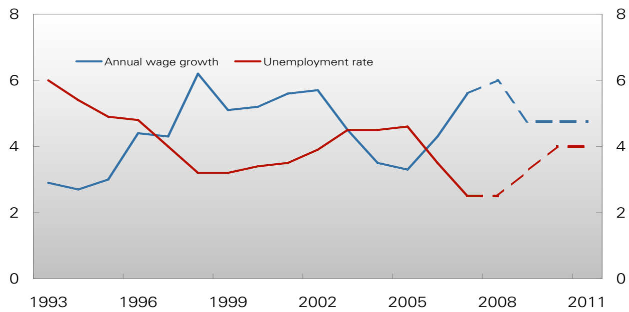
Norges Bank's regional network enterprise reported in August that profitability was falling, and TNS Gallup's expectations survey also gives the impression of lower profitability. Weak growth in demand may lead to a further decline in profitability, although this may be partially offset by a weaker krone. Higher unemployment and lower profitability will probably result in moderation in next year's negotiations. The 2009 settlement is also only an

Chart 3.22 Total labour costs, mainland Norway, as a share of mainland GDP. Per cent. 1970 – 2008[1)]



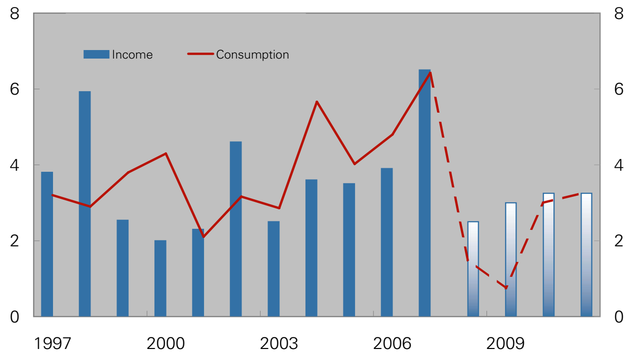
1) GDP at basic value. Figures for 2008 are figures for Q1 and Q2 2008.
Sources: Statistics Norway and Norges Bank

Chart 3.23 Annual wage growth[1)] and LFS unemployment. Per cent. 1993 – 2011



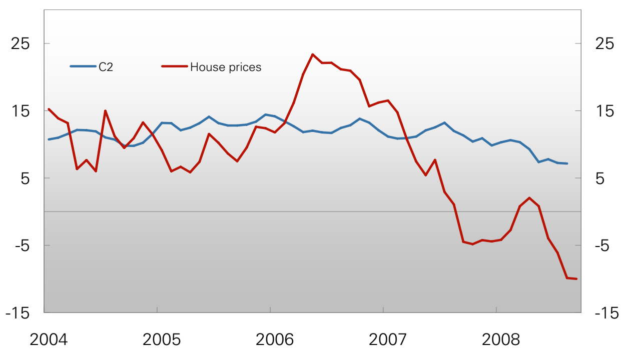
1) Average for all groups. Including estimated costs of increase in number of vacation days and introduction of mandatory occupational pensions.
2) Projections for 2008 – 2011.
Sources: Statistics Norway, Technical Reporting Committee on Income Settlements and Norges Bank

Chart 3.24 Household real disposable income[1)] and consumption[2)]. Annual growth. Per cent. 1997 – 2011[3)]



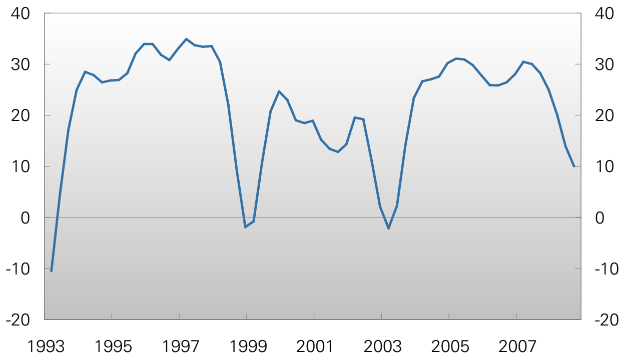
1) Adjusted for estimated reinvested share dividends for 2000 – 2005 and redemption/reduction of equity capital for 2006 – 2011.
2) Includes consumption in non-profit organisations. Volume.
3) Projections for 2008 – 2011.
Sources: Statistics Norway and Norges Bank

Chart 3.25 House prices and credit to households (C2). Change in 3-month moving average. Annual rate. Seasonally adjusted. Per cent. January 2002 – September 2008



Sources: Norwegian Association of Real Estate Agents, Association of Real Estate Agency Firms, Finn.no, ECON Pöyry, Statistics Norway and Norges Bank

Chart 3.26 Consumer confidence. Diffusion index. Quarterly figures. 1993 Q1– 2008 Q3



Source: TNS Gallup

interim settlement, which has traditionally meant lower pay rises. Wage growth is projected to be 4¾% in the period from 2009 to 2011 (see Chart 3.23).

Weak growth in consumption

Growth in private consumption was strong for a long period (see Chart 3.24). The consumption of goods stopped growing in autumn 2007. Car sales have fallen sharply. Norges Bank's regional network is reporting dwindling demand for goods associated with moving house, such as white and brown goods and refurbishing equipment. In conjunction with lower growth expectations, higher inflation and higher lending rates have probably had a dampening impact on consumption growth.

Since the previous *Report*, lending rates have risen to a further extent than movements in the key policy rate would suggest, reflecting higher premiums in money and bond markets. Norges Bank's lending survey for Q3 shows that banks have tightened their lending standards vis-à-vis households. Banks also anticipate further tightening ahead. Growing turbulence and liquidity shortages in financial markets in recent months have prompted banks to tighten their requirements for collateral and borrowers' ability to pay. Growth in lending to households has slowed in recent months (see Chart 3.25).

Household confidence in the future has weakened in the past year. TNS Gallup's trend indicator, which measures households' assessment and expectations of both their own financial situation and the domestic economic outlook, fell further from Q2 to Q3 this year (see Chart 3.26). The indicator dropped to its lowest level since 2003 and is now considerably below the average for the past 15 years. The ForbrukerMeteret survey from MakroSikt revealed a further decline in consumer confidence in September, due in part to greater uncertainty about the labour market. Lower real wage growth and a decrease in employment will contribute to a fall in household disposable income in 2009.

Falling house and equity prices and lower expectations of the economy are increasing households' need to build up financial buffers and reduce debt. Housing wealth accounts for a considerable proportion of household wealth. Real house prices, deflated by the CPI, have fallen by 8.2% since peaking in Q3 2007 (see Chart 3.27). The collateral value of dwellings has thus declined. Norwegian households have only a small proportion of their wealth in equities. A fall in equity prices is therefore likely to have a limited direct effect on consumption.

Saving has increased somewhat. Statistics Norway's institutional sector accounts showed an increase in the household saving ratio excluding dividends from -2.4% in Q1 to -1.9% in Q2 (see Chart 3.28).[5] Household net lending has also increased slightly.

Higher lending rates, tighter lending standards, falling house and equity prices, and greater uncertainty about the economic outlook will probably lead to a continued increase in household saving. Consumption growth is thus expected to be very low for a period ahead. Growth in private consumption is expected to pick up again towards the end of next year.

Private investment growth in mainland Norway slowing

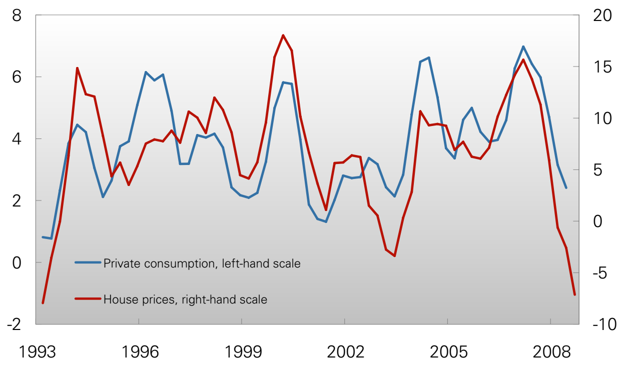
Investment in mainland Norway has grown rapidly in recent years, but growth is now slowing. According to the quarterly national accounts, business investment continued to grow in the first half-year, but there was a considerable fall in housing investment (see Chart 3.29).

Building starts have fallen in the past year, especially housing starts. According to the quarterly national accounts, housing investment fell by 5% in Q2, the third consecutive quarter of negative growth. Order statistics for residential construction in Q2 indicate further decreases in construction activity ahead. In October, the enterprises in Norges Bank's regional network reported that housing starts will be very low in the period ahead.

There were more commercial building starts in the first half of this year than in the same period last year. There is still a considerable backlog of orders for commercial

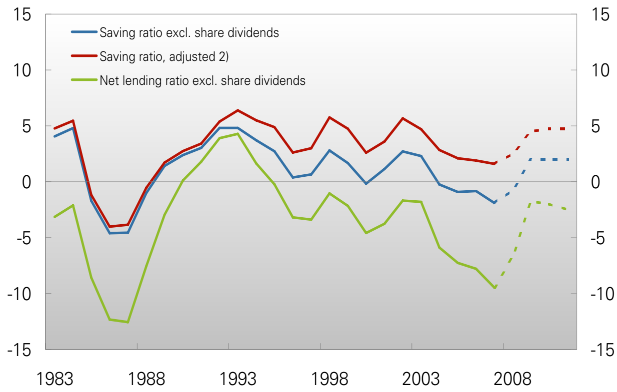
5 The household saving ratio is measured as an average for the past four quarters.

