NORGES BANK

Reports from the Central Bank of Norway No 4/2005

Inflation Report

with monetary policy assessments

3
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November

Norges Bank's Inflation Report with monetary policy assessments

Norges Bank's *Inflation Report* is published three times a year, in March, June and November. The *Report* contains an analysis of developments in inflation, output and demand for the next three-year period.

At its meetings on 17 October and 2 November, Norges Bank's Executive Board discussed the main content of the *Inflation Report* and endorsed the analyses and projections for future interest rate developments in the *Report*. At its meeting on 2 November, the Executive Board approved a monetary policy strategy based on these discussions for the period to the next *Inflation Report*, which will be published on 16 March 2006. The strategy is presented in Section 1. In the period to the next *Inflation Report*, the Executive Board will hold monetary policy meetings on 14 December, 25 January 2006 and 16 March 2006.

The *Inflation Report* is published three times a year, and 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.

The series of reports is included in the subscription for *Economic Bulletin*. To subscribe please write to:

Norges Bank Subscription Service
PO Box 1179 Sentrum
N-0107 Oslo
Norway

Telephone: +47 22 31 63 83
Fax: + 47 22 41 31 05
E-mail: central.bank@norges-bank.no

Editor: Svein Gjedrem (Section 1 presents the Executive Board's assessments)
Design: Grid Strategisk Design AS
Setting and printing: Reclamo grafisk senter AS
The text is set in 11½ point Times

ISSN 1502-2730 (print), 1503-8866 (online)

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The Inflation Report is based on information in the period to 27 October 2005.

The monetary policy strategy in Section 1 was approved by the Executive Board on 2 November 2005

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.

In general, direct effects on consumer prices resulting from changes in interest rates, taxes, excise duties and extraordinary temporary disturbances are not taken into account.

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.

Monetary policy influences the economy with long and variable lags. Norges Bank sets the interest rate with a view to stabilising inflation at the target within a reasonable time horizon, normally 1–3 years. The relevant horizon will depend on disturbances to which the economy is exposed and how they will affect the path for inflation and the real economy in the period ahead.

The decision-making process

The main features of the analysis in the *Inflation Report* are presented to the Executive Board for discussion at a meeting about two weeks before the *Report* is published. On the basis of the analysis and discussion, the Executive Board assesses the consequences for future interest rate developments and adopts a monetary policy strategy for the period to the next *Inflation Report*. The strategy is presented in Section 1 of the *Inflation Report*.

The key interest rate is set by Norges Bank's Executive Board. Decisions concerning interest rates and other important changes in the use of instruments will normally be taken at the Executive Board's monetary policy meeting every sixth week. The analyses and the monetary policy strategy presented in Norges Bank's *Inflation Report*, together with assessments of price and cost developments and conditions in the money and foreign exchange markets, form a basis for monetary policy decisions.

Communication of the interest-rate decision

The monetary policy decision is announced at 2pm on the day of the meeting, and the Bank holds a press conference at 2:45 pm on the same day. The press release provides an account of the main features of economic developments that have been of importance for the interest rate decision and the Executive Board's assessments. The press release and the press conference are available on http://www.norges-bank.no.

Reporting

Norges Bank reports on the conduct of monetary policy in the *Inflation 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 deliberation on the Credit Report.

Editorial

Norges Bank's interest rate projections

Low interest rates and expectations of continued low real interest rates are contributing to sustaining the cyclical upturn. Buoyant growth in other countries, terms-of-trade gains and higher demand in the petroleum industry are also important driving forces behind the upturn. Mainland production will expand briskly through the entire year and there are prospects of continued high growth next year. Capacity utilisation in the economy has picked up and is now probably higher than its normal level.

After a period of very low consumer price inflation, there are prospects that inflation will again rise at a faster pace. Nevertheless, there are considerable differences in the rise in prices across various goods and services. Norway is still benefiting on the one hand from the steadily growing liberalisation of world trade. Imports are rising from countries where the price level is low compared with that of Norway, with an attendant fall in prices for a number of consumer goods. On the other hand, higher production in large countries such as China and India has led to higher prices for energy products. As a result, the overall rise in consumer prices has edged up both at home and abroad.

Particular arguments for a very low interest rate in Norway have weakened somewhat. The outlook and analyses suggest a gradual increase in the interest rate towards a more normal level, but we expect that the adjustment will occur in small, not too frequent steps. The projections in this *Report* may indicate that the interest rate will increase by about 1 percentage point in the course of next year, which is in line with expectations in the money and foreign exchange market. At the two to three year horizon, we expect a further, gradual rise in the interest rate. Our interest rate projections further out are somewhat higher than forward rates in the financial market, but market rates in Norway and other countries may have been reduced owing to particular conditions in the world economy.

We must be prepared for changes in the interest rate outlook over time. Unexpected disturbances abroad and at home will influence the outlook for inflation and production and hence the interest rate outlook as well. In recent years, for example, the rise in consumer prices has been very low, reflecting stronger domestic competition and a shift in Norwegian importers' purchases to countries with low price levels. We cannot rule out a continued increase in competition and a fall in prices for imported goods. Lower inflation and reduced pressures in the economy may imply less frequent interest rate changes. On the other hand, continued high growth in the economy, with growing resource shortages, may point in the opposite direction. A marked increase in capacity utilisation and higher-than-projected inflation may entail a faster increase in the interest rate.

The Executive Board has endorsed the analysis and the projection for future interest rate developments in this *Report*. The interest rate path presented provides a reasonable balance between the objectives of monetary policy. On the basis of this analysis, the Executive Board has approved a monetary policy strategy for the next four months. It is the Executive Board's assessment that the key rate should lie in the interval 2-3% in the period to mid-March 2006, conditional on economic developments that are broadly in line with the projections. The Executive Board will assess the key rate at future monetary policy meetings on the basis of the approved strategy.

2 November 2005
Svein Gjedrem

1 Monetary policy assessments and strategy

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 interest rate setting. Flexible inflation targeting builds a bridge between the long-term objective of monetary policy, which is to keep inflation on target and provide an anchor for inflation expectations, and the more short-term objective of stability in the real economy.

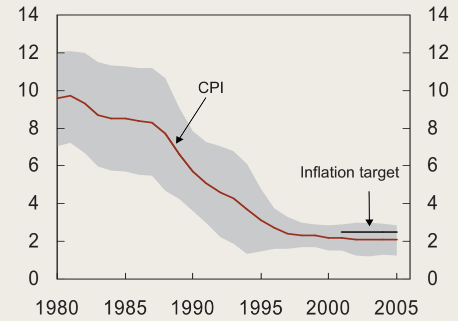
Inflation stabilised during the 1990s after falling from a high level in the previous decade (see Chart 1.1). At the same time, fluctuations in the real economy have been less pronounced (see Chart 1.2).

Partly owing to low interest rates and expectations of low real interest rates, capacity utilisation in the Norwegian economy has picked up over the past years. Improved terms of trade, the international recovery and new demand impulses from the petroleum industry have also been important factors behind the upturn. Economic growth is high and capacity utilisation has gradually moved to somewhat above its normal level. Inflation, close to zero last year, has picked up.

Since the June *Inflation Report*, output has developed approximately as expected. The rise in the number of employed has been more moderate in recent years than in the corresponding phase of the upturns in the 1980s and 1990s. At the same time, the labour force is growing. Experience may imply higher employment growth in 2006, when the upturn is in its third year. The rise in the total number of person-hours worked, on the other hand, has so far been considerably higher than in previous upturns. This must be seen in the context of the sharp fall in sickness absence last year. Two years of strong growth in demand and output, however, do not seem to have resulted in substantial pressures in the labour market. So far, enterprises' demand for labour seems to have largely been met by an increase in average working hours. There has also been a supply of labour from other countries, particularly Sweden and Poland. Developments may indicate that the economy may be able to sustain a higher level of activity than previously assumed before price and cost pressures come into clear evidence.

Growth among trading partners seems on the whole to be broadly in line with the projections in the June *Inflation Report*. Oil futures prices 6-7 years ahead have remained at a high level. Some of the rise in oil prices since 2004 can be attributed to higher demand for energy products

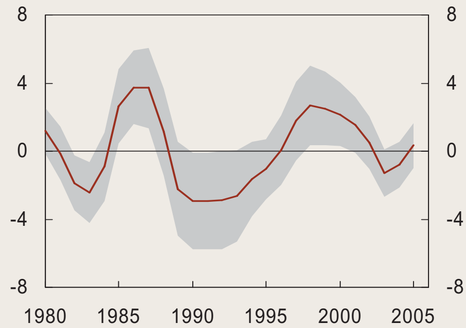
Chart 1.1 CPI. Moving 10-year average[1)] and variation[2)]. Per cent. Annual figures. 1980 – 2005[3)]



[1)] The moving average is calculated 7 years back and 2 years ahead.
[2)] The band around the CPI is the variation in the period, measured by +/- one standard deviation.
[3)] Projections for 2005 – 2007 from this Report form the basis for this estimate.

Sources: Statistics Norway and Norges Bank

Chart 1.2 Estimates for the output gap. Level[1)] and variation[2)]. Per cent. Annual figures. 1980 – 2005

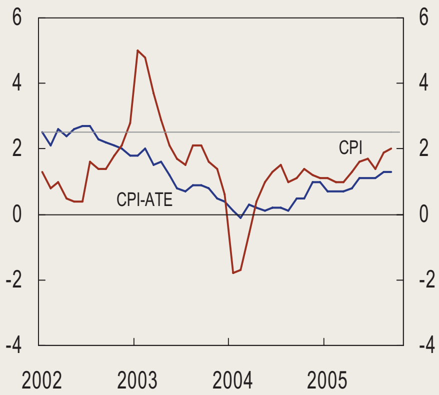


[1)] The output gap measures the difference between actual and projected potential mainland GDP.
[2)] The band shows the variation in the output gap measured by ± one standard deviation. The variation is estimated as average standard deviation in a 10-year period, 7 years back and 2 years ahead.

Source: Norges Bank

from countries in Asia, but oil prices have also recently been influenced by a fall in production in the wake of the hurricanes in the US. At the beginning of October, oil spot prices fell, reverting to the level in the previous *Inflation Report*. Declining demand in several markets contributed to this. Even though high oil prices have moderated international growth somewhat, international growth prospects are still favourable. There is, however, a risk that persistently high oil prices may have stronger negative effects on growth among our main trading partners than Norges Bank has assumed. The slowdown may occur gradually, but there are now mounting concerns that high oil prices may also translate into higher inflation and increased inflation expectations.

Chart 1.3 CPI and CPI-ATE[1)]. 12-month change. Per cent. Jan 02 – Sep 05

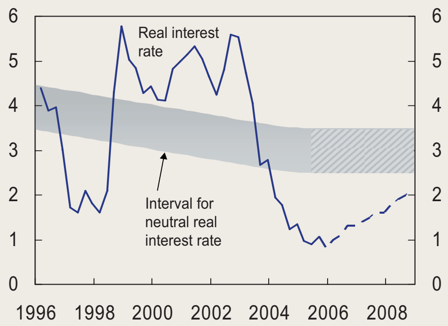


[1)] CPI-ATE: CPI adjusted for tax changes and excluding energy products.

Source: Statistics Norway

Since the June *Inflation Report*, rising energy prices have resulted in a somewhat higher-than-projected rise in price indices that also include energy products both at home and abroad. At the same time, increased imports of consumer goods from Asia and central Europe have contributed to a fall in other consumer prices in Norway. Consumer price inflation adjusted for tax changes and excluding energy products (CPI-ATE) was 1.3% in September, as projected in the previous *Inflation Report*. Adjusted for the direct impact of interest rates, which have pushed down house rents, inflation was 1.5%. The fall in prices for imported consumer goods decelerated somewhat faster than expected. Norges Bank believes, however, that the price-curbing effects of the global shift in trade towards low-cost countries will persist and also have a dampening impact on inflation ahead. High oil prices and high commodity prices are having the opposite effect. The year-on-year rise in overall consumer prices (CPI) was 2.0% in September (see Chart 1.3), which is 0.7 percentage point higher than projected this summer.

Chart 1.4 3-month real interest rate[1)] and the neutral real interest rate in Norway. Per cent. Quarterly figures. 96 Q1 – 08 Q4[2)]



[1)] 3-month money market rate deflated by inflation measured by the CPI-ATE.
[2)] The projected real interest rate for the period 05 Q4 – 08 Q4 is based on the baseline scenario.

Source: Norges Bank

Overall, these effects indicate that the various inflation measures may diverge in the period ahead. CPI inflation is now projected to reach close to 3% early next year. CPI-ATE inflation is projected to range between 1¼ and 1¾% in the year ahead.

The key rate has been very low for a period. Short-term real interest rates are considerably lower than what we regard as a neutral level (see Chart 1.4).[1] The Executive Board has pointed to the prospect of low inflation and idle capacity in the economy as a reason for the low interest rate level. The

[1] Estimations may indicate on an uncertain basis that the neutral real interest for Norway is now in the lower end of the range 2½-3½%.

reason for the most recent interest rate reductions in winter 2003/2004 was the particular risk that inflation expectations could become entrenched at a level that was too low. The Executive Board stated that when inflation gradually increases from a very low level, this will provide a basis for gradually beginning to move towards a more normal short-term interest rate level in Norway.[2]

An expansionary monetary policy has contributed to strong growth in demand for goods and services. Overall capacity utilisation has increased and inflation has picked up. This may be an indication that the effect of monetary policy has been broadly in line with projections.

Baseline scenario

Interest-rate setting since this spring has been oriented towards a gradual increase in the interest rate – in small, not too frequent steps – towards a more normal level. Based on Norges Bank's assessment of the driving forces in the economy, this strategy appears robust. There have not, for example, been any developments to indicate that the interest rate should be reduced again.

Output growth is high and may in isolation suggest a more rapid increase in the interest rate ahead. This would reduce the risk of bottlenecks in the economy with rising cost inflation and continued debt build-up. On the other hand, raising the interest rate more rapidly would increase the risk of a stronger krone, which could counter an increase in inflation towards the target of 2.5%.

The projections in this *Report* are based on interest rate developments that in the Executive Board's assessment provide a reasonable path for the Norwegian economy and a reasonable balance between the objectives of monetary policy. In the baseline scenario, the interest rate increases gradually – in small, not too frequent steps – towards a more normal level (see Chart 1.5a). Norges Bank has assumed that money market rates among our trading partners will also increase gradually over the next three years (see Charts 1.6a-b). As in the *Inflation Report* earlier this year, Norges Bank's projections are based on a somewhat more rapid rise in interest rates in Norway and abroad in the longer term than current forward rates would imply. This is due to unusual market conditions, with temporarily high demand for bonds, which have contributed to keeping long-term interest rates low[3]. Exchange rate movements are difficult to project. The interest rate path in Norway and abroad

[2] See, for example, Norges Bank's press release of 11 March 2004
[3] See box in *Inflation Report* 1/05 for further discussion.

Criteria for an appropriate future interest rate path

The following criteria may be useful in assessing whether a future interest rate path appears reasonable compared with the monetary policy objective.

1. If monetary policy is to anchor inflation expectations around the target, the interest rate must be set so that inflation moves towards the target. Inflation should be stabilised near the target within a reasonable time horizon, normally 1-3 years. For the same reason, inflation should also be moving towards the target well before the end of the three-year period.

2. Assuming that inflation expectations are anchored around the target, the inflation gap and the output gap should be in reasonable proportion to each other until they close.[1] The inflation gap and the output gap should normally not be positive or negative at the same time further ahead.

3. Interest rate developments, particularly in the next few months, 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.

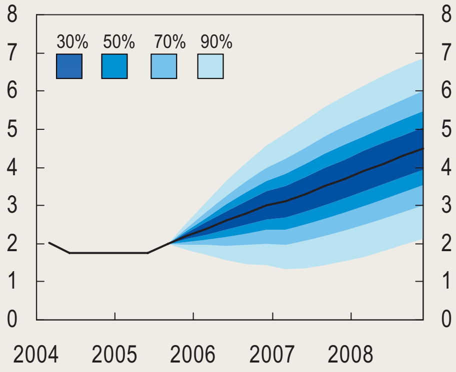
4. The interest rate should normally be changed gradually so that we can assess the effects of interest rate changes and other new information about economic developments.

5. Interest rate setting must also be assessed in the light of developments in property prices and credit. Wide fluctuations in these variables may in turn constitute a source of instability in demand and output in the somewhat longer run.

6. It may also be useful to cross-check by assessing interest rate setting in the light of some simple monetary policy rules. If the interest rate deviates systematically and substantially from simple rules, it should be possible to explain the reasons for this.

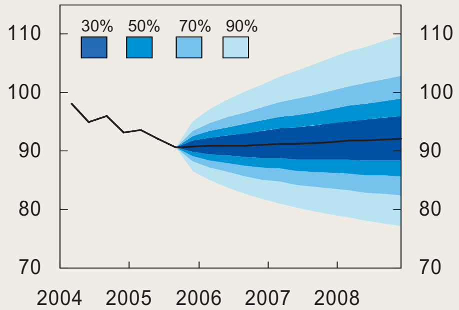
[1] The inflation gap is the difference between actual inflation and the inflation target of 2.5%. The output gap measures the percentage difference between actual and projected potential mainland GDP.

Chart 1.5a The sight deposit rate in the baseline scenario with fan chart. Per cent. Quarterly figures. 04 Q1 – 08 Q4



Source: Norges Bank

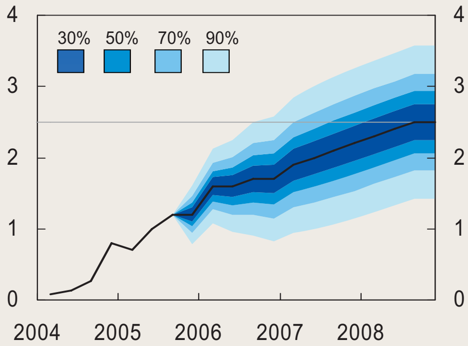
Chart 1.5b Import-weighted exchange rate (I-44)[1] in the baseline scenario with fan chart. Quarterly figures. 04 Q1 – 08 Q4



[1] A rising curve denotes a weaker krone exchange rate. It is assumed that strengthening by a certain percentage is just as likely as weakening by the same percentage.

Source: Norges Bank

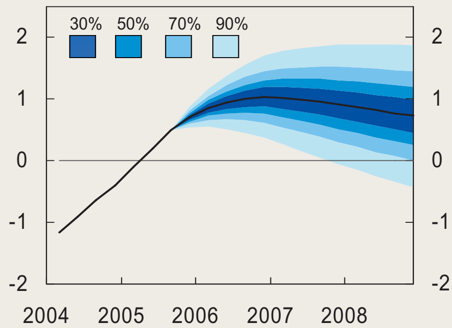
Chart 1.5c Projected CPI-ATE in the baseline scenario[1] with fan chart. 4-quarter change. Per cent. 04 Q1 – 08 Q4



[1] Other measures of underlying inflation are shown in a separate box in Section 2.

Sources: Statistics Norway and Norges Bank

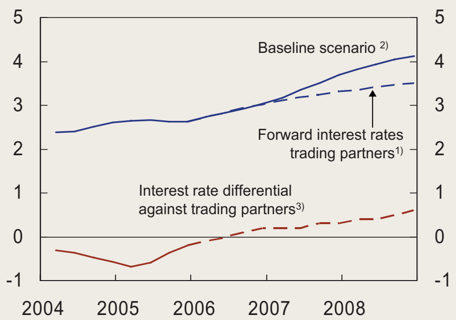
Chart 1.5d Estimated output gap in the baseline scenario[1] with fan chart. Per cent. Quarterly figures. 04 Q1 – 08 Q4



[1] Uncertainty concerning the current situation is not taken into account in the calculation.

