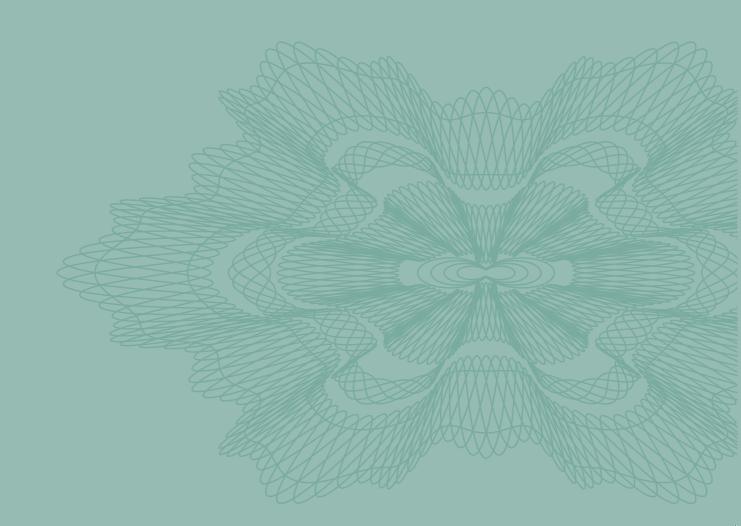
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Reports from the Central Bank of Norway No 1/2008





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 12 December, the Executive Board discussed relevant themes for the *Report*. At the Executive Board meeting on 26 February, 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 June 2008 at the meeting held on 13 March. 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 23 April, 28 May and 25 June.

The *Monetary Policy Report*, together with *Financial Stability*, is part of Norges Bank's series of reports. The report is also available on Norges Bank's website: http://www.norges-bank.no.

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The Monetary Policy Report is based on information in the period to 10 March 2008

The monetary policy strategy in Section 1 was approved by the Executive Board on 13 March 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 decision to adopt a monetary policy strategy is made on the same day as the *Report* is published. The strategy applies for the period up to the next *Report* and is presented at the end of Section 1 in the *Report*.

The key policy rate is set by Norges Bank's Executive Board. Decisions concerning the interest rate are normally taken at the Executive Board's monetary policy meeting every sixth week. The analyses and the monetary policy strategy, together with assessments of price and cost developments and conditions in the money and foreign exchange markets, form a basis for interest rate decisions.

Communication of the interest rate decision

The monetary policy decision is announced at 2pm on the day of the meeting. At the same time, the Executive Board's monetary policy statement is published. The statement provides an account of the main aspects of economic developments that have had a bearing on the interest rate decision and the Executive Board's assessments. The Bank holds a press conference at 2:45 pm on the same day. The press release, the Executive Board's monetary policy statement and the press conference are available on www.norges-bank.no.

Reporting

Norges Bank reports on the conduct of monetary policy in the *Monetary Policy Report* and the *Annual Report*. The Bank's reporting obligation is set out in Section 75c of the Constitution, which stipulates that the Storting shall supervise Norway's monetary system, and in Section 3 of the Norges Bank Act. The *Annual Report* is submitted to the Ministry of Finance and communicated to the King in Council and to the Storting in the Government's Kredittmeldingen (Credit Report). The Governor of Norges Bank provides an assessment of monetary policy in an open hearing before the Standing Committee on Finance and Economic Affairs in connection with the Storting deliberations on the Credit Report.

Editorial

Inflation on the rise, but weaker global outlook

The objective of monetary policy is low and stable inflation with annual consumer price inflation of close to 2.5% over time. The key policy rate has been raised by 3.5 percentage points to 5¼% since summer 2005 because there were prospects that inflation would pick up. The key policy rate was raised pre-emptively to prevent inflation from becoming too high. Inflation has now moved up and is close to 2.5%.

Output growth was unexpectedly high towards the end of 2007. An ample supply of foreign labour, improved productivity and strong income growth in the Norwegian economy have provided room for high growth. Productivity growth now seems to be slackening, capacity utilisation in the business sector is very high and the labour market is tight.

Domestic and external developments are diverging. The US economy is probably at a standstill and there are fears of a pronounced downturn. Prospects for our trading partners have weakened, but growth in Asia, Russia and other newly industrialised countries remains firm. Interest rates have been reduced in the US, the UK and Canada, while interest rates have been increased in Sweden, Australia and many emerging market economies. At the same time, prices for energy, food and other commodities are high. Inflation among our trading partners has picked up.

Previously, high pay increases have often been awarded in the late phase of an upturn and inflation has then picked up. Moreover, there is a risk that a pronounced downturn in the world economy has a stronger impact on the Norwegian economy than anticipated at this time. A particularly adverse situation would arise if high price and cost inflation in Norway occurs in tandem with weaker sales of Norwegian export goods and a fall in commodity prices. In such a situation, Norges Bank will have to give dominant weight to keeping inflation expectations close to target.

The Executive Board has decided that the key policy rate should be between 5% and 6% until the publication of the next *Report* on 25 June, unless the Norwegian economy is exposed to major shocks.

13 March 2008 Svein Gjedrem

1 Monetary policy assessments and strategy

The economic situation

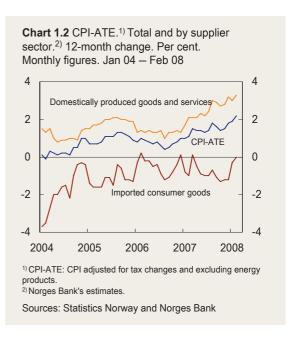
Inflation has picked up markedly. While different measures of inflation as recently as last year were below 1½%, the same measures are now between 2.2% and 3.7% (see Chart 1.1). The rise in the consumer price index (CPI) reflects the increase in electricity prices. Underlying inflation has also increased considerably and is now assessed to be between 2¼% and 3¼%. Prices for domestically produced goods and services are rising at a particularly fast pace (see Chart 1.2). At the same time, prices for imported consumer goods are no longer falling.

Growth in the Norwegian economy has been strong. A high supply of labour, sharp productivity growth and considerable terms-of-trade gains have boosted the growth potential of the Norwegian economy. As a result, growth in output and employment could remain high without an increase in inflation for a long period. High income growth has contributed to strong growth in demand in the household and business sector. A long period of strong economic growth has gradually led to a very high level of capacity utilisation. Unemployment is low and job vacancy rates are high (see Chart 1.3).

According to preliminary national accounts figures, mainland GDP growth is estimated at 6% in 2007 and growth was unexpectedly high in the fourth quarter of last year. Current information from Norges Bank's regional network also indicates that growth was strong, but that growth slowed somewhat towards the end of last year. Productivity growth in the business sector seems to be edging down at the same time as wage growth is high. A sharp rise in costs in the construction sector has led to postponements of investment projects, including public sector projects. House prices have declined and new housing construction projects are being postponed. In manufacturing, production growth has slowed, but order backlogs remain high. The enterprises in Norges Bank's regional network still expect an increase in activity ahead, but at a slower pace than earlier.

The outlook for the world economy has weakened. Business managers' expectations and consumer confidence have fallen in the US and several European countries. Equity prices have declined sharply. The US housing market is slumping and economic growth is at a standstill. Several international banks and financial institutions have reported substantial losses and write-downs. The turbulence in global financial markets is also reflected in a rise in the cost of credit default insurance. Banks have tightened lending standards for business and household loans.

Chart 1.1 Consumer prices. 12-month change. Per cent. Monthly figures. Jan 04 – Feb 08 5 5 CPI 2.5 2.5 Weighted mediar 0 N 20 per cent trimmed mean -2.5 -2.52004 2005 2006 2007 2008 1) CPI adjusted for tax changes and excluding energy products. Source: Statistics Norway



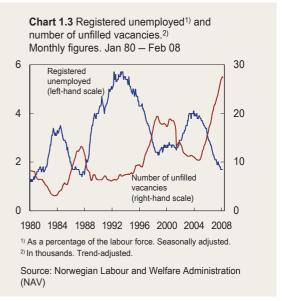
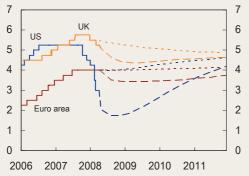


Chart 1.4 Policy rates and estimated forward rates on 25 October 2007 and 10 March 2008.1) Per cent. Daily and quarterly figures.

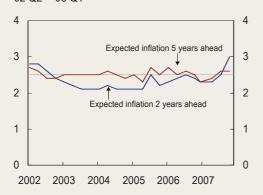
2 Jan 06 - 31 Dec 11



1) Dotted lines show forward rates on 25 October 2007. Broken lines show forward rates at 10 March 2008. Forward rates are based on money market rates and interest rate swaps

Sources: Reuters (EcoWin) and Norges Bank

Chart 1.5 Expected consumer price inflation 2 and 5 years ahead. 1) Per cent. Quarterly figures. 02 Q2 - 08 Q1



1) Average of expectations of employer/employee organisations and experts (financial industry employees, macroanalysts and academics)

Source: TNS Gallup

Chart 1.6 3-month real interest rate¹⁾, 10-year real interest rate2) and the normal real interest rate in Norway3). Per cent. Quarterly figures 96 Q1 - 07 Q4



1) 3-month money market rate 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 21/2 - 31/2%.

Sources: Statistics Norway and Norges Bank

In Asia and Russia, economic growth seems to have softened somewhat, but is still very high. Prices for oil and many raw materials have increased further. Inflation has picked up among many of our trading partners. Food and energy prices have risen at a particularly fast pace.

Interest rates are shifting down in the US and many other countries. Official policy rates are being reduced to address weaker growth prospects for the world economy, while the inflation outlook remains uncertain. In the UK, Bank Rate is still higher than 5% and the central bank in Sweden has raised its official policy rate. Money and financial market participants still expect considerably lower interest rates ahead than they did last autumn, particularly in the US, but also in Europe (see Chart 1.4). Domestic and external short-term rates are still higher than policy rate expectations would imply.

The krone depreciated when the interest rate was cut in 2003. The krone has since appreciated again after growth rebounded in Norway. Exchange rates have fluctuated considerably in recent months. For a period, the krone exchange rate was weaker than at the end of October despite a widening of both the actual and expected interest rate differential. This probably reflects low risk willingness among foreign exchange market operators. The krone has also on previous occasions depreciated in periods of unrest. The krone has appreciated somewhat again in recent weeks, and the import-weighted krone exchange rate is now approximately the same as in October.

Baseline scenario

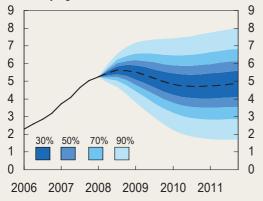
Monetary policy is oriented towards consumer price inflation of close to 2.5% over time. Low and stable inflation is the most important contribution monetary policy can make to sound economic developments in the long term. Low and stable inflation provides businesses and households with an anchor for inflation expectations. Long-term inflation expectations, as measured by TNS Gallup's expectations survey among others, are close to 2.5% (see Chart 1.5). More short-term inflation expectations have risen through the winter.

Inflation has been expected to pick up for some time. Since summer 2005, the key policy rate has been raised by 3.5 percentage points to 5.25%, in gradual steps and ahead of the rise in inflation. This will contribute to more stable developments in inflation and in output and employment. The real interest rate has increased. As measured by money market rates, the real interest rate is now slightly higher than what we regard as a normal level (see Chart 1.6).

The key policy rate is set with a view to providing a reasonable balance between the path for inflation and the path for capacity utilisation (see box on the criteria for an appropriate interest rate path on page 9). The various factors that influence interest rate prospects are pointing in different directions.

In order to guard against inflation rising further and becoming too high, it may be appropriate to continue raising the interest rate. Unemployment is very low and capacity utilisation is high. Even if the figures are uncertain, it seems that productivity growth is slackening. The enterprises in Norges Bank's regional network report sharp growth in costs, and labour costs are expected to increase at a faster pace. This may suggest stronger price pressures than envisaged so far.

Chart 1.7a Projected key policy rate in the baseline scenario with fan chart. Per cent. Quarterly figures. 06 Q1 — 11 Q4



Source: Norges Bank

Chart 1.7c Projected CPI in the baseline scenario with fan chart. 4-quarter change. Per cent. Quarterly figures. 06 Q1 — 11 Q4

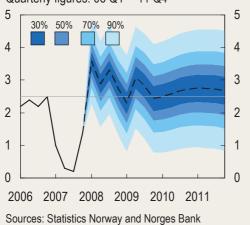
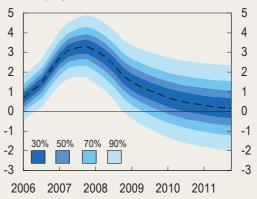
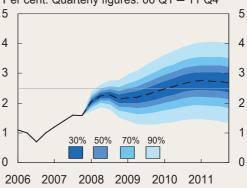


Chart 1.7b Estimated output gap in the baseline scenario with fan chart. Per cent. Quarterly figures. 06 Q1 — 11 Q4



Sources: Statistics Norway and Norges Bank

Chart 1.7d Projected CPI-ATE¹⁾ in the baseline scenario with fan chart. 4-quarter change. Per cent. Quarterly figures. 06 Q1 — 11 Q4



¹⁾ CPI-ATE: CPI adjusted for tax changes and excluding energy products.

Sources: Statistics Norway and Norges Bank

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, employ-

ment and inflation are also taken into account. Assuming the criteria above have been satisfied, the following additional criteria are useful:

- 3. Interest rate developments should result in acceptable developments in inflation and output also under alternative, albeit not unrealistic assumptions concerning the economic situation and the functioning of the economy.
- 4. Interest rate adjustments should normally be gradual and consistent with the Bank's previous response pattern.
- 5. As a cross-check for interest rate setting, it should be possible to explain any substantial and systematic deviations from simple monetary policy rules.

Chart 1.8 Key policy rate in the baseline scenario in MPR 2/07, MPR 3/07 and MPR 1/08. Per cent. Quarterly figures. 06 Q1 – 11 Q4

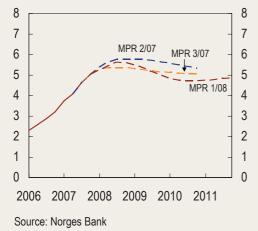
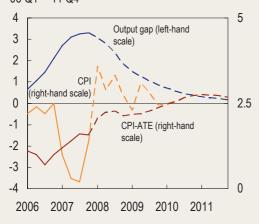


Chart 1.9 Projected inflation and output gap in the baseline scenario. Per cent. Quarterly figures. 06 Q1 – 11 Q4



Sources: Statistics Norway and Norges Bank

In order to guard against an economic setback in Norway as a result of weaker external growth, it may on the other hand be appropriate to leave the key policy rate unchanged for a period or lower the key rate. Weaker growth in the world economy may influence activity and profitability in the Norwegian export industry, with possible negative spillover effects on other business sectors in Norway. Foreign banks and investors now apply a higher premium on credit to finance investment, acquisitions and restructuring, and highly leveraged companies have to pay high loan risk premiums. The financial market turbulence and the setback in the US may also increase uncertainty among Norwegian households and businesses.

If there are prospects that the interest rate in Norway will be held considerably higher than the interest rate level among our trading partners, the krone may appreciate, but there are also opposing forces in the foreign exchange market. Excluding government financial and oil sector surpluses, which are redeployed abroad, Norway recorded a current account deficit in 2007. This suggests a weaker krone. If developments in the world economy translate into lower prices for oil and other export goods, the value of the krone may also fall. If the krone depreciates, the key rate must be raised to a higher level than otherwise in order to keep inflation in check, unless slackened activity in the Norwegian economy results in lower inflation.

On balance, the outlook and balance of risks suggest that in the near term the interest rate should be set somewhat higher than projected in *Monetary Policy Report 3/07* (see Charts 1.7a-d and 1.8). The prospect of higher price and cost inflation will in the short term outweigh the effects of

weaker growth in the world economy. Should external interest rates fall to the low level now implied by forward interest rates, this may also lead to a somewhat lower interest rate level in Norway slightly further ahead. The contributions to the changes in the interest rate forecast are discussed in a box on page 11.

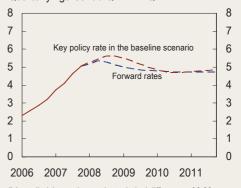
The interest rate is geared to keeping inflation close to 2.5% and gradually bringing down capacity utilisation (see Chart 1.9). The interest rate profile described in this *Report* is consistent with Norges Bank's previous response pattern. When inflation is close to 2.5%, the normal interest rate level over time is considered to be between 5% and 6%. The interest rate path forecast in this *Report* is in this range. Market participants' key rate expectations are somewhat lower in the near term than the interest rate forecast presented in this *Report*, but the difference narrows further out (see Chart 1.10).

The interest rate differential between Norway and other countries is expected to widen somewhat through the year and then gradually narrow (see Chart 1.11). The krone exchange rate is assumed to strengthen slightly, but will gradually depreciate (see Chart 1.12 and box on the krone exchange rate in this *Report*). This is because inflation, and hence the nominal interest rate level, in Norway will probably be somewhat higher than among our trading partners over time, and that in the long term krone positions cannot be expected to generate a markedly higher real return than positions in other currencies.

Inflation measured by the CPI is expected to be higher than 3% through most of 2008 as a result of rapidly rising electricity prices (see Chart 1.7c). The rise in consumer prices adjusted for tax changes and excluding energy products (CPI-ATE) is expected to remain close to 2.5% (see Chart 1.7d). The rise in prices for domestically produced goods and services will most likely accelerate as a result of the sharp rise in business sector costs. Productivity growth is shifting downwards. Moreover, wage growth is projected at 6% in 2008, i.e. somewhat higher than projected earlier. Higher food and energy prices are pushing up inflation in other countries. Prices for Norwegian imported goods measured in foreign currency are not expected to continue to fall. The projections are discussed further in Section 3.

An ample supply of labour will allow growth in the Norwegian economy to hold up for a period ahead. Capacity utilisation is nevertheless likely to decline. Weaker growth in the world economy may have an impact on developments in the Norwegian export indus-

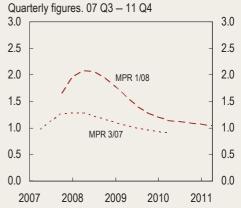
Chart 1.10 Key policy rate in the baseline scenario and estimated forward rates¹⁾. Per cent. Quarterly figures. 06 Q1 – 11 Q4



¹⁾ A credit risk premium and a technical difference of 0.20 percentage point have been deducted when calculating the forward rates at 10 March to ensure comparability with the key policy rate.

Source: Norges Bank

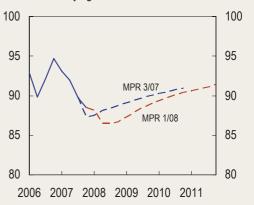
Chart 1.11 Projected differential between key rates in Norway and trading partners in MPR 3/07 and MPR 1/08.¹⁾ Per cent.



¹⁾ Differential between key policy rate in baseline scenario and weighted average of trading partners' forward rates on 10 March

Source: Norges Bank

Chart 1.12 Import-weighted exchange rate (I-44) in the baseline scenario in MPR 3/07 and MPR 1/08.¹⁾ Index. Quarterly figures. 06 Q1 — 11 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

Changes in the interest rate path

The interest rate forecast for the near term is somewhat higher than the forecast in Monetary Policy Report 3/07, but is revised down slightly further ahead (see Chart 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. In Chart 2 we attempt to illustrate how news and judgement have affected the changes to the interest rate path.² The calculation can be viewed as an evaluation and consistency check of the forecasts and seeks to provide an indication of how various factors have influenced the interest rate forecasts 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.

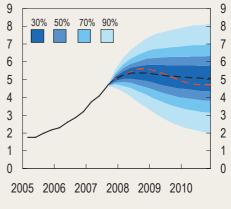
Capacity utilisation in the Norwegian economy is now estimated to have been somewhat higher than previously envisaged. In isolation, this points to higher inflation somewhat further ahead. This suggests a higher interest rate path (red columns).

Since the previous *Monetary Policy Report*, the short-term inflation outlook has been revised up to a higher level than implied by the changes in the projections for capacity utilisation. In isolation, this points to higher inflation also further ahead. This also suggests a higher interest rate path (green columns).

The growth outlook for the global economy has weakened. In isolation, this results in the prospect of lower activity also in the Norwegian economy and eventually lower price and cost inflation. This suggests a lower interest rate path (blue columns).

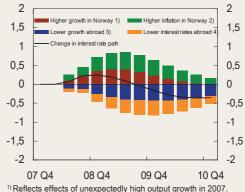
Among our trading partners, interest rates and interest rate expectations have fallen. If the expected return on NOK investments is to be equal to the expected return on investments in foreign currency, a fall in external interest rates will, in isolation, lead to a stronger krone exchange rate. A stronger krone will result in lower inflation and lower activity in the Norwegian economy. This suggests that the interest rate also in Norway falls somewhat when external interest rates fall (yellow columns).

Chart 1 Key policy rate in the baseline scenario in MPR 3/07 with fan chart and key policy rate in the baseline scenario in MPR 1/08 (red line). Per cent. Quarterly figures. 05 Q1 – 10 Q4



Source: Norges Bank

Chart 2 Factors behind changes in the interest rate path since MPR 3/07. Percentage points. Quarterly figures. 07 Q4 — 10 Q4



Reflects effects of higher inflation in Norway over and above the effects of changes in projections for capacity utilisation.

Reflects effects of lower expected growth in the global economy.

⁴ Reflects effects of expectations of lower key policy rates among trading partners, through effects on the krone exchange rate.

Source: Norges Bank

¹ Changes in the projections for inflation and capacity utilisation are discussed on page 54.

² The calculations in the chart are made using a small calibrated model for the Norwegian economy (see Staff memo 2004/3).

try, which may gradually spill over to other business sectors in Norway. Household saving is negative and over time households must be expected to redress their financial imbalances. Interest rate developments and a weaker housing market will probably have a dampening impact on demand for goods and services and push up saving. On the upside, we expect sharp growth in government spending, with a marked increase in government purchases of goods and services. Petroleum investment is projected to remain high.

Uncertainty surrounding the projections

The projections for inflation, output, the interest rate and other variables are based on our assessment of the current economic situation and our perception of the functioning of the economy. There is considerable uncertainty surrounding future developments in inflation and output, and hence interest rate developments. The fan charts illustrate the uncertainty surrounding our projections (see Charts 1.7a-d). The wider the fan charts are, the more uncertain the projections are. The width of the fan charts is based on historical disturbances, and therefore expresses the average that covers periods of high and low uncertainty. The uncertainty interval around the interest rate reflects the fact that monetary policy reacts to developments in inflation and output. This increases the uncertainty about future interest rates, but also reduces the uncertainty surrounding inflation and output.