Chart 3.27 Private consumption[1)] and real house prices[2)]. Four-quarter change. Per cent. 1993 Q1 – 2008 Q3



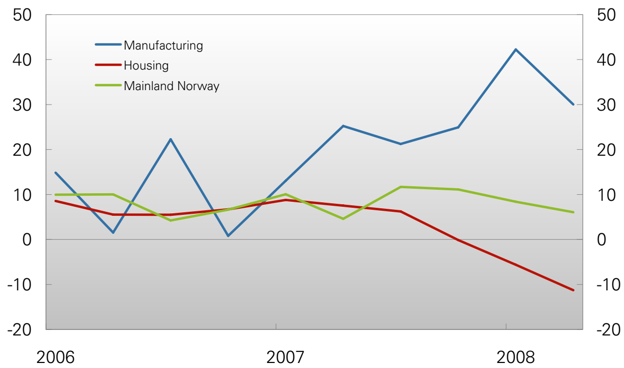
1) Seasonally adjusted and smoothed.
2) Nominal house price index deflated by the CPI.
Sources: Statistics Norway and Norges Bank

Chart 3.28 Household saving and net lending as a share of disposable income. Per cent. 1983 – 2011[1)]



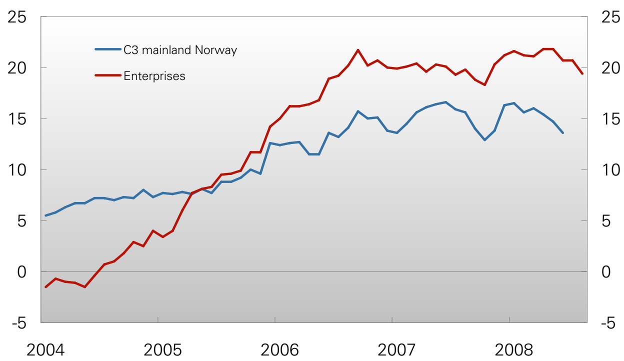
1) Projections for 2008 – 2011.
2) Adjusted for estimated reinvested share dividends for 2000 – 2005 and redemption/reduction of equity capital for 2006 – 2011.
Sources: Statistics Norway and Norges Bank

Chart 3.29 Fixed investment in manufacturing, housing and total for mainland Norway. Four-quarter growth. Per cent. 2006 Q1 – 2008 Q2



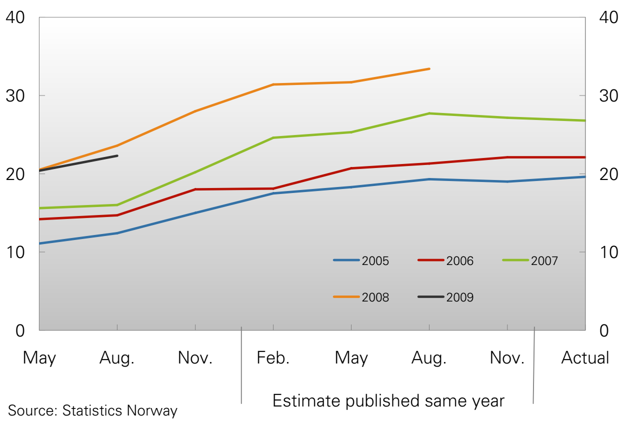
Source: Statistics Norway

Chart 3.30 Twelve-month growth in credit to mainland Norway.[1)] Per cent. January 2004 – August 2008



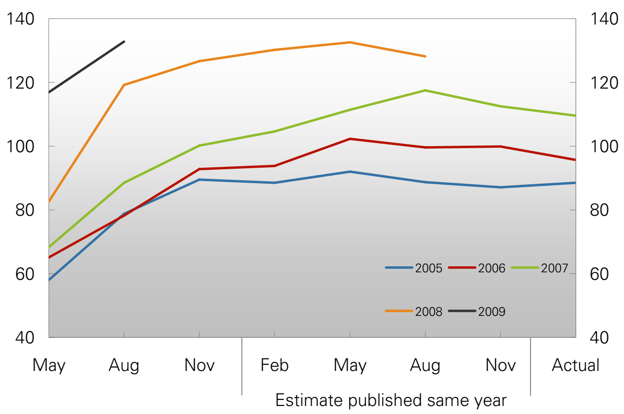
1) It is assumed that all foreign credit to mainland Norway is supplied to enterprises.
Source: Statistics Norway

Chart 3.31 Manufacturing investment statistics. Estimated and actual investment (current prices). In billions of NOK. 2005 – 2009



Source: Statistics Norway

Chart 3.32 Investment statistics for the petroleum industry. Estimated and actual investment (current prices). In billions of NOK. 2005 – 2009



Source: Statistics Norway

buildings and holiday homes. Commercial buildings are largely credit-financed, and building activity may thus be affected by changes in interest rates and credit terms. The enterprises in Norges Bank's regional network have reported a decrease in commercial building starts in recent months.

Growth in corporate debt remains high, but has slowed somewhat in recent months (see Chart 3.30). Norges Bank's lending survey shows that demand for credit from non-financial enterprises has decreased. Banks have continued to tighten their lending standards, especially for commercial property, and anticipate further tightening ahead. Commercial construction activity will probably fall further.

To date, manufacturing investment has held up. Large investments in factories producing solar cells have helped to push up total investment in recent years. In the engineering industry, investment has risen in response to higher demand from the oil sector. The completion of large projects may mean that investment will decrease somewhat. The uncertainty in credit markets will also have consequences for investment in these industries, even though profitability has been sound to date. The third-quarter investment intentions survey shows that the level of investment expected in 2009 is now lower than expectations for 2008 at the same time last year (see Chart 3.31). Business investment is projected to be low next year and in 2010, before gradually recovering in 2011.

The high level of petroleum investment was an important driving force during the economic upturn (see Chart 3.32), and petroleum investment is expected to remain high in the years ahead (see Chart 3.33). Some investments may be postponed if oil prices fall permanently below USD 60 – 70 per barrel, especially small investments and upgrades of fields in operation. Exploration activity may also be cut back. Large field development projects are probably being affected only to a limited extent by the financial crisis for the time being, while small companies and smaller investment projects may be adversely affected by the reduced availability of credit.

Lower growth in exports and imports

Global growth expectations have been revised down since autumn 2007, but Norwegian exports have held up so far. There has been particularly strong growth in exports of engineering products, while exports of services have fallen. Export orders remained strong in Q2.

Markedly weaker growth in the global economy will lead to lower growth in exports. Commodity prices and changes in the krone exchange rate also influence Norwegian exports. Commodity prices have fallen back from their record-high levels (see Chart 3.34), and the krone has weakened. This may contribute to underpinning profitability among export companies. Cost competitiveness is nevertheless weak after several years of higher nominal wage growth than among our trading partners (see Chart 3.35). We expect export growth to be low next year, but then to pick up gradually as global growth recovers.

Imports of goods and services have continued to grow. Weak growth in consumption and a decrease in investment may lead to lower import growth ahead.

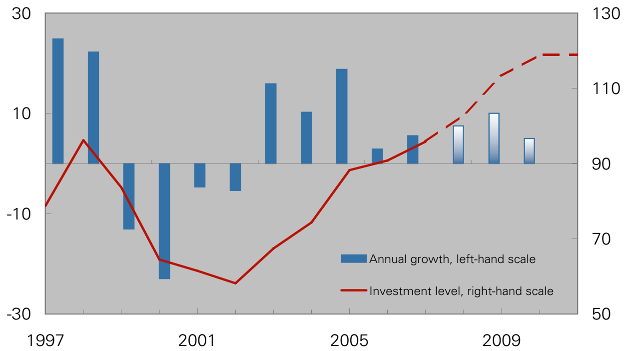
All in all, we expect net exports of goods and services, excluding oil and ships, to make a positive contribution to growth in mainland GDP.

Fiscal policy will counter slower growth

In the National Budget for 2009, the structural, non-oil budget deficit for 2009 is estimated at NOK 92bn[6], equivalent to the expected real return on the Government Pension Fund – Global (see Chart 3.36). The structural, non-oil budget deficit was lower than the expected real return in the previous three years. The fiscal rule implies that the structural, non-oil budget deficit shall on average amount to 4% of the capital in the Government Pension Fund – Global at the beginning of the year. In line with the fiscal rule, the structural, non-oil budget deficit is lower than the expected real return in periods of high economic activity.