Source: Norges Bank

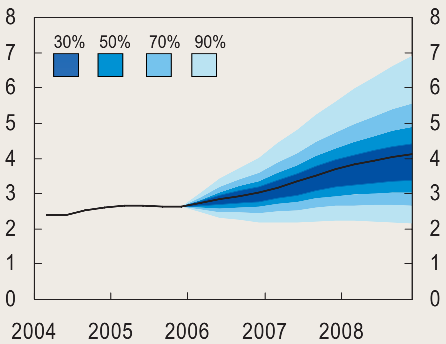
Chart 1.6a Interest rate projections for trading partners and interest rate differential. Quarterly figures. 04 Q1 – 08 Q4



[1] Estimated as a weighted average of trading partners' forward rates. Forward rate at 27 October.
[2] As in the two previous reports, the forward rate is adjusted somewhat as from 2007.
[3] Interest rate differential against trading partners in the baseline scenario from 05 Q4 (broken line).

Source: Norges Bank

Chart 1.6b Trading partners' interest rates[1] in the baseline scenario with fan chart[2]. Per cent. Quarterly figures. 04 Q1 – 08 Q4



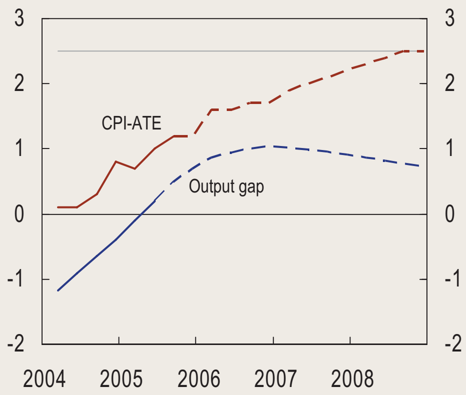
[1] 3-month money market rate.
[2] Fan chart is based on prices for interest rate options.

Sources: Reuters and Norges Bank

may be consistent with an approximately unchanged krone exchange rate (see Chart 1.5b). Based on such interest rate developments, the krone exchange rate and other driving forces described in Section 3, Charts 1.5c-d show Norges Bank's projected path for the Norwegian economy.

With interest rate developments as outlined above, CPI-ATE inflation is projected to increase gradually from about 1½% today to close to 2% at the beginning of 2007. Inflation is likely to increase further and reach the target of 2.5% in the second half of 2008. With a gradual reduction in unemployment, Norges Bank expects wage growth to pick up after a period. At the same time, profit margins are expected to edge up in pace with rising demand and capacity utilisation. Continued low interest rates will probably contribute to above-trend output growth again in 2006. Even though a gradual increase in the interest rate will after a period result in somewhat weaker growth impulses, monetary policy will still be expansionary. The output gap, which is a measure of capacity utilisation in the economy, is estimated to be positive this year and increase to about 1% in 2006 (see Section 2 for further discussion of the output gap). A gradual increase in the interest rate towards a more normal level will probably result in lower growth in demand for goods and services after a period. Growth in household disposable income will probably be reduced, and the rise in housing investment will slow. After a period, growth in corporate fixed investment will slacken in pace with other demand and output. Capacity utilisation may in time be brought down somewhat and stabilised. This will curb the rise in inflation, so that it stabilises close to target.

Chart 1.7 Projections for the CPI-ATE and output gap in the baseline scenario. Quarterly figures. Per cent. 04 Q1 – 08 Q4



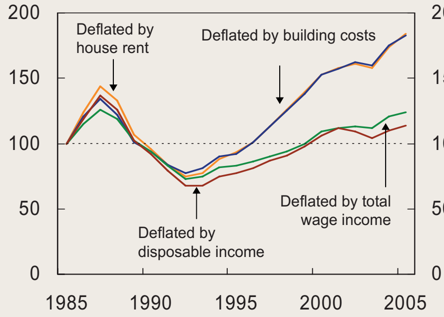
Sources: Statistics Norway and Norges Bank

The interest rate has to be sufficiently low for inflation to reach the 2.5% target. At the same time, we will seek to prevent capacity utilisation from becoming too high. The projected path for inflation and capacity utilisation (see Chart 1.7) seems to provide a reasonable balance between these two considerations.

The projections are based on the information Norges Bank currently has concerning the domestic and global economies and on Norges Bank's view of how the economy functions. Experience shows that the economy is exposed to disturbances that may result in other developments. The assessment of the recent past and the current situation may change as time passes and as better statistics become available. The functioning of the economy could also change. We must therefore be prepared for the possibility that the interest rate outlook may change over time.

On the basis of the disturbances to which the economy has been exposed in the last 10-15 years and Norges Bank's view of the functioning of the economy, we have estimated the uncertainty surrounding our projections for the interest

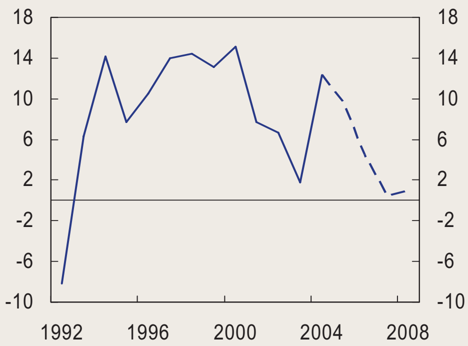
Chart 1.8a House prices deflated by the house rent index in the CPI, building costs, household disposable income and total wage income. Indices, 1985 = 100. Annual figures. 1985 – 2005[1)]



[1)] Projections for 2005.

Sources: Statistics Norway, Norwegian Association of Real Estate Agents (NEF), Association of Real Estate Agency Firms (EFF), FINN.no, ECON and Norges Bank

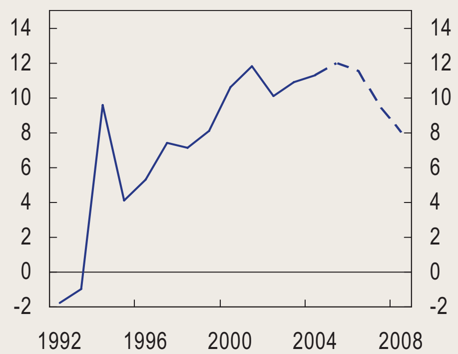
Chart 1.8b House prices. Annual rise. Per cent. 1992 — 2008[1)]



[1)] Projections for 2005 — 2008.

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

Chart 1.8c Credit to households (C2). Annual percentage change in credit. 1992 – 2008[1)]



[1)] Projections for 2005 — 2008.

Source: Norges Bank

rate, the krone exchange rate, inflation and the output gap (see box on page 19). The estimated uncertainty is represented as fan charts in Charts 1.5a-d. Monetary policy is oriented towards stabilising inflation and output growth. As monetary policy feeds through, the effects on inflation and output are restrained. The counterpart to this is the uncertainty surrounding interest rates.

When the interest rate is gradually – in small, not too frequent steps – brought up towards a more normal level, Norges Bank will be able to assess the effects of interest rate changes and other new information about economic developments.

Interest rate setting must also be viewed in the light of developments in property prices and credit. Wide fluctuations in these variables may constitute a source of instability in demand and output in the somewhat longer run. Developments in the rental market for office premises are positive, with an increase in rental rates in many parts of the country, including Oslo. Office vacancy rates measured in m^2 are still high, though falling. A model for house prices estimated using Norwegian data may indicate that house prices are now somewhat higher than historical explanatory factors would indicate.[4] Other indicators for assessing current house prices are the relationship between house prices and rents, building costs and household income (see Chart 1.8a). These indicators are now higher than their average since 1985. Charts 1.8b-c show projections of the rise in house prices and credit to households based on the baseline scenario. There are prospects that the rise in property prices and credit will slow through the projection period.

Financial stability implies that the interest rate should be brought up towards a more normal level. If developments in the economy are in line with the baseline scenario, it is likely that financial developments in banks and enterprises will be favourable. Banks' loan losses are also historically low, and profits are solid. Banks are well equipped to absorb an increase in losses towards a more normal level.

Corporate profitability improved substantially from 2003 to 2004 as a result of higher operating margins in most industries. Enterprises profited from continued low interest rates in 2004 and a clear decline in net financial expenses. Return on equity rose to 18% last year. The equity ratio of Norwegian companies was approximately 37% in 2004, i.e. an increase on the previous year. The equity capital of enterprises listed on the Oslo Stock Exchange increased further in the first half of this year.

[4] For a further description of the model, see Jacobsen, D. H., and B. Naug (2004) "What drives house prices?". *Economic Bulletin* 1/2005 and *Financial Stability* 1/04.

The benchmark index on the Oslo Stock Exchange has declined markedly recently. The index is still 4% higher than when the previous *Inflation Report* was published, and 25% higher than at the beginning of the year. Compared with average earnings over the past five years, prices for Norwegian equities have become somewhat higher since the beginning of the year, while there has been little change since end-June. The rise in Norwegian equity prices this year may be seen against the background of the increase in actual earnings last year and expected earnings for 2005 and 2006.

Uncertainty with regard to financial stability in the longer term is mainly related to the historically high household debt burden and asset price developments.

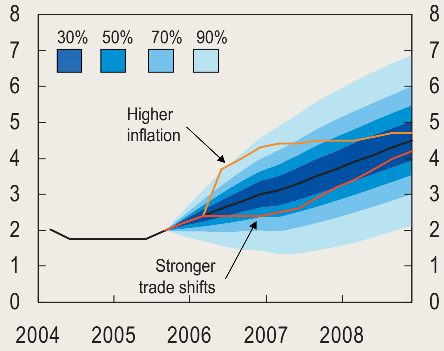
Uncertainty surrounding the projections

There is considerable uncertainty surrounding the projections. The projections above, including the interest rate projections, are based on the information Norges Bank has at present and Norges Bank's assessment of how the economy functions. If unexpected disturbances arise, we must be prepared for a situation where a different interest rate path may be more appropriate in order to achieve the objectives. The fan charts in Charts 1.5a-d illustrate the uncertainty that can be expected based on recent history.

The economy will occasionally be exposed to major disturbances. In recent years, the unexpected fall in inflation, the sharp rise in oil prices and substantial fluctuations in the krone exchange rate are events that were difficult to capture in advance in Norges Bank's projections. The origins of such disturbances may often lie outside Norway. We must be prepared for unexpected events to occur again in the future, and the Executive Board must continuously assess the consequences these disturbances may have for monetary policy. The effects may also prove to be more pronounced than we have experienced in the recent past. The monetary policy strategy should result in acceptable developments in inflation and output under alternative, albeit not unrealistic, assumptions concerning the economic situation and the functioning of the economy.

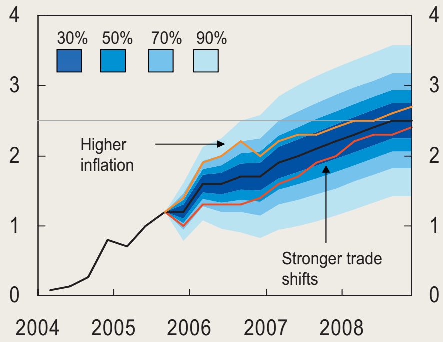
Current statistics and news about the Norwegian economy may reveal whether developments in the economy are in line with the scenario on which the monetary policy strategy is based. Information will not necessarily be unequivocal, and information about different aspects of economic developments is published at different times. It may be difficult to distinguish erratic effects on current statistics from real disturbances. It may therefore take time to determine whether economic developments differ from our assumptions.

Chart 1.9a Sight deposit rate in the baseline scenario and in the alternatives with stronger trade shifts and lower wage growth (red line) and higher inflation (yellow line). Per cent. Quarterly figures. 04 Q1 – 08 Q4



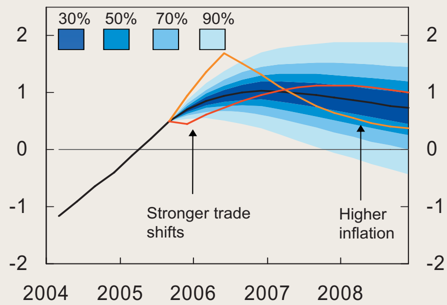
Source: Norges Bank

Chart 1.9b Projected CPI-ATE in the baseline scenario and in the alternatives with stronger trade shifts and lower wage growth (red line) and higher inflation (yellow line). 4-quarter change. Per cent. 04 Q1 – 08 Q4



Sources: Statistics Norway and Norges Bank

Chart 1.9c Estimated output gap in the baseline scenario[1)] and in the alternatives with stronger trade shifts and lower wage growth (red line) and higher inflation (yellow line). Per cent. Quarterly figures. 04 Q1 – 08 Q4



[1)] Uncertainty concerning the current situation is not taken into account in the calculation.

Source: Norges Bank

Charts 1.9a-c analyse developments under alternative scenarios. These scenarios were also discussed in the previous *Inflation Report*. Interest rate setting must be assessed in the light of the reasons for, and the expected duration of disturbances. The later monetary policy responds to such disturbances, the wider the fluctuations in output and inflation will be.

Alternative scenario (1): Stronger trade shifts and lower wage growth

Inflation has been lower than expected in the past few years. The rise in prices for imported consumer goods in particular has been low, pushed down by increased imports from low-cost countries in Asia and central and eastern Europe. These developments are largely due to the removal of tariff and quota regulations in textile trade in the last half of the 1990s and the early part of this decade. Similar trade shifts are now evident in imports of audiovisual equipment. It is, however, difficult to estimate precisely when the effects of these changes will be exhausted. Today, although most of these regulations on manufactured goods have been removed, shifts in the import pattern still occur. In this *Report*, Norges Bank has assumed in the baseline scenario that the price-curbing effects of these trade shifts will persist, but will gradually moderate. Stronger shifts in the import pattern cannot be ruled out, however, and it may take longer for the rise in prices for imported goods to pick up.

Additional inward labour migration may also influence the prospects for wage growth. Competition in the labour market has increased. This may curb wage growth in Norway. In addition, an increase in the labour supply and intensified competition may contribute to higher potential output.[5] The Norwegian economy will then be able to sustain higher growth in demand and output without generating inflationary pressures. Various labour market measures with protectionist effects may, however, curb inward labour migration.

There is no clear evidence to indicate that the probability of this alternative has increased significantly since the previous *Inflation Report* was published. The fall in prices for imported consumer goods decelerated somewhat faster than expected. The new baseline scenario is based on a continued increase in imports from low-cost countries. Charts 1.9a-c illustrate how the interest rate may be set if it becomes clear in the course of the first half of next year that the effects of intensified international competition and globalisation are even stronger than assumed in the baseline scenario. It is assumed that intensified labour market com-

[5] This is illustrated here (see Chart 1.9c) by a reduction in the output gap in 2005 Q4 and 2006 Q1

petition will contribute to lower wage growth and lower domestic inflation. Stronger trade shifts are assumed to contribute to lower imported inflation. Overall, this results in price inflation that will be close to ½ percentage point lower than in the baseline scenario in 2006.

It is assumed that the central bank will maintain the interest rate path in the baseline scenario in the first months and not respond to disturbances until summer 2006. Nor do market participants, households or enterprises expect the economy to follow a different path before then. This may be due to the difficulty of distinguishing erratic effects on current statistics from real disturbances and because it may therefore take time to see that the economy is following a different path.

Lower inflation and weaker pressures in the economy imply in isolation less frequent interest rate changes than in the baseline scenario. In this alternative scenario, the interest rate is kept unchanged in 2006. The output gap gradually exceeds the level in the baseline scenario as production picks up as a result of the lower interest rate. Inflation is lower than in the baseline scenario for the next two years.

Alternative scenario (2): Inflation picks up more rapidly than expected

There are also reasons why inflation may be higher than expected. The real interest rate is low and the monetary stance is expansionary. So far, the effects do not appear to be stronger than expected, but we have little experience of such low interest rates over a long period. It is uncertain how quickly prices and wages will react when growth in output and employment picks up. It is also uncertain how long economic agents expect the low interest rate to persist. There is a risk that an interest rate that is kept low for a longer period may lead to expectations of a persistently low interest rate. This kind of shift in expectations may entail a higher-than-projected rise in output, demand, wages and consumer prices. Since the previous *Inflation Report*, underlying inflation has been approximately as expected, but a sharp rise in energy prices in isolation heightens the risk that pent-up pressures may feed through to consumer prices.

A possible monetary policy response to this alternative scenario with pressures in the Norwegian economy is illustrated in Chart 1.9a. The overall result for inflation and the output gap is illustrated in Charts 1.9b-c.[6] Again, it is assumed that it takes time to shed light on the causes and

[6] It is assumed that the output gap increases by ¼ percentage point in relation to the baseline scenario in each of the next three quarters. In addition, inflation is assumed to increase faster and to be about ½ percentage point higher than in the baseline scenario in 2006

for policy to be adjusted. At the beginning of the projection period, output growth and cost and price inflation are assumed to be higher than in the baseline scenario. With pent-up pressures, it is also possible that the feed-through to prices will occur further out than shown in the Chart, but that the feed-through will be stronger. Higher inflation may be attributable to increased margins and accelerating wage growth. In isolation, this suggests a faster interest rate increase than in the baseline scenario with a view to preventing the high output gap from persisting and inflation from overshooting the target.

On the basis of Norges Bank's uncertainty estimates, a scenario with a marked increase in the output gap and higher inflation would involve a markedly different path than in the baseline scenario. The fan charts in Charts 1.9a-c illustrate the uncertainty in the baseline scenario.

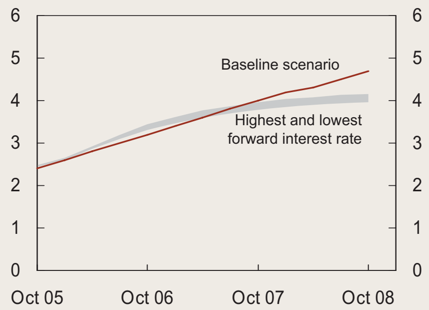
Cross-checks

Interest rate developments should be cross-checked against various simple rules and indicators that are less dependent on a specific analytical framework and a specific forecast for the Norwegian economy. Simple interest rate rules and indicators will not capture all the details in the projections, but can provide an indication of whether the current interest rate level is reasonably adapted to the economic situation. If the baseline scenario includes a considerably different interest rate path than implied above, the reasons for this should be explained.

Below we look at interest rate setting in the light of various cross-checks, such as interest rate expectations in the foreign exchange market, simple monetary policy rules and developments in the money supply. These simple cross-checks indicate that it may be appropriate to increase the interest rate gradually ahead to a more normal level.

Forward interest rates normally provide an indication of market interest rate expectations. Norwegian forward rates are somewhat higher than around the previous *Inflation Report*. There are expectations that the interest rate will be increased by about 1 percentage point over the next year, but forward rates imply a more moderate interest rate increase thereafter. In relation to Norges Bank's assessment of the economic outlook, forward rates appear to be a little low towards the end of the projection period (see Chart 1.10). This may be because market interest rates are influenced by extraordinary supply and demand factors that do not have a bearing on the outlook for underlying economic developments or monetary policy.

Chart 1.10 3-month money market rate in the baseline scenario[1)] and band with highest and lowest forward interest rate last 10 days.[2)] Per cent. Quarterly figures. 05 Q4 — 08 Q4



[1)] The money market rate is normally about ¼ percentage point higher than the sight deposit rate.

[2)] Highest and lowest forward interest rate in the period 14 – 27 Oct 2005.

Source: Norges Bank

Simple monetary policy rules have in many cases proved to be less sensitive to statistical shortcomings, even though they have other obvious drawbacks. Monetary policy rules must be interpreted with caution and only provide a rough indication of the appropriate interest rate range. Common to many simple interest rate rules is that the interest rate is set with a view to maintaining inflation around a specific target over time, while contributing to stabilising output. The rules presented are dependent on GDP and inflation projections. Experience shows that GDP figures may be extensively revised.