In our assessment, the probability that inflation, output and employment will be higher than projected is the same as the probability that these variables will be lower than projected. This is reflected in the equal width of the fans charts on both sides of the projections.

The uncertainty surrounding the projections for inflation adjusted for tax changes and excluding energy products is estimated in the fan chart in Chart 1.7d. The chart shows that the probability that inflation will be higher than 3.5% in 2011 is estimated at around 15%. The probability that inflation will fall back below 1.5% in 2011 is about 10%. The probability that inflation will be lower than 1.5% in 2008 is about 5%. The probability that inflation will be higher than 3.5% in 2008 is estimated at less than 5%.

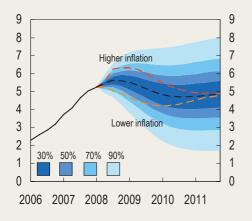
Alternative scenarios

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

¹ There is also uncertainty about the current situation (see boxes in *Inflation Report* 3/05 and 3/06)

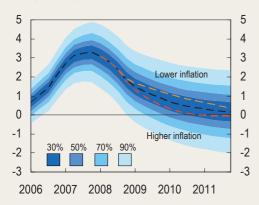
A further description of the fan charts is provided in *Inflation Report* 3/05.

Chart 1.13a Key policy rate in the baseline scenario and in the alternatives with higher and lower inflation. Per cent. Quarterly figures. 06 Q1 –11 Q4



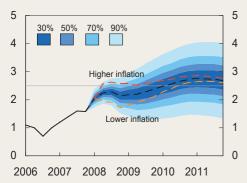
Source: Norges Bank

Chart 1.13b The output gap in the baseline scenario and in the alternatives with higher and lower inflation. Per cent. Quarterly figures. 06 Q1 – 11 Q4



Sources: Statistics Norway and Norges Bank

Chart 1.13c CPI-ATE in the baseline scenario and in the alternatives with higher and lower inflation. 4-quarter change. Per cent. Quarterly figures. 06 Q1 – 11 Q4



¹⁾ CPI-ATE: CPI adjusted for tax changes and excluding energy products.

Sources: Statistics Norway and Norges Bank

or if the effect of interest rate changes on output, employment and inflation is different from that assumed.

Monetary policy is oriented towards keeping inflation close to 2.5% and avoiding unnecessary fluctuations in output and employment. If inflation continues to pick up or growth slows to a further extent than projected in this *Report*, the interest rate path may shift. Interest rate setting must be assessed in the light of the reasons for and the expected duration of the disturbances that arise. The later monetary policy responds to such disturbances, the wider the fluctuations in output and inflation will be. In addition, it may be difficult to distinguish between erratic statistical effects and more long-lasting disturbances. It may therefore take time before interest rate setting can be based on economic developments that differ from the projected path.

Inflation may prove to be higher than projected in this *Report*. In previous cyclical expansions, high pay increases were awarded in the late phase of the upturn. There are few incidents of wage settlements occurring at a time when the labour market is as tight as it is today. At the same time, inflation is on the rise in other countries and Norwegian import prices may turn out to be higher than projected in this *Report*.

Charts 1.13a-c (red lines) illustrate a path where inflation is higher than projected.³ The technical assumption is made that inflation will be ½ - ½ percentage point higher than in the baseline scenario in the year ahead. A more pronounced increase in the interest rate would then be appropriate in order to prevent inflation from overshooting the target by a considerable margin. A higher interest rate will lead to a lower level of capacity utilisation than in the baseline scenario. This has a dampening impact on inflation, but inflation is still somewhat higher than in the baseline scenario in the years ahead.

Charts 1.3a-c (yellow lines) illustrate a path where underlying inflation falls back and remains at around 1¾% over the next few quarters. A further appreciation of the krone would result in prospects for lower inflation, Household saving may increase faster than expected, and the effects of slower global growth on the Norwegian economy may be underestimated. Such a development may also have a dampening impact on inflation after a period. It would then be appropriate to keep the interest rate at today's level and reduce the interest rate faster than in the baseline scenario in order to maintain inflation expectations at target and bring inflation back to target.

³ The projections in the charts are based on the assumption that Norges Bank's response pattern is known and consistent over time. This is further explored in Bergo, J. (2007): "Interest rate projections in theory and practice", speech at the Foreign Exchange Seminar of the Association of Norwegian Economists at Sanderstølen on 26 January 2007.

A more pronounced setback in the world economy may lead to a sharper slowdown in activity in the Norwegian export industry, with spillover effects on other business sectors. In addition, the risk of a fall in oil prices and prices for other Norwegian export goods will increase. This may lead to markedly weaker developments in the Norwegian economy than in the baseline scenario. On the other hand, a fall in oil prices may result in a weaker krone. The effects on inflation under this scenario are uncertain. If the effects on the activity level dominate, it may be appropriate to reduce the interest rate. If the effects on the krone exchange rate dominate, it may be appropriate to raise the interest rate.

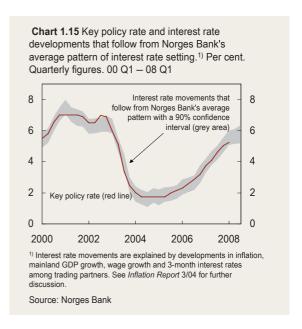
Cross-checks4

Forward interest rates can provide a cross-check for Norges Bank's interest rate forecast. Under certain assumptions about risk premiums, estimated forward interest rates may reflect market interest rate expectations. Since the previous *Report*, both short-term and long-term forward interest rates have fallen in Norway. Estimated forward rates may now indicate that financial market participants expect a key rate of between 51/4% and 51/2% over the next few quarters (see Chart 1.10).

Interest rate setting can also be assessed using simple rules for interest rate setting. There have been no persistent differences between Norges Bank's key policy rate and the simple monetary policy rules in recent years (see Chart 1.14). The Taylor rule applies the output gap and inflation. The growth rule instead applies observed GDP growth and inflation. Simple monetary policy rules are not forward looking, but only look at the current economic situation. The Taylor rule and the growth rule have some limitations as a reference for a small, open economy. They do not take into account that changes in the interest rate level may result in changes in the exchange rate and hence influence the inflation outlook. In principle, the rule involving external interest rates is better suited for a small, open economy. This rule now shows a somewhat lower interest rate than the Taylor rule and the growth rule.

Norges Bank has estimated a simple interest rate rule on the basis of the Bank's previous interest rate setting.⁵ The prospect of higher inflation, strong wage growth and high GDP growth points to a higher key rate, while weaker interest rate developments among trading partners point in the opposite direction. On balance, the rule prescribes a somewhat higher interest rate ahead (see Chart 1.15)

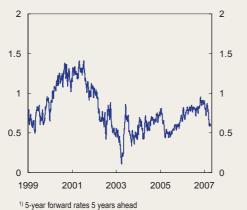
Chart 1.14 Key policy rate, Taylor rule, growth rule and rule with external interest rates. Per cent. Quarterly figures. 06 Q1 - 08 Q1 8 Key policy 6 6 rate (red line) Growth Taylor rule (blue line) rule (vellow line) 4 4 Rule with external interest rates (green line) 2 2 0 0 Sep 06 Mar 06 Mar 07 Sep 07 Mar 08 Sources: Statistics Norway and Norges Bank



⁴ For an in-depth discussion of several cross-checks for interest rate setting, see Norges Bank Annual Report 2007.

See box in Inflation Report 3/04

Chart 1.16 Differential between long-term forward interest rates in Norway and the euro area. ¹⁾ Percentage points. Daily figures. 1 Dec 99-10 Mar 08



Sources: Reuters (EcoWin) and Norges Bank

With confidence in monetary policy, expected inflation in the long term will be close to the inflation target, which in itself contributes to stabilising inflation. A cross-check for monetary policy can be the long-term forward interest rate differential between Norway and the euro area (see Chart 1.16). As the inflation target is higher in Norway, the differential should be in the range ½ - 1 percentage point, depending on risk premiums in money and bond markets. A wider differential can be a warning that inflation expectations in Norway are higher than implied by the inflation target.

Summary

- Inflation has picked up markedly. Different measures of inflation show somewhat different developments, but on the whole underlying inflation is close to 2.5%. A long period of strong economic growth has gradually led to a high level of capacity utilisation. The labour market is tight and wage growth is on the rise. At the same time, global growth prospects have weakened. Participants in money and financial markets now expect considerably lower key rates internationally than last autumn, particularly in the US, but also in Europe.
- The projections are uncertain. New information may reveal aspects of economic developments that indicate that the Norwegian economy is moving on a different path than projected. On the one hand, unexpectedly high cost growth, higher import prices or a weaker krone may lead to higher-than-projected inflation. On the other hand, if the setback in the world economy has more pronounced effects on the Norwegian economy than expected or if the krone appreciates markedly, inflation may be lower than projected in this *Report*.

Conclusions - Executive Board's strategy

• The key policy rate should be in the interval 5% – 6% in the period to the publication of the next *Monetary Policy Report* on 25 June, unless the Norwegian economy is exposed to major shocks.

Monetary policy since the previous Report

Norges Bank's projections for economic developments in *Monetary Policy Report* 3/07, which was presented on 31 October 2007, implied a key policy rate in the interval $4\frac{3}{4}$ - $5\frac{3}{4}\%$ in the period to 13 March 2008, unless the Norwegian economy was exposed to major shocks. The analysis in the *Report* implied that the key policy rate should be raised further, but to a lesser extent than envisaged in *Monetary Policy Report* 2/07. A higher interest rate would contribute to a gradual reduction in capacity utilisation so that inflation did not become too high.

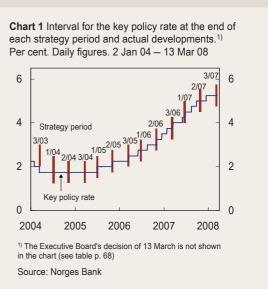
In *Monetary Policy Report* 3/07, it was pointed out that high capacity utilisation and higher cost inflation might lead to inflation rising more rapidly than expected. It was also pointed out that if global economic developments were weaker than expected or if the krone appreciated more than assumed, inflation might be lower than projected.

At the monetary policy meeting on 31 October, the Executive Board pointed out that underlying inflation had increased, but was lower than the inflation target. Different measures of underlying inflation ranged from 1½% to 2%. Growth in the Norwegian economy remained strong and was stronger than projected earlier. Capacity utilisation was high. Wage growth was on the rise and there were prospects of higher inflation. At the same time, the krone had appreciated considerably, and there were prospects that somewhat weaker growth in the world economy would gradually curb inflation and growth in output and employment in Norway. Money market rates had also risen more than short-term market expectations concerning the key policy rate would imply. The key rate was kept unchanged at 5.00%.

The key policy rate was increased by 0.25 percentage point to 5.25% at the monetary policy meeting on 12 December. The Executive Board pointed out that overall consumer price inflation (CPI) had picked up markedly as a result of a strong increase in electricity prices. Turbulence in credit and equity markets had increased, and the outlook for the world economy had become more uncertain. Short-term money market rates were considerably higher than key rate expectations would imply. On the other hand, growth in the Norwegian economy had been stronger than expected. Our regional

network confirmed the picture of continued solid growth in the Norwegian economy, even though many enterprises reported that capacity constraints would limit growth ahead, and that they expected higher prices for consumer goods and services. Keeping the key policy rate unchanged was an alternative, but an overall assessment indicated that it was appropriate to raise the key policy rate at this meeting.

At the monetary policy meeting on 23 January, the key rate was left unchanged at 5.25%. The Executive Board pointed out that consumer price inflation had picked up. In December, different measures of underlying inflation ranged from 13/4% to 2½%. Inflation had risen more than expected. Employment rose appreciably in autumn 2007, and the labour force continued to expand. Household consumption had increased more than projected. On the other hand, the growth outlook for the global economy was weaker. Key rate expectations abroad were considerably lowered in the weeks preceding the monetary policy meeting. Shortterm money market rates had declined somewhat from the high levels in autumn 2007, but were still higher than key rate expectations would imply. The krone exchange rate had fluctuated somewhat since the monetary policy meeting in December, and was weaker than projected in *Monetary Policy* Report 3/07. Growth in the Norwegian economy was strong, but in view of the weak developments in other countries and the turmoil in financial markets it was, on balance, appropriate to keep the key policy rate unchanged.



The global economy, financial markets and commodity markets

Continued turbulence in financial markets

Equity prices have fallen considerably since the beginning of 2007 both in Norway and abroad (see Chart 2.1), primarily reflecting an economic downturn in the US and contagion effects in other countries. Prices on the Oslo Stock Exchange have shown wide daily fluctuations. In January, the benchmark index exhibited the largest fall in a single day since 1992.

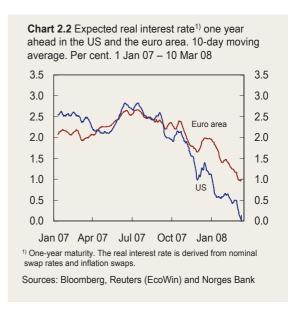
Developments in interest rates and equity prices indicate that market participants have revised down their expectations of growth in the global economy. In the US and Europe, interest rates have fallen markedly since the previous *Monetary Policy Report*, reflecting a lower expected real interest rate for the next few years. In the US, the expected real interest rate one year ahead fell from over $2\frac{1}{2}$ % in summer 2007 to close to zero now (see Chart 2.2). In Norway, somewhat longer rates have also fallen, but considerably less than in the US, the euro area and the UK. Market participants' inflation expectations have increased somewhat internationally.

The situation in money markets improved after many central banks provided USD loans to banks in December (see Chart 2.3). The difference between money market rates and expected official policy rates reflects the risk premium banks and others have to pay to borrow in the money market. The premiums for one- and three-month rates declined markedly from mid-December to mid-January, but have risen again recently (see Chart 2.4). Premiums on money market loans with a one-year maturity fell less in December and January. These premiums have also increased again in the past month and are now close to their highest levels since the turbulence started (see Chart 2.4).

Risk premiums in the money market can be broken down into a credit premium, a liquidity premium and a maturity premium. The credit premium can be derived from Credit Default Swaps (CDS). A CDS measures the price of bond default insurance. Credit risk has surged recently, and is higher than in the latter part of 2007 (see Chart 2.5). The increase in credit risk is probably the primary reason why money market premiums have increased again. Some degree of normalisation is expected ahead, albeit less marked than expected in autumn last year.

Money markets are international, and a number of foreign banks participate directly in the Norwegian money market. At the same time, Norwegian banks rely fairly heavily on foreign financing. The interest rate premiums in the





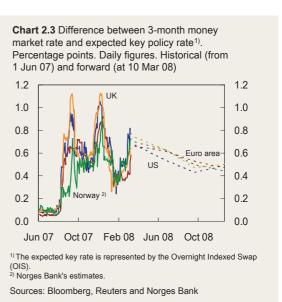


Chart 2.4 Spread between money-market rates with different maturities and expected key policy rate¹⁾. Average for the US, the euro area and the UK. Percentage points. Daily figures.

1 Jan 07 – 10 Mar 08



1) The expected key rate is represented by the Overnight Indexed Swap (OIS).

Sources: Bloomberg and Norges Bank

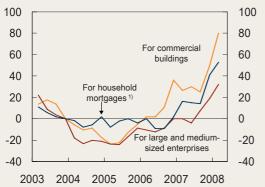
Chart 2.5 CDS prices for US and European companies and selected banks. Basis points. Daily figures. 1 Jan 07 – 10 Mar 08



1) CDS prices for investment grade companies.

Source: Bloombera

Chart 2.6 Survey on bank lending practices. US. Share of banks that have tightened their credit standards. Per cent. Quarterly figures. 03 Q1 — 08 Q1



¹⁾ Up to and including 2007 Q1, the figures apply to all household mortgages. Thereafter the figures apply to prime mortgages.

Source: Reuters (EcoWin)

US and Europe were passed on relatively swiftly to NOK money market loans. Risk premiums in the Norwegian money market are still higher than normal, and expected to remain fairly high through 2008. Similar developments are observed for Sweden, Australia, New Zealand and Japan.

Few Norwegian borrowers have long-term fixed-rate loans. Developments in short-term rates are therefore important for the borrowing costs of Norwegian enterprises and households. Many enterprises' interest rate terms are linked directly to developments in money market rates. Banks' lending rates charged to households will also normally shadow money market rates, with a premium and a certain time lag. Through the autumn of 2007, banks' mortgage rates were low compared with money market rates. Subsequently, many banks increased their lending rates more than the rise in money market rates. The lending rate on new, highly secured mortgages is now higher relative to the money market rate than in the months before the turbulence erupted in summer last year.

In recent months, credit market turbulence has been exacerbated by growing uncertainty concerning the solvency of US companies that insure bonds and other types of debt instruments, i.e. monolines. The activities of these companies are based on a high credit rating. Bonds may be guaranteed by an insurance company and thereby achieve a higher credit rating. The issuer can thus approach investors who have stringent security requirements. The two largest insurance companies still have the highest credit rating, but are at risk of being downgraded. A downgrading of insurance companies will result in a decline in the value of insurance contracts and write-downs. Banks that have already incurred large losses on securities are among those with bonds that are insured by these monolines.

A number of large banks have brought risky securities back onto their balance sheets from investment companies they had established. In isolation, this has increased their capital adequacy requirements. At the same time, banks' write-downs of subprime mortgages are depleting their capital. Moreover, financing credit growth has become more expensive for banks as a result of higher credit risk premiums. A number of large banks have received fresh capital from sovereign wealth funds in the Middle East and Asia. Surveys in the US, the euro area and the UK indicate nonetheless that banks have tightened credit standards and charge higher margins on loans (see Charts 2.6 and 2.7). Norwegian banks may also have tightened their lending standards somewhat, but probably less than in the US, where banks' results are affected by the turbulence to a greater extent.

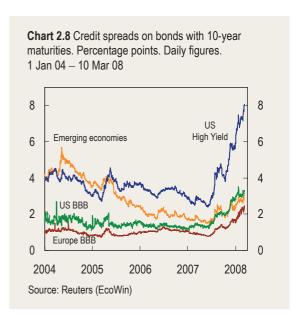
Companies' cost of obtaining direct funding in global credit markets has increased. Credit premiums for BBB-rated companies show a marked increase in the US and a somewhat less pronounced increase for European companies (see Chart 2.8). The bond market for companies with that rating is large, and an increase in this premium affects large parts of the US business sector. The chart shows that the rise in premiums is equivalent to an interest rate increase of approximately 2 percentage points. Credit premiums on the riskiest US corporate bonds have increased sharply, while premiums on government bonds from emerging market economies have only increased moderately.

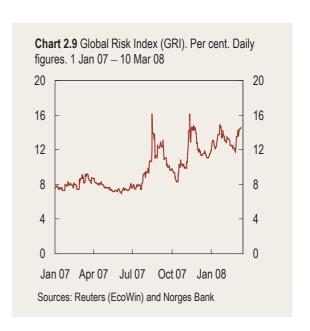
Fluctuations in exchange rates have increased substantially. The volatility between the major currencies, measured by the GRI¹, has been the highest since the financial market turbulence erupted in summer 2007 (see Chart 2.9). Before the turbulence started, many participants borrowed in currencies with low interest rates in order to invest in currencies with high interest rates. These positions have probably been sharply reduced since August 2007, and low interest rate currencies such as the Japanese yen and the Swiss franc have strengthened (see Chart 2.10). This trend reflects lower risk willingness among investors and a higher risk of losses due to increased exchange rate volatility. At the same time, Japan and Switzerland are running current account surpluses and can be regarded as relatively safe investment currencies during a period of turbulence. The effective US dollar exchange rate has weakened by 4.4% since the previous *Monetary Policy Report* was published. The effective euro exchange rate has appreciated during the same period.

Measured by the I-44, the krone exchange rate is somewhat stronger than when the previous *Report* was published. Fluctuations in the krone exchange rate have been wider than for several years. At end-November last year, volatility against the euro rose to the highest level since early 2004, and is still fairly high. In periods characterised by market turbulence, high volatility and lower risk willingness, it is not uncommon for participants to reduce their exposure to illiquid currencies such as NOK. Growing unrest in financial markets in November last year fuelled sales of NOK towards year-end (see Chart 2.11). At the beginning of 2008, the pronounced fall in equity markets also prompted NOK sales. Recently the krone has appreciated again.

Over time, a higher oil price and wider interest rate differential against trading partners have been associated with a stronger krone. The oil price and the interest rate differential are used as explanatory variables in Norges Bank's cross-

Chart 2.7 Survey on bank lending practices. Euro area. Share of banks that will tighten their credit standards. Per cent. Quarterly figures. 03 Q1 - 08 Q1 50 40 40 For enterprises 30 30 20 20 For household 10 mortgages 10 0 0 -10 -10 2003 2004 2005 2007 2008 2006 Source: Reuters (EcoWin)



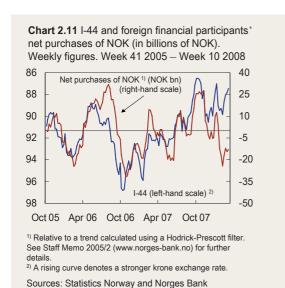


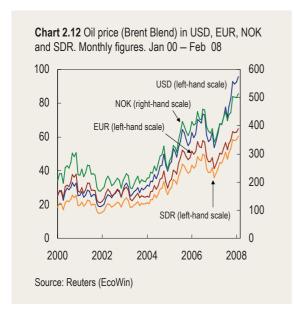
¹ Global Risk Index. The GRI reflects uncertainty in currency markets by weighting implied volatility from options on exchange rates between the US dollar, the euro and the Japanese yen. See *Economic Bulletin* 4/2000 pp. 150-151 for a more detailed account.



¹⁾ A positive (negative) figure denotes a stronger (weaker) exchange rate.