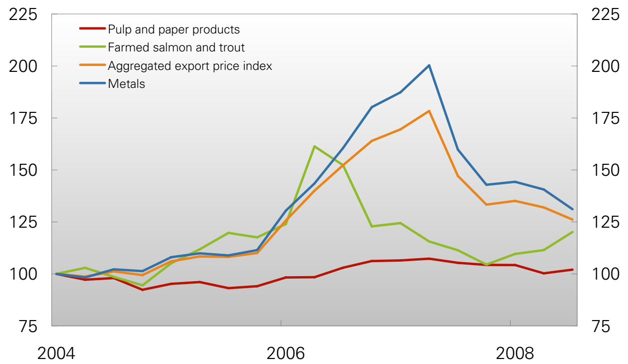
6 The structural, non-oil budget deficit is a measure of the portion of oil of revenues that is being phased into the economy when adjusted for cyclical variations in government revenues and expenditure.

Chart 3.33 Investment in oil and gas recovery including pipeline transport. Investment level in billions of NOK (constant 2005-prices) and annual growth (per cent). 1997 – 2011[1)]



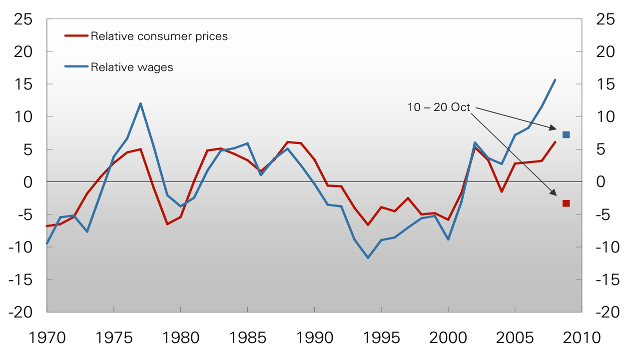
1) Projections for 2008 – 2011.
Sources: Statistics Norway and Norges Bank

Chart 3.34 Price indices[1)] for Norwegian exports in NOK. 2004 = 100. 2004 Q1 – 2008 Q3



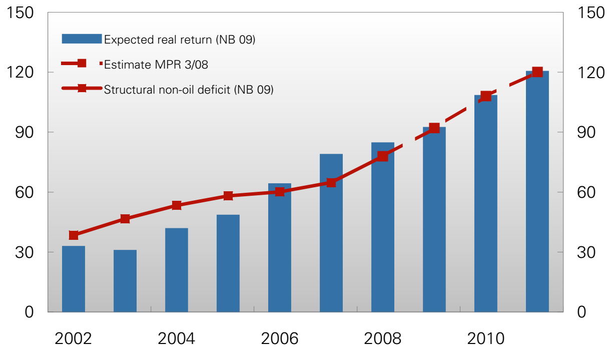
1) Norges Bank's estimates based on world market prices.
Sources: Thomson Reuters, Statistics Norway and Norges Bank

Chart 3.35 Real exchange rate. Deviation from mean 1970 – 2007. Per cent. 1970 – 2008[1)]



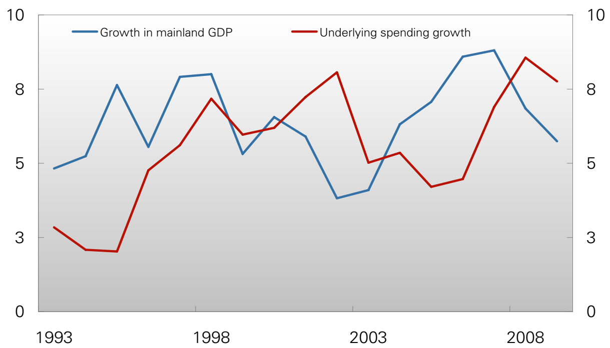
1) Data for 2008 based on observations to 30 September.
Sources: Statistics Norway, Technical Reporting Committee on Income Settlements, Ministry of Finance and Norges Bank

Chart 3.36 Expected real return on the Government Pension Fund – Global. In billions of 2009 NOK. 2002 – 2011



Sources: Ministry of Finance (National Budget 2009) and Norges Bank

Chart 3.37 Nominal underlying spending growth in the government budget and nominal growth in mainland GDP. Per cent. 1993 – 2009



Sources: Ministry of Finance and Statistics Norway

Compared with the National Budget for 2008, the estimate for the Fund's capital at the beginning of 2009 has been revised down by NOK 167bn to NOK 2.3 trillion in the National Budget for 2009. This is primarily because the return on the Government Pension Fund – Global has been low owing to the financial turmoil. On the other hand, the weaker krone exchange rate will increase the Fund's market value in NOK terms. In the period ahead, the return on the Government Pension Fund – Global will have a steadily growing influence on the value of government wealth.

The structural, non-oil budget deficit is estimated to increase by NOK 14bn from 2008 to 2009 measured at constant 2009 prices. The deficit comes to 5% of trend mainland GDP in 2009, an increase of 0.7 percentage point from 2008 and 1.4 percentage points from 2007. The budget will therefore contribute to higher domestic demand next year. Nominal underlying spending growth in the government budget is expected to be 7.8% from 2008 to 2009 (see Chart 3.37). The government's estimate for nominal mainland GDP growth is 5.7%.

We assume that the structural, non-oil budget deficit in 2010 and 2011 will be in line with the estimate for the expected real return in the National Budget.

The non-oil budget deficit is smaller than the structural deficit because the economic expansion resulted in high tax revenues and low expenditure on unemployment benefits. The Ministry of Finance estimates that the structural, non-oil budget deficit this year is NOK 61bn higher than the non-oil deficit. In 2009, the Ministry expects this difference to be NOK 43bn. This reduction in withdrawal of purchasing power from the private sector will contribute to restraining the fall in growth in the Norwegian economy. The effect of these automatic stabilisers will be greater if activity in the economy proves to be weaker than estimated by the Ministry in the National Budget for 2009.

Growth in total local government revenues has been fairly strong in recent years. From 2004 to 2007, local government nominal revenues rose on average by nearly 7%

annually. The rise in local government expenditure averaged 3.5% in these years. The government estimate for local government revenue growth in 2008 is 6.8%, while the rise in costs is estimated at 5.6%. Wages account for nearly two-thirds of local government expenditure. According to the government budget proposal for 2009, local government revenues will increase by 7.1%, while the rise in costs is projected at 4.5% next year.

Boxes

A summary of financial market events since June

Projections in *Monetary Policy Report* 2/08 and 3/08

A summary of financial market events since June

The first signs of an emerging crisis in financial markets came into evidence in early 2007. Accelerating house price deflation in the US increased the risk associated with financial products backed by US mortgages. It gradually emerged that many financial institutions in both the US and Europe were exposed to these products, but nobody knew the size of the losses to which the various institutions were exposed. This paved the way for a gradual erosion of interbank confidence.

Since *Monetary Policy Report* 2/08 was published in June, conditions in credit and money markets have deteriorated considerably. Liquidity shortages and large losses have led to mergers between a number of large financial institutions, government acquisitions of others either in whole or in part, and liquidations. The credit channels between banks have failed to function at times. To some extent, money markets have been replaced by short-term funding from the central bank to banks.

The financial crisis and the prospect of low growth in the global economy have led to sharp falls in equity prices in both industrial and emerging economies. Greater uncertainty has also contributed to wider fluctuations in exchange rates.

From the beginning of September, increased uncertainty about the financial position of a number of financial institutions in the US and funding problems led to extensive structural changes at some of the world's largest financial institutions. The US authorities took over the mortgage corporations Fannie Mae and Freddie Mac, which together own or guarantee around 42% of US mortgages and had suffered heavy losses on these loans. The size of these corporations probably made it difficult to raise new capital or merge with another company, and they are continuing to operate with the US federal government as their principal owner for the time being.

Lehman Brothers, the fourth largest investment bank in the US, filed for bankruptcy protection. The bankruptcy severely impaired confidence between participants in financial markets, and many financial markets – both nationally and internationally – almost stopped functioning. All three remaining large investment banks in the US have subsequently been converted into commercial banks, which places them under the supervision of the Federal Reserve and entitles them to borrow from the Federal Reserve and accept ordinary deposits covered by the US deposit insurance system (FDIC).

American International Group (AIG), the largest US insurer, was nationalised following acute problems refinancing loans. The company had a key role in several markets used by other financial institutions to insure credit risk. A number of other structural changes have also taken place in the US, including the takeover by JPMorgan Chase of the country's largest savings bank, Washington Mutual, following heavy losses on mortgages.

Fears that US money market funds would incur losses following Lehman Brothers' failure led to massive redemptions of units in these funds. The US government issued a temporary guarantee for investors in these funds. The Federal Reserve has established lending facilities for buying short-term commercial paper to improve liquidity in the market.

Since mid-September, the crisis has intensified in a number of European countries. Banks in the UK and Denmark have been acquired by other institutions or by the government. Fortis Bank's business in the Netherlands has been acquired by the Dutch government, while its operations in Belgium and Luxembourg have been acquired by a French bank. In Denmark, the authorities are creating an institution that can acquire and liquidate insolvent banks. In Iceland, major problems in the banking sector have led to serious difficulties for the country's economy, including a sharp depreciation of its currency. On 6 October, the Icelandic parliament passed legislation giving wide-ranging powers to the supervisory authorities, which have since placed the country's three big banks into receivership.