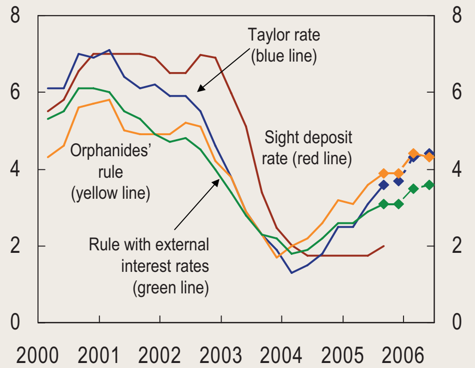
The Taylor rule[7], as estimated by Norges Bank, implies that the interest rate is now too low (see Chart 1.11). The Taylor rule applies the output gap. However, the output gap cannot be observed directly and is therefore an uncertain variable (see Section 2 for a further discussion of alternative measures of the output gap). The Orphanides rule[8] therefore applies observed GDP growth instead. This rule also implies that the interest rate is currently too low. This must be seen in the light of high growth in the Norwegian economy and rising inflation. Nevertheless, as inflation remains below target in the short term, the monetary policy stance should also be expansionary at the end of the year. The rules have limitations as a reference for a small, open economy, however. An interest rate increase in line with the rules may lead to a marked appreciation of the krone, which implies that it would take considerably longer to reach the inflation target. The rule involving external interest rates[9] implies a somewhat lower interest rate than the other rules, because external interest rates are low.

Norges Bank has also estimated a reaction function on the basis of the Bank's previous response pattern (see box in *Inflation Report* 3/04). This rule implies some tightening in the period to summer 2006, but less so than the other simple rules (see Chart 1.12). The reaction function implies higher interest rates ahead primarily as a result of high GDP growth and the prospect of higher inflation.

Historically, there has been a relationship between price developments on the one hand and the rate of M2 growth in relation to GDP on the other (see Chart 1.13). M2 has increased at a far faster pace than prices in recent years. This may reflect a high level of liquidity. The relationship

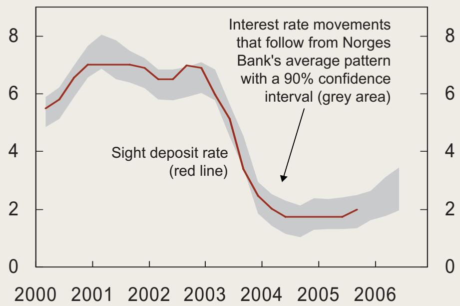
[7]The Taylor rule: Interest rate = Inflation target + equilibrium real interest rate +1.5 (inflation – inflation target) + 0.5 output gap. See Taylor J:B: (1993): "Discretion versus policy rules in practice", Carnegie-Rochester Conference Series on Public Policy 39, pages 195-124. We have used the CPI-ATE as a measure of inflation.
[8]Athanasios Orphanides proposes to replace the output gap with the difference between actual growth and trend growth in the economy (growth gap). One reason for this is that the Taylor rule is sensitive to errors in the measurement of the output gap. See Orphanides A., R. D. Porter, D. Reifschneider, R. Tetlow and F. Finan (2002): "Errors in the measurement of the output gap and the design of monetary policy". Journal of Economics and Business, vol. 52, pages 117-141.
[9] The rule involving external interest rates = 0.5 Taylor rule + 0.5 Money market rate among Norway trading partners

Chart 1.11 Sight deposit rate, Taylor rule, Orphanides rule and rule with external interest rates. Inflation as in the baseline scenario. Quarterly figures. Per cent. 00 Q1 — 06 Q2



Source: Norges Bank

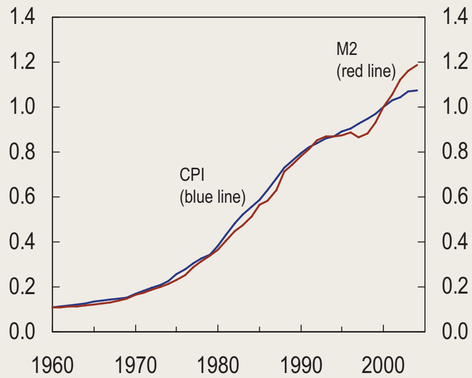
Chart 1.12 Sight deposit rate and interest rate developments that follow from Norges Bank's average pattern for the setting of interest rates.[1)]. Per cent. Quarterly figures. 00 Q1 – 06 Q2



[1)] The interest rate movements are explained by developments in inflation, mainland GDP growth, wage growth and 3-month interest rates among trading partners. See Inflation Report 3/04 for further discussion.

Source: Norges Bank

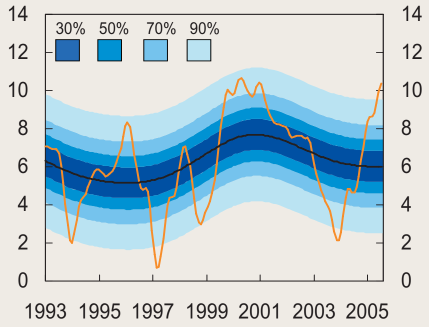
Chart 1.13 CPI and scaled money supply (M2)[1)]. Index, 2000 = 1. Annual figures. 1960 – 2004



[1)] M2 is scaled by GDP at constant prices.

Sources: Statistics Norway and Norges Bank

Chart 1.14 Money supply (M2). 12-month growth, estimated trend growth and intervals.[1)] Per cent. Monthly figures. Jan 93 — Aug 05



[1)] Actual M2 growth is smoothed. Trend growth is estimated using a Hodrick-Prescott filter (λ = 100 000). The confidence intervals are based on the standard deviation calculated using the deviation between actual M2 growth and trend growth.

Source: Norges Bank

between prices and M2 has been unstable, however. For example, new financial market products, changes in credit market regulations and developments in international capital markets have influenced this relationship.

M2 growth can be used as an indicator of price developments and developments in private demand for goods and services. Chart 1.14 shows actual and trend growth in the money supply in the period 1993-2005, and the historical variation around trend growth. Money supply growth is now higher than trend growth. In relation to historical experience, the difference between actual and trend growth in M2 is now relatively wide.

Conclusions – monetary policy strategy

The Executive Board's assessment is:

- The interest rate path presented in this *Report* will provide a reasonable balance between the objective of bringing inflation up to target and the objective of stabilising developments in output and employment, conditional on the information Norges Bank has at this juncture.

- The interest rate may gradually – in small, not too frequent steps – be brought back towards a more normal level. The objective of bringing inflation back to target and anchoring inflation expectations nevertheless implies a continued expansionary monetary policy.

- The sight deposit rate should lie in the interval 2-3% in the period to the publication of the next *Inflation Report* on 16 March 2006, conditional on economic developments that are broadly in line with the projections.

- Monetary policy must be assessed regularly on the basis of new information that is of significant importance for the outlook for inflation and output. New information may reveal economic developments that indicate that the Norwegian economy is following other paths than projected. Stronger trade shifts and increased labour market competition may, on the one hand, result in lower price and wage inflation. The unusually low real interest rate may, on the other hand, result in a higher-than-projected rise in output and inflation. The monetary stance must be assessed in the light of the reasons for, and the expected duration of disturbances.

Uncertainty surrounding future interest rate developments

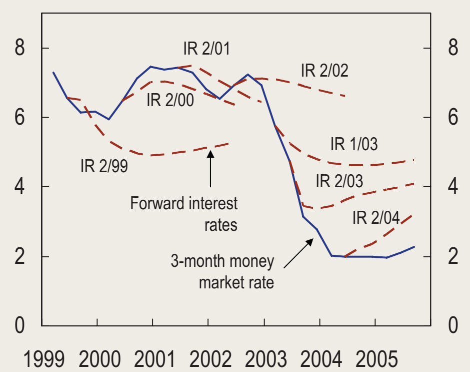
There is substantial uncertainty associated with future interest rate developments. Our assessment of the current economic situation and the functioning of the economy will have a considerable bearing. Assumptions concerning developments abroad, oil prices and fiscal policy will also influence the current assessment of the interest rate outlook. Unknown future disturbances to the economy or a better basis for assessing the disturbances to which the economy has been exposed will in all likelihood lead to some deviation between actual interest rate developments and our current projections.

A projected path for future interest rates may nevertheless provide some guidance to economic agents when the basis for the projection is clearly communicated. Communication is improved when the central bank can also convey its assessment of the uncertainty surrounding the projection. Various approaches can shed light on the uncertainty associated with interest rate developments.

Interest rate uncertainty on the basis of historical data

The historical accuracy of market interest rate expectations provides a simple approach to uncertainty. Chart 1 shows developments in the three-month money market rate since the beginning of 1999 and a selection of paths for interest rate expectations at the time of publication of the *Inflation Report*. Market interest rate expectations are measured using forward rates, i.e. implied short-term interest rates in the money market.[1] Deviations between forward rates and actual rates have been considerable in periods. An important factor behind this is that the Norwegian economy and the world economy have been exposed to unexpected disturbances.

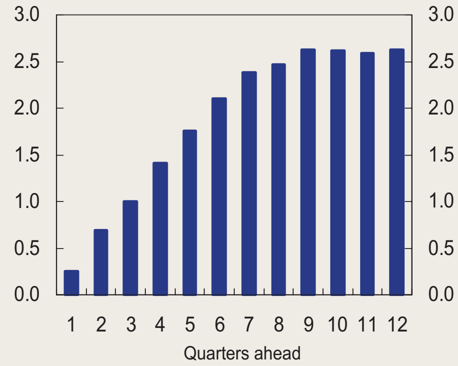
Chart 1 3-month money market rate and forward rates at time of publication of the Inflation Report. Per cent. Quarterly figures. 99 Q1 – 05 Q3



Source: Norges Bank

Chart 2 provides a more systematic picture and shows the average deviation between forward rates and actual interest rates ahead (measured in absolute value). On average, forward rates one quarter ahead have deviated from actual interest rates by about 0.25 percentage point, while the average deviation two quarters ahead has been close to ¾ percentage point. The longer the horizon for the interest rate projection is, the higher the likelihood that disturbances will occur to which monetary policy will react. The deviation between forward rates and actual interest rates therefore widens over time before appearing to stabilise after around 10 quarters.

Chart 2 Average deviation between forward interest rates and actual 3-month money market rate in the period 1999 – 2005. Absolute value. Percentage points



Source: Norges Bank

On the basis of these historical average deviations, we have constructed a fan chart for the future sight deposit rate (see Chart 3a). The chart indicates the probability that the interest rate will lie within a specific interval at various future points in time (given the historical pattern of interest rates and forward rates) on the basis of the interest rate outlook in this *Inflation Report*. For example, the actual interest rate will lie within an interval of 0-8½% in 2008 with 90% probability. Historical data indicate that there is considerable uncertainty surrounding future interest rate developments.[2]

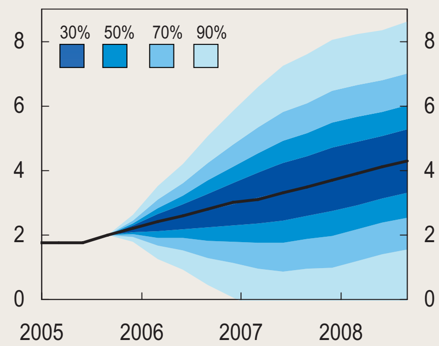
One can raise the question as to whether such historical deviations provide a reasonable picture of today's interest rate uncertainty. The deviations are particularly marked by the economic history of the period for which they are estimated. During 2003, interest rates exhibited an unusually strong and unexpected fall. Obviously, similar movements in the interest rate in the future cannot be ruled out, but the estimated uncertainty using historical data in Chart 3a is markedly higher than envisaged by market participants in 2003 and at present.

Interest rate uncertainty on the basis of interest rate options

Prices for interest rate options provide direct information about market participants' assessment of future interest rate uncertainty (see Chart 3b). These assessments change over time and do not depend in the same way on the past as do the fan charts based on historical data. Participants in the options market now expect a considerably lower degree of uncertainty as to future interest rate developments than historical uncertainty would imply. A possible interpretation is that market participants perceive the major economic disturbances and subsequent pronounced interest rate changes in recent years as extraordinary and are of the view that there is little likelihood of the occurrence of such disturbances over the next three years.

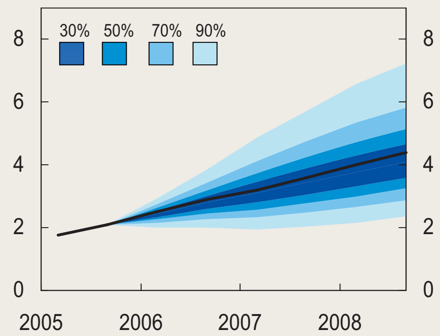
In retrospect, it would appear that options prices underestimated the range of interest rate outcomes prior to 2003. The fan chart based on historical data is heavily influenced by the major disturbances that affected the international and Norwegian economy towards the end of 2002 and through 2003. The fans in Chart 4 are based on options prices prevailing in mid-2002 for the US and Norway. In the US, interest rates had already been reduced sharply through 2001, and options prices in mid-2002 implied that there was substantial uncertainty about future interest rate developments. In the course of 2003, interest rates were nevertheless reduced to a level lower than the range of outturns with 90% probability. In Norway, the economic situation was influenced by international developments and the

Chart 3a Sight deposit rate in the baseline scenario with fan chart based on historical interest rate developments. Per cent. Quarterly figures. 05 Q1 – 08 Q3



Source: Norges Bank

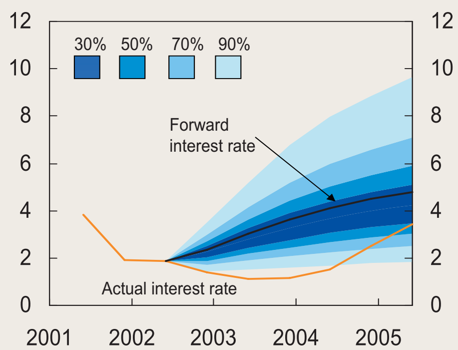
Chart 3b Sight deposit rate in the baseline scenario with fan chart based on interest rate options[1]. Per cent. Half-yearly figures. 05 H1 – 08 H2



[1] Based on options prices at 27 October 2005.

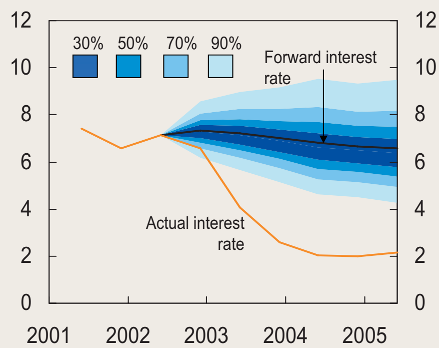
Source: Norges Bank

Chart 4a US. 3-month money-market rate and forward interest rate with fan chart based on options prices calculated in June 2002. Per cent. Half-yearly figures. 01 H1 – 05 H1



Source: Norges Bank

Chart 4b Norway. 3-month money-market rate and forward interest rate with fan chart based on options prices calculated in June 2002. Per cent. Half-yearly figures. 01 H1 – 05 H1



Source: Norges Bank

interest rate was reduced markedly through 2003. The low interest rate level in Norway was also regarded as highly unlikely as indicated by prices for interest rate options the previous year.

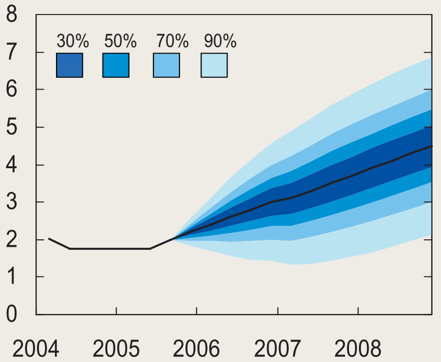
It can be difficult to assess the basis of the underlying uncertainty surrounding options prices. A macroeconomic model quantified using historical data can provide a more structured approach to interest rate uncertainty and link this uncertainty to the uncertainty associated with other economic variables.

Uncertainty on the basis of economic models

An economic model can be useful in quantifying the uncertainty surrounding economic projections. In the context of a small macroeconomic model[3], we have attempted to quantify further the uncertainty of some key variables on the basis of historical developments in the Norwegian economy. Within the model's structure, we have looked at the magnitude of the historical disturbances to the supply and demand side in the Norwegian economy. This provides us with a picture of the historical uncertainty surrounding inflation, the output gap, the exchange rate and monetary policy. This experience, quantified for the period 1993-2005, provides a basis for assessing the uncertainty associated with our projections.

Chart 5 shows the interest rate path in this *Report* with a fan chart that illustrates the uncertainty surrounding our interest rate projection estimated using our macroeconomic model (the same as in Chart 1.5a in this *Report*). The fan chart illustrates the uncertainty normally prevailing on the basis of the experience of the past 12 years. A technical assumption is that the uncertainty has a normal distribution around the future interest rate path.

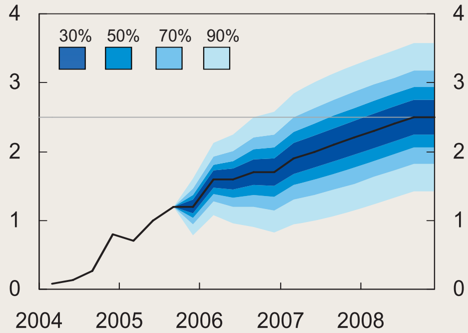
Chart 5 The sight deposit rate in the baseline scenario with fan chart. Per cent. Quarterly figures. 04 Q1 – 08 Q4



Source: Norges Bank

Monetary policy influences the economy with a lag and Norges Bank sets the interest rate with a view to stabilising inflation on target within a reasonable time horizon, normally 1-3 years. Inflation will not always be the same as the inflation target, but when monetary policy is successful in providing the economy with a nominal anchor, the uncertainty associated with future developments in inflation will be limited over time. This is exhibited in Chart 6, which shows the projection and uncertainty surrounding CPI-ATE inflation (the same as in Chart 1.5c in this *Report*). The uncertainty surrounding developments in inflation increases further out in the projection period. However, as monetary policy reacts to disturbances, the uncertainty is stabilised in the longer term.[4] Three years ahead, inflation may deviate by +/-1.0 percentage point in relation to the inflation target of 2.5%.

Chart 6 Projected CPI-ATE in the baseline scenario[1)] with fan chart. 4-quarter change. Per cent. 04 Q1 – 08 Q4



[1)] Other measures of underlying inflation are shown in a separate box in Section 2.

Sources: Statistics Norway and Norges Bank

[1] For a further description of the estimation of forward rates, see article by Arne Kloster, "Estimating and interpreting interest rate expectations", Economic Bulletin 2000/3, www.norges-bank.no

[2] Similar estimations exhibit about the same interest rate uncertainty for Norway's trading partners.

[3] For a further description of this model, see Husebø, T. A., S. McCaw, K. Olsen and Ø. Røisland, "A small, calibrated macromodel to support inflation targeting at Norges Bank", Staff Memo 2004/3, www.norges-bank.no.

[4] The uncertainty surrounding the nominal interest rate is also stabilised in the longer term (see Chart 5), but this uncertainty is generally higher than the uncertainty surrounding inflation. This is because the uncertainty surrounding the nominal interest rate is influenced by the uncertainty surrounding both the real interest rate and inflation.