Sources: Bloomberg and Norges Bank





check models of the krone exchange rate (see box on page 47). Both oil prices and the interest rate differential have increased since end-October, which in isolation should point to a stronger krone. The fact that the interest rate differential has not had a stronger impact on the krone exchange rate may be due to the higher risk premium required by investors for investing in NOK. The rise in the risk premium must be viewed in light of the turmoil in global financial markets. If this turbulence persists or intensifies, it will probably influence developments in the krone exchange rate ahead. If the turbulence subsides and participants' willingness to take risk increases, interest rate differentials and other real economic conditions may again have a greater bearing on the krone exchange rate. However, the conditions underlying an eventual reduction in the turbulence and higher risk willingness may also contribute to a narrowing of the expected interest rate differential.

Commodity prices remain high

The price of oil (Brent Blend) has averaged USD 95 per barrel so far this year (see Chart 2.12). This is a rise of USD 23 compared with the average for 2007. On 28 February, the spot price of Brent Blend exceeded USD 100 per barrel.

Oil prices have been rising for a long period. Over the past five years, prices have risen by over USD 60. There are several reasons for this. First, the increase in demand for oil has remained high because of the sharp upturn in the global economy. In emerging market economies, especially in China and India, economic growth has been particularly vigorous. Demand for energy in these countries has also increased as a result of industrialisation and higher living standards. At the same time, prices for end-users have risen less than the price of crude oil as a result of subsidies or price regulation. Demand for oil in important oil-exporting countries has also increased markedly as a result of increased petroleum revenues and low domestic petroleum prices. Higher prices have had limited impact on demand in OECD countries. In these countries, the transport sector, where it is difficult to substitute for petroleum, accounts for a growing share of oil demand.

Second, the supply of oil from non-OPEC countries has been too low to satsify growth in aggregate demand since 2003 (see Chart 2.13). Production is falling in some areas. Extraction costs have increased as a result of smaller and less accessible discoveries. Costs are also increasing as a result of shortages of drilling rigs, building materials and qualified labour. A number of countries with oil resources have also become more restrictive about allowing access to foreign companies. Moreover, environmental standards have become more stringent and tax rules have been tightened. The International Energy Agency (IEA) has estimated

that investment in oil and gas projects doubled from 2000 to 2005. However, a considerable share of this increase is due to higher investment costs, with the real increase being considerably smaller.

Third, OPEC has achieved more market power and has shown a greater will and ability to defend a substantially higher price than previously. This was particularly evident when OPEC reduced production in the last part of 2006 and the beginning of 2007, when the oil price temporarily fell below USD 60 per barrel. This resulted in a marked fall in OECD oil inventories through 2007, exerting upward price pressures again. OPEC has also argued that its production decisions were justified because the depreciation of the US dollar has resulted in lower real income.

Fourth, as a result of increased uncertainty concerning the situation in a number of important oil-exporting countries such as Iraq, Iran, Nigeria and Venezuela, oil prices increasingly include a substantial "uncertainty premium". Market participants are now willing to hold larger oil inventories than previously for a given oil price as security against a possible decline in production. Although OPEC's spare production capacity has increased somewhat again in recent years, market participants do not seem to perceive this as sufficient relative to the increased uncertainty.

Despite an increase in OPEC production in the second half of 2007, total OECD inventories fell considerably more than usual during this period. At end-2007, inventories measured in days of forward demand were at their lowest level since end-2004. In February, the prospect of weaker developments in the global economy caused the IEA to revise down its projections for growth in oil demand in OECD countries for 2008. Demand is expected to remain buoyant in non-OECD countries. Recurrent unrest in important oil-exporting countries has contributed to keeping oil prices high.

At its meeting on 5 March, OPEC decided to keep production unchanged. It was pointed out that oil production has resulted in an increase in oil inventories so far in 2008. Inventories are again higher than the average for the past five years. At today's production level, inventories will continue to increase. As previously, OPEC pointed out that high oil prices do not reflect market fundamentals – the price is heavily influenced by a weak dollar, rising inflation and large financial investments in commodities, including oil.

The rise in oil prices since the previous *Monetary Policy Report* has been strong. Both the spot price and the longest futures price, with maturity in December 2015, has increased by USD 21. Financial investors now have somewhat higher net long positions in the oil futures market than at the time of the previous *Report* (see Chart 2.14).

Chart 2.13 Difference between annual change in world oil demand and supply from non-OPEC countries. In million barrels per day. Annual figures. 2000 - 20073 3 2 2 1 0 -1 2000 2002 2004 2006 Sources: International Energy Agency (IEA) and Norges Bank

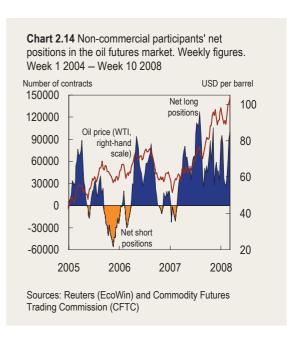
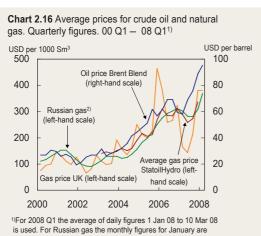


Chart 2.15 Oil price (Brent Blend) in USD per barrel. Daily figures. 1 Jan 04 – 10 Mar 08. Futures prices. 25 Oct 07 and 10 Mar 07 (broken lines). Monthly figures. Dec 07 – Sep 10 100 10 Mar 08 80 25 Oct 07. MPR 3/07 60 60 40 40 20 20 2010 2006 Sources: Reuters (EcoWin) and Norges Bank



2) Price at German border

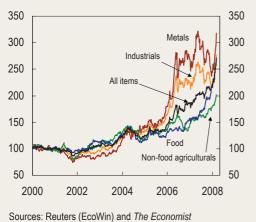
Sources: Statistics Norway, Reuters (EcoWin) StatoilHydro and Norges Bank

Chart 2.17 Oil price (Brent Blend) and average export price for Norwegian natural gas1). The oil price has been moved back 2 quarters. 81 Q1 - 07 Q4



Sources: Statistics Norway, Reuters (EcoWin), StatoilHydro and Norges Bank

Chart 2.18 International commodity prices in USD. Index, 2000 = 100. Weekly figures. Week 1 2000 -Week 10 2008



As previously, the oil price path presented in this *Report* is based on futures prices. These prices now imply an oil price of USD 101 in 2008 and USD 98 in 2009, respectively about USD 16 and USD 19 higher than in the previous *Report* (see Chart 2.15). At the beginning of March, an average of analysts regularly surveyed by Bloomberg expected an oil price of USD 82 in 2008 and USD 76 in 2009.

Uncertainty concerning future oil prices is particularly influenced by two factors. Projections of global demand for oil may be revised down further if growth in the global economy turns out to be weaker than expected, particularly if growth in emerging market economies should be harder hit than currently envisaged. On the other hand, growth in the supply of oil may continue to be lower than expected. OPEC may cut production again. Unrest in important oil-exporting countries may again increase the risk of a decline in oil production. Further delays and cost problems may hamper new projects in a number of non-OPEC countries.

In the options market for the US benchmark oil West Texas Intermediate, market participants can hedge against variations in the oil price by paying a premium. The premiums indicate that market participants consider it somewhat more likely that oil prices will fall by more than USD 20 than that they will rise by more than USD 20 compared with the futures price at end-2008.

Natural gas prices in Europe increased further in the fourth quarter of 2007 (see Chart 2.16). The price of Norwegian natural gas is primarily linked to prices for petroleum products through indexing in long-term sales contracts. In practice this means that the natural gas price largely follows the oil price, with a time lag (see Chart 2.17). A share of the natural gas is also sold on the spot market in the UK, where the price of natural gas has risen appreciably since spring 2007. This must be viewed against the backdrop of the increase in natural gas prices in continental Europe. Uncertainty about natural gas supplied to the UK has also played a part, partly due to delays in new LNG facilities and lower North Sea production than originally expected. Increased LNG prices in Asia have also pushed up prices for LNG exports to Europe. Futures prices for British natural gas indicate a continued weak rise through the remainder of 2008 and into 2009.

The Economist commodity-price index has risen 26% since Monetary Policy Report 3/07 (see Chart 2.18). The food index has risen by 38% in this period, while the index for non-food agriculturals has risen by 18%. The price rise applies to most food products. Increased production of biofuels, higher demand from emerging market economies and unfavourable weather conditions are the main causes of the high rise in prices for food and other agricultural products (see box on page 44).

Turmoil in financial markets and weaker growth prospects for the global economy reduced metal prices towards the end of 2007. Since the beginning of 2008, however, metal prices have moved up, despite continued unrest in financial markets. This must partly be viewed in connection with continued high economic growth in emerging markets and strong demand for raw materials from these countries. Chinese demand for industrial metals is higher than that of any other country, and imports have remained firm in recent months. In addition, temporary production disturbances in a number of countries have limited supply and have pushed up prices recently, particularly for aluminium. The Economist price index for industrial metals is 11% higher than when the previous *Report* was published. Futures prices now indicate that prices for industrial metals will fall moderately over the next few years (see Chart 2.19).

Freight rates for dry bulk (Baltic Dry Index) have fallen 22% since the previous *Report*, even though rates have risen since the end of January (see Chart 2.20). The index may provide an indication of the volume of commodities that are traded globally. In October, the index was at a recordhigh level, and the fall since then may indicate that demand for commodities has declined. Reduced freight rates may also reflect other factors, however, such as seasonally lower demand for cargo ships, increased supply of freighters, shorter ship queues and shorter transport distances.

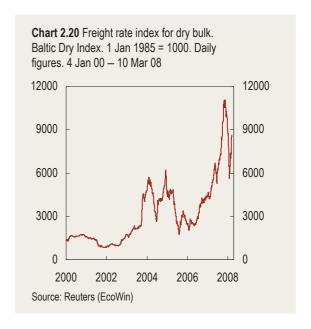
There has been some increase in stocks of aluminium, nickel and zinc on the London Metal Exchange since the previous *Report*. This may also indicate reduced demand for commodities. Copper stocks have fallen somewhat, however. Stocks are still estimated to be low in terms of weeks of forward demand compared with average levels since 2000.

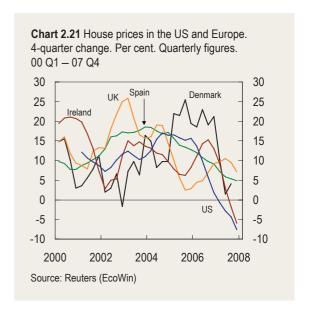
On balance, the prospect of lower growth in the global economy as well as developments in metal futures prices, stocks and freight rates suggest somewhat lower growth in demand for commodities than envisaged in the previous *Report*.

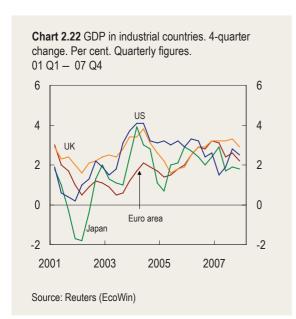
Slower growth in the global economy

The financial turmoil has its roots in high credit growth and reduced saving in the US over the past decade. Low interest rates and strong output growth triggered a sharp rise in house prices and housing investment. A housing bubble gradually developed which is now bursting. Similar developments have been observed to some extent in certain European countries (see Chart 2.21).

Chart 2.19 Metal prices in USD. Index, 4 Jan 00 = 100. Daily figures. 4 Jan 00 – 10 Mar 08. Futures prices from 10 Mar 08 (broken lines). Monthly figures. Apr 08 – Jun 10 700 700 600 600 500 500 400 400 300 300 200 200 100 100 n 0 2010 2002 2004 2006 2008 Sources: Reuters (EcoWin) and Norges Bank







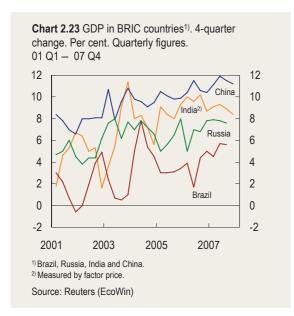


Table 2.1 Projections of GDP growth in other countries. Change from previous year. Per cent

	2008	2009	2010-111)
US	1¼	1¾	23/4
Euro area	1½	1½	2
Japan	11/4	1½	1½
UK	1½	2	2¾
Sweden	21/4	2	2¾
China	10	91/4	9
Trading partners ²⁾	2	21/4	21/2

¹⁾ Average annual growth.

Source: Norges Bank

The fall in equity and house prices is reducing household wealth and pushing down private consumption and housing investment. High energy and food prices are curbing household consumption and reducing the scope for stimulating the economy through lower interest rates without pushing up inflation. In addition, the financial turbulence is affecting household and business sector expectations. A weak US housing market, the turmoil in financial markets and tighter bank lending standards are expected to persist for a longer period and to have an impact on global economic growth that is greater and more prolonged than assumed in the previous *Report*.

Growth in the US economy slowed markedly towards the end of 2007 (see Chart 2.22), and the economic outlook has weakened considerably since the previous Report. There has been a sharp fall in residential construction. Activity in service sectors now appears to be slowing. Weak employment developments and the fall in house and equity prices will probably curb household demand and lead to an increase in the saving ratio in the period ahead. Funding costs have increased in many industries. The downward shift in growth is being cushioned by the low value of the US dollar and by an easing of economic policy. The Federal Reserve has cut its key rate four times by a total of 1.75 percentage points to 3.0% since Monetary Policy Report 3/07. Market participants expect the interest rate to be reduced to around 134% in the course of 2008. The approved fiscal policy easing will provide a positive impulse to the economy equivalent to 1% of GDP.

Growth also slowed in the euro area towards the end of 2007. Financial market turbulence has resulted in weaker business and consumer confidence indicators. Banks are tightening lending standards, and in some countries housing markets are slumping. This is pushing down growth in both investment and consumption. Exports are expected to show slower growth as a result of a strong exchange rate and weaker developments in major export markets, such as the UK and the US. In the UK, financial turmoil and the fall in house prices will contribute to considerably slower growth ahead. In Sweden, the decline in exports, particularly to the US, contributed to weaker growth in 2007. Exports are expected to curb growth again this year and next.

Growth in emerging market economies made a strong contribution to the global upswing in 2007 (see Chart 2.23). Growth was solid in Asia, Latin America, Eastern Europe and Russia. In China, aggregate output in 2007 rose by 11.4%, albeit by somewhat less towards the end of the year. Weaker demand from the US and Europe is expected to push down growth in a number of emerging economies, including China, this year and next. Inflation has risen in several countries and this may influence the orientation of

²⁾ Export weights. 26 important trading partners.

economic policy for at least a period ahead. However, there are also indications that developments in emerging market economies are more robust than earlier. In many countries, growth in domestic consumption and investment remain buoyant. A number of countries have solid public finances and considerable trade surpluses. This may provide scope for stimulating domestic demand when inflation has stabilised. Higher consumption and increased investment in emerging market economies are expected to compensate to some extent for lower demand from the US and to limit the decline in international economic growth over the next few years.

Output growth among our trading partners is nonetheless expected to slow markedly through 2008. On an annual basis, growth is expected to slow from 3¼% in 2007 to 2% in 2008 and to pick up gradually thereafter (see Table 2.1). For 2008, the projection has been revised down by ½ percentage point. The projections imply that there may be some spare production capacity among our trading partners in the years ahead.

With slow growth in the US and continued relatively high growth in emerging market economies, there are prospects that the US current account deficit will be further reduced. The risk of abrupt and sharp changes in output, employment and inflation, however, has increased since the previous Report. The amplitude of the slowdown in international growth depends in part on the extent and timing of the effects on global household consumption and corporate investment from different disturbances to which the global economy has been exposed over the past year. It is uncertain to what extent banks' capacity and willingness to provide new loans will be reduced in both the US and other countries. How robust growth in China and other emerging market economies is to lower demand from the US and Europe is particularly important to economic developments in Norway because emerging market economies have a considerable bearing on developments in energy and commodity markets. The risks surrounding our projections appear to be balanced.

Global inflation has picked up

The rise in prices for energy and food products pushed up consumer price inflation markedly at the end of 2007, both in industrial countries and in a number of emerging market economies (see Charts 2.24 and 2.25). In the US and a number of emerging market economies, core inflation has also edged up. In the euro area, core inflation has been fairly stable since early summer 2007, while it has edged down in the UK. Producer prices are increasing sharply again as a result of the rise in commodity and energy prices, while the rise in labour costs in industrial countries is moderate (see Chart 2.26).

Chart 2.24 Consumer prices in industrial countries. 12-month change. Per cent.

Monthly figures. Jan 02 – Feb 08

4

2

US

4

2

2

2002 2004 2006 2008

Source: Reuters (EcoWin)



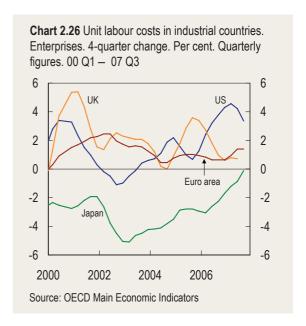


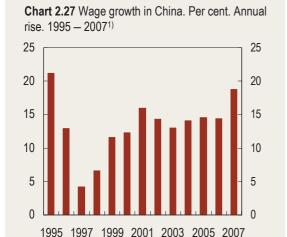
Table 2.2 Projections of consumer prices in other countries. Change from previous year.

Per cent

2008	2009	2010-111)
3½	2	21/4
21/2	2	2
1/2	3/4	1
21/2	21/4	2
31/4	21/4	2
51/4	31/2	3
2¾	2	2
	3½ 2½ ½ 2½ 2½ 3¼ 5¼	3½ 2 2½ 2 ½ 34 2½ 2¼ 3½ 2½ 5½ 3½

¹⁾ Average annual rise.

Sources: Eurostat and Norges Bank



¹⁾ Figures for 2007 apply to the first three quarters.

Source: CEIC

Chart 2.28 Consumer prices in China. Overall, food and non-food. 12-month change. Per cent. Monthly figures. Jan 02 - Jan 08 20 20 Food 15 15 10 10 5 5 Non-food -5 -5 2002 2004 2006 2008 Sources: CEIC and Reuters (EcoWin)

Long-term inflation expectations among market participants are somewhat higher than in summer 2007. Higher commodity prices and high capacity utilisation in many countries seem to be more than compensating for a weaker growth outlook. Consumers' inflation expectations for the next year have risen somewhat in the US and the UK, even though consumer expectations concerning the general economic outlook have declined. This may be because their expectations are heavily influenced by the sharp increase in food prices.

The projection of consumer price inflation among our trading partners in 2008 has been revised up by ¾ percentage point to 2¾% due to high food and energy prices. Weaker growth in industrial countries and a number of emerging market economies and a slower rise in prices for food and energy products later this year will contribute to pushing down inflation again towards the end of 2008 and into 2009 (see Table 2.2).

Increased use of biofuels and strong economic growth, particularly in emerging market economies, have contributed to higher demand and a sharp rise in food prices. There is a risk that food prices will remain high ahead and will gradually and on a more permanent basis affect inflation expectations and the general rise in prices and costs in a number of countries. Wage growth in China picked up markedly in 2007 (see Chart 2.27). So far, however, it appears that productivity growth also remains high in China, and the rise in non-food prices is low (see Chart 2.28). Slower international growth will result in lower growth in demand for export goods from emerging market economies and will in isolation also curb inflationary pressures in these countries.

²⁾ Weights from Eurostat (each country's share of total euro area consumption).

³⁾ Import weights. 26 important trading partners.

Economic developments

Inflation is moving up

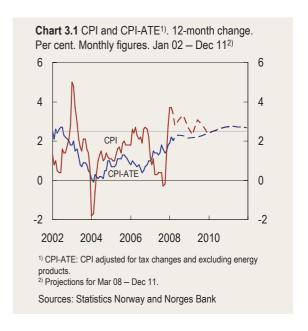
The year-on-year rise in consumer prices (CPI) picked up rapidly towards the end of 2007, and the year-on-year rise was 3.7% in February (see Chart 3.1). This primarily reflects the sharp rise in electricity prices in the fourth quarter of 2007. Different measures of underlying inflation now range between 21/4% and 31/4%. Adjusted for tax changes and excluding energy products, inflation (CPI-ATE) has picked up gradually since late summer 2006. In February, the year-on-year rise in the CPI-ATE was 2.2%. Prices for domestically produced goods and services have exhibited a particularly sharp rise (see Chart 3.2). At the same time, in recent months, prices for imported consumer goods have fallen at a slower pace, and in February prices for imported consumer goods remained unchanged on one year earlier. Recent price developments are discussed further in a box on page 30.

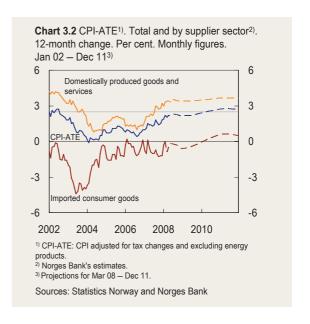
Business unit costs have increased markedly over the past year. High capacity utilisation in many industries and a tight labour market have resulted in rising wage growth while productivity growth has slackened (see Chart 3.3). Cost inflation is expected to be high again this year. Demand for many goods and services remains strong. This will make it easier for companies to pass on higher costs to customers. The rise in prices for domestically produced goods and services is therefore expected to pick up further from 2007 to 2008.

The monetary policy stance is now curbing growth in output and employment, and the rise in prices for domestically produced goods and services will gradually level off. The strong krone points to a continued fall in prices for imported consumer goods, but this may be offset by high domestic cost growth.

As discussed in Section 2, there has been a sharp rise in prices for many food products internationally, and food prices have also picked up in Norway. Many suppliers to the grocery trade have reported price increases due to higher input prices. On the other hand, the Norwegian market is relatively sheltered from international fluctuations in input prices through import protection (see box on page 44). It is assumed that domestic food prices will continue to pick up ahead, albeit at a somewhat slower pace than in most other European countries.

The sharp rise in prices through 2007 was partly due to extraordinary factors. For example, prices for building materials surged, and prices for products in this group are not expected to rise as sharply in 2008. Changes in some of the sub-indices of the CPI may also have affected measured inflation.





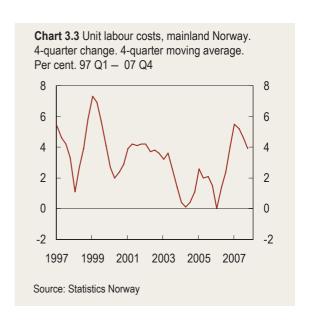
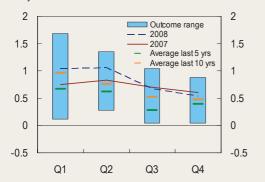


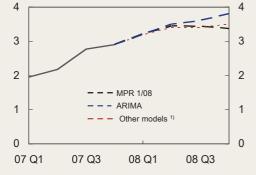
Chart 3.4 Quarterly change in prices for domestically produced goods and services. Per cent. Average and outcome range¹⁾. Projections 08 Q1 – 08 Q4



 $^{^{\}rm 1)}$ The outcome range shows the highest and lowest inflation rate in each quarter in the period 1991 - 2007.