Other than central bank measures to supply liquidity to banking systems, the authorities in the US and Europe first approached the financial crisis as a succession of problems at individual institutions. In the US, more general action was approved by Congress on Friday 3 October in the form of a USD 700bn plan to acquire illiquid assets from financial institutions. The aim was to reduce uncertainty about banks' future losses and make it more attractive for private investors to invest in new equity capital. One challenge involved in implementing the plan is selecting and pricing the assets that are to be acquired, as they will often not have a market price. The plan did not calm the markets to any extent.

On 8 October, the UK government announced a series of measures to stabilise financial markets. The UK government will be able to inject equity capital of up to GBP 50bn into UK banks. To improve banks' access to funding, the government will be able to issue guarantees for up to GBP 250bn in new short- and medium-term debt issued by banks. One condition for such a guarantee is that banks raise new equity capital from either public or private sources. Eight large banks have pledged to raise new equity capital by the end of 2008. So far, the state has agreed to inject equity capital of a total of GBP 37bn into these banks. Other banks have raised new equity capital in the market or from their foreign owners.

The week ending 10 October saw large one-day declines in equity prices in a number of countries. The effects on money and foreign exchange markets were considerable. In the light of the possibility that the entire financial system was under threat, the G7 countries announced an action plan[1] on 10 October to stabilise financial markets. At its semi-annual meeting the following day, IMF member countries supported this plan.[2] This was subsequently followed up with comprehensive concrete actions in the US and a number of European countries. These actions have a number of common features:

- Financial institutions that are important to the financial system will not be liquidated
- Central banks will supply as much liquidity as necessary, both in their own currency and in US dollars
- The state will buy equity stakes in financial institutions, guarantee new debt instruments, and be able to acquire assets from financial institutions
- Deposit guarantee schemes have been expanded in several countries to cover either all deposits or an increased amount
- Support second-hand securities markets and evaluate the requirement that securities must be recorded at market value.

On 12 October, euro area countries agreed to take action based on this approach, but adapted to each country's situation. In Germany, for example, a stabilisation fund has been set up to guarantee securities with maturities of up to three years issued by financial institutions, up to a maximum of EUR 400bn. The fund will also be able to inject new equity capital into financial institutions and acquire illiquid securities from banks for up to EUR 80bn. Particularly important institutions can draw on the fund as part of their restructuring even if they are not solvent. In addition, the authorities are changing the application of valuation methodologies in the case of illiquid markets for financial instruments. Similar measures will be implemented in other European countries. In Sweden, the government is introducing a guarantee scheme providing guarantees for a total of SEK 1 500bn for banks' and mortgage banks' medium-term financing. The government is allocating SEK 15bn to a stabilisation fund that is being established to address any future solvency problems in the financial sector. The fund will be increased to 2.5% of GDP over 15 years, partly through a new fee that all lending institutions have to pay.

In the US, the government has announced that it will buy preference shares in a number of financial institutions for up to USD 250bn of the USD 700bn allotted. The Treasury secretary has stated that even institutions that are not particularly vulnerable will be able to sell shares to the government.
In connection with their purchases of shares in financial institutions, the authorities have set conditions in areas such as the payment of dividends and executive pay. The authorities in several countries will be stepping up their supervision of financial institutions and markets in the light of the financial crisis.

Although financial institutions in the US are at the epicentre of the crisis, all markets and all countries are directly or indirectly affected. Norway too is feeling the effects of the global financial crisis. Norwegian institutions and the Norwegian economy are generally well equipped to face difficult times, and the authorities in Norway have greater economic freedom of action than those in most other countries. The steps taken in Norway have, therefore, been slightly more limited in scope than those in other European countries (see box on page 11).

[1] See http://www.treasury.gov/press/releases/hp1195.htm

[2] See http://www.imf.org/external/np/cm/2008/101108a.htm

Projections in *Monetary Policy Report* 2/08 and 3/08

This box provides an account of the changes in projections since *Monetary Policy Report* 2/08. New information since June has influenced our assessment of both the current economic situation and how different driving forces will influence developments in the years ahead. Finally, Norges Bank's projections for 2009 are compared with projections from other institutions.

News since Monetary Policy Report 2/08

The following points summarise developments in the economy that have led to changes in our projections for the current year and the period ahead:

- Financial markets are marked by substantial fluctuations in value and considerable uncertainty. Since Monetary Policy Report 2/08, global equity prices have fallen sharply. Several banks in the US and Europe have been acquired by other banks or partially nationalised. Interbank lending is very tight. Premiums in money and credit markets are very high.
- Central banks and the authorities in many countries have implemented a range of measures to improve banks' liquidity and access to funding. Measures to address financial turbulence in Norway are discussed in a box on page 11.
- The projections for GDP growth among our trading partners have been revised down by ½ percentage point in 2008, 1½ percentage points in 2009 and by ¼ percentage point per year for the remainder of the projection period. Global inflation was higher than expected earlier this year, but has slowed somewhat in recent months. The projection for inflation has been revised up by ¼ percentage point this year and revised down by ¼ percentage point next year. Further ahead, the projections are unchanged.
- Key rates have been lowered in both the US and Europe, and the market expects further key rate reductions. Norges Bank reduced the key policy rate by 0.50 percentage point to 5.25% on 15 October.
- Banks at home and abroad have tightened their credit standards for businesses and households. Mortgage rates for Norwegian households have risen somewhat more than projected in the previous Report.
- The krone has been weaker than previously assumed.
- Inflation has been higher than projected. Both the rise in prices for imported consumer goods and the rise in prices for domestically produced goods and services excluding energy products have increased more than expected (see Chart 1).
- Oil prices have fallen considerably and futures prices are substantially lower compared with the June Report. On balance, there are prospects for lower energy prices ahead than assumed in the previous Report.
- Preliminary national accounts figures indicate that mainland GDP growth slowed in the first half of the year, in line with our projections. Growth in private sector demand was weaker than expected, while public sector demand was somewhat stronger than expected.
- Employment has been approximately unchanged since April. Unemployment is slightly lower than expected in the previous Report. Productivity growth has been lower than projected.
- Fiscal policy will have a somewhat more expansionary effect on the economy from 2008 to 2009 than assumed in the June Report.
- Household and corporate expectations with regard to developments ahead have weakened. Enterprises in Norges Bank's regional network expect very slow growth in the Norwegian economy.

Changes in the projections

The interest rate forecast on which the projections in this *Report* are based is lower than in the previous *Report*. Section 1 provides a more detailed account of interest rate developments ahead.

Our projections are based on the assumption that the measures implemented by central banks and government authorities to improve conditions in financial markets will have an impact relatively quickly. The premium in the Norwegian money market in excess of the key rate is expected to decline from approximately 1¾ percentage points in Q4 this year to ½ percentage point in Q3 next year. In 2011, the premium is projected at ¼ percentage point. The premiums are somewhat higher than assumed in the previous ***Report***.

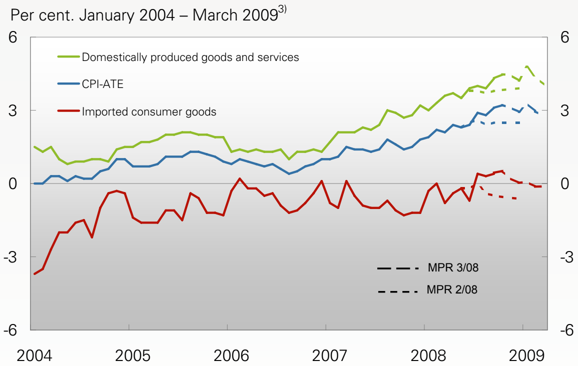
The projected rise in consumer prices adjusted for tax changes and excluding temporary changes in energy prices (CPIXE) is somewhat higher in 2008 and 2009 than in the previous ***Report***. The projections for 2010 and 2011 are virtually unchanged (see Chart 2). The rise in prices measured by the CPI is projected to be somewhat lower in 2008 and 2009 than in the June ***Report***, reflecting the assumption that energy prices will be somewhat lower.

Compared with the previous ***Report***, the projections for growth in mainland GDP in 2008 and 2009 have been revised down, primarily as a result of the financial crisis. On an annual basis, growth in mainland GDP has been revised down by ¾ percentage point this year and 1¾ percentage points next year, see Table 1. Growth in household demand is expected to be very low in the period ahead. The household saving ratio is projected to increase more than expected earlier, and housing investment is projected to fall more sharply both this year and next. Higher saving and lower housing investment will result in a marked rise in household net lending in the year ahead. Debt growth is expected to moderate further in the period ahead and somewhat more than assumed in the June ***Report***.

Owing to tighter credit standards and higher funding costs, we now project a sharper fall in corporate investment ahead than in the previous ***Report***. Even though the krone has depreciated, projected export growth for next year has been revised down as a result of weaker prospects for the global economy. Lower export growth, weaker growth in private consumption, a sharper fall in investment and a weaker krone than projected in the June ***Report*** will contribute to lower growth in imports this year and next than previously expected.