Accuracy of short-term interest rate expectations

Since autumn 2002, Norges Bank has published an interest rate interval which it deems appropriate for the coming four months. The interval was previously published after the relevant period, but since 2004 it has been communicated ahead of the period to which it applies.[1] The chart below shows developments in the sight deposit rate and all the intervals published by Norges Bank. The monetary policy strategy is conditional on economic developments in the strategy period that are broadly in line with the projections. On most occasions, the actual interest rate has been close to the middle of the interval at the end of the period, but with some exceptions. In 2003, the sight deposit rate was set lower than the lowest end of the interval on two occasions (strategy periods 3/02 and 2/03). This reflected the major disturbances to which the Norwegian and international economy were exposed. These disturbances led to lower interest rates both abroad and in Norway, and market interest rate expectations fell considerably.[2]

A comparison of previous strategy intervals with actual developments in the sight deposit rate can provide an indication of the uncertainty surrounding interest rate expectations in recent years. As a starting point, we have compared actual sight deposit rates with the mid-point of the strategy interval at the end of the relevant period. Norges Bank has not necessarily targeted the mid-point in the interval. Nevertheless the outcome has on most occasions been close to the mid-point of the interval. As a reference, we have looked at interest rate expectations in the money market at the same points in time. Market participants' projections of the future sight deposit rate are calculated on the basis of implied money market rates.[3]

The first row in Table 1 shows the average deviation between the sight deposit rate and the mid-point of the strategy interval and the average deviation between the sight deposit rate and market expectations (both measured in absolute value). The average forecast error is about the same for Norges Bank and the market, a little less than 0.4 percentage point. The second row in the table shows that the mid-point of the Bank's strategy interval has been closest to the sight deposit rate on 15 of 20 occasions, while the market has been closest in 5 of the occasions.

On balance, it would appear that Norges Bank's forecast error and the market's forecast error are about the same. One interpretation of this is that the Bank and market participants have had broadly similar interpretations of the consequences of economic disturbances and that these disturbances have been just as surprising for both groups. The major disturbances to the global economy in 2003 were particularly surprising and led to a considerably faster reduction in the interest rate than implied by expectations at the beginning of the year.

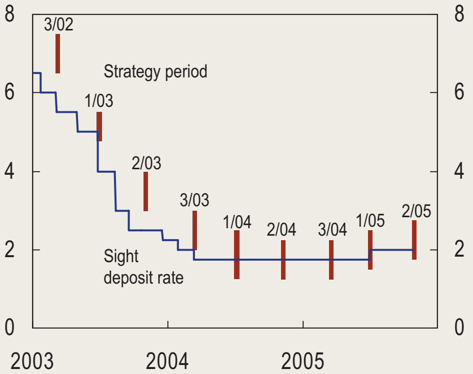
Table 1 Accuracy in short term interest rate expectations.

	Norges Bank	Market
Average error in interest rate expectations	0.37*	0.35**
Closest to the actual sight deposit rate***	15/20	5/20

*Average deviation between the sight deposit rate and the mid-point of the strategy interval (absolute value)
**Average deviation between the sight deposit rate and market expectations (absolute value)
***Shows that the mid-point in Norges Bank`s strategy interval has been closest to the sight deposit rate in 15 out of 20 occasions, while the market has been closest on 5 out of 20 occasions.

Source: Norges Bank

Chart 1 Interval for the sight deposit rate at the end of each strategy period and actual developments. Daily figures. Per cent. 1 Jan 03 – 27 Oct 05



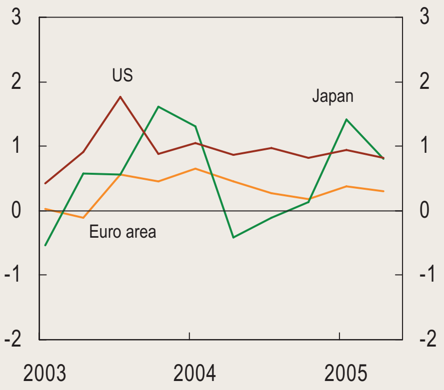
Source: Norges Bank

[1] The intervals were previously published in a strategy document as an annex to the Inflation Report, but are now presented in Section 1 of the Inflation Report. Strategy document 3/02 was the first document published. Earlier strategy documents have not been published. Since Inflation Report 2/04 the strategy has been published at the beginning of each strategy period.
[2] In mid-2002, market participants expected US interest rates to rise from below 2% to around 5% towards the end of 2004. In the period to summer 2003, interest rate expectations for the end of 2004 fell to slightly below 2%. Developments in the euro area were broadly similar (see Charts 8a and 8b in "Report on monetary policy 2003 - the first eight months", www.norges-bank.no).
[3]Under the expectations hypothesis for interest rate formation, implied interest rates can be interpreted as the market's future interest rate expectations. By interpolating implied one-month rates with a horizon of 3-5 months ahead, we have calculated the market's projections of short-term money market rates at the end of the strategy period. Short-term money market rates are usually somewhat higher than the sight deposit rate. To calculate the market's sight deposit rate projection, we have adjusted implied money market rates for the normal deviation between the sight deposit rate and short-term money market rates. Risk premiums in the money market may lead to some deviation between implied interest rates and actual interest rate expectations.

2 | The economic situation

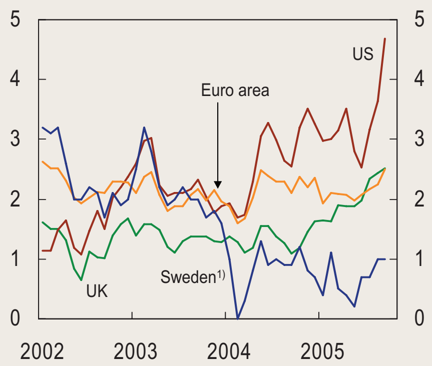
The international economy

Chart 2.1 GDP growth in the US, the euro area and Japan. Seasonally adjusted volume growth on previous quarter. Per cent. 03 Q1 – 05 Q2



Sources: EcoWin and Norges Bank

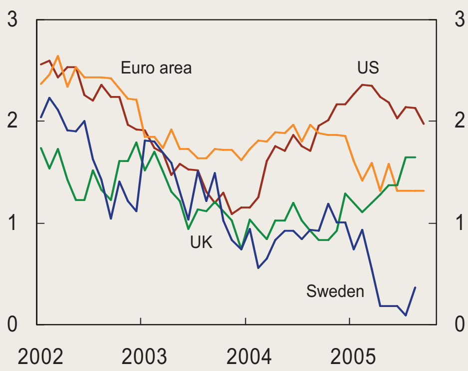
Chart 2.2 Consumer prices. 12-month change. Per cent. Jan 02 – Sep 05



[1] UND1X.

Source: EcoWin

Chart 2.3 Core inflation[1]. 12-month change. Per cent. Jan 02 – Sep 05



[1] US: CPI excl. food and energy. Euro area, UK and Sweden: CPI excl. energy, food, alcohol and tobacco.

Source: EcoWin

Global GDP growth in 2004 was the highest for more than 30 years, but high oil prices have led to somewhat slower growth in 2005. However, most newly industrialised economies in Asia are still expanding at a fast pace. It appears that the Chinese economy will grow by more than 9% in 2005, and the Indian economy by around 7%. In Japan, growth was stronger than expected in the first six months, and it appears that private demand is picking up.

In the US, growth remained firm in the first six months (see Chart 2.1). The strong rise in house prices has contributed to reducing the saving ratio and buoying consumption. Household demand is still the main driving force, but fixed investment is also exhibiting strong growth.

In the euro area, there are still few signs of higher growth in domestic demand. In spite of a modest improvement in labour market conditions, consumer confidence remains low. Moreover, growth in household real income is moderating as a result of higher energy prices, which is reflected in low growth in private consumption. Various confidence indicators point to growing optimism in the business sector, i.a. in Germany. In the UK, growth in private consumption has also been sluggish, and economic activity now appears to be slackening to a further extent than expected. Higher interest rates and weaker developments in the housing market are probably curbing household demand. Industrial output exhibited weak growth through the first six months. In Sweden, GDP growth has also moderated in 2005.

It appears that high oil prices are resulting in somewhat higher consumer price inflation among several of our trading partners than projected in the June *Inflation Report.* There are clear signs of a quickening of consumer price inflation in the US, the UK and to some extent in the euro area (see Chart 2.2). So far, high energy prices have had a limited impact on other consumer prices. Core inflation in the US and the euro area has shown little increase so far (see Chart 2.3). In the UK, however, core inflation is now higher than 1.5% and seems to be on the rise. So far, moderate wage growth in both Europe and the US suggests that employees have not been compensated for the rise in energy prices. If the increase in oil prices is gradually perceived as long-lasting, this may lead to higher inflation expectations, higher wage demands and a more pronounced pass-through to other prices.

The oil market

In summer, North Sea oil prices (Brent Blend) generally ranged between USD 55-60 per barrel, but in August prices rose to new record levels. Brent Blend prices stood at USD 67.80 per barrel on 16 August (see Chart 2.4). Oil prices have been influenced by news such as terror actions, the Chinese currency revaluation and Hurricane Katrina and Rita that led to extensive damage to both installations that produce crude oil and natural gas in the Gulf of Mexico and refineries in the area. In the wake of the hurricanes, refined products showed the strongest increase, particularly petrol prices (see Chart 2.5). The rise in crude oil prices was gradually reversed partly because the US and the International Energy Agency (IEA) made a joint decision to release crude oil from their strategic reserves. The IEA also released some petrol and other products, but not in sufficient amounts to compensate for the full decline in refinery capacity. Petrol and crude oil prices nonetheless fell back fairly rapidly to pre-hurricane levels, while natural gas prices in the US are still higher.

At the beginning of October, oil prices fell by USD 5 per barrel over a few days, back to the level prevailing around the June *Inflation Report*. The price fall primarily reflects slower growth in oil demand in many markets. The IEA has revised down its forecast for demand growth in the latter half of this year. This may be a sign that oil prices have reached a limit in terms of how high prices can be without having a noticeable impact on oil demand and other economic activity. At the end of October, Brent Blend oil prices were nudging USD 60 in spite of a 60% fall in oil production in the Gulf of Mexico from the normal level (see Chart 2.6). This year's hurricanes have led to a far larger decline in production than Hurricane Ivan one year earlier.

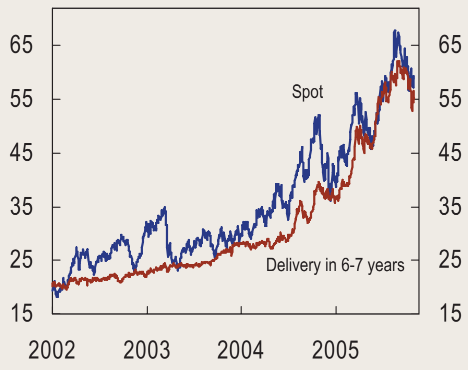
At its meeting on 19 September, OPEC decided to maintain its production quotas unchanged at 28 million barrels per day. OPEC has argued for some time that the main reason behind high energy prices is a shortage of refinery capacity rather than a shortage of crude oil. The production quotas could still be increased by up to 2 million barrels per day to accommodate any rise demand.

Financial markets

Oil prices influence interest rate developments

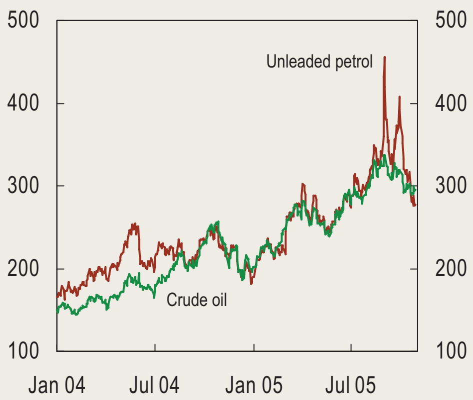
Since the June *Inflation Report*, key rates in the US and Canada have been raised by 0.75 and 0.50 percentage point respectively. In New Zealand, the key rate has been raised by 0.25 percentage point, while the key rate in the UK has been lowered by 0.25 percentage point. Key rates remain low among many of our trading partners. Market participants seem to expect a gradual increase in key rates in the period head, and at a somewhat faster pace than expected in summer (see Chart 2.7). Towards the end of 2006, key rates in the US and the UK are expected to be around 4½%. For the euro area and Sweden, key rates are expected to be considerably lower, at a little less than 2¾% and 2½% respectively.

Chart 2.4 Oil price. Brent Blend spot and light crude oil for future delivery. USD per barrel. Daily figures. 1 Jan 02 – 27 Oct 05



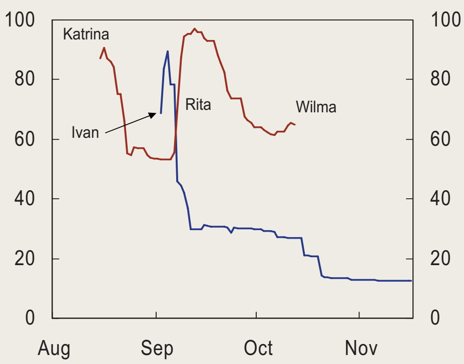
Sources: Reuters and EcoWin

Chart 2.5 Petrol and crude oil prices. Index, Jan 02 = 100. Daily figures. 1 Jan 04 – 27 Oct 05



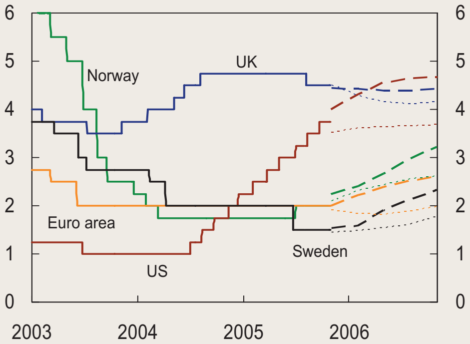
Source: EcoWin

Chart 2.6 Crude oil production in the Gulf of Mexico shut down due to hurricanes. Share of total production capacity. Per cent. Daily figures. 29 Aug – 30 Nov in 2004 (Ivan) and 2005 (Katrina, Rita and Wilma)



Source: Energy Administration Information

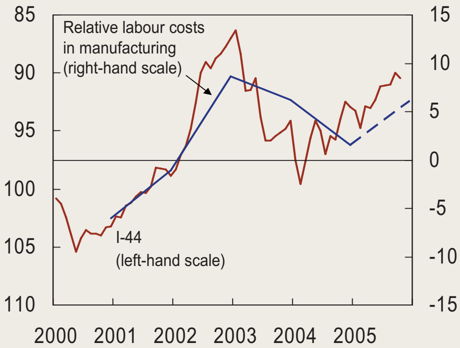
Chart 2.7 Interest rate expectations. Actual and expected key rate[1)] at 27 Oct 05 and 24 Jun 05. Daily figures. 2 Jan 03 – 1 Nov 06



[1)] Broken lines show expectations at 27 October 2005. Dotted lines show expectations at 24 June 2005 (IR 2/05). Based on FRAs and futures contracts adjusted for the estimated difference between 3-month money market rates and the key rate.

Sources: Reuters and Norges Bank

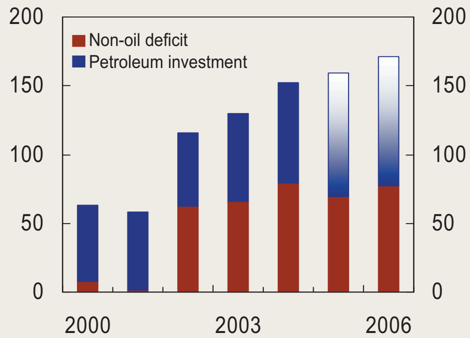
Chart 2.8 The krone exchange rate (I-44)[1)]. Monthly figures. Jan 00 – Oct 05[2)]. Relative labour costs in common currency[3)]. Annual figures. Per cent. 2000 – 2005[4)]



[1)] A rising curve denotes a stronger krone exchange rate.
[2)] Figures for Oct 05 are the average for the period 1 – 27 Oct 2005.
[3)] Deviation from average 1970 -2004.
[4)] 2005 is based on wage growth in the baseline scenario and TWI from 1 Jan – 27 Oct 2005.

Source: Norges Bank

Chart 2.9 Non-oil government budget deficit and petroleum investment. In billions of NOK. Annual figures. 2000 – 2006[1)]



[1)] Projections for 2005 -2006.

Sources: Statistics Norway, Ministry of Finance and Norges Bank

After edging up through summer as a result of positive developments in several key variables, international long-term interest rates edged down again to the levels prevailing around the June *Inflation Report*. One reason behind the interest rate fall was probably that the increase in oil prices increased the uncertainty surrounding growth prospects. In recent months, long-term interest rates have edged up again. This reflects stronger inflationary impulses as a result of high energy prices. Market long-term inflation expectations, measured as the difference between nominal and real government bond yields, have shown a small increase since summer.

In Norway, the key rate was increased by 0.25 percentage point to 2.0% at the monetary policy meeting in June. Market interest rate expectations in October were somewhat higher than at the time of publication of the previous *Inflation Report* in June. Forward interest rates indicate expectations of a key rate of a little more then 2¼% at the end of 2005 and between 3¼% and 3½% at the end of 2006. Measured by forward interest rate, market expectations indicate that interest rates will be higher in Norway than for an average of our trading partners from the beginning of 2006, but that the interest rate differential will not be particularly wide. Long-term interest rates in Norway have followed developments in the rest of Europe and are somewhat higher than around the June *Inflation Report*. The yield on Norwegian government bonds with a ten-year residual maturity is now around 3.8%.

Continued strong krone exchange rate

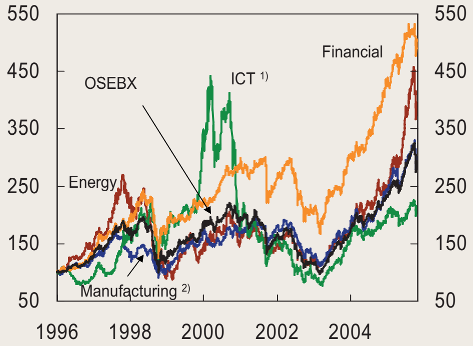
As measured by the import-weighted index (I-44), the krone exchange rate is now around 1½% stronger than around the previous *Report*. The krone has appreciated since spring 2004 (see Chart 2.8). Market participants have pointed to the favourable outlook for the Norwegian economy. At the same time, high oil prices and petroleum revenue spending in the Norwegian economy are stimulating demand for the Norwegian krone. Investment in the petroleum industry is exhibiting strong growth, and petroleum revenue spending over the central government budget has increased in recent years (see Chart 2.9). Market expectations of further increases in petroleum revenue spending in the years ahead may also explain the appreciation of the krone. High oil prices also have a positive effect on share prices on the Oslo Stock Exchange. Foreign investors' holdings on the Oslo Stock Exchange have increased. In isolation, this has contributed to a stronger krone. The real krone exchange rate is stronger than the average since 1970, both measured in terms of relative labour costs in a common currency and in relative consumer prices in a common currency. Historically, the real exchange rate has tended to revert to this average.[1]

[1] For a further discussion of the reversion mechanism for the real exchange rate, see Staff Memo 2005/3 and Working Paper 2002/4, Norges Bank. (www.norges-bank.no)

Wide swings in equity prices

The Oslo Stock Exchange continued to advance in pace with the rise in oil prices through summer and the first part of autumn. In the first weeks of October, equity prices fell markedly, but the benchmark index was still slightly more than 4% higher than at the time of the publication of the previous *Inflation Report* in June. ICT and the energy indices have exhibited the largest gains, with an increase of 10% and 7% respectively (see Chart 2.10). On other European exchanges, equity price advances have ranged between 1% and 5%, while US equity prices are 1% lower than at the time of the publication of the previous *Inflation Report*.

Chart 2.10 Developments in some sub-indices on the Oslo Stock Exchange. Index, 2 Jan 96 = 100. Daily figures. 2 Jan 96 – 27 Oct 05



1) Average of IT and telecommunications indices.
2) Average of industrials and materials indices.

Sources: Bloomberg and Norges Bank

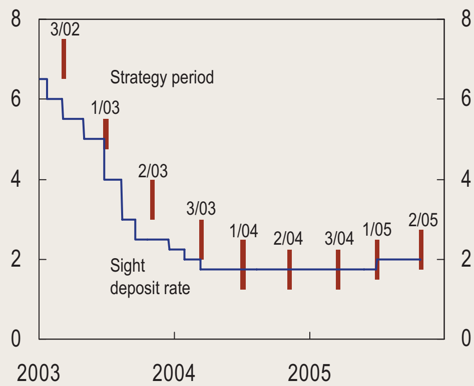
Monetary policy since 30 June 2005

Norges Bank's projections for economic developments in the June *Inflation Report* implied a sight deposit rate in the interval 1¾ - 2¾% in the period to the beginning of November this year. The analyses were based on an interest rate that moved broadly in line with forward interest rates as observed at end-June. The objective of bringing inflation back to target and anchoring inflation expectations implied a continued expansionary monetary policy. The objective of stabilising developments in output and employment implied, in isolation, a higher interest rate. The Executive Board's assessment was that the interest rate could gradually – in small, not too frequent steps – be brought back towards a more normal level.