Sources: Statistics Norway and Norges Bank

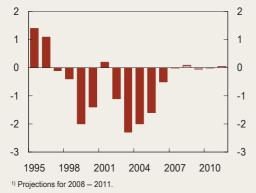
Chart 3.5 Prices for domestically produced goods and services. Projections from empirical models, historical values and projection in the baseline scenario. 4-quarter change. Per cent. Quarterly figures. 07 Q1 — 08 Q4



¹⁾ Average projections from several models.

Sources: Statistics Norway and Norges Bank

Chart 3.6 Indicator of external price impulses to imported consumer goods measured in foreign currency. Annual change. Per cent. Annual figures. $1995 - 2011^{1)}$



Sources: Statistics Norway, Reuters (EcoWin) and Norges Bank

Different surveys provide somewhat different signals concerning inflation ahead. According to TNS Gallup's quarterly survey, conducted in the first quarter of 2008, the share of business managers that expect a sharper rise in their firm's selling prices in the next twelve months is still noticeably higher than the share expecting a lower rise in prices. The share expecting a sharper rise has, however, declined slightly from the fourth quarter of 2007 to the first quarter of 2008. Among Norges Bank's regional network contacts, a higher number expect a slower rise in prices than a higher rise in prices. The share expecting a lower rise has increased in the latest contact rounds. Among regional network contacts in retail trade, a larger share expect a sharper than a slower rise in prices. This may be because it can take time for higher costs for goods and services supplied to companies to translate into higher consumer price inflation.

The sharpest rise in prices for domestically produced goods and services normally occurs early in the year (see Chart 3.4), as many firms change their prices around the turn of the year. It seems that the rise in prices from the fourth quarter of 2007 to the first quarter of 2008 will be higher this year than in the same period the previous year.

The rise in prices for domestically produced goods and services is projected to edge up through 2008. As a result of the gradual effect of lower capacity utilisation and more moderate wage growth, the rise in prices for domestically produced goods and services will eventually level off.

Norges Bank uses simple empirical models¹ in the work on short-term projections for developments in consumer prices. The projections from these models, combined with other types of information such as reports from Norges Bank's regional network, are included in an overall assessment of the rise in prices in the coming quarters.

Chart 3.5 shows our projections for the rise in prices for domestically produced goods and services in 2008 along with the projections from the various empirical models. The ARIMA model projects future inflation based solely on historical price variability. The projections from the other models reflect the effects of high capacity utilisation and cost inflation, and to some extent also the rise in prices for imported intermediate goods.

Trade liberalisation, low global inflation and a shift in imports towards low-cost countries have since the mid-1990s resulted in lower prices for imported consumer goods measured in foreign currency (see Chart 3.6). However, the fall in prices has slowed in recent years, and in 2007

 $^{^{}m 1}$ In addition to the ARI and ARIMA models, equilibrium correction models with various combinations of explanatory variables and short-term dynamics are used. Charts 3.5 and 3.8 show the average of the projections from the different equilibrium correction models.

Recent price developments

The twelve-month rise in the consumer price index (CPI) picked up markedly towards the end of 2007, and has remained high into 2008. In February, the year-on-year rise was 3.7% (see Chart 1). Towards the end of 2007, CPI inflation rose somewhat faster than projected in the previous *Report*, while it has been approximately as expected since the new year.

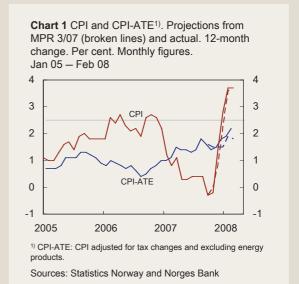
The path for CPI inflation has largely reflected developments in electricity prices. Electricity prices in the CPI fell by 21% from 2006 to 2007, but towards the end of the year electricity prices quoted on the Nord Pool power exchange rose sharply (see Chart 2). This gradually led to markedly higher electricity prices charged to households. In February, electricity prices in the CPI were 28% higher than in the same month a year earlier. The rise in prices for fuel and lubricants has also moved up. In February, the year-on-year rise for this product group was 12%.

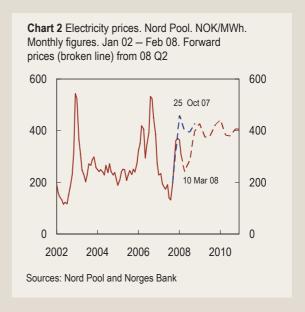
Consumer price inflation adjusted for tax changes and excluding energy products (CPI-ATE) has also picked up in recent months. The year-on-year rise of 2.2% in February is the highest since September 2002. The rise in the CPI-ATE has been stronger than projected in the previous *Report*.

Since last summer, other indicators of underlying inflation have risen more rapidly than the CPI-ATE. In February, the 12-month rise was 3.1% measured by the trimmed mean and 2.3% measured by the weighted median. The trimmed mean has been pushed up in particular by the sharp rise in prices for electricity and petrol in recent months. In periods in 2007, the two alternative indicators showed a lower rate of increase than the CPI-ATE, as a result of a markedly slower rise in prices for energy products.

Sharper rise in prices for domestically produced goods and services

The rise in prices for domestically produced goods and services has continued to quicken, and in February the year-on-year rise in prices for this category was 3.3%. The rise in prices for domestically produced consumer goods has picked up in particular over the past year (see Chart 3), showing a year-on-year rise of 4.5% in February. A higher rate of increase has not been seen since 1998. The marked rise in prices for domestically produced consumer goods is also the most important reason behind faster CPI-ATE





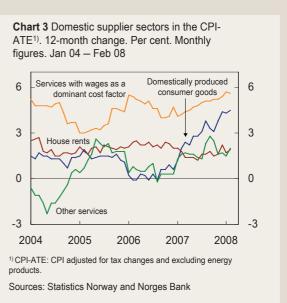
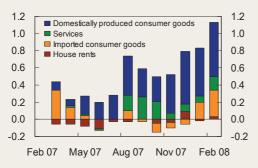


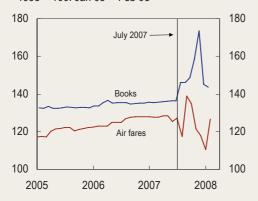
Chart 4 Contributions to change in 12-month rise in the CPI-ATE ¹⁾ since February 2007. Percentage points. Monthly figures. Feb 07 – Feb 08



¹⁾ CPI-ATE: CPI adjusted for tax changes and excluding energy products.

Sources: Statistics Norway and Norges Bank

Chart 5 Price level for product groups in the CPI that were restructured from August 2007. Index, 1998 = 100. Jan 05 — Feb 08



Source: Statistics Norway

Chart 6 Prices for product groups in the CPI that are largely imported. 12-month change. Per cent. Monthly figures. Jan 05 — Feb 08



inflation (see Chart 4). The rise in prices has been particularly high for some food products (see box on page 44), but building materials are also among the product groups that have pushed up inflation.

The rise in prices for services has picked up, albeit to a lesser extent than for domestically produced consumer goods. In February, service prices were 3.0% higher than one year earlier. The year-on-year rise in prices for services with wages as the dominant cost factor was 5.6%, while prices for other services showed a rise of 2.0%. The twelve-month rise in rents was 1.9% in February, approximately the same rate as in the same period in 2007.

The sub-indices for books and air fares were restructured as from August 2007, and since then the month-to-month changes in the two sub-indices have been considerably larger than previously (see Chart 5). Book prices rose sharply in the months following the restructuring, but almost the entire increase was reversed when prices fell by 16% from December to January. Air fares fell by 20% from September to January, but then rose by 15% from January to February. Air fares and books each account for less than 1% of the weighting base in the CPI. However, with such wide month-to-month variations as recently observed, overall inflation will still be affected.

Prices for imported consumer goods no longer falling

Prices for imported consumer goods have fallen appreciably less than projected in the previous *Report*. In February, prices for imported consumer goods were at the same level as in February 2007. In the last months of 2007, these prices were about 1% lower than in the same months the previous year. A faster rise in car prices and a smaller fall in prices for clothing and footwear than in 2007 have curbed the fall in prices for imported consumer goods (see Chart 6). Clothing and footwear and cars constitute approximately half of imported consumer goods.

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 rise in prices for the different product groups are ranked each month in rising order. The rise in prices according to the weighted median is the rise in prices for the product group that lies in the middle of the distribution when account is taken of the various product groups' weight in the CPI. The trimmed mean removes the product groups that make up 10% of the weighting base of the CPI at the upper and lower end of the distribution. The rise in prices is calculated as a weighted average of the rise in prices for the remaining product groups.

the rise in prices for these goods was close to zero. This is related to a sharp rise in food prices and a more moderate shift in imports towards low-cost countries. The krone has generally appreciated over the past few years. Nevertheless, retail prices for imported consumer goods continued to fall through 2007.

It is assumed that the shift towards imports from low-cost countries will continue, but to a somewhat more moderate extent. Higher global food prices will be offset by a continued fall in prices for other imported consumer goods. Overall, prices for imported consumer goods measured in foreign currency are expected to remain at around the current level (see Chart 3.5).

The krone continued to appreciate through 2007. As it normally takes some time for changes in the krone exchange rate to feed through to prices for imported consumer goods, we expect prices for these goods to fall somewhat in 2008.

Prices for imported consumer goods follow a clear seasonal pattern through the year (see Chart 3.7). These prices fall markedly in the first and third quarters in connection with sales, and rise again when new products are introduced in shops in the second and fourth quarters. Prices are assumed to follow a similar pattern through 2008.

Domestic cost inflation is also expected to translate into higher retail prices for imported consumer goods in the period ahead. At the same time, it is expected that the krone will begin to depreciate further out. This will eventually exert further upward pressure on prices. Prices for imported consumer goods are expected to fall less in 2008 than in 2007, and the rate of increase is expected to edge up gradually over the next few years (see Chart 3.2).

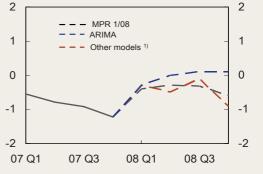
Chart 3.8 shows our projections for the rise in prices for imported consumer goods along with projections from empirical models. With the exception of the ARIMA model, the models capture among other things effects of global inflation, changes in the krone exchange rate and domestic cost growth.

Overall, inflation measured by the CPI-ATE is projected to move up to $2\frac{1}{4}\%$ in 2008 and further up to $2\frac{1}{2}\%$ in the period 2009-2011.

There are prospects that electricity prices will remain above the 2007 level until the end of 2008, and market expectations indicate that electricity prices will rise sharply again from 2008 to 2009. This will contribute to continued high CPI inflation. Developments in electricity prices largely depend on temperature and precipitation levels ahead, and

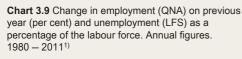
Chart 3.7 Quarterly change in prices for imported consumer goods. Per cent. Average and outcome range¹⁾. Projections 08 Q1 - 08 Q4 3 Outcome range — 2008 2 2 2007 1 0 0 -1 -1 -2 -2 Average last 10 yrs -3 -3 Q1 Q3 Ω4 1) The outcome range shows the highest and lowest inflation rate in each quarter in the period 1991 - 2007. Sources: Statistics Norway and Norges Bank

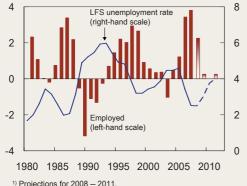
Chart 3.8 Prices for imported consumer goods. Projections from empirical models, historical values and projection in the baseline scenario. 4-quarter change. Per cent. Quarterly figures. 07 Q1 — 08 Q4



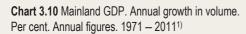
1) Average projections from several models.

Sources: Statistics Norway and Norges Bank





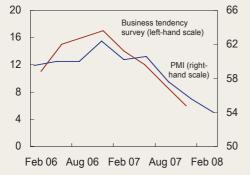
Sources: Statistics Norway and Norges Bank





Sources: Statistics Norway and Norges Bank

Chart 3.11 Business tendency survey¹⁾ and Purchasing Managers Index (PMI). Seasonally adjusted diffusion indices. Quarterly figures. 06 Q1 – 08 Q1²⁾



1) Composite business sentiment indicator.

Sources: Statistics Norway and NIMA/Fokus Bank

there is therefore considerable uncertainty surrounding the CPI projections.

Towards the end of the projection period, energy prices are assumed to rise approximately in pace with other prices, so that CPI and CPI-ATE inflation converge (see Chart 3.1). Since the turn of the millennium, CPI inflation has in general been higher than CPI-ATE inflation. This is due to the sharp rise in prices for energy products internationally, while Norwegian electricity prices have approached the European level. According to futures prices for electricity and oil, energy prices will not rise at a markedly faster pace than other prices ahead (see Chart 2 in box on recent price developments). Futures prices for CO₂ allowances only show a moderate rise in the years ahead.

Continued high GDP growth, but signs of easing

The Norwegian economy has experienced four years of strong growth. In the first part of the period, productivity growth in the business sector was high. Over the past two years, an increase in labour force participation and high inward labour migration have provided room for continued high growth. In both 2006 and 2007, the number employed increased by over 3% (see Chart 3.9). The number employed increased by 93 000 between 2006 and 2007.

Annual growth in mainland GDP in the three-year period 2004-2006 was more than 4%. Preliminary national accounts figures estimate growth at 6% in 2007 (see Chart 3.10). According to the quarterly national accounts, growth in mainland GDP remained high in the fourth quarter of 2007.

Current information indicates that growth will soften into 2008, although the signals are mixed. According to Statistics Norway's fourth-quarter business tendency survey for manufacturing and mining, new orders from domestic markets remained relatively high, but new orders from export markets were weaker in the fourth quarter. Order statistics showed that new orders and order reservers in manufacturing continued to rise in the fourth quarter, albeit at a slower pace than earlier in 2007.

Information from the regional network collected in January indicates somewhat slower output growth in the fourth quarter of 2007. Growth fell more rapidly than expected, and growth expectations have been revised down since the round conducted in November 2007.

A number of other surveys also indicate that we have now reached a turning point (see Chart 3.11). In the fourth quarter, the composite indicator in Statistic Norway's business tendency survey had fallen below the average level of the past ten years. According to the Purchasing Managers

²⁾ The PMI for 08 Q1 is the average for January and February.

Index (PMI) from NIMA/Fokus Bank, there are fewer Norwegian purchasing managers who expect higher growth than a year ago. *Dagens Næringsliv*'s (financial daily) business sentiment survey for the fourth quarter of 2007 also indicated lower growth expectations.

According to Statistics Norway's fourth-quarter business tendency survey, almost 20% of the respondents in manufacturing and mining reported that the labour supply was a constraint on further growth. According to the Norwegian Labour and Welfare Administration, job vacancy rates remain high. The regional network also confirms that the supply of qualified labour is still a constraint on production and that firms are still planning on expanding their workforce (see Chart 3.12). The network's contacts also report that although capacity utilisation is somewhat lower, it is still at a high level. High capacity utilisation may therefore continue to limit growth to some extent ahead, but will probably be of gradually waning importance.

A number of models are used to project mainland GDP growth for the next few quarters. These models differ in that they use different sets of information and are based on different methods in order to make use of the statistical properties of the series included. While the projections from the ARIMA model and the VAR models are only based on information up to the end of the fourth quarter, the indicator model also takes into account more recent information. According to our short-term models, mainland GDP growth will be somewhat lower in the first quarter of 2008 than in the fourth quarter of 2007 (see Chart 3.13). The projections from both the indicator models and the VAR-models imply a continued slackening of growth in the second quarter.

Continued high wage income growth suggests that growth in private consumption will not slow appreciably. On the other hand, a number of factors are now contributing to curbing pressures in the economy ahead. The interest rate level has risen since 2006. At the same time, the global growth outlook, especially in the US, is considerably weaker. As discussed in Section 2, the financial turbulence is also pushing up market rates and squeezing liquidity. According to the regional network, over 40% of the contacts believe that higher funding costs and lower growth in the US and Europe will weaken profitability ahead. Overall, this puts a drag on growth prospects for Norwegian businesses and household consumption.

Mainland GDP growth is projected to soften in the first quarter of 2008. Investment and exports picked up markedly in the fourth quarter from an already high level. This may point to somewhat slower growth in the first quarter. Growth may slow further later in spring and summer. Towards the end of the year, quarterly growth is projected

Chart 3.12 Norges Bank's regional network. Capacity constraints. Per cent. Jan 05 - Jan 08 80 Capacity 60 60 Labour 2) 40 40 20 20 Λ Λ 2005 2008 2006 2007 1) Share who respond that they would have some or considerable problems in accommodating growth in demand.

2) Share who respond that the supply of labour will be a limiting factor for output/turnover Source: Norges Bank

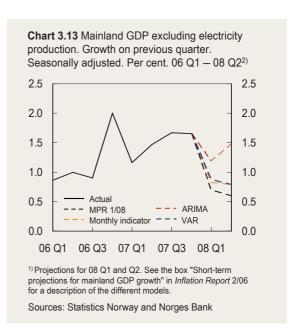
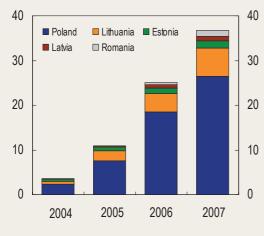


Chart 3.14 Labour force as a percentage of population aged 15-74. Seasonally adjusted. Quarterly figures. 96 Q1 — 07 Q4





Source: Central Office - Foreign Tax Affairs

at close to $\frac{1}{2}$ %. Annual growth in mainland GDP is projected at $3\frac{1}{2}$ % in 2008.

Supply of labour remains high

The sharp growth in employment has partly been reflected in a decline in unemployment and an increase in the labour supply, as a result of inflows from foreign labour and increased labour participation among the existing population.

Labour force participation in the age group 15-74 has never been higher (see Chart 3.14). In 2007, growth in the labour force was almost as strong as employment growth. The increase in the labour supply has been particularly sharp in the younger and older age groups. In 2007, labour force participation increased by approximately 2 percentage points for those in both the 55-66 and the 15-24 age groups. There has also been an increase in the supply of part-time labour among benefit and pension recipients.

The potential for higher labour force participation among the existing population is probably nearing its limit. Persons looking after the family and home, pensioners, benefit recipients and students have contributed to the increase in the labour supply through the upturn, but the scope for a further increase in the labour supply among these groups is now probably smaller.

One particular feature of this upturn has been high inward labour migration, accounting for almost half of the growth in the labour force in recent years. As of 1 January 2008, the Norwegian Directorate of Immigration had registered 76 700 persons with work permits in Norway, 25 000 more than in the same period in 2007. Of these, 63% were nationals of EU accession countries as from 2004. Many work permits have also been issued to persons from other EU countries. Most work permits have been given to nationals from Poland, Germany and Lithuania.

Most foreign workers from the new EU countries probably intend to remain in Norway for some time. According to a survey conducted by the Institute for Labour and Social Research (Fafo) in summer 2007, only 5% of foreign workers from Poland were planning to leave Norway for good in the next twelve months.² 20% stated that they probably would not return to their home country at all. We do not believe that there is reason to expect a rapid reversal of the migration flows. This is in line with experience from previous periods of substantial immigration.

² Fafo Report 2007:27: Polonia in Oslo.

Over time, a number of factors will probably contribute to reducing the inflow of foreign workers from Poland and the Baltic region. In these countries, wage growth is high, unemployment is falling and there is little natural growth in the labour force. The rules on inward labour migration will over time become more liberal in EU countries where transitional rules are currently more restrictive than in Norway. This applies to several countries, such as Germany. A less tight labour market in Norway ahead may also curb inward labour migration. In Ireland, which along with the UK has recorded large inflows of foreign workers from the new EU countries, particularly from Poland, inward labour migration seems to have stagnated in 2007 against the background of a gradual easing of labour market conditions. Charts 3.15 and 3.16 show indicators of inward labour migration in Norway and Ireland respectively since 2004.

Figures from the Norwegian Directorate of Immigration and the Central Office – Foreign Tax Affairs show that the number of foreign job-seekers in Norway registered at the beginning of the year was still high (see Chart 3.17). It is therefore assumed that high net inward migration will continue into 2008, but that it will gradually fall towards the end of the year as growth in demand for labour slows.

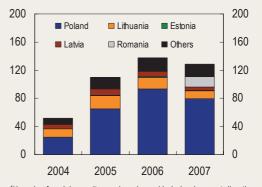
The large share of foreign workers that choose to take up residence in Norway has contributed to strong population growth. Population growth for the age group 15-74 is expected to be close to 1½% in 2008, about the same as in 2007. Inward labour migration is expected to be lower later in the projection period. An increase in the share of older people with a low employment propensity will also curb growth in the labour supply. In addition, a slacker labour market may reduce employment propensity for some groups (see Table 3.1).

High, but probably declining capacity utilisation

The output gap reflects our assessment of capacity utilisation in the economy compared with a normal level.

Strong growth in the labour supply, combined with high productivity growth, has boosted the growth potential of the Norwegian economy. Productivity growth probably reflects factors such as increased specialisation, new technology, improved logistics and more efficient organisation of production (see box in *Monetary Policy Report 2/07*). Lower potential growth ahead, compared with the high level in 2007 and 2008, reflects slower growth in the labour supply. Table 5, page 71, provides an overview of developments in potential output.

Chart 3.16 Ireland: Social security numbers issued to persons from new EU countries. In thousands¹⁾. Annual figures. 2004 - 2007



¹⁾Levels of social security numbers issued in Ireland are not directly comparable to levels of foreigners registered in Chart 3.15.