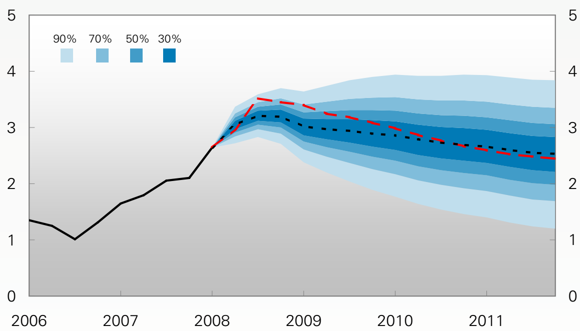
A lower key policy rate and improved financial market conditions are expected to gradually result in higher investment and higher growth in consumption. Consumption is expected to pick up in 2010

Chart 1 CPI-ATE[1)]. Total and by supplier sector[2)]. 12-month change. Per cent. January 2004 – March 2009[3)]



1) CPI adjusted for tax changes and excluding energy products
2) Norges Bank's estimates
3) Projections for October 2008 – March 2009
Sources: Statistics Norway and Norges Bank

Chart 2 Projected CPIXE[1)] in the baseline scenario in MPR 2/08 with fan chart and CPIXE in the baseline scenario in MPR 3/08 (red line). Four-quarter change. Per cent. 2006 Q1 – 2011 Q4



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

and 2011. Growth in private investment is projected to be stronger towards the end of the projection period than assumed in the previous *Report*. Exports will also pick up in pace with stronger global growth. Petroleum investment is expected, as previously, to remain high throughout the projection period. Fiscal policy is expected to have a somewhat stronger expansionary effect on the economy next year than assumed in the previous *Report*, while the fiscal stance ahead will remain approximately as projected. On balance, growth in mainland GDP is expected to pick up towards the end of the projection period and be somewhat stronger than projected in the previous *Report*.

Productivity growth this year and next will probably be lower than assumed in the June *Report*. Employment growth has been revised down for next year, but is expected to pick up more rapidly in 2010 and 2011 than assumed in the previous *Report*. Growth in the labour force has been revised down from 2008 to 2009. Unemployment is projected to increase somewhat more rapidly from this year to next than previously assumed. Unemployment is expected to increase to 4% in 2010, or ½ percentage point higher than projected in June.

On balance, our assessment is that capacity utilisation in the first half of this year has been approximately in line with the projections in the June *Report*. Capacity utilisation ahead is expected to be lower than projected in the previous *Report*. The output gap is now estimated at 2¼% in 2008, to be followed by negative gap in 2009 and 2010 (see Chart 3). The output gap is thereafter expected to gradually close.

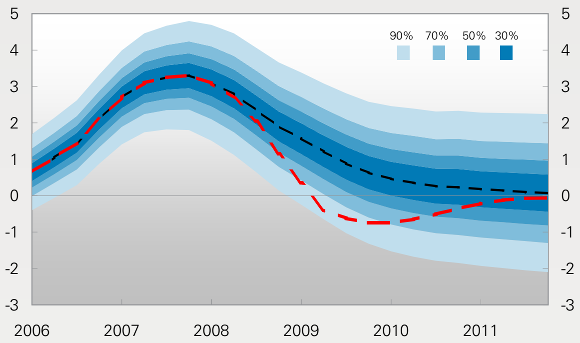
Forecasts from other institutions

Our projection for economic growth in 2009 is lower than the forecast from the Ministry of Finance, Statistics Norway and the average projection from *Consensus Forecasts* (see Chart 4). We project mainland GDP growth of ¼% next year. In the National Budget for 2009, the Ministry of Finance projects GDP growth of 1.9% in 2009. Statistics Norway's forecast for mainland GDP growth was 1.1% in mid-October, lower than its May forecast of 1.9%. The average forecast for GDP growth from *Consensus Forecasts* was revised down from 2.2% in June to 1.3% in October.

In this *Report*, Norges Bank projects CPI inflation of 3% in 2009, the same as projected by the Ministry of Finance (see Chart 5). Since May, Statistics Norway has revised up its projection for CPI inflation in 2009 by 0.1 percentage point to 3.2%. The average forecast for CPI inflation from Consensus Forecasts has also been revised up, from 2.6% in June to 2.8% in October. In this *Report*, CPI-ATE inflation is projected at 3% in 2009. The Ministry of Finance projects CPI-ATE inflation at 2¾ (see Chart 6). Since May, Statistics Norway has revised up its projection for CPI-ATE inflation in 2009 by 0.4 percentage point to 2.7%.

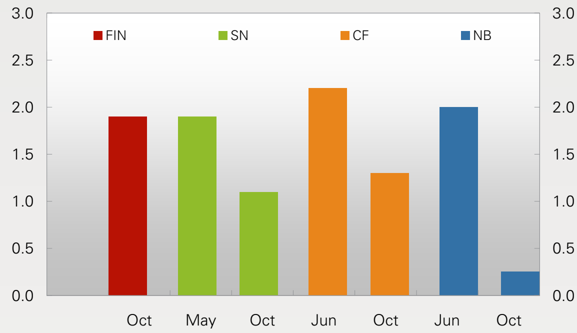
The Ministry of Finance's forecasts were published on 7 October 2008. Statistics Norway published its projections on 29 May and 13 October. Consensus Forecasts compiled its forecasts on 9 June and 13 October. As the institutions publish projections at different times, the information on which the projections are based will differ, and new information in the past few weeks clearly indicates slower growth.

Chart 3 Estimated output gap in the baseline scenario in MPR 2/08 with fan chart and output gap in the baseline scenario in MPR 3/08 (red line).
Per cent. 2006 Q1 – 2011 Q4



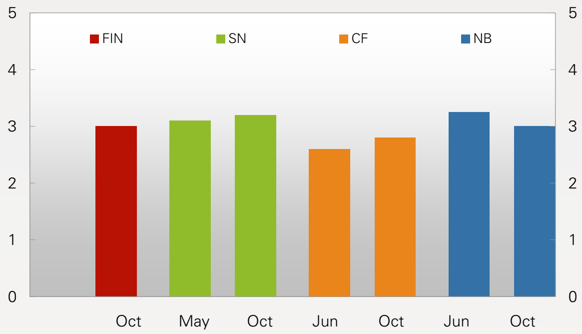
Source: Norges Bank

Chart 4 Mainland GDP. Projections for 2009 published at different times.
Percentage growth



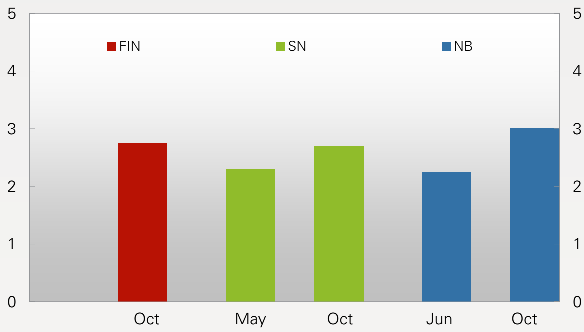
Sources: National Budget 2009, Economic Survey 3/2008 and 4/2008 (Statistics Norway, updated release 14 October), Consensus Forecasts June 2008 and October 2008, Monetary Policy Report 2/08 and 3/08

Chart 5 CPI. Projections for 2009 published at different times.
Percentage growth



Sources: National Budget 2009, Economic Survey 3/2008 and 4/2008 (Statistics Norway, updated release 14 October), Consensus Forecasts June 2008 and October 2008, Monetary Policy Report 2/08 and 3/08.

Chart 6 CPI-ATE[1]. Projections for 2009 published at different times.
Percentage growth



1) CPI adjusted for tax changes and excluding energy products
Sources: National Budget 2009, Economic Survey 3/2008 and 4/2008 (Statistics Norway, updated release 14 October), Monetary Policy Report 2/08 and 3/08.

Table 1 Projections for macroeconomic aggregates in *Monetary Policy Report* 3/08. Change from projections in *Monetary Policy Report* 2/08 in brackets

	2008		2009		2010		2011	
Mainland demand	2¼	(-1)	-1¼	(-3)	1½	(-½)	3¾	(¾)
GDP mainland Norway	2½	(-¾)	¼	(-1¾)	2½	(0)	3½	(½)
Employment	2¾	(0)	-¾	(-1¼)	0	(¼)	¾	(¼)
LFS unemployment (rate)	2½	(0)	3¼	(¼)	4	(½)	4	(¼)
CPIXE[1)]	3¼	(¼)	3¼	(¼)	2¾	(0)	2½	(0)
CPI-ATE	2½	(0)	3	(¾)	2¾	(¼)	2½	(0)
CPI	3¾	(-¼)	3	(-¼)	2¾	(¼)	2½	(0)
Annual wage growth	6	(0)	4¾	(-¾)	4¾	(-¼)	4¾	(0)

[1)] See Staff Memo 2008/7 from Norges Bank for a description of the CPIXE.

Source: Norges Bank

Boxes 2004-2008

3 / 2008
Norwegian financial crisis measures
The NIBOR market
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 rise in domestic and global food prices
Cross-checks for the krone exchange rate
Evaluation of Norges Bank's projections for 2007

3 / 2007
Household saving
NEMO – a new projection and monetary policy analysis model

2 / 2007
Is global inflation on the rise?
Developments in productivity growth
How often do enterprises change their prices?