At the monetary policy meeting on 30 June, the sight deposit rate was raised by 0.25 percentage point to 2%. The key rate was left unchanged at the monetary policy meetings on 11 August and 21 September. At the monetary policy meeting on 21 September, the Executive Board stated that one option had been to increase the interest rate at that meeting. Developments in output, demand and underlying inflation had been broadly in line with the overall picture in the June *Inflation Report*. Growth among trading partners seemed on the whole to be approximately as expected. High oil prices could result in somewhat higher inflation abroad than previously projected.

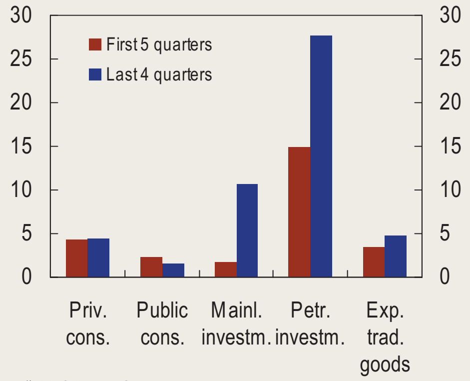
The June *Inflation Report* pointed to the risk that a low interest rate over a long period could gradually result in stronger pressures in the economy than indicated in the baseline scenario. The *Report* also pointed to the possibility that the price-curbing effects of intensified competition and increased imports from low-cost countries in Asia and Central and Eastern Europe could continue to restrain inflation. Since the June *Inflation Report*, imported price inflation has fluctuated somewhat, but neither these figures nor other information have provided grounds for changing the risk assessment.

Chart 1 Interval for the sight deposit rate at the end of each strategy period and actual developments. Daily figures. Per cent. 1 Jan 03 – 27 Oct 05



Source: Norges Bank

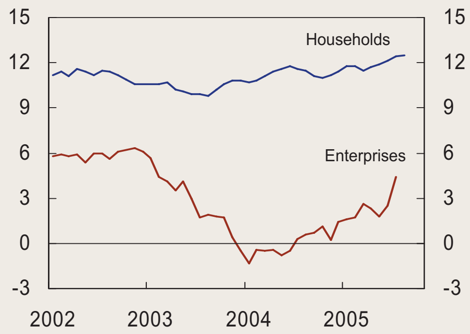
Chart 2.11 Demand. Average quarterly growth (annualised) in the upturn of the last 9 quarters[1]). Per cent



1) 03 Q2 – 05 Q2.

Sources: Statistics Norway and Norges Bank

Chart 2.12 Credit to households[1]) and enterprises[2]). 12-month change. Per cent. Jan 02 – Aug 05



1) From domestic sources (C2).
2) Total credit to mainland Norway (C3).

Source: Norges Bank

Chart 2.13 Turnover rate[1]) for new dwellings in Eastern Norway. Per cent. Feb 02 – Oct 05

1) Dwellings sold in last 2 months as a percentage of total number of new dwellings for sale in building projects.

Source: ECON

The Norwegian economy

Demand

Growth in the Norwegian economy has been strong since 2003 Q2. At the beginning of the recovery, private consumption was fuelled by falling interest rates and expectations of low real interest rates ahead. A weaker krone exchange rate and the international recovery stimulated traditional goods exports. Moreover, fixed investment in the petroleum sector has expanded sharply, which has led to rising demand for goods and services from mainland enterprises. Mainland fixed investment also picked up after a period. The upturn in the Norwegian economy is now broad based (see Chart 2.11).

Household real disposable income has shown a marked increase in recent years in spite of moderate nominal wage growth. Contributing factors have been low inflation, falling net interest expenditure and tax cuts. Since the recovery's inception in 2003 Q2, private consumption has shown an average annual increase of 3.7%. House prices have continued to climb and household debt is rising at a fast pace (see Chart 2.12). Housings starts are high, but now appear to be moderating. The turnover rate for new dwellings has declined through 2005 (see Chart 2.13). The turnover time for resale homes has remained low, however. TNS Gallup's confidence indicator for the third quarter shows that households view their financial position as strong. In the period to end-year, there are prospects of continued solid growth in household consumption, but growth in housing investment appears to be slackening.

Low interest rates, rising demand and moderate wage growth have strengthened corporate profitability. Norges Bank's regional network reports further improvements. Equity prices on the Oslo Stock Exchange, excluding the energy sector, have more than doubled since the beginning of the recovery. Credit demand in the enterprise sector in mainland Norway is still on the rise. In July, 12-month growth stood at 4.4%. At the same time, monetary growth is strong. The acceleration in money supply growth over the past year primarily reflects an increase in enterprises' liquidity holdings, which is an indication of high profitability and a relatively moderate investment level.

The investment intentions survey for the manufacturing sector indicates high growth in manufacturing investment this year. In the electricity sector, investment seems to be expanding at a moderate pace this year, but the survey points to strong growth in 2006 partly as a result of the development of a gas plant on Kårstø and the upgrading of the hydropower plant in Sauda. Furthermore, solid growth in new orders in the construction sector and for non-residential buildings points to further growth in corporate investment ahead. High profitability and large holdings of liquidity in the enterprise sector reinforce this picture.

Nominal growth in central government expenditure was higher than nominal mainland GDP growth between 2001 and 2004. During the same period, the structural, non-oil budget deficit increased. For 2005, the structural deficit is estimated to show only a small increase. Nominal growth in central government expenditure is expected to be somewhat lower than mainland GDP growth. After several years of fiscal stimulus, fiscal policy will have a more neutral impact on aggregate demand this year.

The volume of traditional goods exports, excluding refined petroleum products, edged down in the first six months after expanding sharply through 2004 (see Chart 2.14). Exports of engineering products exhibited buoyant growth. Monthly figures for the value of exports in the third quarter indicate that growth is moving up again.

Growth in imports has remained buoyant, owing both to higher fixed investment in the petroleum sector and growth in mainland demand. Low price increases, or falling prices, for some imported goods are underpinning robust demand growth. The import content in mainland demand appears to have increased in recent years.

On balance, demand is expected to continue to remain relatively high in the period ahead. Expectations of continued low interest rates and real income growth should support growth in household consumption and fixed investment ahead. Brisk investment growth in the petroleum industry, moderate wage growth and high profitability in many enterprises suggest further investment growth in the mainland enterprise sector.

Production and capacity utilisation

Since the recovery started, quarter-on-quarter mainland GDP growth has averaged 3½% annualised. Growth has been steady. Growth in domestic demand will hold up in the near term. Exports of traditional goods and services are projected to pick up somewhat. In the latter half of this year, mainland GDP is projected to grow at about the same rate as in the second quarter of this year (see Chart 2.15).

In manufacturing, the order backlog is at a record-high level, which implies continued production growth over the next quarters. Statistics Norway's business tendency survey for manufacturing points in the same direction. Activity has remained buoyant in the construction sector for a long period. New orders in this industry are rising, which points to a further increase in production. Growth in turnover in property management and commercial services has increased to a high level. Higher activity in goods-producing industries and the prospect of solid growth in household demand provide the basis for continued growth in service industries.

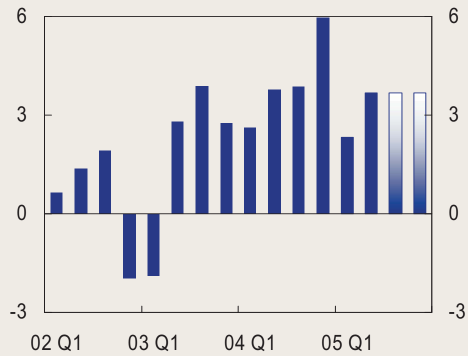
Employment growth has been relatively low throughout the cyclical upturn (see Chart 2.16). Employment has shown a

Chart 2.14 Imports (total) and exports of traditional goods and services[1]. Volume index, 02 Q1 = 100. Quarterly figures. 02 Q1 – 05 Q2

[1] Travel and other services.

Source: Statistics Norway

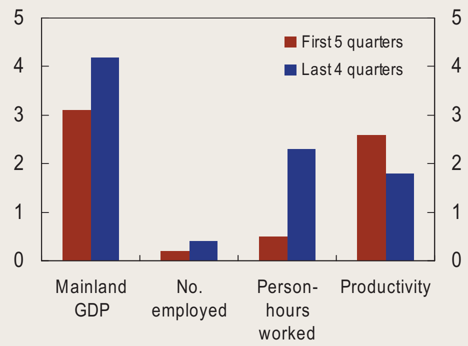
Chart 2.15 Mainland GDP. Seasonally adjusted, annualised quarterly growth. Per cent. 02 Q1 – 05 Q4[1]



[1] Projections for 05 Q3 and 05 Q4.

Sources: Statistics Norway and Norges Bank

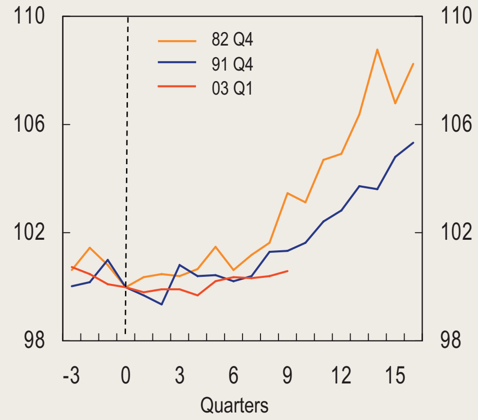
Chart 2.16 Mainland GDP, employment and productivity[1]. Average quarterly growth (annualised) in the upturn of the last 9 quarters[2]. Per cent



[1] Gross product per person-hour.
[2] 03 Q2 – 05 Q2.

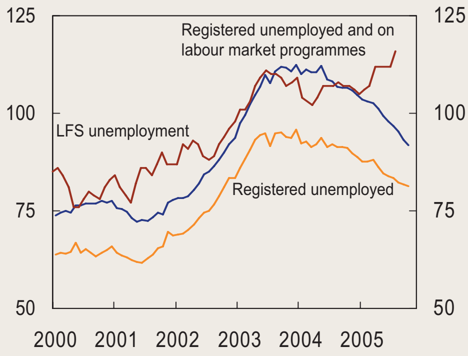
Sources: Statistics Norway and Norges Bank

Chart 2.17 Number employed. Developments after the start of a cyclical upturn. Index, quarter 0 = 100



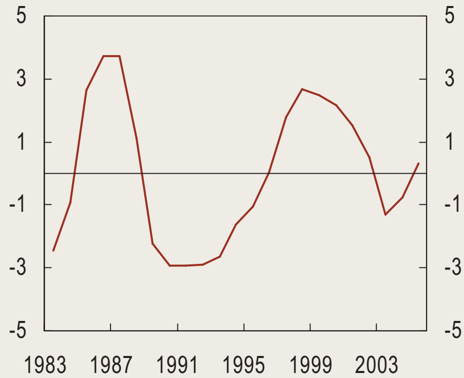
Sources: Statistics Norway and Norges Bank

Chart 2.18 Unemployed. LFS unemployment, registered unemployed and persons on ordinary labour market programmes. In thousands. Seasonally adjusted.
Monthly figures. Jan 00 – Oct 05



Sources: Statistics Norway and the Directorate of Labour

Chart 2.19 Estimates for the output gap. Per cent. Annual figures. 1983 – 2005



Source: Norges Bank

smaller rise than in previous cyclical upturns in the 1980s and 1990s (see Chart 2.17). In the first quarters of the current upturn productivity growth was high, measured as GDP per person-hour. The number of person-hours worked has also increased substantially after a period, particularly owing to the marked decline in sickness absence last year.[2] Productivity growth has gradually slowed.

Between 2004 Q2 and 2005 Q2, employment rose by 3 000 according to the Labour Force Survey (LFS). The labour force has increased by 9 000 persons in the same period. This is lower than implied by demographic developments and labour force participation has declined somewhat. Since the beginning of 2005, LFS unemployment has increased. In the same period, the number of unemployed registered with the Directorate of Labour has declined (see Chart 2.18). Statistics Norway and the Directorate of Labour have pointed to several factors that contribute to explaining the divergence. One reason is the substantial uncertainty inherent in sample surveys such as the LFS. Furthermore, the occupationally disabled are provided with more active follow-up by the Directorate of Labour than earlier and a larger share of occupationally disabled are now included as unemployed in the LFS. This may have contributed to pushing up LFS unemployment.

Both official statistics and our regional network indicate that many enterprises have been reluctant to recruit new employees. There are now some signs of a change in this attitude. Growth in LFS employment has picked up in recent months. A larger share of the contacts in our regional network is considering increasing their workforces and fewer are considering a reduction. A similar picture is provided by business leaders in TNS Gallup's business climate survey for the third quarter. There are also signs of an increase in advertised vacancies. This suggests rising demand for labour and may point to some labour market tightening in the period ahead.

The output gap in the *Inflation Report* expresses our assessment of total capacity utilisation in the economy (see Chart 2.19). The output gap is defined as the percentage difference between actual output and potential output. Potential output is an unobservable variable and indicates the level of output that is consistent with price and cost stability. Our assessment is that capacity utilisation has picked up over the past two years and is now slightly higher than normal.

In our estimation of the output gap, the result of technical calculations is compared with other sources of information about capacity utilisation in the economy.[3] The business

[2] In the latter half of 2004, the number of working days contributed to pushing up growth in person-hours worked compared with the same period one year earlier. Growth in person-hours remained high in the first half of 2005 when the number of working days was the same as in the first half of 2004.
[3] See box "Norges Bank's estimate of the output gap" in Inflation Report 2/04 for a further discussion of methods for estimating the output gap.

tendency survey provides an estimate of average capacity utilisation in manufacturing. The business tendency survey for the second quarter showed that capacity utilisation has increased markedly during this upturn (see Chart 2.20). Capacity utilisation was still considerably lower than in the mid-1990s.

Information from Norges Bank's regional network may indicate that overall mainland capacity utilisation is close to a normal level. However, there are signs of bottlenecks in production in some sectors of the economy. For example, capacity utilisation in the construction sector is very high, particularly in the southwest region of the country. There are signs of some skills shortages in the construction industry, in manufacturing and in some service industries.

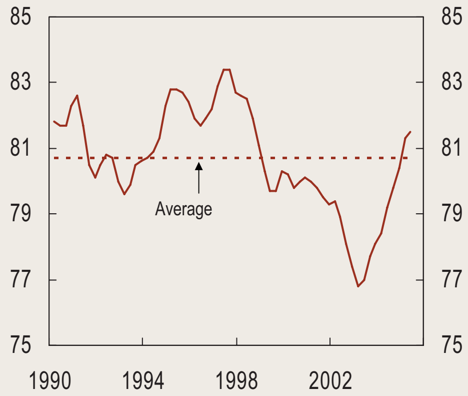
Developments in employment and unemployment suggest that the economy as a whole is not facing considerable labour shortages. Nor do wage developments point to any substantial pressures. So far, there are few signs of an acceleration in real wage growth. On the other hand, the use of the workforce in enterprises has increased during this cyclical upturn. The number of person-hours worked has increased sharply (see Chart 2.21), primarily reflecting the decline in sickness absence last year, which is probably due to structural conditions. Overtime work has also increased to a fairly high level. This may indicate that the use of resources is somewhat higher than implied in isolation by the level of employment and unemployment.

The prospect of continued high growth in the near term implies a further increase in the output gap. However, the output gap is estimated to be slightly lower at the end of 2005 than anticipated in the June *Inflation Report*. Labour market developments do not give the impression that substantial pressures have emerged. The fall in sickness absence last year may have provided enterprises with more resources than we previously expected. So far, there are few signs that wage growth is picking up in the economy as a whole or in the industries where capacity utilisation is high. However, in recent months there have been signs of a higher rise in prices for some services where wages are a dominant price factor.

Prices and wages

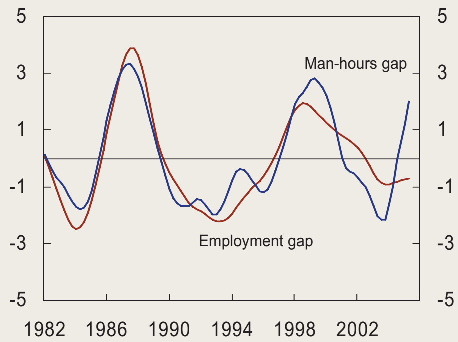
Inflation has edged up since the beginning of 2004. The fall in prices for imported consumer goods has decelerated, partly owing to the depreciation of the krone through 2003. The rise in prices for domestically produced goods and services has moved up. Some of the conditions that pushed down inflation in 2004 are unwinding or have been reversed. For example, airfares have shown a marked increase again. Strong price competition for some grocery products last year is no longer having an impact on the year-on-year rise in consumer prices. In September,

Chart 2.20 Capacity utilisation in manufacturing. Trend. Per cent. Quarterly figures. 90 Q1 – 05 Q2



Sources: Statistics Norway and Norges Bank

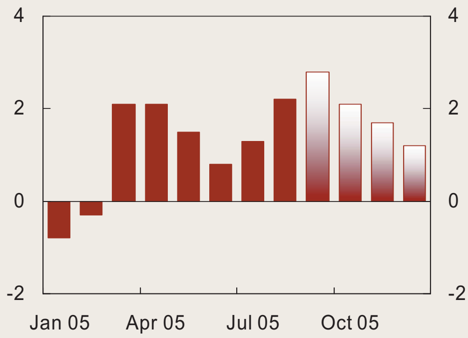
Chart 2.21 Employment and person-hours worked. Percentage deviation from trend[1]. Quarterly figures. 82 Q2 – 05 Q2



[1] Trend calculated using HP filter. See Staff Memo 2005/2 (www.norges-bank.no) for further information.

Sources: Statistics Norway and Norges Bank

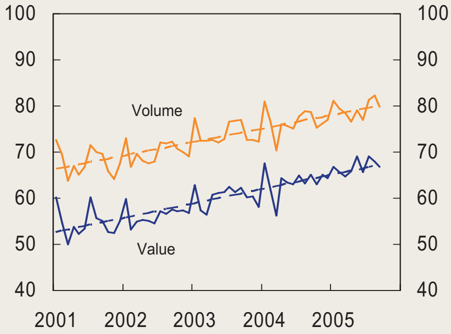
Chart 2.22 CPI-ATE[1]. Seasonally adjusted monthly change. 3-month moving average (centred), annualised. Jan 05 – Dec 05[2]



[1] CPI-ATE: CPI adjusted for tax changes and excluding energy products.
[2] Projections for Sep 05 – Dec 05.

Sources: Statistics Norway and Norges Bank

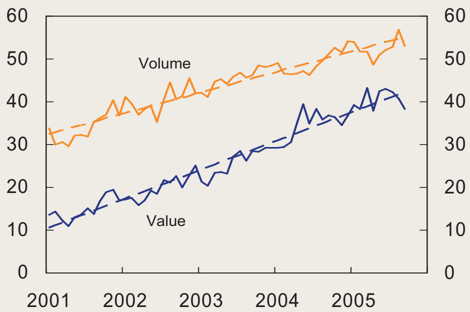
Chart 2.23 Share of imports of clothing and footwear from low-cost countries[1]. Per cent. Monthly figures. Jan 01 – Sep 05



[1] Estonia, Latvia, Lithuania, Moldova, Poland, Romania, Slovenia, Czech Republic, Turkey, Hungary, Bangladesh, Philippines, Hong Kong, India, Indonesia, Cambodia, China, Malaysia, Singapore, South Korea, Thailand, Taiwan and Vietnam.