Sources: Central Statistics Office Ireland and Department of Social and Familiy Affairs

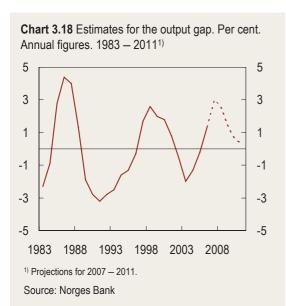
Chart 3.17 Registered employees from new EU countries. Number of persons registered in January and new registrations through the year. In thousands

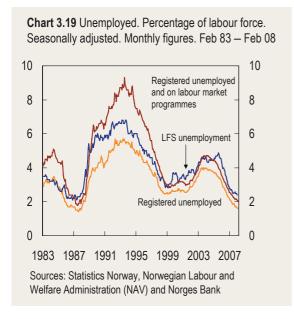


Table 3.1 Population and labour force growth. Change from previous year. Per cent

	2008	2009	2010	2011
Population growth in the age group 15-74 years	1½	11⁄4	1	1
Contribution from change in population composition	-1/4	-1/4	-1/4	-1/4
Cyclical contribution	1	-1/4	0	-1/4
Labour force growth	21/4	3/4	3/4	1/2

Sources: Statistics Norway and Norges Bank







Strong growth in recent years has resulted in a marked increase in capacity utilisation. According to our estimates, the output gap at the beginning of 2008 was somewhat higher than at the peak of the previous cyclical upturn (see Chart 3.18), and somewhat higher than projected in the previous *Report*. The output gap probably peaked at the turn of the year 2007-2008. Growth is expected to fall gradually below trend in the period to summer.

Unemployment may have bottomed out

Unemployment fell throughout 2007 (see Chart 3.19). At the beginning of 2008, employment seems to have stabilised at a lower level than during the previous upturn. The number registered as fully unemployed at the Norwegian Labour and Welfare Administration was 42 000 in February, compared with 57 000 when unemployment was at its lowest in 1999. At the same time, the level of advertised vacancies is still high.

With slower economic growth, labour demand will gradually decline. Lower output growth may in the first round translate into somewhat lower productivity growth. In 2006 and 2007, productivity growth was somewhat below the average for the past ten years (see Chart 3.20). Productivity growth in 2008 is projected at $1\frac{3}{4}\%$.

Employment growth is expected to slacken through 2008. The level of employment shows little change as from 2009. Unemployment will increase somewhat towards the end of 2008, and the unemployment rate is projected to average 2½% for the year. Later in the projection period unemployment is expected to increase to more than 3% in the course of 2009 and to continue to rise in 2010.

Wage growth has picked up

A tight labour market and high corporate earnings have resulted in higher wage growth. Wage growth has increased rapidly (see Chart 3.21). In 2007, wage drift was close to the highest recorded since 1998. Wages in manufacturing rose substantially more than anticipated in the centralised negotiations last year, and a little more than projected by Norges Bank. Wage growth in other parts of the economy was somewhat lower than expected. The Technical Reporting Committee on Income Settlements (TRC) has estimated overall annual wage growth at 5.4% in 2007. This is approximately in line with the projections in *Monetary Policy Report* 3/07. It is assumed that the costs associated with the introduction of mandatory occupational pensions pushed up labour costs by 0.2 percentage point in 2007.

Wages as a share of mainland GDP fell through the first part of the upturn, but now seem to have picked up somewhat over the past two years (see Chart 3.22). Productivity growth has been high and the terms of trade have improved as a result of rising export prices for commodities and falling import prices for consumer goods. This has made it possible for enterprises to increase their share of value added while real wage growth has been high and employment growth strong. In 2007, real wage growth was close to 4.5%, which is the highest rate recorded since the mid-1970s.

Increasing cross-border mobility in the form of both higher inward labour migration and ample scope for relocating production abroad may have restrained pay demands compared with previous cyclical upturns. If a permanent change has taken place towards a more flexible supply of labour – with migrant workers coming to Norway during cyclical upturns and leaving during downturns – wage growth may be less influenced by economic cycles than in the past. Norges Bank's wage projections are based on the assumption that a large portion of foreign labour inflows will remain in Norway.

Norges Bank's regional network expects annual wage growth of 5½% in 2008. This is roughly the same as the projection for 2007 made last autumn, and almost one percentage point higher than the projection for 2007 made at the same time last year.

A substantial share of pay increases were awarded in the latter half of last year, and resulted in a substantial wage carry-over in 2008, or 2% according to the TRC. This year's settlement is a main wage settlement. Main settlements have often resulted in somewhat higher pay increases than interim wage settlements. If the labour market remains tight, the pay increases will probably lead to a further acceleration in wage growth from 2007 to 2008. On the other hand, a softening of the economy through 2008 may result in a decline in wage drift.

In this year's main wage settlement, negotiations will include the contractual early retirement scheme. The framework for the current scheme expires in 2010. The outcome of the early retirement scheme negotiations will not affect the rise in costs this year, but will have a bearing on the labour supply in the years ahead.

On balance, Norges Bank estimates annual wage growth in 2008 at 6%. High cost inflation and pressures on margins as a result of higher wages, lower productivity growth and the prospect of lower demand may bring down wage growth ahead. Wage growth is expected to moderate gradually to about 5% in 2010.

Chart 3.21 Annual wage growth¹⁾ and LFS unemployment. Per cent. Annual figures. $1993 - 2011^{2}$ 8 Annual wage growth 6 6 4 4 Unemployment rate 2 2 0 1993 1997 2001 2005 2009 1) Average for all groups. Including estimated costs of increase in number of vacation days and introduction of mandatory occupational pension 2) Projections for 2008 - 2011. Sources: Statistics Norway, Technical Reporting Committee on Income Settlements and Norges Bank

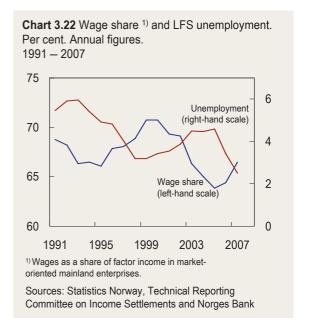
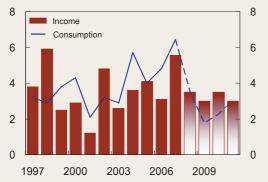


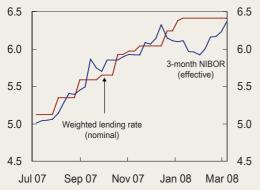
Chart 3.23 Household disposable real income¹⁾ and consumption²⁾. Annual growth. Per cent. Annual figures. 1997 – 2011³⁾



 $^{^{\}rm 1)}$ Adjusted for estimated reinvested share dividends for 2000 - 2005 and redemption/reduction of equity capital for 2006 - 2011.

Sources: Statistics Norway and Norges Bank

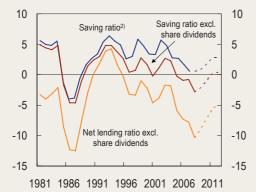
Chart 3.24 Money market rate and banks' lending rates on new loans¹⁾. Per cent. Weekly figures. 6 Jul 07 – 7 Mar 08



Nominal interest rates on new floating-rate mortgages of NOK 1 million, within 60% of the purchase sum for the 20 largest banks, weighted according to market share.

Sources: "Norsk Familieøkonomi" and Norges Bank

Chart 3.25 Household saving and net lending as a share of disposable income. Per cent. Annual figures. 1981 – 2011¹⁾



¹⁾ Projections for 2008 – 2011.

Sources: Statistics Norway and Norges Bank

Growth in private consumption down from record-high level

Growth in household consumption has been strong for several years. According to the quarterly national accounts, household consumption increased by 6.4% in 2007 (see Chart 3.23).

A number of factors point to slower consumption growth this year. Growth in household disposable real income is expected to abate this year as a result of lower employment growth, increased net interest expenses and higher consumer price inflation.

During the past year, borrowing rates charged to households have increased markedly, both as a consequence of a higher key policy rate and because the turmoil in international financial markets has resulted in higher money market rates (see Section 2). Mortgage rates have risen by about 1 percentage point since August 2007 (see Chart 3.24). This is 0.25 percentage point more than the rise in the key policy rate in the same period. Combined with a higher debt-income ratio, this amplifies the effect of interest rate changes on disposable income.

Despite a substantial increase in real income, the household saving ratio has fallen appreciably in recent years, and the saving ratio excluding share dividends was negative in 2007³ (see Chart 3.25). It was pointed out in a box in *Monetary Policy Report* 3/07 that low interest rates, coupled with the improvement in Norway's terms of trade and changes in credit markets, may have contributed to bringing forward household consumption and consumption of durable consumer goods, reducing household saving and increasing housing and equity wealth.

Households will probably not maintain saving ratios that are negative or close to zero over a long period. The projections in this *Report* are based on a reversal of the fall in the saving ratio, which is projected to pick up gradually through the year, by about 3 percentage points in the period to 2011.

Some factors may induce households to increase saving faster than projected here. In isolation, higher interest rates will push up the saving ratio. Moreover, there have been signs in a number of countries of tighter lending standards among banks, but so far there are no signs of a marked tightening of standards in Norway.

²⁾ Includes consumption in non-profit organisations.

 $^{^{3)}}$ Projections for 2008 - 2011.

²⁾ Adjusted for estimated reinvested share dividends for 2000 – 2005 and redemption/reduction of equity capital for 2006 – 2011.

³ If the saving ratio including share dividends is adjusted for the effects of adaptation to the change in dividend tax for personal shareholders in 2006, the saving ratio is estimated at 0.6% in 2007. However, there is considerably uncertainty surrounding the reinvestment of share dividends in the period 2000-2005 and the redemption/reduction of equity capital in 2006 and 2007.

With falling house prices, households will again have to increase their financial investments to maintain their wealth position. In periods, there has been a close relationship between house prices and consumption (see Chart 3.26). In January, house prices fell for the seventh consecutive month according to seasonally adjusted figures, but edged up between January and February (see Chart 3.27).

The decline in equity prices at the beginning of the year has a direct impact on a relatively small group of households. Nevertheless, the financial turbulence, combined with weaker developments in the global economy, may reduce growth expectations for the Norwegian economy. New information does not provide a clear-cut picture of developments in private consumption ahead. The indices for retail sales and goods consumption show a continued slackening of consumption growth. So far however, various sentiment indicators do not point to an abrupt shift in household sentiment.

Growth in credit to households has moderated in recent months (see Chart 3.27). Nevertheless it is likely that an adjustment of the saving ratio will take time. Changes in consumption and saving behaviour may span several years. Households' adaptation to a higher debt burden as a result of changes in the credit market may thus continue over a period and continue to restrain the rise in the saving ratio.

Housing investment expanded by 6.3% in 2007. As a result of higher interest rates, falling house prices and rising construction costs, housing investment grew at a gradually slower pace through the year. In 2008, housing investment is expected to show a small decline.

Slower growth in investment and exports

Investment is traditionally high towards the end of a cyclical upturn. Capacity utilisation is rising and companies have to invest to increase capacity. Total gross fixed investment grew by 9.3% in 2007, according to the national accounts. According to Statistics Norway's investment intentions survey, business investment will be very high again in 2008 (see Chart 3.28). Reports from Norges Bank's regional network indicate higher investment in 2008. However, the regional network finds that investment plans have been revised down somewhat since the end of last year, particularly in manufacturing.

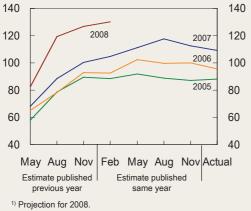
Investment in commercial buildings grew rapidly in 2007. At the same time, vacancy rates are low. According to a survey conducted by Eiendomsspar, the vacancy rate was 4.4% in Oslo, Bærum and Asker at the beginning of 2008, and the vacancy rate fell by 25% in 2007. Growth in new commercial building projects is nevertheless expected to soften through 2008.

Chart 3.26 Private consumption¹⁾ and real house prices²⁾. 4-quarter change. Per cent. Quarterly figures. 93 Q1 - 07 Q4 20 8 15 6 10 4 5 2 rivate consumption N (left-hand scale) 0 (right-hand scale) -5 -2 -10 1993 1996 1999 2002 2005 2008 1) Seasonally adjusted and smoothed 2) Nominal house price index deflated by the consumer price index. Sources: Statistics Norway and Norges Bank

Chart 3.27 House prices and credit to households (C2). Change in 3-month moving average. Annual rate. Seasonally adjusted. Per cent. Monthly figures. Jan 02 - Feb 08 30 20 20 10 10 House prices 0 0 -10 -10 2002 2003 2004 2005 2006 2007 2008 Sources: Norwegian Association of Real Estate Agents, Association of Real Estate Agency Firms, Finn.no, ECON Pöyry, Statistics Norway and Norges Bank

Chart 3.28 Investment statistics for manufacturing. Estimated and actual investment (current prices). In billions of NOK. Annual figures. 2004 — 20081) 35 35 2008 30 30 2007 25 25 2006 2005 20 20 15 15 10 10 Feb May Aug Nov Actual May Aug Nov Estimate published Estimate published previous year same year 1) Projection for 2008 Source: Statistics Norway

Chart 3.29 Investment statistics for the petroleum industry. Estimated and actual investment (current prices). In billions of NOK. Annual figures. 2005-2008 ¹⁾



Source: Statistics Norway

Chart 3 30 Investment in oil and gas recovery

Chart 3.30 Investment in oil and gas recovery including pipeline transport. Investment level in billions of NOK (constant 2005-prices) and annual growth (per cent). Annual figures. 1995 — 2011¹⁾

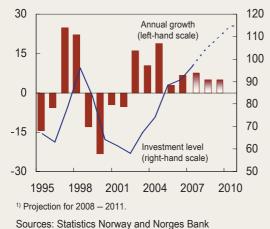
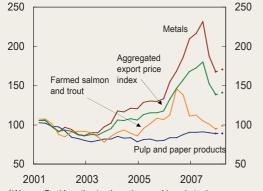


Chart 3.31 Price indices¹⁾ for Norwegian exports in NOK. 2001 = 100. Quarterly figures. 01 Q1 — 08 Q1²⁾



 $^{1)}$ Norges Bank's estimates based on world market prices. $^{2)}$ Projection for 08 Q1 based on data available so far in the quarter.

Sources: Reuters (EcoWin), Statistics Norway and Norges Bank

Owing to higher interest rates and uncertainty about developments in the world economy, some planned investment projects may be postponed or shelved. Lower equity prices may, in isolation, make it difficult for companies to use the stock market as a source of funding. It would seem that bond funding has become more difficult. However, there are relatively few Norwegian companies outside the financial sector that obtain funding directly in this market.

Commercial building activity is highly leveraged. A tighter credit market may generate uncertainty about future developments in this industry. In autumn 2007, growth in lending from domestic sources as measured by C2 was still high. As discussed in Section 2, Norwegian banks' funding costs have also increased. This may lead to higher funding costs for Norwegian companies. According to the regional network, 30% of companies already face higher funding costs as a result of the financial turbulence, and just as many expect higher costs over the next 6 months. However, only a small share of companies considers access to credit to be a constraint.

On balance, corporate investment is expected to show somewhat slower growth compared with last year.

Investment growth in the oil sector is expected to remain firm against the background of high oil prices, a high level of exploration activity and growth in investment in existing installations. According to Statistics Norway's investment intentions survey for the petroleum sector (see Chart 3.29), oil investment is projected to expand by $7\frac{1}{2}\%$ in 2008 (see Chart 3.30). However, oil production costs on the Norwegian continental shelf may prove to be higher than previously assumed, in which case volume growth may be somewhat lower.

Since autumn, a number of large projects have been dropped, for example at the Snøhvit and Troll fields. On the other hand, several smaller projects are expected to be launched. Capacity constraints have hindered several planned projects during this cyclical upturn. In particular, limited rig capacity has been a constraint. Improved capacity will alleviate this problem ahead. Information from companies and the Norwegian Petroleum Directorate indicates, however, that the historically high investment levels will peak towards the end of the projection period.

In export markets, after rising rapidly over several years, prices for a number of important export goods have shown wide swings, including metal and fish prices. So far in the first quarter, prices are on average at about the same level as in the fourth quarter (see Chart 3.31). Order statistics for the export industry and the business tendency survey showed slower growth in export orders towards the end

of last year. Further ahead, weak developments in the US economy may further reduce new export orders. In addition, a stronger exchange rate and high wage and cost growth may push down exports. Growth in exports is projected to soften gradually.

Fiscal policy and local government finances – continued growth in 2008

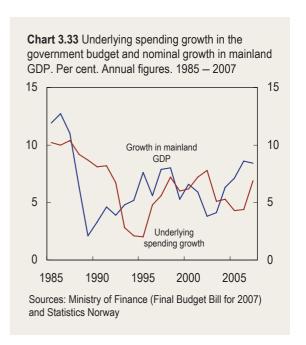
According to Statistics Norway, total tax receipts came to NOK 653bn in 2007 or an increase of 4.2% on 2006. Excluding oil taxes, tax receipts increased by NOK 51.3bn, or 12.4% from 2006. Growth was highest in Oslo and Rogaland. The substantial increase in tax revenues confirms the picture of strong growth in the Norwegian economy last year.

Under the fiscal rule, the structural, non-oil budget deficit should average 4% of the capital in the Government Pension Fund – Global at the beginning of the year. According to the fiscal rule, the phasing in of petroleum revenues should be adapted to the cyclical situation and pressures in the Norwegian economy. According to the final budget bill for 2007, the structural, non-oil budget deficit was NOK 58.6bn in 2007, or almost NOK 10bn lower than estimated in the National Budget for 2008. Measured in relation to the size of the Government Pension Fund - Global, the structural deficit was 3.3%. The Government's budget proposal for 2008 was approved by the Storting (Norwegian parliament) without any substantial changes. In the National Budget for 2008, the structural deficit was estimated to increase from 2007 to 2008, but to remain below 4% of the Fund (see Chart 3.32).

In the final budget bill, nominal underlying spending growth was estimated at 6.9% and growth was thus lower than nominal mainland GDP growth in Norway last year (see Chart 3.33). In the National Budget for 2008, underlying spending growth was expected to decline between 2007 and 2008. Some public sector investment projects that were planned in 2007 seem to have been postponed until 2008. Some of these projects were postponed because capacity constraints made it impossible to procure tenders or because tender prices were higher than anticipated.

In the National Budget for 2008, growth in local government revenues is estimated at around 5% in 2007 and 5.7% in 2008. This is somewhat lower than in the three previous years.

Chart 3.32 Expected real return on the Government Pension Fund - Global. In billions of 2008-NOK. Annual figures. 2002 - 2010 120 120 Expected real return (NB 2008) Structural, non-oil deficit 90 90 60 60 30 30 2002 2004 2006 2010 2008 Source: Ministry of Finance (National Budget 2008)



Boxes

Factors driving the rise in domestic and global food prices

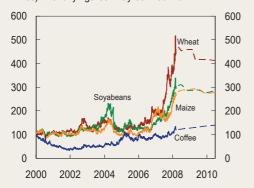
Cross-checks for the krone exchange rate

Evaluation of projections for 2007

Projections in *Monetary Policy Report* 3/07 and 1/08

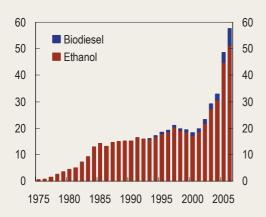
Factors driving the rise in domestic and global food prices

Chart 1 International commodity prices in USD. Index, 3 Jan 00 = 100. Daily figures. 3 Jan 00 — 10 Mar 08. Futures prices from 10 Mar 08 (broken lines). Monthly figures. May 08 — Jul 10



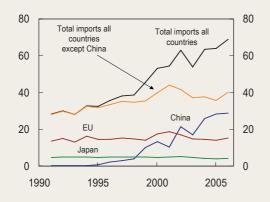
Sources: Reuters (EcoWin), Chicago Board of Trade The Intercontinental Exchange and Norges Bank

Chart 2 Production of biofuels. In billions of litres. Annual figures. 1975 – 2006



Sources: The Earth Policy Institute and the Global Subsidies Initiative (GSI)

Chart 3 Imports of soyabeans. In millions of tons. Annual figures. 1991 – 2006



Sources: United States Department of Agriculture and Norges Bank

The sharp rise in food prices has been a prominent feature of the global economy over the past two years. This box takes a closer look at the forces that may explain the rise in food prices both in Norway and abroad. We also briefly examine the factors that may influence domestic food prices ahead.

Developments in global food prices

Since the beginning of 2007, *The Economist* food price index has increased by 70% in USD terms, 46% in euro terms and 40% in NOK terms. The rise has been particularly sharp for wheat, maize, soyabeans and vegetable oils (see Chart 1). Surging prices primarily reflects three factors: increased production of biofuels, higher demand from emerging market economies and weather conditions.

The production of biofuels has risen sharply in recent years (see Chart 2). The development of bioenergy is partly motivated by the objective of reducing greenhouse gas emissions. Governments in many countries therefore provide high subsidies for biofuel production. Food products such as maize, sugar and vegetable oils are used as inputs in this production. About 20% of the maize crop in the US is used in the production of ethanol, i.e. a three-fold increase since 2000. In Brazil, the world's largest sugar producer, almost half of the country's sugar crop is used in the production of ethanol, while 40% of the rapeseed crop in the EU is used for producing biodiesel. The rapidly rising use of biofuels has pushed up input prices. At the same time, the cultivation of other agricultural products is being displaced so that prices for these products are also on the rise.

Higher living standards in emerging market economies have led to changes in the demand pattern for food. Demand for meat, fruit and vegetables is steadily rising. In China, meat consumption has shown a particularly sharp increase. Growing demand for meat has driven up the consumption and price of soyabeans, which are used as animal feed. China's imports of soyabeans have surged since the 1990s (see Chart 3).

Supply-side factors have also contributed to the sharp rise in global food prices. Adverse weather conditions have destroyed crops in several large wheat-producing countries. Among the five largest wheat exporters ¹, production fell by altogether 12%

between 2006 and 2007.² Wheat stocks have thus fallen markedly and are now assumed to be at the lowest level since the end of the 1970s. As a result, wheat prices have more than doubled since the beginning of 2007. Moreover, higher energy prices have pushed up costs in agricultural production.

Futures prices imply continued high global food prices (see Chart 1). The rate of increase in prices is, however, expected to ease and some food prices may also edge down.

Developments in domestic food prices

The rise in food prices in Norway has been considerably less pronounced than on the world market, but even in Norway prices for food and non-alcoholic beverages included in the consumer prices index (CPI) have risen in the past few years. In February, the year-on-year rise in prices for these goods was 3.6%. Food prices have risen at a considerably faster pace in other countries. Food prices in Denmark, Sweden and the UK have risen rapidly since mid-2007 (see Chart 4). The more moderate rise in food prices in Norway and Switzerland probably reflects farm import protection, which to a greater extent shelters agriculture from international price fluctuations.