1 / 2007
Will the global economy be affected by a slowdown in the US?
Uncertainty surrounding wage growth ahead
Competition and prices
Evaluation of Norges Bank's projections for 2006

3 / 2006
Output gap

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

1 / 2006
Choice of interest rate path
Productivity growth in Norway
The yield curve and economic outlook in the US
Evaluation of Norges Bank's projections for 2005

3 / 2005
Uncertainty surrounding future interest rate developments
Accuracy of short-term interest rate expectations
Output gap uncertainty
Increased imports from low-cost countries
The effects of high oil prices on the global economy

2 / 2005
Developments in the krone exchange rate

1 / 2005
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

3 / 2004
Estimated relationship for interest rate setting
Developments in household debt
Norges Bank's foreign exchange purchases for the Government Petroleum Fund
The current account surplus and demand for Norwegian kroner

2 / 2004
Increase in number of working days in 2004
Financial stability
Norges Bank's estimate of the output gap
A change in inflation expectations?
What are the factors behind the rise in oil futures prices?

1 / 2004
Low external price impulses to the Norwegian economy
The pass-through from the krone exchange rate to prices for imported consumer goods
The effects of the reduction in interest rates on household income
The krone exchange rate and exchange rate expectations
Evaluation of Norges Bank's projections for 2003

Annex I

Regional network

Norges Bank's regional network

Norges Bank's regional network was established in autumn 2002 and consists of enterprises, local authorities and regional health enterprises throughout Norway. Five times a year, we interview business and community leaders concerning financial developments in their enterprises and industries. Each round includes interviews with about 290 contacts. The selection of contacts reflects the production side of the economy, in terms of both industry sector and geographic area. The network comprises approximately 1 500 persons who are interviewed about once a year.

The primary purpose of the regional network is to obtain current information on the state of the Norwegian economy. Regular communication with local contacts in Norway's business and community life provides us with information earlier and more frequently than available official statistics. It also provides us with supplementary information about areas not covered by other statistical sources, and we learn which issues are of particular concern to enterprises. In addition, the regional network will provide us with insight into the effects of specific events and can be used to study relevant issues. Official statistics will continue to form the basis for our perception of the state of the economy, but the time lags and revisions associated with these statistics make supplementary sources, such as our regional network, useful.

The information obtained from the regional network, along with other available information on economic developments, will provide a basis for Norges Bank's projections as presented in the Monetary Policy Report and other published material.

We have divided Norway into seven regions. For six of them we have engaged regional research institutions that are responsible for the network in their respective regions and for arranging meetings with contacts on behalf of Norges Bank. The following institutions have been selected:

Table 1 Norges Bank's regional network

Regions	Institutions
Region North (Nordland, Troms, Finnmark)	Kunnskapsparken Bodø
Region Central Norway (Nord- and Sør-Trøndelag)	Center for Economic Research at the Norwegian University of Science and Technology
Region North-West (Møre og Romsdal, Sogn og Fjordane)	Møreforskning Molde
Region South-West (Rogaland and Hordaland)	International Research Institute of Stavanger
Region South (Aust- and Vest-Agder, Telemark, Vestfold)	Agderforskning
Region Inland (Hedmark and Oppland)	Østlandsforskning
Region East (Buskerud, Akershus, Oslo, Østfold)	Covered by Norges Bank

Summary of contact rounds since *Monetary Policy Report* 2/08

In the contact round that was conducted in August, interviews were conducted with 288 regional network contacts. A national summary is published on Norges Bank's website. We also phoned a number of national market participants in Region East in mid-October to gather more information. The summary below is based on regional reports from the institutions responsible for the various regions and does not necessarily represent Norges Bank's views on economic developments.

Demand, output and market outlook

In August, growth was very low and clearly lower than the contacts had expected. Such low growth has not been recorded since autumn 2003. The decline in growth primarily reflects a fall in demand for cars, boats, housing and household-related goods. Growth is expected to slow further. Our contacts expect zero growth in production volume during the period to end-December.

In August, the rate of growth in manufacturing was very moderate, and lower than before the summer. There was approximately zero growth in domestically oriented manufacturing. The building materials industry reported a reduction in production volume, while there was weak growth in the food industry. The furniture industry reported strong competition both at home and abroad. This sector expects a moderate fall in production during the six-month period from 1 September. In the export industry, growth picked up somewhat in relation to the previous round. It appears that demand for a number of niche products remains fairly solid. In addition, activity levels were high at shipyards and in the maritime industry. A considerable portion of this activity is related to exports. Fish exports were approximately unchanged. Export volumes for manufacturers of furniture and automotive parts edged down as a result of lower foreign demand. In August, export companies expected moderate growth in activity in the period ahead. Manufacturers of automotive parts expected reduced demand from their international customers.

Activity among suppliers to the petroleum industry remains high. The growth rate in this industry has slowed, however, since spring 2006. In August, growth was at its lowest level since spring 2004. The reason for the levelling off seems to be reduced demand after the completion of the large offshore projects Snøhvit and Ormen Lange. Growth has also been curbed by capacity constraints. In particular, there has been a shortage of operative rigs. During the six-month period starting in September, suppliers to the petroleum industry expect somewhat lower growth than during the previous three months. Our contacts expect exports to make a considerable contribution to growth.

As in the previous round, the activity level continued to fall in building and construction. The housing market remains sluggish and very few new flats have been sold. A number of our contacts are drawing parallels with the housing market at the beginning of the 1990s. We have not registered the initiation of new large residential building projects among our contacts. Production and order backlogs are falling gradually as ongoing projects are completed and no new projects are started. Our contacts expect a marked decline in production through autumn and winter. Activity levels remained solid in commercial building and refurbishment, although activity was not sufficient to offset the slowdown in the housing market. Competition is expected to pick up gradually as resources are freed up from residential building. Overall, our contacts expect that production in the building market will decline in the period ahead. In the construction market, activity has remained roughly unchanged since the previous round, but our contacts believe that activity may gradually decline due to some decline in new projects.

For the first time, the regional network registered a decline in retail trade sales volumes. A reduction in moving activity has led to a reduction in sales of furniture, and white and brown goods. It also appears that households have further reduced their purchases of goods such as cars, boats, caravans and building materials since the previous round. Sales of consumer goods such as groceries, clothing and flowers have remained stable. Overall, retail trade expects a continued decline in sales volumes until year-end.

Growth in services, particularly household services, slowed. These industries have not reported such low growth since early 2004. The hotel and restaurant industry in particular reported lower household demand. Corporate services reported reduced demand for transport services as a result of lower activity in building and construction. In addition to a decline in overall demand, the contacts also reported a shift towards other types of services such as credit information and the filing of bankruptcy proceedings. Overall, the contacts expect continued moderate growth in services in the period ahead.

Capacity utilisation and investment

In August, capacity utilisation had returned to the level prevailing in the winter of 2006 (see Chart 1). 48% of companies reported that they would have some or considerable difficulty in accommodating an increase in demand, while 37% reported that the supply of labour would limit production if demand increased. Regional differences were considerable. Activity remained very high in Regions North-West and South-West. In Regions Inland and East, capacity utilisation seems to be lower than normal. Companies reporting labour constraints cited in particular a shortage of highly skilled Norwegian-speaking labour. Few contacts reported that the supply of production workers represented a capacity problem.

For the first time, our contacts in the regional network are planning to reduce investment over the next 12 months. The local government and hospital sector and services in particular expect to reduce investment. Manufacturing and retail trade are still planning to increase investment somewhat.

Chart 1 Norges Bank's regional network. Capacity utilisation and supply of labour. Share who respond that they will have problems accommodating an increase in demand. Per cent. January 2005 – August 2008

Source: Norges Bank's regional network

Chart 2 Expected change in selling prices over the next 12 months. Diffusion index1). January 2005 – August 2008

1) Share of contacts expecting higher rise in prices + (0,5* share of contacts expecting stable prices).
Source: Norges Bank's regional network

Employment

All industries reported a moderate increase in employment, but the growth rate slowed in relation to the round of interviews in May. Many of the contacts reported that they had cancelled or scaled back their recruitment plans due to the uncertain outlook ahead. Both manufacturing and construction reported layoffs. Overall, our contacts expect employment levels to remain unchanged in the period ahead. The service sector is the only industry that is planning to increase employment.

Costs, prices and profitability

Our contacts have increased their estimates for wage growth in 2008. Overall, they expect annual wage growth of nearly 6%. The local government and hospital sector in particular have increased their estimates. Both sectors expect more than 6% annual wage growth.

The rise in prices edged up somewhat compared with the interview round in May and remained at the high level prevailing throughout 2008. The rise in prices slowed in building and construction but edged up in the other industries. Manufacturing and retail trade in particular reported a higher rise in prices. In the period ahead, the contacts expect the rise in prices to remain roughly the same in industries oriented towards households (see Chart 2). Manufacturing, construction and corporate services expect considerably lower inflation due to expectations of lower prices for commodities and other factor inputs, the uncertain outlook and expectations of increasing competition.

Overall, the contacts' operating margins have remained approximately unchanged. Profitability fell in manufacturing and retail trade. Profitability increased in the other industries, but growth slowed for all industries except suppliers to the petroleum industry.