Sources: Statistics Norway and Norges Bank

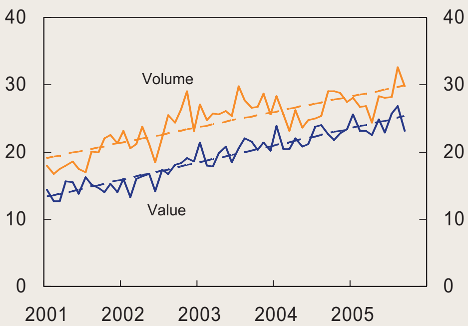
Chart 2.24 Share of imports of audiovisual equipment from low-cost countries[1]. Per cent. Monthly figures. Jan 01 – Sep 05



[1] Estonia, Latvia, Lithuania, Moldova, Poland, Romania, Slovenia, Czech Republic, Turkey, Hungary, Bangladesh, Philippines, Hong Kong, India, Indonesia, Cambodia, China, Malaysia, Singapore, South Korea, Thailand, Taiwan and Vietnam.

Sources: Statistics Norway and Norges Bank

Chart 2.25 Share of imports of furniture and white goods from low-cost countries[1]. Per cent. Monthly figures. Jan 01 – Sep 05



[1] Estonia, Latvia, Lithuania, Moldova, Poland, Romania, Slovenia, Czech Republic, Turkey, Hungary, Bangladesh, Philippines, Hong Kong, India, Indonesia, Cambodia, China, Malaysia, Singapore, South Korea, Thailand, Taiwan and Vietnam.

Sources: Statistics Norway and Norges Bank

the year-on-year rise in consumer prices adjusted for tax changes and excluding energy products (CPI-ATE) was 1.3%. Adjusted for the estimated direct effect of the interest rate fall on house rents, the rise in prices is estimated at 1.5% in September. Measured as a three-month moving average, annualised, inflation has varied around 1½% since March this year (see Chart 2.22).

The year-on-year rise in consumer prices (CPI) was 2.0% in September. Petrol prices moved up sharply this summer and in September prices were 17.5% higher than one year earlier.

Prices for imported consumer goods are still falling from the level prevailing one year earlier. Sharply rising production capacity in the world economy as a result of high investment levels in many low-cost countries has led to subdued price increases for many internationally traded goods. Moreover, the scaling back of trade barriers has boosted imports of consumer goods from low-cost countries, with a particularly sharp rise in clothing imports from these regions in recent years (see Chart 2.23). This has contributed to a significant fall in clothing prices. However, in August and September this year clothing prices rose more than normal. This may be a consequence of the EU's reintroduction of quotas on clothing imports from China this summer, causing uncertainty about clothing supplies from China in the short term. Norway's trade in clothing with China is not subject to quotas as in the EU. In the somewhat longer term, a further shift in clothing imports can be expected.

Clothing imports are not the only imports from low-cost countries that have exhibited strong growth. The share of our imports from these countries seems to be rising for other goods. For example, the import shares for audiovisual equipment, furniture and white goods are rising (see Charts 2.24 and 2.25). This is pushing down the rise in prices for imported consumer goods. The box on page 49 presents the new calculations of the indicator of external price impulses to consumer goods.

The year-on-year rise in prices for domestically produced goods and services was 2.0% in September. The rise in prices for domestically produced consumer goods exposed to international competition has been very low this year. In September, prices for these goods were 0.5% higher than one year earlier, which probably reflects the strong international competition facing Norwegian producers of consumer goods. At the same time, domestic demand is being stimulated by low interest rates, and in some industries capacity utilisation is rising. This provides room for higher prices and margins. Service prices, which only rose by 0.5% last year, are expected to rise by about 2½% this year.

Annual wage growth for 2005 was projected at 3½% in the June *Report*. So far, new information does not indicate any significant change in wage growth. Statistics Norway's wage statistics for the second quarter point to low wage growth for most groups. Historically, these figures show wide quarterly variations. On the whole, wage statistics are in line with the projection for wage growth in the June *Report*.

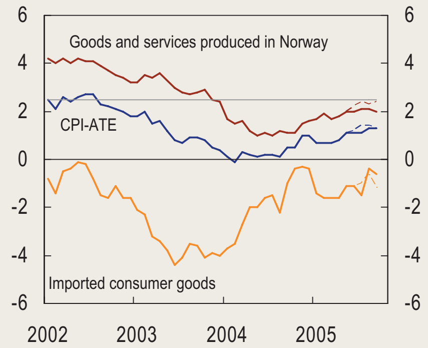
Overall, CPI-ATE inflation has moved in line with the projection in the June *Report* (see Chart 2.26). The fall in prices for imported consumer goods has decelerated somewhat more than projected, while prices for domestically produced goods and services have shown a somewhat smaller rise than expected. The projection for the year-on-year rise in the CPI-ATE at the end of the year is approximately the same as in the June *Report*.

If the increases in VAT rates proposed by the former government are approved by the Storting (Norwegian parliament), CPI inflation may be somewhat higher at the beginning of next year than projected in this *Report*. However, experience indicates that changes in VAT rates do not work through to consumer prices immediately, as assumed in the calculation of the CPI-ATE. If the VAT increases do not lead to a comparable increase in selling prices from January, CPI-ATE inflation may be somewhat lower than projected.

Chart 2.27 summarises our assessment of the situation in the Norwegian economy as expressed by the output gap and inflation as measured by the CPI-ATE. As estimated by Norges Bank, the output gap is positive. Inflation measured by the CPI-ATE has picked up, but is still lower than the inflation target. In the near term, it is likely that the output gap will increase further. CPI-ATE inflation is expected to show little change in the period to the end of the year. In the months ahead, CPI inflation is projected to rise at a faster pace than CPI-ATE inflation as a result of the rise in energy prices. Around the turn of the year, the year-on-year rise in the CPI may reach 3%. If oil prices do not increase further from today's level, CPI inflation may edge down through the first half of 2006. Figures from TNS Gallup for August 2005 indicate that high oil prices up to that point had not translated into higher inflation expectations.

The estimate of the output gap is uncertain, partly because the level of potential output in the economy is unobservable and must be estimated. As a result, historical developments in the output gap are also uncertain (see box on page 36 for further discussion). In addition to the CPI-ATE, there are a number of other indicators of underlying inflation. These indicators are discussed in a box on the next page.

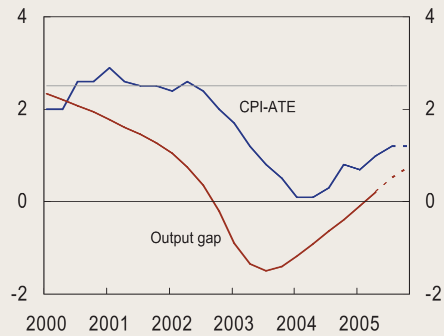
Chart 2.26 CPI-ATE[1]. Total and by supplier sector[2]. With projections from IR 2/05 (broken line). 12-month change. Per cent. Jan 02 – Sep 05



[1] CPI-ATE: CPI adjusted for tax changes and excluding energy products.
[2] Norges Bank's projections.

Sources: Statistics Norway and Norges Bank

Chart 2.27 CPI-ATE[1] and estimates for the output gap[2]. Quarterly figures. Per cent. 00 Q1 – 05 Q4[3]



[1] CPI-ATE: CPI adjusted for tax changes and excluding energy products.
[2] Quarterly figures for the output gap have been derived from the annual figures.
[3] CPI-ATE projection for 05 Q4.

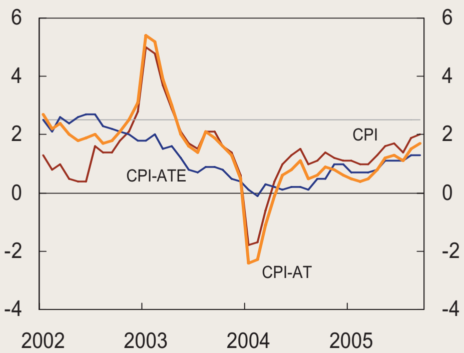
Sources: Statistics Norway and Norges Bank

Price developments

The operational objective of monetary policy is low and stable inflation, with annual consumer price inflation of approximately 2.5% over time. 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. The effects of changes in excise duties and energy prices are excluded from the CPI-ATE, which is thus an indicator of the underlying inflationary pressures in the economy. Other indicators and the rise in prices for goods and services from different sectors can also provide useful information about price developments.

The consumer price index (CPI) increased by 2% from September 2004 to September this year (see Chart 1). The year-on-year rise was thus 1 percentage point higher than at the beginning of the year. The rise in the CPI in the past few months has been higher than projected in *Inflation Report* 2/05, primarily reflecting a sharp rise in petrol prices this summer.

Chart 1 CPI, CPI-AT[1)] and CPI-ATE[2)]. 12-month change. Per cent. Jan 02 – Sep 05



[1)] CPI-AT: CPI adjusted for tax changes.
[2)] CPI-ATE: CPI adjusted for tax changes and excluding energy products.

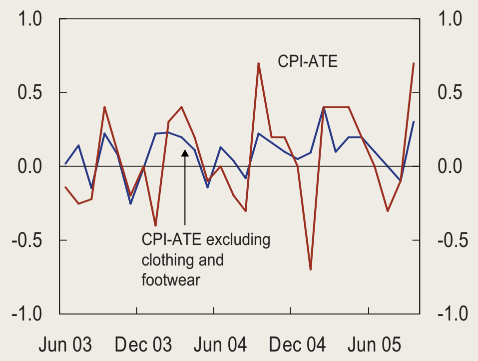
Source: Statistics Norway

Underlying inflation, measured as consumer price inflation adjusted for tax changes and excluding energy products (CPI-ATE), increased from 0.8% in April to 1.3% in September. This is in line with the projection in the June *Inflation Report*. The rise in price for domestically produced goods and services was down to 1.0% in summer 2004, but increased gradually in the period to spring 2005. Subsequently, the rise in prices for these goods and services has been around 2.0% compared with the same month the previous year. Inflation is being restrained by the low rise in prices for goods exposed to international competition. Prices for imported consumer goods have fallen on annual basis since the beginning of 2002. This is partly because prices for imported consumer goods have fallen, measured in foreign currency. As a result of the depreciation of the krone through 2003, the fall in prices for imported consumer goods decelerated markedly through autumn 2004, while the price fall accelerated again in January 2005. In recent months the fall in prices has slowed somewhat again as a result of a pronounced rise in clothing prices from July to September this year. In September, prices for imported consumer goods were 0.6% lower than in the same month one year earlier.

Wide fluctuations in the rise in prices for imported consumer goods

Prices for clothing and footwear vary widely from month to month, resulting in considerable variation in the CPI-ATE (see Chart 2). Although clothing prices fluctuate, there has been a definite trend towards lower prices. Since 1998, clothing prices have fallen by 30%. The year-on-year change has been negative since August 2001. In August and September this year, the price fall for clothing prices slowed. However, the fall in prices for audio-visual equipment has accelerated (see Chart 3). In September, these prices were 8.8% lower than in September the previous year. The annual rise in car prices has been more or less unchanged this year. In September, car prices were 1.5% higher than one

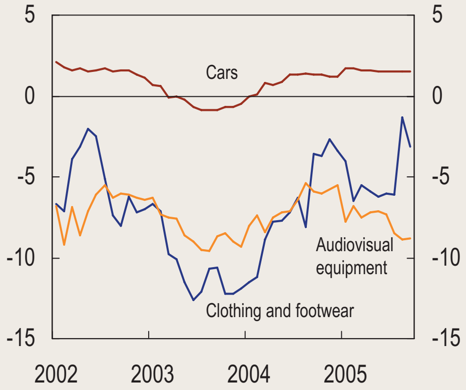
Chart 2 CPI-ATE[1)] incl. and excl. prices for clothing and footwear[2)]. Monthly change. Per cent. Jun 03 – Sep 05



[1)] CPI-ATE: CPI adjusted for tax changes and excluding energy products.
[2)] Norges Bank's calculations.

Sources: Statistics Norway and Norges Bank

Chart 3 Prices for some imported consumer goods. 12-month change. Per cent. Jan 02 – Sep 05



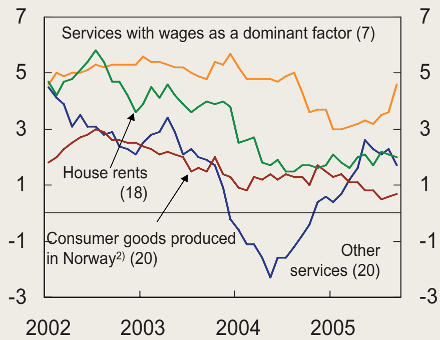
Source: Statistics Norway

year earlier. The rise in prices for white goods has accelerated in recent months.

Higher rise in prices for services

The rise in prices for services with wages as the dominant cost factor exhibited a falling trend through 2004 (see Chart 4). Despite low wage growth, the rise in prices for these services showed a fairly strong acceleration again this year. The annual rise was 4.6% in September. The rise in September can be largely attributed to higher prices for craftsman services and educational services. The rise in prices for services other than house rents and with dominant cost factors other than wages ("other services") moved up markedly up to the summer, but was somewhat more subdued in September. This primarily reflects developments in airfares, which have risen since summer 2004, but fell slightly again from August to September. The rise in house rents

Chart 4 Prices for goods and services produced in Norway[1]. 12-month change. Per cent. Jan 02 – Sep 05



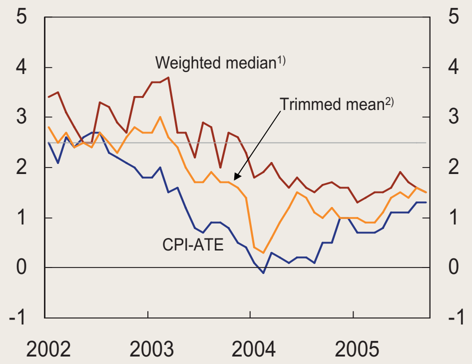
[1] Adjusted for tax changes and excluding energy products. Percentage share of CPI-ATE in brackets. Norges Bank's calculations up to December 2003.
[2] Excluding energy and agricultural and fish products.

Sources: Statistics Norway and Norges Bank

has been fairly stable this year. The year-on-year rise was 2.0% in September. The rise in prices for domestically produced consumer goods excluding agricultural products has slowed somewhat. This reflects a slow rise in prices for domestically produced goods exposed to international competition. In the year to September, prices for these products rose by 0.2%. Prices for goods that are sheltered from foreign competition also rose somewhat more slowly in September than earlier in the year. The 12-month rise in prices for these products was 1.6% in September.

The year-on-year rise in the producer price index for domestic consumer goods fell through 2004 and up to March this year. The rate of increase has moved up subsequently, and in September the price index was 1.8% higher than one year earlier. This reflects an increase in producer prices for consumer non-durables. Producer prices for consumer durables were somewhat lower in September than in the same month the previous year.

Chart 5 Three indicators of underlying inflation. 12-month change. Per cent. Jan 02 – Sep 05



[1] Estimated on the basis of 93 sub-groups of the CPI.
[2] Price changes accounting for 20 per cent of the weighting base are eliminated.

Source: Statistics Norway

Indicators of underlying inflation

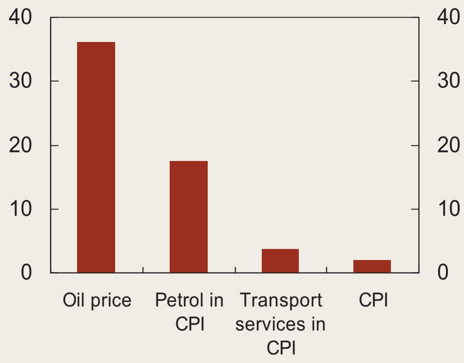
The CPI-ATE showed a year-on-year rise of 1.3 per cent in September. Adjusted for the effect of interest rate changes on house rents, inflation can be estimated at 1.5% in September. Other indicators also suggest that underlying inflation was close to 1.5% in September. The trimmed mean[1] and weighted median[2] are indicators that give less weight to the most extreme price fluctuations. Both showed a 12-month change of 1.5% in September (see Chart 5).

Higher energy prices in the CPI

Consumer price inflation including tax changes and energy products has increased in recent months. The year-on-year rise in the CPI moved up from 1.0% in March to 2.0% in September. In recent years, the CPI has varied more than the CPI-ATE (Chart 1). Substantial fluctuations in energy prices in particular have contributed to this difference. Electricity prices fell somewhat atypically through the autumn and winter last year. A normal seasonal rise in electricity prices in the next few months will contribute to pushing up consumer price inflation somewhat.

Petrol prices in the CPI were 17.5% higher in September than in the same month last year. The increase in petrol prices in recent months reflects higher oil prices, with a particularly sharp rise in prices for refined petroleum products in the wake of Hurricane Katrina and Rita. Petrol prices tend to show fairly wide variations. International petrol prices have dipped again recently, but the level is still high. Petrol prices will thus contribute to pushing up the year-on-year rise in consumer prices in the period ahead.

Chart 6 Oil price[1)] and components of the CPI that are particularly affected by the oil price. 12-month change. Per cent. Sep 05



1) Brent Blend spot.

Sources: Statistics Norway and Reuters

When calculating the CPI-ATE, the rise in prices for energy products consumed by households is excluded. After a period, higher energy prices may nevertheless feed through to other consumer prices via higher intermediate goods and transport prices and higher wages. Thus far, high oil prices have not translated into substantially higher prices for transport services (see Chart 6). Prices for air and sea travel have increased somewhat, while bus and taxi prices have only increased by 0.7% this past year.

[1] A trimmed mean for inflation is calculated by excluding the largest price movements when calculating inflation. The goods and services excluded vary from one month to the next.
[2] A weighted median is obtained by ranking changes in prices for some goods and services according to rising value. The median is the middle value obtained when the CPI weights are taken into account.

Output gap uncertainty

The output gap is a measure of the difference between actual output and the level of output that is consistent with stable inflation over time (potential output).

In the projections of future uncertainty in Section 1, the uncertainty surrounding the current output gap is not taken into account. There are two sources of uncertainty in this context:

- *Data uncertainty*. National accounts figures are revised, often extensively. This creates uncertainty as to the current level of GDP and, consequently, the output gap.

- *Potential output uncertainty.* Potential output is not directly observable and must therefore be estimated on an uncertain basis. Norges Bank makes an overall assessment of the level of potential output based on several methods and data sources.[1]

A measure of data uncertainty is the standard deviation in output gap estimates resulting from GDP revisions. Bernhardsen *et al.* (2004)[2] estimate this standard deviation at ½ – 1½ percentage points. The level of potential output uncertainty is estimated in the study mentioned to be greater than data uncertainty. Overall uncertainty is estimated at 1½-3½ percentage points (as measured by the standard deviation).

Norges Bank's output gap is estimated using several methods and data sources. This may reduce the uncertainty of the estimates.

Table 1 shows how Norges Bank's estimates of the output gap have changed over time as a result of revised GDP figures and reassessments of potential output. Over a two-year period, the estimates of the output gap in both 2002 and 2003 changed by one percentage point.

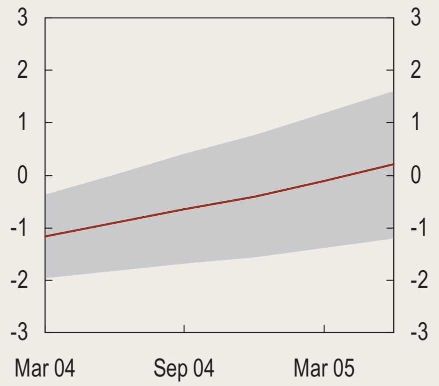
Table 1 Projections for the output gap at different moments.