Domestic food price developments reflect both international and domestic conditions. Imported food accounts for a relatively small share of the food products included in the CPI (see Chart 5).³ Prices for imported food products have consistently fallen since summer 2007 (see Chart 6). The decline partly reflects the fall in fresh fruit prices due to fruit promotion campaigns by several grocery chains this winter. Prices for imported food products picked up in February, rising by 1.2% from January.

In particular, prices for food products produced in Norway using Norwegian inputs or with a mixture of Norwegian and imported inputs rose in the last six months (see Chart 7). These food products make up the bulk of the food products in the CPI. In February, prices for these food products were about 5% higher than in February last year.

The rise in domestic food prices primarily reflects the rise in domestically produced food such as meat, milk, cheese, eggs and grain products. Prices for these food products, or the inputs used, are determined in the agricultural settlement through target prices.⁴

Chart 4 Developments in prices for food and non-alcoholic beverages in the CPI in various European countries. 12-month change. Per cent. Monthly figures. Jan 03 — Feb 08

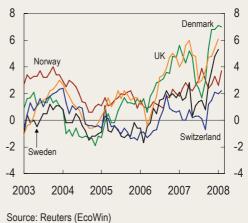
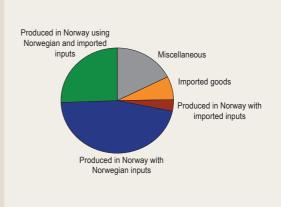


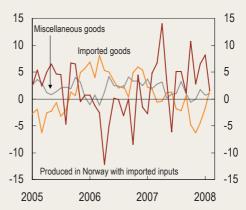
Chart 5 Food and non-alcoholic beverages in the CPI, by origin.¹⁾ Weight in the CPI



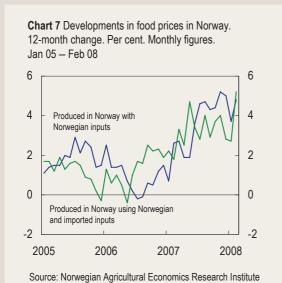
1) Fish products are not included.

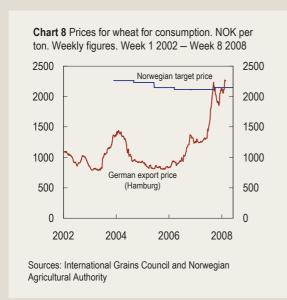
Sources: Statistics Norway and Norwegian Agricultural Economics Research Institute

Chart 6 Developments in food prices in Norway. 12-month change. Per cent. Monthly figures. Jan 05 – Feb 08



Source: Norwegian Agricultural Economics Research Institute





Most target prices in Norway are higher than world market prices, despite the rise in global food prices. In practice, this means that food products covered by the agricultural agreement are largely sheltered from international price swings. If international prices approach Norwegian target prices, prices for food products covered by the agricultural agreement might be influenced. This applied to grain for the first time in September 2007 (see Chart 8). Tariff rates on wheat were then reduced to zero and this was maintained into 2008 as world market wheat prices have remained high. The purpose of the tariff reduction is to minimise the difference between the Norwegian price and the world market price.

The agricultural agreement has contributed to the rise in Norwegian food prices in recent years. In the agricultural settlement for 2007, target prices were increased by 31/4%. The Ministry of Finance has

estimated that the isolated effect of this is a 11/4% price increase for Norwegian agricultural products, which makes an annual contribution of 0.1% to the

Other structural and cyclical conditions also influence food prices in Norway. Costs at the retail and wholesale stage of food distribution have a sizeable impact on the prices the consumer pays in shops. According to Statistics Norway, the profit margin in retail trade accounts for about 30% of food prices charged to households. Other decisive factors are competition between grocery chains and negotiations between grocery chains and food suppliers.

Every spring and autumn, the grocery chains and suppliers negotiate prices and delivery terms. As a rule, semi-annual agreements are concluded, which enter into force at the beginning of February and July each year. Supplier costs have increased owing to the rise in global food prices, and the rise in prices in February suggests that they have passed on some of this increase to grocery chains. This applies in particular to products with a wheat content, such as flour, bread, pasta, pizza and biscuits. The year-on-year rise in pasta prices was 9.8% in February. Prices for milk products have shown a similar increase, but the rise in prices for these products is less affected by international developments. The increase in these prices probably reflects higher target prices in the agricultural settlement for 2007 and other domestic factors.

The rise in global food prices is likely to moderate ahead and the effects on consumer price inflation in Norway are expected be temporary. It is likely that agricultural settlements, domestic cost inflation and competition will continue to have a greater impact on food price developments in Norway than international conditions, even though international developments will also be of some importance.

¹ The world's five largest exporters of wheat are the US, Canada, the EU, Australia and Argentina.

Source: Australian Commodity Statistics 2007.

³ The Norwegian Agricultural Economics Research Institute has divided the food products in the CPI into five groups by origin. "Miscellaneous goods" are goods that are difficult to classify, and the group may contain some imports.

Target prices are maximum annual average selling prices charged to the wholesaler/retailer for a given good. The Directorate of Agriculture monitors price quotations through the year, and these are not to exceed the target price. If this occurs, administrative tariff reductions are usually introduced.

Cross-checks for the krone

exchange rate

Different models and theories can provide different explanations as to developments in the krone exchange rate and can therefore also produce different projections of output and inflation. The box provides a description of some of the models used by Norges Bank to assess developments in the krone exchange rate.

Chart 1 shows the krone exchange rate and Norges Bank's projections as from *Inflation Report* 3/05. The krone fluctuates and new information about economic developments may cause the krone to deviate considerably from the projections. The krone has shown a continuous appreciation since the beginning of 2004 in tandem with rising oil prices and a widening of the interest rate differential against other countries (see Charts 2 and 3).

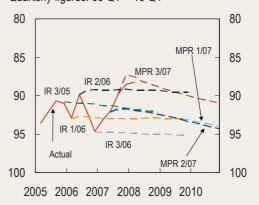
Norges Bank's projections are based on the principle of uncovered interest parity in the long-term, as expressed by the forward krone exchange rate. However, experience suggests that forward exchange rates can only to a limited extent predict short-term exchange rate fluctuations. Therefore, we have developed simple models based on historical correlations between the krone exchange rate and different economic variables. These models can provide a cross-check of our projections in the short term. A common feature of the models is that the projections of the krone exchange rate can be stated in the form:

krone exchange rate = $b_0 + b_1(p-p^*) + b_2(i-i^*) +$ b₃oilprice + b₄orderflow

where p is the domestic price level, p* is the external price level, i is the interest rate in Norway, i* is the interest rate among trading partners, oilprice is the oil price in USD terms and orderflow is the flow of orders in the foreign exchange market.²

The models can be used to assess whether today's exchange rate is consistent with the factors that historically can explain the variations in the krone exchange rate. Deviations from the model-determined exchange rate can be interpreted as temporary. For example, experience shows that themes in the foreign exchange market can shift over time.³ If the krone is weaker than implied by the models, it may suggest an appreciation ahead.

Chart 1 Import-weighted exchange rate (I-44)¹⁾ in the baseline scenario in various reports. Index. Quarterly figures. 05 Q1 - 10 Q4



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

Chart 2 Oil price (Brent Blend) in USD and the

trade-weighted exchange rate index (TWI).1) Monthly figures. Jan 86 - Feb 08 100 85 TWI (right-hand 90 80 95 60 100 40 105 20 110 115 1986 1990 1994 1998 2002 2006

1) A rising curve denotes a stronger krone exchange rate. Sources: Reuters (EcoWin) and Norges Bank

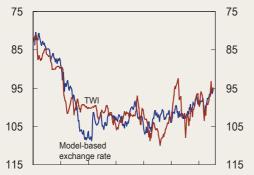
Chart 3 3-month interest rate differential against trading partners and the trade-weighted exchange rate index (TWI).1) Monthly figures. Jan 86 - Feb 08



1) A rising curve denotes a stronger krone exchange rate

Source: Norges Bank

Chart 4 Trade-weighted exchange rate index (TWI)¹⁾ and model-based exchange rate determined by relative price developments, the 12-month interest rate differential and the oil price. Monthly figures. Jan 82 – Feb 08



1982 1986 1990 1994 1998 2002 2006

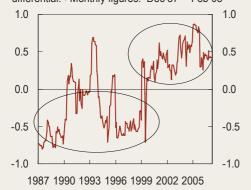
Chart 5 Nominal exchange rate (TWI)¹⁾, real



¹⁾ A rising curve denotes a stronger krone exchange rate.
²⁾ Measured by the TWI deflated by relative consumer prices between Norway and trading partners. A rising curve denotes a stronger real krone exchange rate.

Source: Norges Bank

Chart 6 One-year moving correlation between change in the trade-weighted exchange rate index (TWI) and change in the 3-month interest rate differential.¹⁾ Monthly figures. Dec 87 — Feb 08



¹⁾ Positive (negative) correlation means that a higher interest rate differential is accompanied by a stronger (weaker) krone.

Source: Norges Bank

Chart 4 shows the actual krone exchange rate (TWI) and an estimate of the exchange rate that follows from a model estimated on monthly data from 1982. In the model, the exchange rate is determined by price developments relative to trading partners, the oil price and the difference in 12-month interest rates.⁴ In the 1980s and up to the beginning of the 1990s, both the actual and model-determined exchange rate depreciated. This was because inflation was higher in Norway than among trading partners and is captured by the term with relative prices in the model. Historically, there has been a tendency for inflation differentials between Norway and other countries to be offset over time by movements in the nominal exchange rate (see Chart 5). At the end of the 1970s and in the 1980s, inflation in Norway was higher than that of trading partners in a number of years. Measured in foreign currency, the relatively higher level of inflation in Norway was offset by a fall in the value of the krone. The real krone exchange rate was more stable.⁵ In real terms, the krone is now somewhat stronger than the average for the past 30-40 years.

Chart 6 shows the correlation coefficient between changes in the interest rate differential and changes in the krone exchange rate over time.⁶ Up to the end of the 1990s, the interest rate was used to stabilise the exchange rate. Depreciation pressures were countered by raising interest rates and the interest rate was reduced in response to increased demand for NOK. As a result, a wider interest rate differential was often accompanied by a weaker krone and the inverse. This is reflected in the negative correlation shown in the chart. Under an inflation targeting regime, the krone is floating. A wider interest rate differential will then normally be accompanied by a stronger krone. This is reflected in the positive correlation shown in the chart for the years since the turn of the millennium.

Chart 7 shows the krone exchange rate (TWI) and the projection of the krone derived from a model estimated on monthly data from the beginning of 2002. The only factors that explain the movements in the krone exchange rate here are the interest rate differential (12-month money market rates) and the oil price. Foreign exchange operators often cite these variables to explain movements in the krone exchange rate. The inflation differential between Norway and trading partners is omitted as it has been relatively narrow since 2002. The effect of the interest rate is somewhat stronger than in the model

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

³⁾ A rise indicates an increased price level in Norway relative to trading partners.

in Chart 4. This is probably because the correlation between the interest rate and the krone exchange rate has changed over time (see Chart 6).

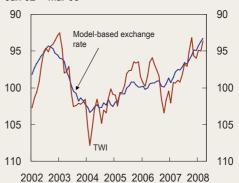
Chart 8 shows the krone exchange rate (I-44) and the projection of the exchange rate derived from a model estimated on weekly data where the exchange rate is explained by order flows in the foreign exchange market. In this model, the observation of order flows replaces the more structural explanations - the interest rate differential and oil price - which are included in the other models.⁷

Models of this type are not particularly suited for predicting the krone exchange rate at longer time horizons. This is because the krone exchange rate and expected future interest rates are determined simultaneously by different forward-looking participants in different markets. There is an interaction between the krone exchange rate and interest rates that is not captured by simple models of the type discussed here. Norges Bank's projection of the exchange rate is therefore based on structural equilibrium models - e.g. NEMO - where this interaction is included.⁸

The models may be better suited for understanding what has historically driven fluctuations in the krone exchange rate, given the monetary policy that was actually conducted. The red columns in Chart 9 show the actual appreciation of the krone since the beginning of 2004 and the beginning of 2007. The blue columns show how much the krone should have appreciated according to the model in Chart 7. The yellow columns show the contribution from the oil price to the appreciation, while the green columns show the contribution from the interest rate differential. According to this model, from both the beginning of 2004 and the beginning of 2007 the oil price has been a somewhat more important explanatory factor behind the change in the krone exchange rate than the expected interest rate differential.

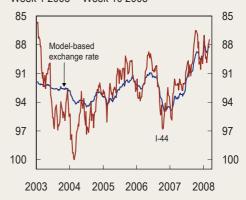
Chart 7 Trade-weighted exchange rate index (TWI)¹⁾ and model-based exchange rate determined by 12-month interest rate differential and the oil price. Monthly figures.

Jan 02 — Mar 08



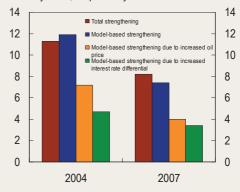
¹⁾ A rising curve denotes a stronger krone exchange rate Source: Norges Bank

Chart 8 Import-weighted exchange rate index (I-44)¹⁾ and model-based exchange rate determined by order flows. Weekly figures. Week 1 2003 — Week 10 2008



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

Chart 9 Strengthening of the trade-weighted exchange rate index (TWI) since January 2004 and January 2007, respectively. 1) Per cent



¹⁾ The model-based exchange rate is based on the model in Chart 7, where explanatory factors for exchange rate developments are the 12-month interest rate differential and the oil price.

Source: Norges Bank

 1 According to the theory of uncovered interest parity (UIP) the expected return on investment in NOK is equal to the expected return on investment in foreign currency. UIP is defined by the equation i = i_{ext} + (s^e - s), where i is the domestic interest rate, i_{ext} is the external interest rate, s is the exchange rate and s^e is the expected future exchange rate. The exchange rate is in logarithmic form and an increase denotes a depreciation of the krone. The equation for UIP can be stated in the form

 $s_t=s^{long} + E_t \Sigma(i-i^*)_{t+k}$ (summed from t=0 to t= ∞), i.e. today's exchange rate is determined by the long-term expected exchange rate (slong) and a sum of expected future interest rate differentials, see Bernhardsen (2008) for details. UIP implies that today's krone exchange rate reflects market participants' expectations concerning future interest rate differentials against other currencies. A surprising increase in the expected interest rate differential against other countries results in an immediate appreciation of the krone. It is difficult to test UIP empirically because expectations concerning the future value of the krone cannot be observed. At a given time, UIP implies that the interest rate differential is equal to the *expected* change in the exchange rate. New information may, however, lead to the actual change in the exchange rate being different from that expected. If the actual exchange rate differs from that expected, it does not mean that UIP does not hold. Chinn and Meredith (2005) show that UIP holds better in

the somewhat longer term. ² Not all of the explanatory variables are included in all the models. By estimating the model's parameters (the b terms), the model-determined krone exchange rate can be estimated.

³ Models where themes in the NOK market are modelled explicitly are discussed in the boxes "Factors behind developments in the krone exchange rate", *Inflation Report* 1/03 and "Developments in the krone exchange rate", *Inflation Report* 2/05. In recent years, it seems that the oil price, the interest rate differential and order flows in the foreign exchange market seem to explain developments in the krone exchange rate fairly well.

⁴ A 12-month interest rate differential reflects expected changes in the shortest money market rates 12 months ahead. This is consistent with the hypothesis that financial market participants are forward-looking and take into account expected developments in the interest rate when investing in NOK.

the interest rate when investing in NOK.

The real krone exchange rate shows the krone's value adjusted for price differentials between Norway and other countries.

for price differentials between Norway and other countries.

The chart shows the 12-month moving correlation cofficient, i.e. each point on the curve shows the correlation coefficient between the change in the krone exchange rate and the change in the interest rate differential over the past 12 months.

the interest rate differential over the past 12 months. ⁷ The order flow model is based on more recent theories on the microstructure in the foreign exchange market. Bailliu and King (2005) provide an overview of this kind of models and more traditional kind of exchange rate models. The model in Chart 4 simultaneously models the interest rate and exchange rate as in Johansen and Juselius (1992) and Bjørnland and Hungnes (2006). The models in Charts 7 and 8 are single-equation equilibrium correction models. The model in Chart 7 with the interest rate differential and oil price as explanatory factors are further described in Bernhardsen (2008), while the underlying statistics for the order flow model are discussed in Meyer and Skjelvik (2006). The models in Charts 4 and 8 will be further described in Working Papers to be published at a later date.

⁸ The Bank's general equilibrium model NEMO (Norwegian Economy Model) is discussed in a box in *Monetary Policy Report* 3/07 and Brubakk et al. (2006). Model "1a" is discussed in Husebø et al. (2004).

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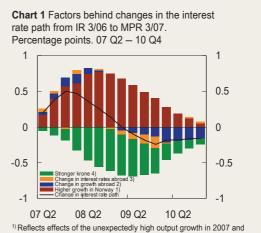
Meyer, E. and J. Skjelvik (2006) "Valutahandels-statistikken – ny innsikt i valutamarkedet" [Foreign exchange statistics – new insight into the foreign exchange market], Penger og Kreditt, 1/06, Norges Bank, see norges-bank.no.

Evaluation of projections for 2007

Norges Bank's projections of inflation and output for the next few quarters form an important basis for interest rate setting. The short-term projections are evaluated once a year. The evaluation can enhance our insight into our work on projections and contribute to the development and improvement of our analytical tools. In this box, we evaluate the projections of developments in 2007 presented by Norges Bank from the end of 2006 through 2007.

Key policy rate higher than projected

The key policy rate turned out to be higher through 2007 than projected at the beginning of the year (see Chart 1). The change between *Inflation Report* 3/06 and *Monetary Policy Report* 3/07 was primarily ascribable to an unexpectedly strong krone and high capacity utilisation in the Norwegian economy. Despite higher-than-expected capacity utilisation, underlying inflation



- Reflects effects of the unexpectedly high output growth in 2007 and associated effects.
- ²⁾ Reflects effects of changes in expected growth in the global economy.
 ³⁾ Reflects effects of expectations of changes in key policy rates among trading partners, through effects on the krone exchange rate.
 ⁴⁾ Reflects effects of the appreciation of NOV purposed place to the effects.
- 4) Reflects effects of the appreciation of NOK over and above the effects of changes in interest rate expectations abroad.

Source: Norges Bank

Table 1 Projections and assumptions for main economic aggregates for 2007. From *Inflation Report* 3/06 to *Monetary Policy Report* 3/07. Annual growth. Per cent

	IR3/06	MPR1/07	MPR2/07	MPR3/07	Prelim. national accounts
CPI	11⁄4	3/4	3/4	3/4	0.8
CPI-ATE	11⁄4	1½	1½	1½	1.4
Annual wage growth ¹⁾	5	51/4	5½	51/2	5.6
GDP	3¾	2¾	31/4	31⁄4	3.5
GDP, mainland Norway	31⁄4	3¾	41⁄4	51/4	6.0
Potential growth, mainland Norway	21/2	3	31/4	3¾	41/4
Output gap, mainland Norway	21/4	21/4	21/2	23/4	3
Employment	1½	21/4	2¾	3½	3.8
Labour force. LFS	1	11/4	1¾	21/4	2.5
LFS unemployment (rate)	3	2¾	21/2	21/2	2.5
Mainland demand	3¾	4	4½	5¾	6.1
- Private consumption	3½	4	4¾	6	6.4
- Public consumption	23/4	3	3	3	3.2
- Fixed investment in mainland Norway	5½	5¾	6	8¾	9.2
Petroleum investment	0	21/2	7½	71/2	6.6
Traditional exports	4½	7	81⁄4	6½	9.6
Imports	41⁄4	5½	71⁄4	7¾	8.6
Key policy rate	4	41/4	4½	4½	4.4
Import-weighted exchange rate (I-44)	94¾	921/4	921/4	90½	90.8
GDP. trading partners	21/2	3	3	3	31/4
Oil price	65.4	63.4	67.5	71.9	72.9

1)Includes costs related to the introduction of mandatory occupational pensions.

Sources: Statistics Norway, TBU and Norges Bank

Chart 2 CPI-ATE. Projections in different reports and actual developments. Fan chart from IR 3/06. Per cent. 4-quarter change. Quarterly figures. 05 Q1 - 07 Q4

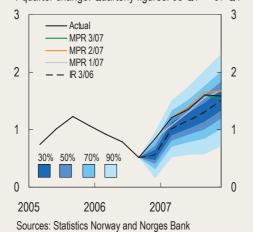
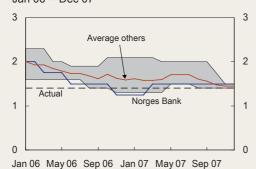


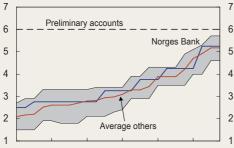
Chart 3 CPI-ATE. Projections for annual change in 2007 published at different times.¹⁾ Per cent. Jan 06 — Dec 07



¹⁾ Highest and lowest projections from forecasters other than Norges Bank are marked by the grey shaded area. The red line is an average of the other forecasters' projections.

Sources: Norges Bank and reports from the different forecasters

Chart 4 Mainland GDP. Projections for annual growth in 2007 published at different times.¹⁾ Per cent. Jan 06 — Dec 07



Jan 06 May 06 Sep 06 Jan 07 May 07 Sep 07

¹⁾ Highest and lowest projections from forecasters other than Norges Bank are marked by the grey shaded area. The red line is an average of the other forecasters' projections.

Sources: Norges Bank and reports from the different forecasters

remained low and approximately as projected. A strong krone curbed the effects on inflation and the interest rate.

Underlying consumer price inflation broadly in line with projections

CPI inflation was somewhat lower in 2007 than projected at the end of 2006, primarily reflecting the unexpectedly sharp decline in electricity prices through 2007 (see Table 1). Adjusted for tax changes and excluding energy products, CPI-ATE inflation was 1.4% in 2007, or approximately as projected (see Chart 2). Norges Bank's projections of CPI-ATE inflation were somewhat closer to the actual outcome than the average of other forecasters' projections (see Chart 3).

As a result of the strong krone, imported price inflation was somewhat lower than projected. Compared with the projections published at the end of 2006, the rise in prices for domestically produced goods and services was somewhat higher than expected. This probably reflects a higher-than-projected output gap.