Extra round of calls in October

A number of contacts in Region East with operations in many parts of the country were called in mid-October to gather updated information about developments in the Norwegian economy in light of the financial crisis. The general impression from our contacts is that the situation has deteriorated since our ordinary round of interviews in August.
The sales volume for capital goods has declined. The fall has accelerated during the autumn and October sales are considerably lower than at the same time last year. Growth in private demand for restaurant and travel services had remained stable in early autumn, but slowed markedly at the beginning of October. There is considerable uncertainty, but the contacts are preparing for a further decline in sales in the period to summer 2009.

The investment outlook is deteriorating in retail trade and services. In the building sector, the housing market has been weak for a longer period and market participants' estimates of housing starts for 2008 are very low. During recent months, our contacts have also experienced a sharp slowdown in the commercial property market. The refurbishment market has not exhibited the growth that market participants had anticipated.

Employment is falling in the construction industry and in that part of retail trade that sells capital-intensive goods. There have also been workforce reductions in some segments of the restaurant industry.

Enterprises and organisations that have been interviewed in the work on *Monetary Policy Report* 3/08

7. himmel AS
A/S Th. Marthinsen Sølvvarefabrikk
ADCom Data
Adecco Norge AS
Adecco Norge AS, Nord-Norge
Advanced Production and Loading AS
Advokatfirmaet Mageli ANS
Af Gruppen ASA
Ahead Frisør
Ahlshell Norge AS
Aker Kværner Pusnes AS
Aker Yards AS, Brattvåg
Aksel L. Hansson AS
Albert E. Olsen AS
Alfr. Nesset AS
Alta kommune
Alu Rehab AS
Alvdal Skurlag AL
Alvdal Tynset Sport AS
Amfi Namsos AS
Anleggsgartnerfirma Strandman AS
Applica AS
Apropos Internett AS
APS Norway AS
Arena Treningssenter
Aure kommune
Avigo AS
B&T Låsservice AS
Bakke El-Installasjon AS
Ballstad Slip AS
Becotek AS
Bergans Fritid AS
Berg-Hansen Reisebureau AS, Kristiansand
Berle Fisk AS
Bilia AS
Bilsenteret Namsos AS
Biotec Pharmacon ASA
Birger Pedersen AS
Blefjell sykehus HF
Bohus Møbel-Sven AS
Boligpartner AS
Borregaard
Brevik Construction AS
Bring Logistics, Stavanger
Brødrene Harsjøen AS
Brødrene Pedersen AS
Brønnøysund Firma Info AS
Buer Entreprenør AS
Bussbygg AS
Byggkjøp Farsund Bygg
Byggmakker Norge AS
Byggservice Nord-Østerdal AS
Bårdshaug Herregård
Capgemini Norge AS
Capinor AS
Cappelen Damm AS
Chiron AS
Choice Hotels Scandinavia ASA
Christie & Opsahl AS
City Syd AS
Comhouse AS
Coop Elektro, Bodø
Coop Trondheim og omegn BA
Daldata AS
Dale + Bang
Deal AS
Dedicare AS
Dnb NOR Eiendom AS
DnB NOR Eiendom AS, Alta
Dolly Dimple AS
Drytech AS
E. Flasnes Transport AS
E.A Smith AS
Eiendomsmegler 1 AS
Eiendomsmegler 1 Midt-Norge AS
Eigersund kommune
Elkem Thamshavn AS
Elverum kommune
Ernst & Young, Rogaland
Esmeralda AS
Evje og Hornnes kommune
Expert ASA
Farvemiljø Nord AS
Farveringen AS
Fatland Ølen AS
FAV Gruppen AS
Figgjo AS
Finnpersonal & Rekruttering AS
First Hotel Victoria
Fjeldseth AS
Fjord Marin AS
Fløibanen AS
Fokus Bank, Tromsø
Forestia AS
Frost Entreprenør AS
Gange-Rolv AS
Gausdal Landhandleri AS
Geoservice AS
Gjensidige, Tromsø
Glen Dimplex Nordic AS
Glåma Bygg AS
Gresvig ASA
Grunnarbeid AS
Grytnes Betong AS
Harstad kommune
Harstad Mek. Verksted AS
Hedmark fylkeskommune
Helkama Grepa AS
Helse Bergen HF
Helse Finnmark HF
Helse Sunnmøre HF
Hennig-Olsen Is AS
Hoff Norske Potetindustrier SA
Hotel Augustin AS
HRG Nordic, Bodø og Tromsø
Hunderfossen Familiepark AS
Hunton Fiber AS

Hydro Aluminium Structures Raufoss AS
IBM Norge
ICA Distribusjon AS
Innvik Sellgren Industrier AS
Inter Revisjon AS
ISS Norge AS
IT Partner AS, Tromsø
Jan Høiback
JCDecaux Norge AS
Jensen Møbler AS
Johs Lunde Tørrlastdivisjonen
Jonas B. Gundersen AS
K. Lund AS
Karmsund Maritime Service AS
Klepp Sparebank AS
KLP Eiendom Trondheim AS
Kongsberg Gruppen ASA
KPMG AS, Stavanger
Kraft Foods Norge AS, Disenå
Kragerø kommune
Kristiansand kommune
Kristiansand Næringsforening
Krogsveen Hamar AS
Kroken Caravan AS
Kvalitet & Ledelse AS
Kvestor Pro AS
Leif Gromstads Auto AS
Leonhard Nilsen & Sønner AS
Litra AS
L'Oréal Norge AS
LPO arkitektur & design AS
Lyse Energi AS
Løvolds Industri AS
Maihaugen
Mascot Electronics AS
MB Hydraulikk AS
Melby Snekkerverksted AS
Meny Sogndal
Mesta AS
Mester Grønn AS
Moelven Limtre AS
Moelven Nordia AS
Moelven Nordia AS, Trondheim
Moelven Van Severen AS
Moelven Våler AS
Moi Rør AS
Molde kommune
Moss kommune
Multi Elektro AS
Multiconsult AS, Trondheim
Møre Eiendomsmegling AS
Møre og Romsdal Kornsilo ANS
Mørekjøtt AS
MAA AS
Namsos kommune
NAV Nord-Trøndelag
NAV Vestfold
NCC Construction AS
NCC Roads AS
Nesje AS
Nexans Norway AS
Norcem AS
Norconsult AS
Nordea Bank Norge ASA, Kristiansand
Nordlandsbanken ASA
Norgesgruppen ASA
Norgesmøllene AS, Buvika
Norgestaxi Trondheim AS
Norisol Norge AS
Norsk Sjømat AS
Norsvin
Notodden Mur- og Entreprenørforretning AS
Nycomed Pharma AS
Obos
Oddstøl Elektronikk AS
Olav Thon Eiendomsselskap ASA
Oracle Norge AS
Orkdal Installasjon AS
Orkidéekspressen AS
Os Husdyrmerkefabrikk AS
Ottar Kristoffersen Eftf. AS
Overhalla Cementvare AS
Paulsen Eiendom AS
Per Strand AS
Petters Sjømat AS
Plantasjen Norge AS
Plasto AS
Polarkonsult AS
Procter & Gamble Norge AS
Prognosesenteret AS
Protan AS
Quality Hafjell Hotell AS
Quality Hotel Alexandra AS
Rambøll Norge AS
Randaberg kommune
REC SiTech AS
Restco AS
Revisorkonsult AS
Rica Hotel Norge AS, Kristiansand
Rica Ishavshotel Tromsø
Ringerike kommune
Rogaland Elektro Gruppen AS
Rolls-Royce Marine AS
Ruukki Profiler AS
Rygge Vaaler Sparebank
Rød Tråd AS
Rørleggeren AS
Raaen Entreprenør AS
Securitas AS, Bergen avd olje og gass
SIVA Selskapet for industrivekst SF
Skagen Brygge Hotell AS
Skagerak Energi AS
Skanem Moss AS
Skanska Norge AS, Tromsø
Skedsmo kommune
Skeie AS
Smurfit Kappa Norpapp AS
Sogn Billag AS
Solem Hartmann AS
Solstad Offshore ASA
Sortland kommune

Spar Hamresanden AS
Sparebank 1 Gruppen AS
Sparebank 1 Midt-Norge
Sparebank 1 Vestfold
Sparebanken Hedmark
Sparebanken Sogn og Fjordane
Stansefabrikken Lillesand AS
StatoilHydro ASA
Stokke Gruppen AS
Stor-Elvdal kommune
Strand Sea Service AS
Strømsholm Fiskeindustri AS
Sult AS
Sykehuset Buskerud HF
Sør-Norge Aluminium AS
T Kverneland & Sønner AS
Tannum Møbler & Tekstil
Taubåtkompaniet AS
Teknisk Bureau AS
Telenor Mobil AS
Thommessen Krefting Greve Lund AS
Thon Hotel Arendal
Ticket Feriereiser AS
Tine BA
Tine Meieriet Sør BA
Torghatten trafikkselskap AS
Toyota Førde AS
Toyota Nordvik AS
TVNordvest AS
Tynset kommune
Ullevål sykehus
Union Hotel
Valldal høvleri AS
Veidekke Entreprenør AS, Bergen
Veidekke Entreprenør AS, Indre Østland
Vest Buss Gruppen AS
Vindafjord kommune
Visit Trondheim AS
Volmax AS
Washington Mills AS
Wenaas AS
West Contractors AS
Westco Miljø AS
Westnofa Industrier AS
YIT Building Systems AS, Bodø
Ølen Betong AS
Østerdal Billag AS
Åge Nilsen AS
Aas Mek. Verksted AS

Annex II

Tables, charts and detailed projections

Monetary policy meetings in Norges Bank

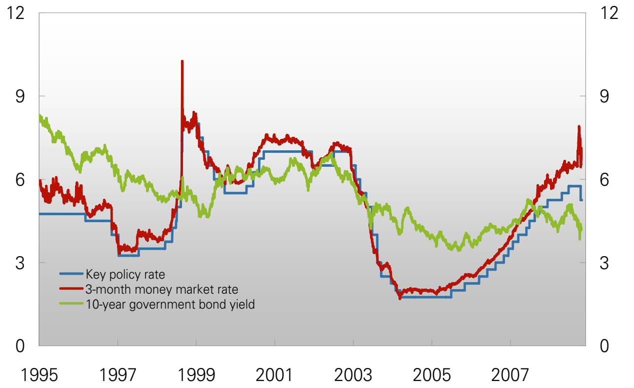
with changes in the key policy rate

Date	Key policy rate[1)]	Change
25 March 2009		
4 February 2009		
17 December 2008		
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	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
26 April 2006	2.5	0
16 March 2006	2.5	+0.25
25 January 2006	2.25	0

1) The key policy rate is the interest rate on banks' deposit 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.