	2002	2003	2004
IR 3/03	1½	-¼	
IR 3/04	1	-1	-¼
IR 3/05	½	-1¼	-¾

Source: Norges Bank

Chart 1 illustrates the uncertainty surrounding the historical output gap based on the estimations in Bernhardsen *et al.* and changes in Norges Bank's own estimates. We have assumed a standard deviation of 1 percentage point for the current output gap, resulting in a 90% probability interval, as shown by the grey area. It has become gradually clearer which developments in output were trenddevelopments and those that were cyclically related. Moreover, revised GDP figures are now available. This is illustrated by the increasingly narrow interval backwards in time.

Chart 1 Estimate and uncertainty for the output gap. Per cent. Quarterly figures. 04 Q1 – 05 Q2



Source: Norges Bank

[1] Described in "Norges Bank's estimate of the output gap" in Inflation Report 2/04.
[2] See Bernhardsen, Eitrheim, Jore and Røisland (2004). "Real time Data for Norway: Challenges for Monetary Policy". Discussion Paper No 26/2004, Deutsche Bundesbank.

3 | Developments ahead

Table 3.1 Projections for GDP growth in other countries. Change from previous year. Per cent

	2005	2006	2007	2008
US	3½	3	2¾	2¾
Japan	2¼	1½	1½	1¼
Germany	¾	1¼	1¼	1½
France	1¼	1½	2	2
UK	2	2	2¼	2¼
Sweden	2½	2¾	2½	2½
Trading partners[1)]	2¼	2½	2½	2½
Euro area[2)]	1¼	1½	2	2
China[3)]	9.2	8.1	8.3	9.1

1) Export weights
2) Weights from Eurostat
3) Projections from Consensus Forecasts

Sources: Consensus Forecasts and Norges Bank

Table 3.2 Projections for consumer prices in other countries. Change from previous year. Per cent

	2005	2006	2007	2008
US	3½	3¼	2½	2½
Japan	-¼	¼	½	¾
Germany[1)]	2	1¾	1½	1¾
France[1)]	2	1¾	2	2
UK[1)]	2	1¾	2	2
Sweden	½	1½	2	2
Trading partners[2)]	2	2	2	2¼
Euro area[3)]	2¼	2	2	2
China[4)]	2.2	2.5	4.0	3.9

1) HICP, Harmonized Indices of Consumer Prices
2) Import weights, Norway`s 25 most important trading partners
3) HICP. Weights from Eurostat (each country`s share of total euro area consumption)
4) Projections from Consensus Forecasts

Sources: Consensus Forecasts and Norges Bank

The global economy

The outlook for the global economy is considered to be favourable. Among many of our trading partners, economic policy is oriented towards stimulating activity, which is countering the effects of higher oil prices.

Domestic demand among main trading partners such as the euro area and Sweden is expected to edge up next year. In the euro area, demand growth will be driven by solid profitability in the business sector and increased consumer confidence as a result of labour market improvements. Demand in Sweden is expected to expand because both monetary and fiscal policy are oriented towards stimulating activity.

In the US, household demand growth is expected to decline somewhat, resulting in more subdued growth in the US economy. The hurricanes in the Gulf of Mexico this autumn may reduce GDP growth in the second half of 2005. Reconstruction will, however, make a positive contribution to GDP growth next year.

Growth is expected to remain strong in many Asian countries. In China, growth is expected to remain high. There are also prospects of robust growth in India. In Japan, strong growth in the wider region combined with continued improvement in domestic demand will contribute to relatively solid developments. Demographic developments in Japan indicate, however, that trend growth is fairly low.

For our trading partners as a whole, growth is expected to increase somewhat from 2005 to 2006. In the years ahead GDP for an average of our trading partners is expected to grow by around 2½% (see Table 3.1). Due to higher energy prices and high commodity prices, it appears that inflation will edge up in the near term. Idle capacity and low wage growth in many countries indicate, however, that inflation will be relatively low further out in the projection period (see Table 3.2).

Developments in the global economy may, however, be weaker than projected. There is a risk that the adverse effects of persistently high oil prices – lower growth and higher inflation – may be higher than assumed (see discussion in the box on page 51). The large imbalances in the global economy may also lead to sudden corrections that will reduce growth in the short and medium term. For example, households in the US may increase their saving so quickly that growth in the US is sharply reduced. On the other hand, solid business sector profitability among our trading partners may contribute to stronger investment growth than projected.

The projections for developments in the Norwegian economy are based on our assessment of the current economic situation which is described in Section 2, and interest rate and exchange rate developments in the baseline scenario, which are discussed in Section 1. The baseline scenario is based on interest rate developments which, in the Executive Board's assessment, appear to result in a reasonable balance between the objectives of monetary policy. In the baseline scenario, the interest rate increases gradually – in small, not too frequent steps – towards a more normal level. The projections are based on a krone exchange rate that remains approximately unchanged through the projection period. Table 3.3 shows the projections in the baseline scenario for developments until 2008.

Table 3.3 Projections for main macroeconomic aggregates. Change from previous year. Per cent

	2005	2006	2007	2008
Mainland demand	3¾	3¾	2½	2¼
Private consumption	3¾	3½	2¾	2
Public consumption	1¾	2	1¾	3
Mainland fixed investment	7¾	6	3¼	2½
Petroleum investment	20	2½	-2½	-5
Traditional exports	3½	3¼	3½	3¼
Imports	7¼	4¼	2¼	1¾
GDP, mainland Norway	3¾	3¼	2½	2¼
Output gap[1)], M-Norway	¼	1	1	¾
Employment	¾	1½	1	¾
LFS unemployment[2)]	4½	4	4	4
CPI-ATE[3)]	1	1¾	2	2½
Annual wage growth[4)]	3½	4¼	4½	4½

[1)] Deviation in per cent between actual and projected potential GDP.
[2)] Percent of labour force.
[3)] CPI-ATE: CPI adjusted for tax changes and excl. energy products.
[4)] Based on TBU definitions and calculations. Includes costs connected to the introducion of compulsory occupational pensions.

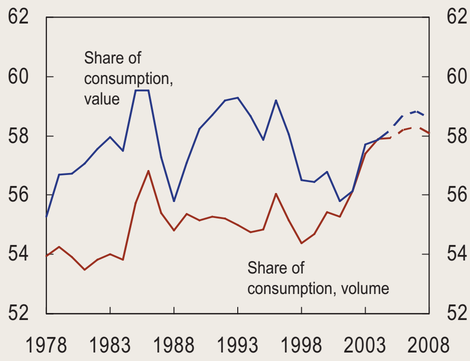
Source: Norges Bank

Demand

Households

A low rise in prices for consumer goods has resulted in solid real wage growth during the last few years, even though nominal wage growth has been moderate. Combined with low interest rates, this has contributed to high growth in household real disposable income. Consumption as a share of GDP has increased (see Chart 3.1).

Chart 3.1 Private consumption as a share of mainland GDP. Constant and current prices. Annual figures. Per cent. 1978 – 2008[1)]



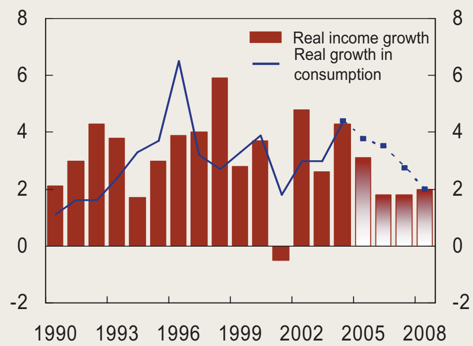
[1)] Projections for 2005 – 2008.

Sources: Statistics Norway and Norges Bank

Real income growth is expected to slow later in the projection period (see Chart 3.2). Debt as a share of disposable income is high. This implies higher interest expenses for households as the interest rate normalises. Even though wage growth is expected to edge up, a corresponding increase in prices will leave real wage growth virtually unchanged.

With lower income growth, growth in consumption will also slow through the projection period. Consumption growth is nonetheless expected to remain higher than growth in real disposable income until 2008. This levelling off of consumption over time will contribute to a slight fall in the saving ratio through the projection period in spite of increases in the interest rate (see Chart 3.3).

Chart 3.2 Real growth in household disposable income[1)] and consumption. Annual figures. Per cent. 1990 – 2008[2)]



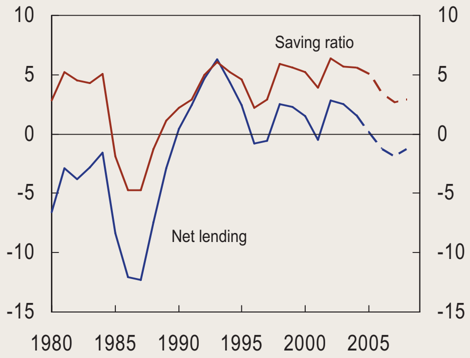
[1)] Adjusted for estimated reinvested share dividends since 2001.
[2)] Projections for 2005 – 2008.

Sources: Statistics Norway and Norges Bank

The household sector has built up its financial assets in tandem with strong household debt accumulation. Overall, household net assets as a share of disposable income are high. The favourable household asset position means that growth in household consumption can also be sustained in periods of weaker real income growth.

Housing investment has grown sharply since the beginning of 2004. Housing starts are currently at a high level. With a gradual increase in interest rates, a slower rise in prices for resale homes and a large number of new housing projects in the market, residential construction may be reduced somewhat during the projection period. In the next few years,

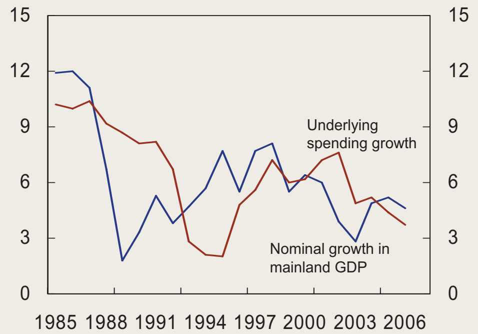
Chart 3.3 Household saving ratio and net lending as a share of disposable income.[1)] Annual figures. 1980 – 2008[2)]



[1)] Adjusted for estimated reinvested share dividends since 2001.
[2)] Projections for 2005 – 2008.

Sources: Statistics Norway and Norges Bank

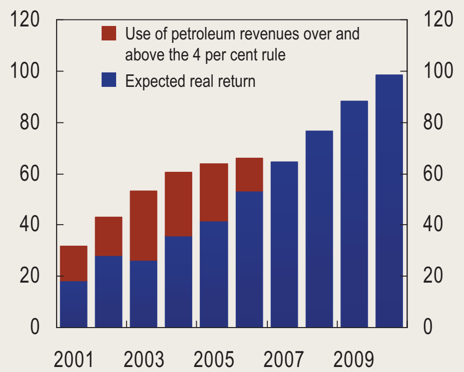
Chart 3.4 Underlying spending growth in the government budget and nominal growth in mainland GDP. Growth on previous year. Per cent. 1985 – 2006[1)]



[1)] Projections for 2005 and 2006 from the Ministry of Finance.

Sources: Ministry of Finance (National Budget 2006) and Statistics Norway

Chart 3.5 Structural non-oil deficit and expected real return on the Government Petroleum Fund. In billions of 2006-NOK. Annual figures. 2001 – 2010



Source: Ministry of Finance (National Budget 2006)

housing investment is expected to increase at a considerably slower pace and may subsequently fall somewhat. The level will nonetheless be high. Because housing investment is expected to be high at the same time as the overall saving ratio falls, household net lending is projected to fall.

Public sector

In the central government budget proposal for 2006, the former government indicated that fiscal policy would have a more or less neutral effect on the economy next year. The structural, non-oil budget deficit was estimated at 4.6% of trend mainland GDP, the same as in 2005. It is assumed that the budget presented by the new government will feature approximately the same deficit. The projections in this *Report* are based on a tax level that is somewhat higher and spending growth that is somewhat stronger than in the budget proposal of the former government.

Underlying growth in spending over the central government budget is estimated at 3.7% in 2006, which is somewhat lower than estimated nominal growth in mainland GDP (see Chart 3.4).

The projections are based on the assumption that the proposed tax cuts in the budget proposal of the former government will not be implemented. The new government's aim is to bring taxes back to the level prevailing in 2004. This implies a higher tax level in the years ahead. The projections are based on the assumption that the effect on total household income will be offset to some extent by an increase in transfers. Public consumption in 2006 is expected to rise at a somewhat faster pace than estimated in the National Budget for 2006. Growth in public consumption has also been revised upwards somewhat for the years ahead in relation to the last *Inflation Report*. This results in higher public sector employment.

For 2007, we assume that fiscal policy will be in line with the fiscal rule. This implies that the structural, non-oil deficit is approximately unchanged also in 2007 (see Chart 3.5). Given the projections for developments in the Petroleum Fund in the National Budget for 2006, a mechanical application of the fiscal rule implies that the structural, non-oil deficit may increase by a little less than NOK 11bn (2006 prices) from 2007 to 2008. Our projections are based on the assumption that fiscal policy will provide some stimulus to aggregate demand and output in 2008, but somewhat less than a mechanical application of the fiscal rule would imply.

Investment in the petroleum industry

Projected developments in petroleum investment in the period ahead are based on expectations of persistently high oil prices. The expectations of persistently high oil prices are partly related to limited scope for increasing production in non-OPEC countries and to prospects of considerable growth in demand from the transport sector in emerging economies. Projections for the years ahead are based on the assumption that oil prices will move in line with oil futures, as observed on 27 October. This involves an assumption that the price of oil will remain close to USD 60 per barrel through the projection period (see Chart 3.6).

Historically, it is difficult to find any clear relationship between oil prices and investment on the Norwegian continental shelf. However, many of the oil companies have increased their oil prices estimates for the period ahead. This may mean that fields that were previously unprofitable to develop are now being assessed as profitable. This may contribute to increasing petroleum investment, although access to fields and new discoveries will still be decisive for investment activity in the years ahead.

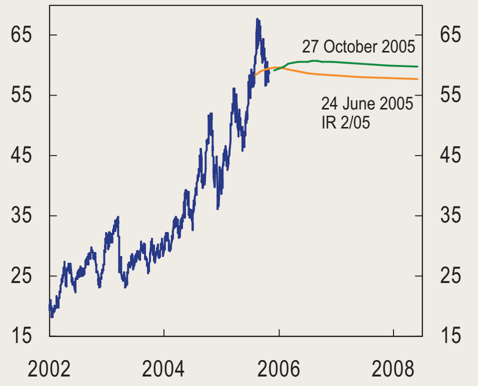
The investment intentions survey for petroleum activities for the third quarter indicates that investment growth in 2005 will be slightly lower than previously estimated (see Chart 3.7). The downward revision for 2005 is primarily due to lower investment estimates for fields in operation. Nonetheless, growth will be very high this year, and total petroleum investment is projected to increase by 20% compared with 2004. The high level of petroleum investment this year is related to major field developments like Kristin, Ormen Lange and Snøhvit. Partly due to the new, revised cost profile for the Snøhvit development project, we are now projecting some growth in petroleum investment again next year.

Investment in exploration appears to be relatively low this year, which may be due in part to a lack of idle capacity in the rig market. The number of exploration wells is historically low. Figures from ECON show that around 20 exploration wells are likely to be drilled this year. This is far less than earlier projections from the Norwegian Petroleum Directorate which indicated 30-40 wells. The low level of exploration activity may contribute to reducing the number of new discoveries and to a more rapid fall in petroleum investment as the large, ongoing development projects are completed. On the other hand, high oil prices may encourage continued exploration in the vicinity of existing infrastructure, which may increase investment in fields in operation. On the whole, it is assumed that the investment level will remain high through the projection period, but slow somewhat in 2007 and 2008 (see Chart 3.8).

Mainland business investment

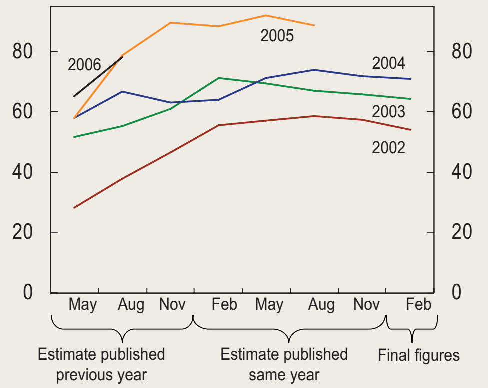
Capacity utilisation in mainland business has increased during the last two years. Sustained economic growth creates a need for increased investment. In manufacturing, the

Chart 3.6 Oil price (Brent Blend) in USD per barrel. Futures prices from 24 Jun 05 and 27 Oct 05. Daily figures. 2 Jan 02 – 27 Oct 08



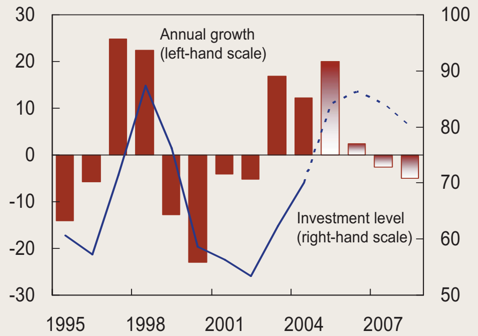
Source: Reuters

Chart 3.7 Investment intentions survey for oil and gas activities incl. pipeline transport. Estimated and actual investment. In billions of NOK



Source: Statistics Norway

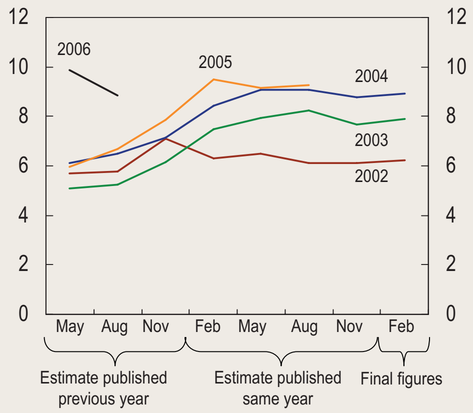
Chart 3.8 Investment in oil and gas recovery incl. pipeline transport. Investment level in billions of NOK (constant 2002-prices) and annual growth in per cent. 1995 – 2008[1)]



[1)] Projections for 2005 – 2008.

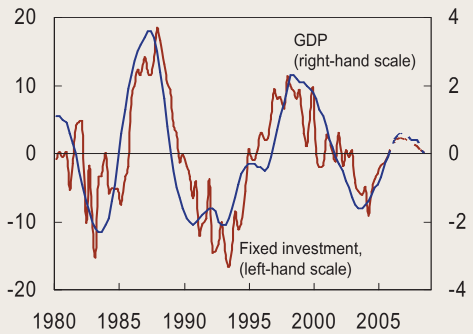
Sources: Statistics Norway and Norges Bank

Chart 3.9 Investment intentions survey for power supply sector. Estimated and actual investment. In billions of NOK



Source: Statistics Norway

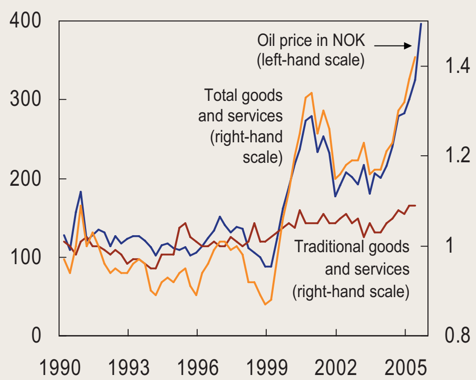
Chart 3.10 GDP and fixed investment. Mainland Norway. Percentage deviation from trend[1]. Quarterly figures. Per cent. 80 Q1 – 08 Q2[2]



[1] Trend calculated using HP filter. See Staff Memo 2005/2 (www.norges-bank.no) for further details.
[2] Based on annual projections for 2005 – 2008.

Sources: Statistics Norway and Norges Bank

Chart 3.11 Oil price in NOK and terms of trade. Export price index relative to import price index, 1990 = 1. Quarterly figures. 90 Q1 – 05 Q2



Sources: EcoWin and Statistics Norway

market outlook is favourable, especially in the domestic market. The investment intentions survey indicates continued strong growth in investment. Later in the projection period, growth in manufacturing investment is expected to slow, in pace with some decline in capacity utilisation.