Higher-than-projected output gap

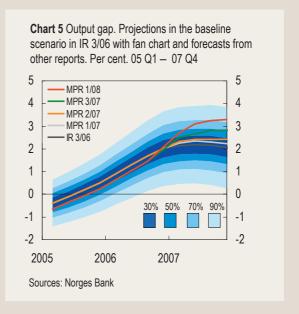
Economic growth in 2007 was record high and considerably stronger than Norges Bank projected in autumn 2006. The projection of mainland GDP growth for 2007 was gradually revised up through 2007 (see Table 1). Preliminary national accounts figures show annual growth of 6.0% for 2007. Other forecasters also underestimated growth (see Chart 4).²

Our estimates of the output gap increased considerably less than our projections for mainland GDP (see Chart 5). This is because we also revised up the projection of potential growth. The supply of foreign labour was high. In addition, labour force participation rates increased more than expected.

Over several years the Norwegian economy has been expanding considerably faster than any institution projected. Earlier, the sharp improvement in productivity and the terms of trade was the most surprising development. This also resulted in lower-than-projected inflation. In the past few years, inward labour migration has been high, while the rise in prices and costs in the business sector has been more closely in line with projections.

High oil prices have fuelled the strong growth in petroleum investment. Growth in the world economy and exports was also stronger than projected. Strong growth in employment and wage earnings resulted in higher-than-projected household income and consumption. Terms-of-trade gains in recent years may also have led households to raise their income expectations. This may have induced households to move forward consumption and reduce saving.³

It should be emphasised that national accounts figures for 2007 are highly preliminary. Experience shows that the estimates are prone to extensive revision also in the years ahead. The fan chart in Chart 5 shows that the estimates for the output gap for 2005 and 2006 are still very uncertain.



See also the article "Evaluation of Norges Bank's projections for 2007" to be published in *Economic Bulletin* 2/08.
 Forecasters: Ministry of Finance, Statistics Norway, DnB NOR, Nordea, Skandinaviska Enskilda Banken (SEB), Confederation of Norwegian Enterprises and Handelsbanken.
 See box on "Household saving" in *Monetary Policy Report* 3/07 for a further discussion.

Projections in Monetary Policy Report 3/07 and 1/08

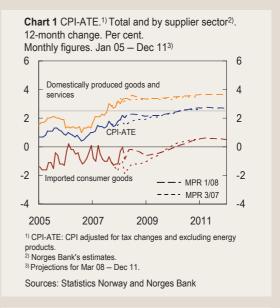
This box provides an account of the changes in projections since the previous *Monetary Policy Report*. New information since October influences both the picture of the current economic situation and the assumptions regarding the driving forces that will influence developments in the years ahead. On balance, the outlook and balance of risks suggest that in the near term the interest rate should be set somewhat higher than projected in *Monetary Policy Report* 3/07. Norges Bank's projections for 2008 are also compared with projections from other institutions.

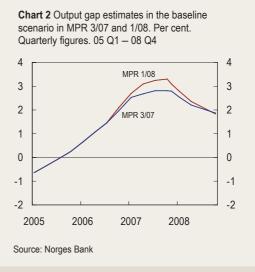
News since Monetary Policy Report 3/07

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

- The turbulence in financial markets intensified through the winter and has contributed to lower interest rate expectations abroad. Economic growth among trading partners is expected to be somewhat lower than envisaged in October.
- The krone exchange rate has been slightly weaker than assumed.
- Inflation measured by the CPI-ATE has been stronger than projected. The rise in prices for domestically produced goods and services excluding energy products has picked up somewhat more than expected. At the same time, the fall in prices for imported consumer goods has been slower than assumed in the previous *Report* (see Chart 1). The rise in global consumer prices picked up markedly at the end of 2007. Wage growth appears to have been approximately as projected.
- Preliminary national accounts figures indicate that mainland GDP growth was higher than projected through 2007. In particular, household demand increased substantially, but investment and exports also rose sharply. Various indicators, including Norges Bank's regional network, point to lower growth ahead, in line with earlier projections.
- Employment has again increased faster than expected.

- As a result of strong economic growth through 2007, and upward revisions to growth in 2006, capacity utilisation in 2007 is now assumed to be somewhat higher than in the previous *Monetary Policy Report* (see Chart 2). At the same time, high inward labour migration boosted potential growth in 2007 to a larger extent than expected.
- Growth in petroleum investment may be somewhat lower ahead than projected in the previous *Monetary Policy Report*. As noted in the previous *Report*, fiscal policy will be somewhat expansionary in coming years.
- Oil prices have increased further since October 2007. Metal prices are at roughly the same level as when the previous *Report* was published.





Changes in the projections

The interest rate forecast on which the projections in this *Report* are based is somewhat higher in the near term, but is revised down slightly further ahead compared with the path in *Monetary Policy Report* 3/07. Section 1 provides a more detailed account of interest rate developments ahead.

In this *Report*, somewhat slower growth is projected through 2008 than in the previous *Report*. However, growth from 2007 to 2008 will still be higher than projected in the previous *Report* because growth was surprisingly strong towards the end of 2007. As in the previous *Report*, mainland GDP growth is expected to soften further in 2009 before gradually picking up again in 2010 and 2011 (see Table 1). On balance, the output gap is estimated to be ½ percentage point higher in 2007 and 2008 than in the previous *Report* (see Chart 3). At the same time, potential output has been adjusted up both for 2007 and 2008, largely owing to stronger inward labour migration than previously expected.

Employment has again increased faster than projected and inward labour migration continued at a high pace towards the end of 2007. Employment growth from 2007 to 2008 therefore appears to be higher than projected in the previous *Report*. In 2009, growth in the number employed is expected to fall markedly. On balance, unemployment is approximately as projected in the previous *Report*. Higher capacity utilisation at the beginning of the period will lead to somewhat higher wage growth this year and next.

Chart 3 Estimated output gap in the baseline scenario in MPR 3/07 with fan chart and output gap in the baseline scenario in MPR 1/08 (red line). Per cent. Quarterly figures. 05 Q1 – 10 Q4 5 5 4 4 3 3 2 2 1 1 0 0 50% -1 -1 -2 -2 2005 2006 2007 2008 2009 Source: Norges Bank

Table 1 Projections for main macroeconomic aggregates in *Monetary Policy Report* 1/08. Change from projections in *Monetary Policy Report* 3/07 in brackets

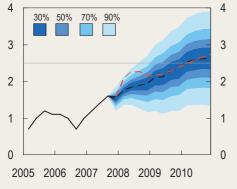
of of the bracketo.				
	2007	2008	2009	2010
Mainland demand	6.1 (1/4)	3¾ (½)	2 (0)	2½ (¼)
GDP mainland Norway	6.0 (¾)	3½ (¾)	2 (1/4)	21/4 (1/4)
Employment	3.8 (1/4)	21/4 (1)	1/4 (0)	0 (0)
LFS unemployment (rate)	2.5 (0)	2½ (0)	3 (0)	3¾ (¼)
CPI-ATE ¹⁾	1.4 (0)	21/4 (1/2)	21/4 (0)	2½ (0)
CPI	0.8 (0)	3 (-1/4)	2¾ (½)	2½ (0)
Annual wage growth ²⁾	5.6 (0)	6 (1/4)	5½ (¼)	5 (0)

¹⁾ CPI adjusted for tax changes and excluding energy products.

Source: Norges Bank

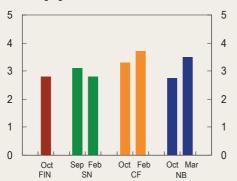
²⁾ Annual wage growth is based on the Technical Reporting Committee on Income Settlements' definitions and calculations. The number for 2007 includes costs related to the introduction of mandatory occupational pensions.

Chart 4 Projected CPI-ATE in the baseline scenario in MPR 3/07 with fan chart and CPI-ATE in the baseline scenario in MPR 1/08 (red line). 4-quarter change. Per cent. Quarterly figures. 05 Q1 — 10 Q4



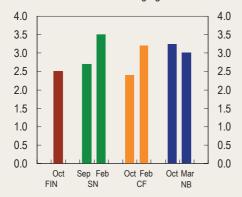
Sources: Statistics Norway and Norges Bank

Chart 5 Mainland GDP. Projections for 2008 published before MPR 3/07 and 1/08. Percentage growth



Sources: National Budget 2008, Economic Survey 3/2007 and 1/2008, Consensus Forecasts October 2007 and February 2008, Monetary Policy Report 3/07 and 1/08

Chart 6 CPI. Projections for 2008 published before MPR 3/07 and 1/08. Percentage growth



Sources: National Budget 2008, Economic Survey 3/2007 and 1/2008, Consensus Forecasts October 2007 and February 2008, Monetary Policy Report 3/07 and 1/08

Higher-than-projected employment and wage growth will contribute to stronger growth in household real disposable income both this year and next. However, growth in private consumption will be curbed by higher saving and greater uncertainty surrounding developments in the housing market. On balance, consumption will probably be broadly in line with the projections in the previous Report. Lower external growth impulses and a stronger krone exchange rate will lead to lower export growth further out, while growth from 2007 to 2008 will be boosted by strong growth in the second half of 2007. Investment growth in 2008 will also be influenced by the strong growth profile towards the end of 2007. In the years ahead, lower capacity utilisation is expected to reduce investment growth further.

The rise in consumer prices adjusted for tax changes and excluding energy products (CPI-ATE) is projected to be higher in 2008 than in the previous Report. The upward revision primarily reflects a slower fall in prices for imported consumer goods, but also a somewhat faster rise in prices for domestically produced goods and services. Projections for the years ahead are approximately unchanged (see Chart 4). In the recent past, market prices for electricity for delivery later in 2008 have fallen appreciably, and it appears that the CPI will rise at a slower pace in 2008 than projected in October. There are prospects that electricity prices will be somewhat higher again in 2009, which will push up CPI inflation in relation to that projected in the previous Report.

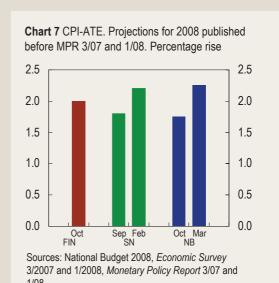
Forecasts from other institutions

Our projection of economic growth in 2008 is somewhat higher than the projections from Statistics Norway and the Ministry of Finance, but approximately in line with the average from *Consensus Forecasts* (see Chart 5). We project mainland GDP growth at 3½% next year. Statistics Norway's forecast of mainland GDP growth was 2.8% in February, which is lower than their September forecast of 3.1%. In the National Budget for 2008, the Ministry of Finance puts GDP growth at 2.8% in 2008. The average forecast for GDP growth from *Consensus Forecasts* has been revised up from 3.3% in October to 3.7% in February this year.

In this *Report*, Norges Bank projects CPI inflation at 3% in 2008 (see Chart 6). The Ministry of Finance's projection of CPI inflation is 2½%. Since

September, Statistics Norway has raised its projection for CPI inflation in 2008 by 0.8 percentage point to 3.5%. The average forecast for CPI inflation from *Consensus Forecasts* has also been revised up, from 2.4% in October to 3.2% in February. In this *Report*, inflation measured by the CPI-ATE is projected at 21/4% in 2008 (see Chart 7). The Ministry of Finance projects CPI-ATE inflation at 2%. Since September, Statistics Norway has raised its projection for CPI-ATE inflation in 2008 by 0.4 percentage point to 2.2%. *Consensus Forecasts* does not compile projections for CPI-ATE inflation.

The Ministry of Finance's forecasts were published on 5 October 2007. Statistics Norway published its projections on 6 September and 21 February, while *Consensus Forecasts* compiled its forecasts on 8 October and 11 February. As the institutions publish projections at different times, the information on which the projections are based will differ.



Boxes 2003-2008

1/08

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 / 07

Household saving

NEMO – a new projection and monetary policy analysis model

2 / 07:

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

1 / 07:

Will the global economy be affected by a slow-down in the US?

Uncertainty surrounding wage growth ahead Competition and prices

Evaluation of Norges Bank's projections for 2006

3 / 06:

Output gap

2 / 06:

Money, credit and prices – a monetary crosscheck

Foreign labour in Norway

Short-term forecasts for mainland GDP in Norway

1/06:

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 / 05:

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 / 05:

Developments in the krone exchange rate

1 / 05:

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 / 04:

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 / 04:

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 / 04:

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

3 / 03:

Direct effects of interest rates on house rents Imbalances in the US

Assumptions concerning the exchange rate Flexible inflation targeting and indicators of pressures in the real economy

2 / 03:

Low consumer price inflation

Evaluation of inflation reports in countries with inflation targets

Why does household debt growth remain high? Levels of real capital in enterprises still too high?

1 / 03:

Factors behind developments in the krone exchange rate

Output gap

Imported price inflation and the exchange rate - the UK experience

Evaluation of Norges Bank's projections for 2001 and 2002

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 up-to-date 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 or 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 to have meetings with contacts on behalf of Norges Bank. The following institutions have been selected:

Region North (Nordland, Troms. Finnmark) Kunnskapsparken Bodø Center for Economic Research Region Central Norway (Nord- and Sør-Trøndelag) at the Norwegian University of Science and Technology Region North-West (Møre og Romsdal, Sogn og Fjordane) Møreforsking Molde International Research Region South-West (Rogaland and Hordaland) 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

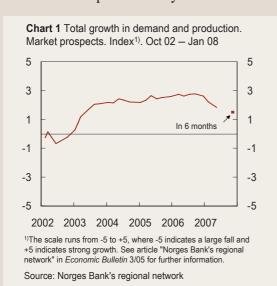
Summary of contact rounds since Monetary Policy Report 3/07

In the contact rounds that were conducted in November and January, roughly 570 regional network contacts were interviewed. A national summary and a summary from each region are published on Norges Bank's website. The summary below is based on regional reports from the institutions responsible for the various regions and does not necessarily represent Norges Bank's view of economic developments.

Demand, output and market outlook

The business sector is still growing, but at a slower pace than in autumn 2007 and into 2008 (see Chart 1). Financial turbulence and slower global growth have had little impact on the business sector so far, but the impact is expected to increase ahead particularly through lower customer demand. The moderation in growth observed in autumn 2007 and so far this year is a little more pronounced than the contacts had anticipated. Enterprise sector expectations for the next six months indicate somewhat slower growth in the period ahead than in the past three months.

Growth in domestically oriented manufacturing slowed markedly in autumn 2007, and this trend was amplified at the beginning of 2008. The moderate growth now observed is reflected in most industries. The exception is building materials, which now reports a moderate fall in production volume. Expectations regarding growth six months ahead declined substantially in autumn 2007, but remain stable into 2008. The growth rate ahead is now expected to be marginally lower than in the past 3 months. The export industry has also recorded



somewhat slower growth and is now a little higher than for domestically oriented manufacturing. In particular, offshore-related export enterprises, but also the fisheries industry, have recorded solid growth. As for domestically oriented manufacturing, growth expectations in the export industry are marginally lower for the next 6 months than growth in the past 3 months.

Suppliers to the petroleum industry have recorded more moderate growth than earlier. The level of activity remains very high, however. Many participants are now operating at close to capacity limits, and this may explain slower growth. Growth is expected to remain buoyant for the next six months.

In building and construction, growth is still easing following the sharp fall in early 2007. A shortage of labour is limiting activity for many, while a number of contractors have reduced activities and production in order to increase profitability. Sales of new dwellings have decreased markedly. Sales of new flats have come to a virtual halt, while sales continue of flats under construction. Craftsmen who enter the building process at an early stage, like bricklayers and carpenters, are noticing the decline in demand. Craftsmen who enter the process later, like electricians, have so far noticed the slowing to a lesser extent. Activities related to commercial buildings have picked up, but do not compensate for the fall in the housing market. Construction activity has also slackened as a number of public building projects have been postponed as a result of excessive building costs. The contacts estimate that it takes six to twelve months before reduced sales of new dwellings are reflected in production. The outlook for the next six months is therefore very moderate for this industry. A lower level of activity in this industry is expected for the first time since 2003.

Growth in retail trade and services remains solid, but lower than reported in the previous rounds in 2007. Businesses like clothing and groceries report the strongest growth, while growth has been stable or declined somewhat for sales of capital goods such as building materials linked to residential construction and refurbishing, cars, furniture and electrical goods. Growth in corporate services remains somewhat higher than growth in household services. The outlook has become less favourable in the last two rounds, and slower growth is expected – particularly in retail trade – for the next six months compared with the past three months.

Capacity utilisation, the labour market and investment

56% of contacts now state that they would have difficulty in accommodating a growth in demand. This is approximately the same as in the previous two rounds, and indicates stable spare capacity. Half of the contacts report that the supply of labour will limit any increase in production. The situation is also stable here and the tightening of the labour market appears to have come to a halt. The building industry is still the industry with the lowest margin of spare capacity, although pressures appear to have eased since spring 2007. The tight market for raw materials that placed constraints on both manufacturing and building and construction in early 2007 now appears to be more balanced. Most industries lack highly qualified labour such as engineers, but there are also shortages of other types of labour, such as drivers in the transport sector.

Planned growth in investment has increased fairly rapidly from the moderate level in the late summer of 2007. Investment growth is strongest in the local government and hospital sectors, where day-care centres, schools and assisted living facilities are being built. Other industries are investing to improve efficiency and to some extent to expand capacity. The manufacturing sector's investment plans were revised down somewhat during autumn and winter, but growth is still expected to be higher than last year.

Employment

Employment growth is declining from the relatively high level through 2007 to a somewhat more moderate level. Growth has been strongest in services and weakest in the local government and hospital sectors. Employment growth is also expected to slow ahead. The contacts now expect growth ahead to be at approximately the same level as in the past three months.

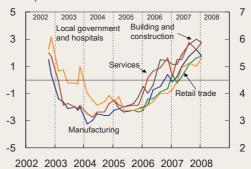
Costs, prices and profitability

Expected annual wage growth in 2007 rose through the year and was close to 5½% at year-end. The strongest wage growth was reported in manufacturing, building and construction and the services sector. The contact enterprises' first wage growth estimates in 2008 indicate growth of over 5½% (see Chart 2). Pay expectations are highest in services and building and construction, at between 5½% and 6%.

The rise in prices this autumn and winter has been the highest recorded by the regional network (see Chart 3). The rise in prices has been the highest by far in building and construction, but also relatively high in domestically oriented manufacturing and in corporate services. Retail trade reports the lowest price rise for the past twelve months. The majority of our contacts expect prices to rise at a slower pace during the next twelve months. The building and construction industry, in particular, expects a slower rise in prices following a year of rapidly rising prices. The export industry also expects a slower rise in prices ahead as a result of the strong krone. Retail trade and household services expect higher prices. Food prices, in particular, are expected to increase as a result of higher commodity prices.

Overall operating margins among contacts are rising, but the increase has moderated since summer 2007. Suppliers to the petroleum industry report the strongest rise. Operating margins also appear to be increasing for the building and construction industry, probably as a result of contractors' focus on profits rather than turnover. Operating margins in the export industry are declining, largely because of the strong krone exchange rate.

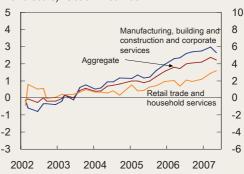
Chart 2 Annual wage growth projections published through the year. Annual wage growth, current year. Index¹⁾ (left-hand scale) and per cent (right-hand scale). Oct 02 — Jan 08



¹⁾The scale runs from -5 to +5, where -5 indicates a large fall and +5 indicates strong growth. See the article "Norges Bank's regional network" in *Economic Bulletin* 3/05 for further information.

Source: Norges Bank's regional network

Chart 3 Changes in selling prices over the past 12 months. Index $^{1)}$ (left-hand scale) and per cent (right-hand scale). Oct 02 — Jan 08



¹⁾The scale runs from -5 to +5, where -5 indicates a large fall and +5 indicates strong growth. See article "Norges Bank's regional network" in *Economic Bulletin 3/05* for further information.