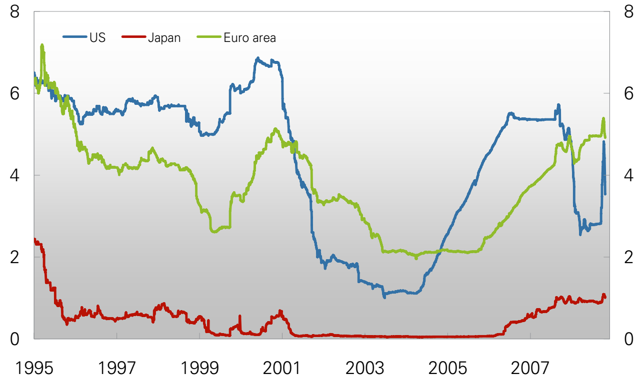
Charts

Chart 1 Norwegian interest rates. 3-month money market rate, key policy rate and 10-year government bond yield. Per cent. 2 January 1995 – 23 October 2008



Source: Norges Bank

Chart 2 3-month interest rates in the US, the euro area and Japan. Per cent. 2 January 1995 – 23 October 2008

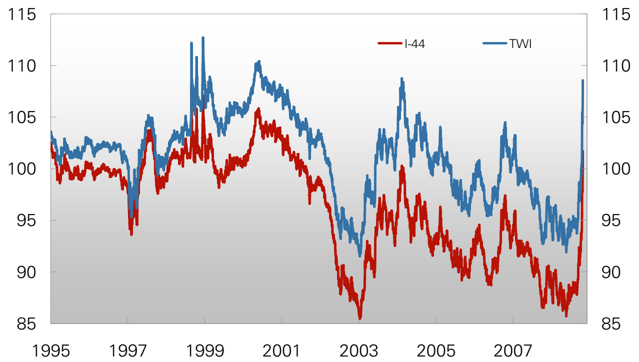


Source: Thomson Reuters

Chart 3 3-month interest rates in the UK, Sweden and among Norway's main trading partners. Per cent. 2 January 1995 – 23 October 2008

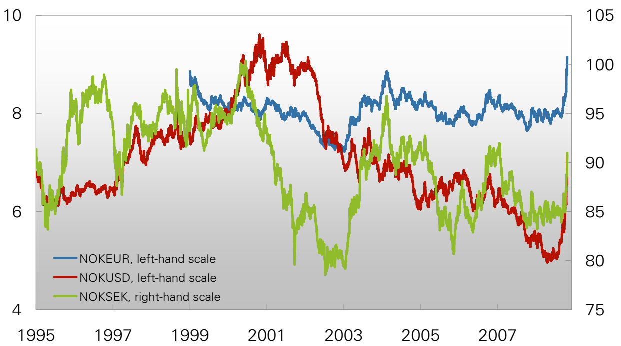
Sources: Thomson EcoWin og Norges Bank

Chart 4 Trade-weighted exchange rate index (TWI) and import-weighted exchange rate (I-44).[1)] 2 January 1995 – 23 October 2008



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

Chart 5 Bilateral exchange rates[1)]. 2 January 1995 – 23 October 2008



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

Table 1 Main macroeconomic aggregates

Percentage change from previous year/ quarter		GDP	Mainland GDP	Private con-sumption	Public con-sumption	Mainland fixed invest-ment	Petroleum invest-ment[1]	Trad. export	Import
2004		3.9	4.4	5.6	1.5	9.3	10.2	4.8	8.8
2005		2.7	4.6	4.0	0.7	12.7	18.8	6.1	8.7
2006		2.5	4.8	4.7	2.9	7.6	2.9	9.7	8.1
2007		3.7	6.2	6.4	3.6	9.4	5.5	9.0	8.7
2008[2]									
	Q1	0.0	-0.1	0.0	0.7	-3.8	1.0	0.7	-0.7
	Q2	0.6	1.0	0.3	1.0	-0.2	2.7	0.6	0.1
2007 level, billions of NOK		2277	1715	946	449	342	108	427	686

1) Extraction and pipeline transport.
2) Seasonally adjusted quarterly figures.

Source: Statistics Norway

Table 2 Consumer prices

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	Jan	3.7	1.9	2.4	3.7	1.9	2.9
	Feb	3.7	2.2	2.8	3.8	2.1	3.1
	Mar	3.2	2.1	2.7	3.2	2.2	2.8
	Apr	3.1	2.4	3.0	3.2	2.3	2.7
	May	3.1	2.3	2.9	3.2	2.3	2.8
	Jun	3.4	2.4	3.0	3.5	2.3	3.0
	Jul	4.3	2.9	3.5	4.4	2.8	3.9
	Aug	4.5	2.8	3.4	4.6	2.6	4.1
	Sep	5.3	3.1	3.7	5.5	2.9	4.8

1) CPI-ATE: 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 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) HIPC: Harmonised Index of Consumer Prices. The index is based on international criteria drawn up by Eurostat.

Source: Statistics Norway

Table 3 GDP growth in other countries

Percentage change from previous year. Projections for 2008-2011

	US	Euro area	Japan	UK	Sweden	China	Trading partners[1)]
2007	2.0	2.6	2.1	3.0	2.7	11.9	3.3
Projections							
2008	1½	1	½	1	1¼	9½	1¾
2009	-½	0	¼	-½	¼	8½	½
2010-2011[2)]	2¼	1¾	1¼	2	2¼	8¾	2¼

1) Export weights, 26 trading partners.
2) Average annual growth.

Sources: Thomson Reuters and Norges Bank

Table 4 Consumer prices in other countries

Percentage change from previous year. Projections for 2008-2011

	US	Euro area[1)]	Japan	UK	Sweden	China	Trading partners[2)]
2007	2.9	2.1	0.0	2.3	2.2	4.8	2.3
Projections							
2008	4½	3½	1½	4	3¾	6½	3¾
2009	2	1¾	¾	3	2¼	4½	2¼
2010-2011[3)]	1¾	2	¾	2	2	4	2

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

Sources: Thomson Reuters, Eurostat and Norges Bank

Table 5 Main economic aggregates

	In billions of NOK	Percentage change from previous year (unless otherwise stated)				
			Projections			
	2007	2007	2008	2009	2010	2011
Prices and wages						
CPI		0.8	3¾	3	2¾	2½
CPI-ATE[1)]		1.4	2½	3	2¾	2½
CPIXE[2)]		1.9	3¼	3¼	2¾	2½
Annual wage growth[3)]		5.6	6	4¾	4¾	4¾
Real economy						
GDP	2277	3.7	2	1	2¼	3¼
GDP, mainland Norway	1715	6.2	2½	¼	2½	3½
Output gap, mainland Norway[4)]		3	2¼	-¼	-½	0
Employment, persons		4.0	2¾	-¾	0	¾
Labour force, LFS		2.5	2¾	0	½	¾
LFS unemployment (rate)		2.5	2½	3¼	4	4
Demand						
Mainland demand[5)]	1738	6.2	2¼	-1¼	1½	3¾
- Private consumption	946	6.4	1½	¾	3	3¼
- Public consumption	449	3.6	3¾	3½	.	.
- Fixed investment, mainland Norway	342	9.4	2¼	-14	.	.
Petroleum investment[6)]	108	5.5	7½	10	5	0
Traditional export	427	9.0	5½	¾	.	.
Import	686	8.7	4	-1¼	.	.
Interest rate and exchange rate						
Key policy rate (level)[7)]		4.4	5¼	4¼	3¾	4¼
Import-weighted exchange rate (I-44)[8)]		90.8	90.2	94.2	93.3	92.8

1) CPI-ATE: 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 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. The number for 2007 includes costs related to the introduction of mandatory occupational pensions.
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) The key policy rate is the interest rate on banks' deposits in Norges Bank.
8) Level. The weights are estimated on the basis of imports from 44 countries, which comprises 97% of total imports.

. Not available

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

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