Source: Norges Bank's regional network

Enterprises and organisations that have been interviewed in the work on this Report

ABB AS ABB Flexible Automation Acando AS Accenture ANS Adecco Norge AS, Bodø Aditro HRM AS Advanced Production and Loading AF Gruppen ASA Ahlsell AS Air Products AS Aker Kværner MH AS Aker Kværner MMO Europe Aker Kværner Offshore Partner AS Aker Kværner Pusnes AS Aker Yards Aukra AS Aktietrykkeriet AS Albert E. Olsen AS Alfr. Nesset AS Alleen Auto AS Alsvåg Plater AS Amfi Namsos Amneus Boghandel AS A-Møbler AS Anleggsgartnerfirma Strandman AS Applica AS APS Norway AS Arkitektfirmaet C. F. Møller Norge AS Artec Aqua AS Asko Agder AS Asko Midt-Norge AS Asplan Viak Stavanger AS Asplan Viak Trondheim AS Atlantic Auto AS Aure kommune Avantor ASA Avisa Glåmdalen Baker Hughes Inteq Bakers AS

Bardu kommune Bates AS Bautas AS BearingPoint Norway Beitostølen Resort AS Berg Jacobsen Gruppen Bergen Group Kimek AS Bergene Holm AS Bergens Tidende AS Berg-Hansen Nor AS Berg-Hansen Reisebureau AS

Bernhard Olsen AS Bertil O. Steen AS, Rogaland Betong Øst AS Bilsenteret Namsos AS Biotec Pharmacon ASA Bierkreim kommune Bjørn Bygg AS **BKK AS** Blefjell sykehus Bohus Møbelhuset AS **Bomek Consulting AS** Box delivery Br. Dyrøy AS Bravida AS

Brevik Construction AS Bright ID AS Brude Safety AS Brynildgruppen

Brødrene Dahl AS Brødrene Hveding AS Buer Entreprenør AS Busengdal Transport AS Bussbygg AS Bygg og Maskin AS

Byggkjøp Kåre Abelsen AS Byggma ASA Byhaven kjøpesenter

Bøhmer Entreprenør AS Bømlo kommune **Børstad Transport AS** Båtservice Holding AS Båtsfjordbruket AS

Capgemini

CC Mart'n Gjøvik Drift AS Central Drift Hotel AS

City Syd AS Clarkes AS Clas Ohlson Color Line AS Comrod AS

Conoco Phillips Norge AS Coop NKL BA

Coop Nord BA Coop Sambo BA

Coop Trondheim og omegn BA

Coop Økonom BA Cowi AS **CSC Solutions**

Arntzen de Besche Advokatfirma AS Dagligvareleverandørenes Forening Dale + Bang kommunikasjon AS Dark Arkitekter AS

Den Nationale Scene DnB NOR Eiendom AS DnB NOR Kongsvinger Dokken og Moen Murmesterforretning AS

E. Flasnes Transport AS **EFD Induction AS** Egersund Trål AS Eidskog kommune Eidsvoll kommune

Eiendomsmegler 1 AS Eiendomsmegler 1 Midt-Norge AS Eiendomsmegler 1 Tromsø Eiendomsmegling AS

Eiendomsspar AS EKA Chemicals Rana AS **Ekornes ASA**

Elektrotema Agder AS Elkem Aluminium ANS Elkem ASA, Salten Verk Elkjøp Norge AS

Elkjøp Stormarked Tromsø

Elvenes Transport & Maskin AS

Emma EDB AS Enger Lefsebakeri AS Engerdal kommune Engum Elkjøp AS Enskilda Securities

Ergo Group AS, Brummundal Esko Graphics Kongsberg AS

Esmeralda AS Evensen & Evensen AS Evje- og Hornnes kommune

Expert Langnes Fagbokforlaget Falkanger Sko AS Farveringen AS

Felleskjøpet Rogaland og Agder Felleskjøpet Trondheim

Fesil ASA

Fesil Produksjon AS, Rana Metall

Finsbråten AS Fjord Marin AS Flekkefjord kommune FMC Technologies Fokus Bank ASA Forum Eiendom Fossberg Hotell AS FotoKnudsen AS Fredrikstad kommune Frost Entreprenør AS Furnes Hamjern SCC AS Gapro Norge AS Gaupen Henger AS Gausdal Bruvoll BA GE Health Care AS **GE Money Bank**

Gjensidige Forsikring, Ålesund Gjensidige Forsikring, Tromsø Gjensidige Forsikring, Hamar Gjensidige Forsikring, Trondheim Gjestal Spinneri ASA

Gjøvik kommune Glamox ASA Glomsrød AS Glåma Bygg AS

Goman Bakeriet Trondheim AS

Gran Taralrud AS Granit Kleber AS Gravdahl AS Grenland Group AS Grieg Logistics AS Grimstad kommune Grunnarbeid AS Grytnes Betong AS

Gudbrandsdalens Uldvarefabrik AS

Gunnar Hippe AS H&M Hennes& Mauritz AS H. Mydland AS H.J Økelsrud AS Hadsel kommune Hafjell Alpinsenter AS Hagen Treindustri AS Halden kommune Hamar kommune Hamworthy AS Handelsbanken Handelshuset Martinsen AS

Haram kommune Harstad Sparebank Havila AS Hedalm Anebyhus AS Hegre Toyota Heimdal Gruppen AS Helgeland Rør AS Helgeland Sveiseindustrier AS

Hellvig Hus AS Helse Midt-Norge Helse Nord RHF Helse Sunnmøre HF Hi-fi klubben Holberg Forvaltning AS Holm Grafisk AS Holmen Fjordhotell Hotel Augustin AS Hotel Continental AS HRG Nordic, Bodø HTH kjøkken Oslo AS Hustadmarmor AS Huurre Norway AS

H-vinduet Vatne AS Hydro Polymers AS

HÅG AS Ibas AS

ICA Distribusjon AS ICA Norge AS IKEA AS, Forus Imaas Bil AS Indre Sogn Sparebank Ingeniør Gunnar M. Backe AS Innoventi Reklamebyrå AS

Interfil AS Intra AS

Invenia Innovation AS ISS Facility Services AS Itella Logistikk Ivar Mjåland AS Hans H. Iversen AS J. M. Nilsen AS

Jacobsen Reiten Marschall Arkitekter AS

Jadargruppen AS Jangaard Export AS JM Byggholt AS John Galten AS

Jotunheimen og Valdresruten

Bilselskap AS Kaffebrenneriet AS KENO Reklame AS Kino1 Stavanger Kirkenes Trelast AS Kirkestuen Transport AS Kitron Microelectronics AS Kjell Arnesen AS Johan Kjellmark AS Kleive Betongbygg AS Kleven Verft AS

KLP Eiendom Trondheim AS Klaastad Brudd DA Knutsen OAS Shipping AS

Kongsberg Automotive AS, Raufoss Kosbergs Arkitektkontor AS

KPMG AS

Kraft Foods Norge AS Kragerø kommune

Kristiansand Cementstøperi AS Kristiansand Næringsforening Kristiseter M Entreprenør AS

Kroken Caravan AS Kruse Smith AS Kvalitet & Ledelse AS Laerdal Medical AS Landteknikk Fabrikk AS Langmorkje Almenning Larvik kommune Leif Gromstads Auto AS Kitchen Leo Burnett Lerum Fabrikker AS Lier kommune Lillesand Produkter AS Lindex AS,Tromsø Lofoten Not & Trål AS Lofoten Pelagiske AS Lom kommune Lom Møbelindustri AS Lom og Skjåk Sparebank Luxo Industrier AS Lørenskog kommune Løvenskiold Handel AS Løvold Bodø AS

Løvolds Industri AS

M2 Eiendomsmegling AS Madshus AS Mandal Industrier AS Manpower AS Maskinentreprenør Herbjørn Nilssen Maxit AS Melby Snekkerverksted AS Melvær & Lien Ide-entreprenør AS Mesna Bruk AS Meyership AS Mezina AS Miljøbygg AS Mills DA Mjosundet Båt og Hydraulikk AS Mo Mekaniske Verksted AS Modern Design Moderne byggfornyelse AS Moelven Eidsvold Værk AS Moelven Nordia AS Moelven Van Severen AS Moelven Våler AS Moen Slip AS Moi Rør AS Molab AS Molde kommune MTU Telecom AS Multiconsult AS Møllergruppen AS Møre Båtservice AS Møre og Romsdal Kornsilo ANS Møre Tre AS Mørekjøtt AS Nammo AS Namsos kommune Naper Informasjonsindustri AS NAV Nord-Trøndelag NAV Sør-Trøndelag **NAV Vestfold** NCC Roads AS Nedre Eiker kommune Nera Networks AS Nesje AS Nestlé Norge AS Netcom AS Nettbuss Sør AS Nexans Norway AS Noodt & Reiding AS Norbook AS NorDan AS Nord-Aurdal kommune Nordea AS Nordea Bank Norge ASA Nordfjord Hotell Nordic Paper AS Nordlaks AS Nordox AS Norfolier AS Norgestaxi Trondheim AS NorSea AS Norsk Stein AS Norsk Stål AS, Brumunddal Norsk Tipping AS Norske Skogindustrier ASA Nor-Sport Bodø AS

Nortura BA Nortura BA, Sortland Norwegian Air Shuttle ASA Notabene region Rogaland Notar Eiendom Rogaland AS Notar Eiendom Troms AS Notodden Mur- og Entreprenørforretning AS Nova Sea AS Næringsforeningen i Trondheim Oddstøl Elektronikk AS

Offshore Simulator Centre AS Olafsen Transport AS Oppegård kommune Optimera Vest Oras AS Oras Nordland AS Oras Trondheim AS Oslo kommune Oslo Sportslager AS Ottadalen Mølle AL Otteren AS Overhalla Cementvare AS Paulsen Eiendom AS Pedersen Birger AS Per Aaland AS Peterson Linerboard AS Pitney Bowes, Eidsiva Plasto AS Polimoon AS Pon Power AS Prefecto AS PricewaterhouseCoopers PricewaterhouseCoopers, Sandnes Proffice AS Protech AS Proviantgruppen AS Q-Free ASA Quality Spa & Resort Holmsbu Radisson SAS Hotel Tromsø Radisson SAS Lillehammer Hotell Ragasco AS Rambøll Unico AS Rambøll Norge AS Rana kommune Rapp Hydema AS Rauma kommune Reber Schindler Heis AS Reinertsen AS Reitan Servicehandel Renates Dagspa Renés Barnevogner Renseriet Sandnes AS Rescon Mapei AS Rica Hotel Norge AS Rica Hotels Midt-Norge AS Rikshospitalet - Radiumhospitalet HF Ringnes AS Risør kommune Rofiskgruppen AS Rogaland Elektro AS Rogaland fylkeskommune Rogaland Kunnskapspark Rogne Bygg AS Romsdals Budstikke AS Royal Garden Hotell Ruukki Profiler AS Røros kommune Røros Tweed AS Saga Fjordbase AS Saint Gobain Ceramic Materials AS Salten Bredbånd AS

Sandnes kommune

Sandnes Sparebank

Sarpsborg kommune

SG Equipment Finance

Siemens AS, Bergen

Sigdal Kjøkken AS

SINTEF konsernstab

SAS Norge AS

ScanRope AS

Schibsted ASA

Sandnessjøen Engineering AS

Siemens Oil & Gas Offshore AS

Simon Møkster Shipping AS

SIVA Selskapet for industrivekst SF Skagerak Energi AS Skanska Norge AS, Rogaland Skanska Norge AS Skeidar AS, Ålesund Skipsplast AS Skodje Byggvare AS Skretting AS Slatlem & Co AS Slipen Mekaniske AS Solem Hartmann AS Sortland Elektro AS Sortland Entreprenør AS Sortland kommune Sparebank 1 Midt-Norge Sparebank 1 Vestfold Sparebanken Sør Sparebanken Møre region Romsdal/ Nordmøre Sparebanken Nord-Norge Sparebanken Pluss Sparebanken Vest AS Spenncon AS Spis Norge AS Sporten Nestun Senteret AS Stange kommune Stansefabrikken Lillesand AS Stavanger Universitetssykehus Steinkjer kommune Stella Polaris AS Stiørdal kommune Stord kommune Stordal Møbler AS Storebrand ASA Stormoa Butikksenter Strand Hotell Sortland AS Strandtorget Kjøpesenter Strømsholm Fiskeindustri AS Sulland Gruppen AS Surnadal Transport AS Sykehuset Asker og Bærum HF Sykehuset Østfold HF Sylteosen Betongvarefabrikk AS Synnøve Finden ASA Synsam Norge AS Systembygg Kirkenes AS Søgne og Greipstad Sparebank Sørco AS Sørlandet sykehus HF Sør-Varanger kommune T.Stangeland Maskin AS Tamnes Transport AS Taubåtkompaniet AS Team Trafikk AS Technor ASA Teknisk Bureau AS Tele 2 Norge AS Tele-Connect Gjøvik AS Terra Skadeforsikring AS Thon Hotel Arendal Thon Hotel Bergen Brygge Thon Hotel Gjøvik Thon Hotels AS Ti Group Automotive Systems AS Tibe Reklamebyrå AS Tide ASA Time kommune Tine Meierier Vest Tinn kommune Siemens AS, Electrical Installations Siemens AS, Energy & Automation TNS Gallup Top Temp bemanning Toten Bygg og Anlegg AS Trelleborg Viking AS Tromsø kommune Trondheim Aktivum AS

Sinus AS

Trondheim kommune Trondheim Stål AS Trondheim Tora TV Nordvest AS Tyrholm & Farstad AS Úmoe Mandal AS Unex AS Universal Sodexco Norway AS Universitetssykehuset Nord-Norge Valdres Anlegg AS Valdres Auto AS Valdres Last AS Valdres Regnskap AS Valdresbygg AS Varner-Gruppen AS Vegdirektoratet Veidekke Entrepenør AS, Bergen Veolia Transport Sør AS Vestbase AS Vestlandshus Veøy AS Via Travel Trondheim AS Vik-Sandvik Group Visma Services Norge AS Vital Forsikring ASA Volmax AS Volvat Medisinske Senter AS Vågå kommune Wartsila Norway AS Wenaas AS Westnofa Industrier AS Westre Bakeri AS Widerøe's Flyveselskap AS Wikborg Rein AS WM-data Norge YC Rør AS YIT Building Systems AS Ø.M. Fjeld AS Økonor Flisa AS Øksnes kommune Øster Hus Gruppen Øvstre Slidre kommune Åmot kommune Aarsland Møbelfabrikk 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 June 2008		
	28 May 2008		
	23 April 2008		
	13 March 2008	5.25	0
	23 January 2008	5.25	0
	12 December 2007	5.25	+0.25
	31 October 2007	5.0	0
	26 September 2007	5.0	+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	3.50	+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
	14 December 2005	2.25	0
	2 November 2005	2.25	+0.25
	21 September 2005	2	0
	11 August 2005	2	0
	30 June 2005	2	+0.25
	25 May 2005	1.75	0
	20 April 2005	1.75	0
	16 March 2005	1.75	0
	2 February 2005	1.75	0
	15 December 2004	1.75	0
	3 November 2004	1.75	0
	22 September 2004	1.75	0
	11 August 2004	1.75	0
	1 July 2004	1.75	0

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

Table 1 Main macroeconomic aggregates

Percentage change from previous year/ quarter		GDP	Mainland GDP	Private con- sumption	Public con- sumption	Mainland fixed inv.	Petroleum inv. 1)	Trad. exports	Imports
2000		3.3	2.9	4.2	1.9	-1.4	-22.9	4.6	2.0
2001		2.0	2.0	2.1	4.6	3.9	-4.6	0.3	1.7
2002		1.5	1.4	3.1	3.1	2.3	-5.4	-1.7	1.0
2003		1.0	1.3	2.8	1.7	-3.6	15.9	2.1	1.4
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		3.5	6.0	6.4	3.2	9.2	6.6	9.6	8.6
2007 ²⁾	Q 1	0.7	1.4	2.7	0.7	-1.5	-5.3	2.5	-0.8
	02	1.1	1.9	1.2	0.9	2.7	7.7	-0.3	1.7
	Q 3	1.5	1.9	1.1	1.2	1.0	8.1	2.4	3.3
	Q 4	1.3	0.9	1.4	0.3	11.1	-0.8	6.4	6.3
2007 level billions of		2289	1709	946	447	342	109	430	685

Source: Statistics Norway

Table 2 Consumer prices

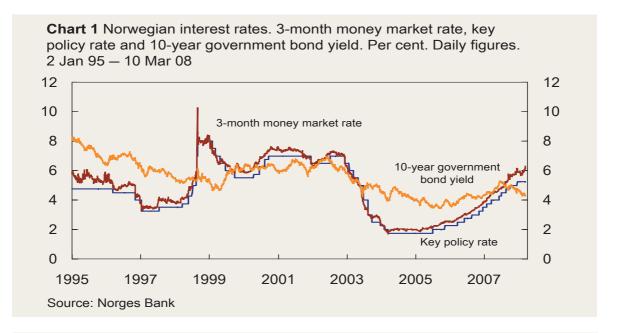
Twelve	e-month er cent	СРІ	CPI-ATE ¹⁾	CPI-AT ²⁾	CPI-AE ³⁾	HICP ⁴)
2001		3.0	2.6	3.2	2.4	2.7
2002		1.3	2.3	2.2	1.6	0.8
2003		2.5	1.1	2.5	1.0	2.0
2004		0.4	0.3	0.0	0.8	0.6
2005		1.6	1.0	1.2	1.4	1.5
2006		2.3	0.8	2.0	1.0	2.5
2007		0.8	1.4	0.6	1.6	0.7
2007	Jan	1.2	1.0	1.1	1.1	1.2
	Feb	0.8	1.1	0.6	1.3	0.8
	Mar	1.1	1.5	0.9	1.7	1.3
	Apr	0.3	1.4	0.0	1.5	0.5
	May	0.3	1.4	0.1	1.5	0.6
	Jun	0.4	1.3	0.2	1.4	0.7
	Jul	0.4	1.4	0.3	1.5	0.7
	Aug	0.4	1.8	0.3	2.0	0.6
	Sep	-0.3	1.6	-0.6	1.8	-0.3
	0ct	-0.2	1.4	-0.3	1.7	-0.3
	Nov	1.5	1.5	1.5	1.6	1.0
	Dec	2.8	1.8	2.8	1.8	1.9
2008	Jan Feb	3.7 3.7	1.9 2.2	3.7 3.8	1.9 2.1	2.9 3.1

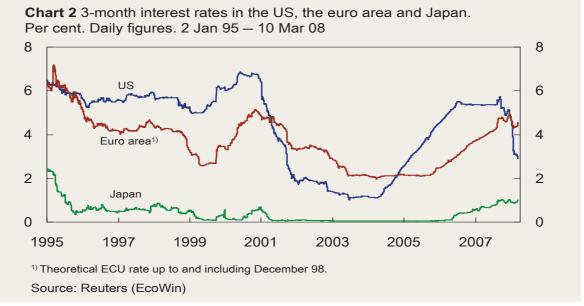
Source: Statistics Norway

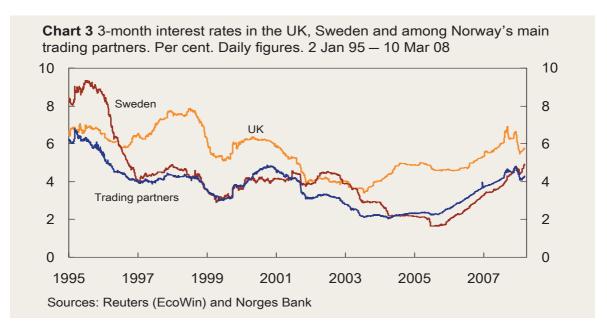
Extraction and pipeline transport.
 Seasonally adjusted quarterly figures.

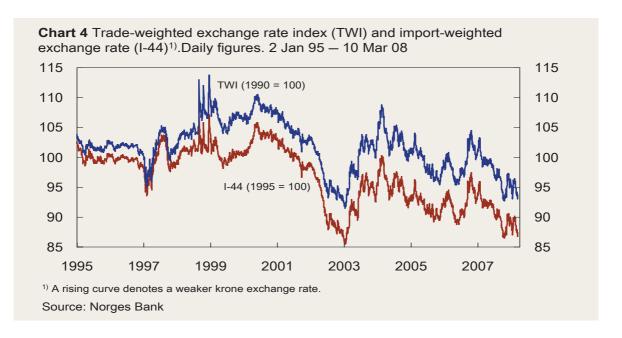
¹⁾ CPI-ATE: CPI adjusted for tax changes and excluding energy products.
2) CPI-AT: CPI adjusted for tax changes.
3) CPI-AE: CPI excluding energy products.
4) HICP: The Harmonised Index of Consumer Prices. The index is based on international criteria drawn up by Eurostat.

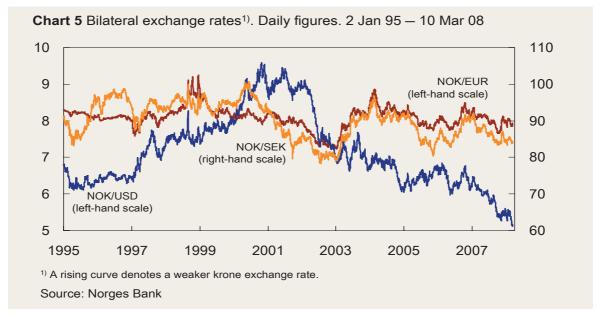
Charts











GDP growth in other countries Table 3

Percentage change from previous year Projections for 2008 - 2011

	US	Euro area	Japan	UK	Sweden	China	Trading partners ¹⁾
2007	2.2	2.6	2.1	3.1	2.8	11.4	31⁄4
Projections							
2008	11⁄4	1½	11⁄4	1½	21⁄4	10	2
2009	1¾	1½	11/2	2	2	91/4	21⁄4
2010-11 ²⁾	2¾	2	1½	2¾	23/4	9	2½

Export weights. 26 important trading partners.
 Average annual growth.

Sources: Reuters (EcoWin) and Norges Bank

Consumer prices in other countries Table 4

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	0.1	2.3	2.2	4.8	2.3
Projections							
2008	31/2	2½	1/2	21/2	31⁄4	51/4	23/4
2009	2	2	3⁄4	21⁄4	21⁄4	3½	2
2010-11 ³⁾	21⁄4	2	1	2	2	3	2

Weights from Eurostat (each country's share of total euro area consumption).
 Import weights. 26 important trading partners.

Sources: Reuters (EcoWin), Eurostat and Norges Bank

³⁾ Average annual rise.

Table 5 Main macroeconomic aggregates

	In billions of NOK		Percentage change (unless otherwise stated)				
			Projections				
	2007	2007	2008	2009	2010	2011	
Prices and wages							
CPI		8.0	3	2 ³ ⁄ ₄	21/2	23/4	
CPI-ATE ¹⁾		1.4	21/4	21/4	21/2	23/4	
Annual wage growth ²⁾		5.6	6	5½	5	43⁄4	
Real economy							
GDP	2289	3.5	3	21/4	1¾	21/2	
GDP, mainland Norway	1709	6.0	31/2	2	21/4	23/4	
Potential, mainland GDP		41/4	4	31/2	3	3	
Output gap, mainland Norway ³⁾		3	21/2	11/4	1/2	1/4	
Employment		3.8	21/4	1/4	0	1/4	
Labour force, LFS		2.5	21/4	3/4	3/4	1/2	
LFS unemployment (rate)		2.5	21/2	3	3¾	4	
Demand							
Mainland demand ⁴⁾	1735	6.1	3¾	2	21/2	3	
- Private consumption	946	6.4	31/2	1¾	21/4	3	
- Public consumption	447	3.2	2¾	31/4			
- Fixed investment	342	9.2	51/4	3/4			
Petroleum investment ⁵⁾	109	6.6	71/2	5	5	0	
Traditional exports	430	9.6	5	11⁄4			
Imports	685	8.6	51/4	21⁄4			
Interest rate and exchange rate							
Key policy rate (level) ⁶⁾		4.4	5½	51/4	43/4	43/4	
Import-weighted exchange rate (I-44) ⁷⁾		90.8	87	881⁄4	90	91	

¹⁾ CPI-ATE: CPI adjusted for tax changes and excluding energy products.

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

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.

The output gap measures the percentage deviation between mainland GDP and projected potential GDP.

⁴⁾ Private and public consumption and mainland gross fixed investment.

⁵⁾ Extraction and pipeline transport.

⁶⁾ The key policy rate is the interest rate on banks' deposits in Norges Bank.

²⁾ Level. The weights are estimated on the basis of imports from 44 countries, which comprises 97 % of total imports.

[·] No data available

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