In the electricity sector, investment is likely to increase sharply in the period ahead, in spite of the downward revision of the investment projection in the most recent investment intentions survey (see Chart 3.9). The upgrading that has started with regard to the hydroelectric plant in Sauda will continue until 2008. The gas plant at Kårstø is under construction and the bulk of the investments in this project will be made in 2006 and 2007. In addition, a number of project licences have been granted and these projects are in the planning phase. This may contribute to higher investment in the electricity sector through the projection period. One element of uncertainty is that the price of gas deliveries is high, and this means lower profitability for the gas plants.

Service industries' earnings and profitability are solid. Norges Bank's regional network reports increased optimism, and employment plans in retail trade have been revised upwards since the last *Inflation Report*. In some service industries, increased employment is resulting in an increased need for office premises. The office vacancy rate is still high, which is limiting the need for building starts in the near term. The office vacancy rate is falling, however, and investment in the form of rehabilitation of the existing building stock is expected to increase later in the projection period. Gradually, higher investment for the construction of new commercial buildings is expected. Higher real interest rates and lower growth in output and employment are expected to curb investment growth towards the end of the period.

Overall, mainland fixed investment is expected to grow more than mainland GDP (see Chart 3.10). This is in line with experience from previous periods of expansion.

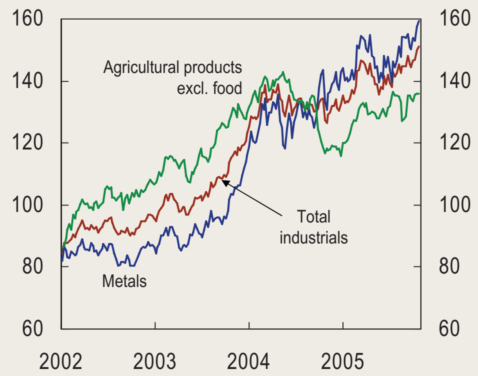
Foreign trade

The Norwegian economy is marked by substantial changes in its terms of trade. Not only high oil prices but also high prices for a number of traditional export goods have contributed to a sharp rise in export prices in recent years (see Chart 3.11). At the same time, structural changes in global trade have resulted in lower prices for many of the goods we import.

Exports of goods and services will be influenced by strong global growth again next year. High prices in the global market for important export goods other than oil are making a positive contribution. Prices for aluminium have fallen somewhat recently as a result of increased production in China. On the whole, commodity prices, excluding oil, have continued to rise (see Chart 3.12). For a number of export companies, this is contributing to sustaining profitability even though the krone has appreciated. Later in the projection period, however, a continued loss of market shares as a result of high cost levels is expected to dampen export growth.

High growth in domestic demand, a moderate rise in prices for imported goods as a result of the appreciation of the krone and strong international competition will continue to result in high import growth next year. Further ahead, somewhat slower growth in petroleum investment will contribute to reducing projected growth in imports. Lower growth in mainland demand towards the end of the period has the same effect. Our projections for imports are based on the assumption that the share of demand covered by imports does not change substantially in the years ahead.

Chart 3.12 International prices for industrial commodities in USD. Indices, 2000 = 100. Weekly figures. Week 1 2002 – Week 42 2005



Source: EcoWin

Output

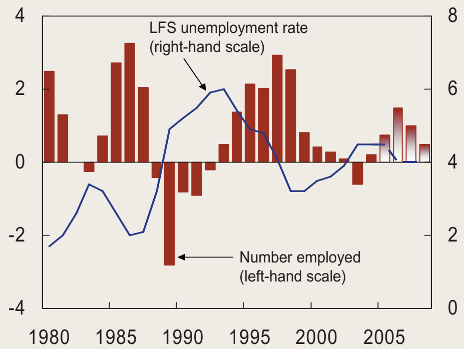
Since the upturn began more than two years ago, economic growth has been strong. Capacity utilisation in the economy has picked up and is now probably higer than its normal level.

Due in part to continued low interest rates, mainland output will also be higher than trend growth in 2006. High export prices are amplifying the upturn, even though the krone has appreciated over the past year. In addition, it appears that positive impulses from petroleum investment are persisting somewhat longer than previously projected. With strong household and business confidence in the Norwegian economy, the growth outlook for the coming year is favourable.

Growth is expected to slow in 2007 and 2008. A gradual increase in interest rates will make a contribution. In addition, petroleum investment is likely to fall somewhat towards the end of the projection period. The assumption of some fiscal stimulus in 2008 will have the opposite effect. In 2008, mainland GDP is projected to expand at a somewhat slower rate than potential output, which is estimated at around 2½%.

The output gap is estimated to be positive this year and to increase to about 1% in 2006. At the end of the projection period, our estimations imply an output gap of about ¾%.

Chart 3.13 Change in employment on previous year. Per cent. Unemployment[1)] as a percentage of labour force. Annual figures. 1980 – 2008[2)]



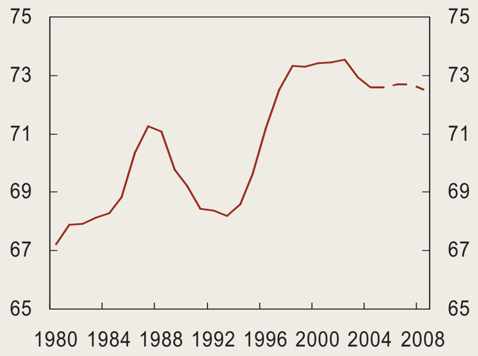
[1)] LFS unemployment.
[2)] Projections for 2005 – 2008.

Sources: Statistics Norway and Norges Bank

Labour market

Employment growth has been relatively weak so far in the upturn. The number of employees in the public sec-

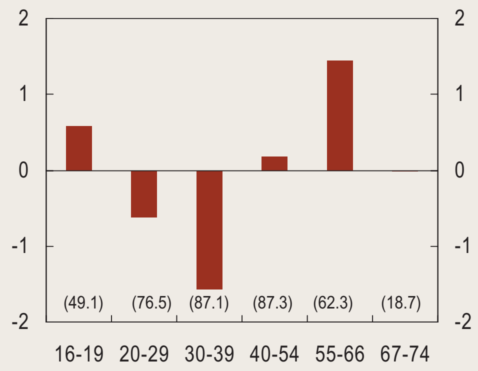
Chart 3.14 Labour force as a percentage of population aged 16 – 74 (labour force participation rate). Per cent. Annual figures. 1980 – 2008[1)]



1) Projections for 2005 – 2008.

Sources: Statistics Norway and Norges Bank

Chart 3.15 Composition of the population. Change for various age groups from 2004 to 2008. Percentage points. Labour force participation rates for 2004 in brackets



Sources: Statistics Norway and Norges Bank

Chart 3.16 Annual wage growth[1)] and LFS unemployment. Per cent. Annual figures. 1993 – 2008[2)]

1) Average for all groups. Including estimated costs of increase in number of vacation days and introduction of compulsory occupational pension.
2) Projections for 2005 – 2008.

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

tor has risen somewhat less than previously. At the same time, the decrease in sickness absence last year has probably delayed employment growth compared with previous upturns. On the other hand, the number of person-hours worked has increased markedly. The decline in sickness absence now appears to have come to a halt, and there are signs that demand for labour is increasing. These developments are expected to continue in the period ahead. In the public sector, there may be prospects of somewhat stronger employment growth in the period ahead. With continued high growth in mainland GDP next year, total employment growth is expected to edge up to 1½% in 2006, slowing somewhat thereafter (see Chart 3.13).

Normally, stronger demand for labour also leads to stronger labour force growth. Labour force growth is expected to be 1% next year. This is not substantially higher than population growth for the age group 16-74 years. Labour force participation therefore remains fairly stable from 2005 to 2006 (see Chart 3.14). Our projections imply that the labour force participation rate will edge down somewhat from 2007 to 2008.

Changes in the labour force participation rate must be seen in the context of factors such as structural changes in the population in the years ahead. An increasing share of the population will fall into the upper age groups, with somewhat lower labour participation rates (see Chart 3.15). The effects will gradually emerge over the next few years, becoming most pronounced at the end of the projection period. From 2007 to 2008, changes in age composition will in isolation contribute to a fall in the labour force by a little less than 0.2 percentage point.

The number of disability pensioners has increased sharply since the second half of the 1990s. We have assumed that the number will continue to increase somewhat, albeit at a slower pace. This will also result in somewhat slower growth in the labour force.

Given the growth projections in employment and the labour force, unemployment will fall by ½ percentage point from 2005 to 2006, to 4%, as measured by the Labour Force Survey (LFS) (see Chart 3.16). Unemployment is expected to remain at this level until the end of the projection period.

Wage growth

Annual wage growth in 2005 appears to be about 3½%. This is somewhat lower than the average for the past ten years. The relatively low level of inflation implies, however, that real wage growth is in line with the average for the past ten years. Next year, wage growth is projected to edge up somewhat both as a result of a tighter labour market and a rise in inflation.

Our projections for wage growth include costs in connection with the introduction of minimum standards for occupational pensions. Costs related to an early retirement scheme for all employees, based on the current contractual early retirement scheme, may result in higher costs for enterprises ahead. Our projections are based on the assumption that higher costs in connection with occupational pensions and the contractual early retirement scheme will to some extent be offset by lower pay increases. If this is not the case, labour costs may increase more than projected.

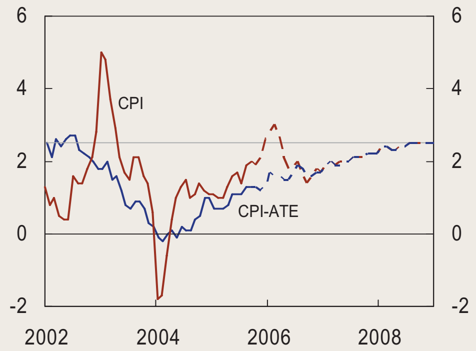
We have assumed that increased cross-border mobility of labour and capital will not result in substantial changes in wage formation in Norway. The use of foreign labour in Norway increased markedly after the enlargement of the EU and the EEA on 1 May last year. Figures from the Central Office – Foreign Tax Affairs show that more than 1600 persons from the new EU member states were working on a temporary basis in Norway the year before EU enlargement. This number had increased to 6000 in the first year following enlargement. The assignments primarily involve building and installation. Although the scale is still relatively moderate, this has reduced bottleneck tendencies in the construction sector, where activity has been very high. This may also have contributed to curbing wage growth. Inward labour migration to Norway has been far higher than to the other Nordic countries. Norway received approximately 50% of registered labour migrants in the Nordic countries the first year after the enlargement.[1]

Many foreign workers take short assignments in Norway without being employed in a Norwegian enterprise. Examples are foreign contractors and self-employed in the construction industry who work on various building projects in Norway. An increase in these short-term assignments will be registered as an increase in service imports to Norway. Greater mobility of services has probably contributed to curbing cost inflation even though demand growth has been strong.

Increased use of labour from the new EU member states appears to be easing the pressure on economic resources in Norway this year. However, as a result of the general application since this summer of wage agreements to building and electrical workers in the counties around the Oslo Fjord, foreign suppliers of services are losing much of their competitive edge over Norwegian enterprises. Wage agreements had already been made generally applicable at some mainland petroleum facilities.

[1] Source: *"Arbeids- og tjenestemobilitet etter EU-utvidelsen. Nordiske forskjeller og fellestrekk.*" (Mobility of labour and services after EU enlargement. Nordic differences and similarities"). In Norwegian only. Final report of a working group under the Nordic Council of Ministers. The report is prepared by Jon Erik Dølvik and Line Eldring.

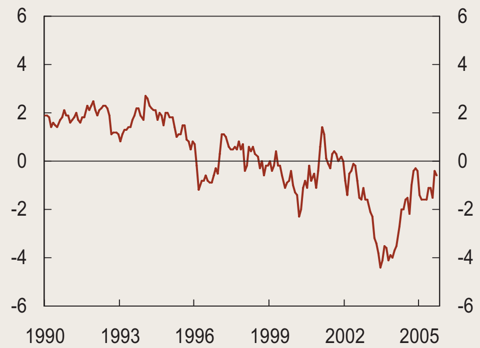
Chart 3.17 CPI and CPI-ATE[1]).
12-month change. Per cent. Jan 02 – Dec 08[2])



[1]) CPI-ATE: CPI adjusted for tax changes and excluding energy products.
[2]) Projections for Oct 05 – Dec 08.

Sources: Statistics Norway and Norges Bank

Chart 3.18 Consumer prices adjusted for tax changes[1]). Imported consumer goods. 12-month change. Per cent. Jan 90 – Sep 05



[1]) Norges Bank's calculations up to December 2003.

Sources: Statistics Norway and Norges Bank

In February 2005, the former government proposed new working environment legislation regulating working hours and job protection (the Working Environment Act). The new Working Environment Act was adopted by the Storting on 16 June. It was decided that it would enter into force on 1 January 2006. It appears likely that the new government will amend the new Working Environment Act, and that the entry into force will be postponed. Among other things, the new government will re-introduce the overtime rules that applied before 2003, and reverse the decision allowing greater scope for temporary appointments. This may place some constraints on the supply labour resources.

Consumer price inflation

Consumer price inflation as measured by the CPI has risen. The year-on-year rise in prices climbed from 1% in March 2005 to 2% in September, reflecting a marked increase in petrol prices and an increase in underlying inflation as measured by the CPI-ATE (see Chart 3.17). Higher oil prices have led to higher petrol prices. Oil futures prices indicate that petrol prices will remain high in the period ahead and contribute to rising CPI inflation until summer 2006.

The rise in prices for goods and services produced in Norway is expected to edge up. A tighter labour market implies that somewhat higher wage growth can be expected. At the same time, we assume that productivity in the business sector will increase in line with the historical average. Higher wage growth thus implies higher business costs. The rise in oil prices also implies higher input costs for Norwegian manufacturers, which we assume will also lead to higher selling prices. At the same time, profit margins are expected to increase in pace with rising capacity utilisation. These factors will contribute to a higher rise in prices for goods and services produced in Norway in the years ahead.

Compared with the same month in the previous year, prices for imported consumer goods have been virtually unchanged or falling since the mid-1990s (see Chart 3.18). They have fallen continuously since the beginning of 2002. Following a particularly sharp fall in prices in 2003, the weakening of the krone exchange rate through 2003 contributed to pushing up prices. However, viewed in isolation, the strengthening of the krone since spring 2004 will curb the rise in prices for imported consumer goods in the next few years.

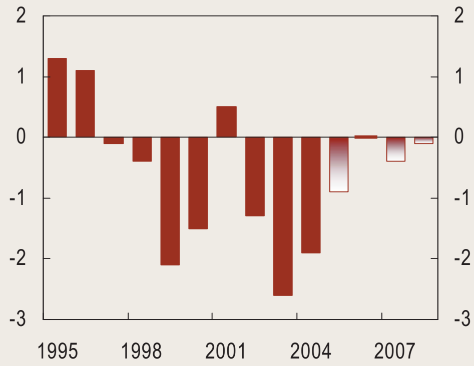
The projections are based on a continued shift in imports towards low-cost countries, with an attendant dampening effect on inflation. This effect will be countered by the increase in prices for oil and other commodities, which is expected to result in a somewhat higher rise in producer and export prices among our trading partners. On balance, external price impulses to consumer goods are expected to remain broadly unchanged during the projection period (see Chart 3.19).

Prices for imported consumer goods are also influenced by developments in distribution and selling costs in Norway. In recent years, relatively high productivity growth in retail trade has probably contributed to low cost inflation. We expect that somewhat higher wage growth and somewhat lower productivity growth in these industries will result in a gradual rise in domestic costs, and contribute to pushing up the rise in prices for imported consumer goods through the projection period. On balance, we estimate that prices for imported consumer goods will fall less in 2006 and 2007 than this year. In 2008, we assume that prices for imported consumer goods will rise.

In isolation, the rise in oil prices is expected to contribute to a sharper rise in the CPI-ATE in the period ahead. This is partly reflected in upwardly revised projections for the rise in producer and export prices among our trading partners. In our wage growth projections we have taken account of a higher rise in the CPI in 2006 than previously assumed. In addition we have assumed that higher oil prices will result in increased costs for Norwegian producers of consumer goods and services, and that these will gradually be passed on to prices. We have projected on an uncertain basis that this may contribute to a rise in CPI-ATE inflation of around ¼ percentage point this year and in 2006.

CPI-ATE inflation is projected to rise gradually from 1.3% today to 2% in early 2007. Given these underlying assumptions, there are prospects that inflation will be close to 2½% three years ahead (see Chart 3.20).

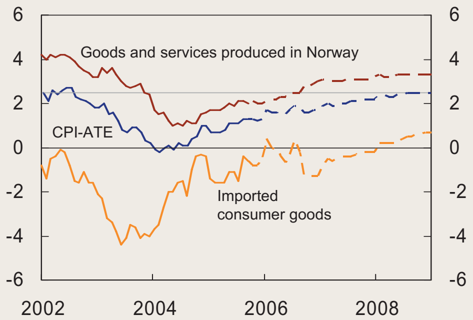
Chart 3.19 Indicator of external price impulses to imported consumer goods measured in foreign currency. Annual figures. Per cent. 1995 – 2008[1)]



[1)] Projections for 2005 – 2008.

Source: Norges Bank

Chart 3.20 CPI-ATE[1)]. Total and by supplier sector[2)]. 12-month change. Per cent. Jan 02 – Dec 08[3)]



[1)] CPI-ATE: CPI adjusted for tax changes and excluding energy products.
[2)] Norges Bank's calculations.
[3)] Projections for Oct 05 – Dec 08.

Sources: Statistics Norway and Norges Bank

Boxes

Increased imports from low-cost countries
Effects of high oil prices on the world economy
The projections in *Inflation Report* 2/05 and 3/05

Increased imports from low-cost countries

Prices for imported goods in the consumer price index are largely determined by the exchange rate and foreign prices for these goods. They are also influenced by domestic factors such as costs and sales margins, developments in trading patterns and changes in tariff rates. *Inflation Report* 1/04 presented an indicator of external price impulses to imported consumer goods.[1] Improved statistics in many emerging economies have now made it possible to improve the calculation of the indicator.

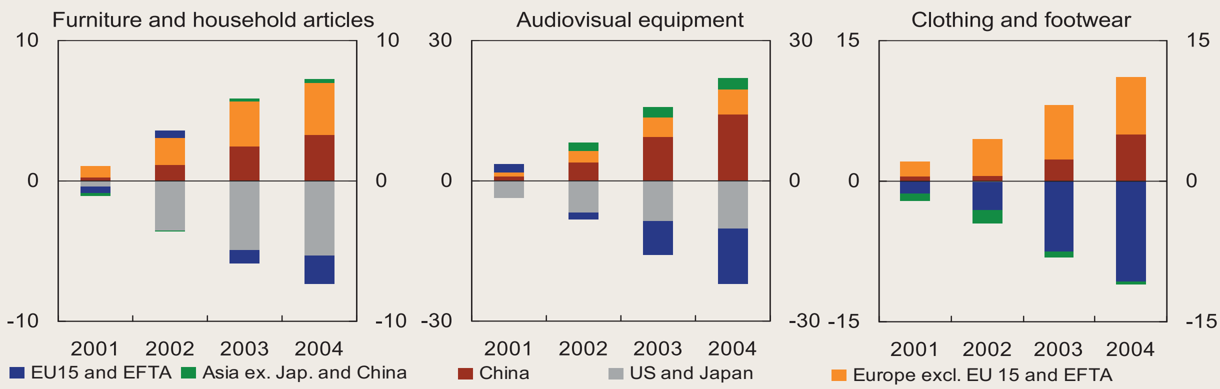
The indicator of external price impulses to imported consumer goods (IPC) has been calculated as a weighted average of price indices for clothing and footwear, cars, audiovisual equipment, furniture and white goods, food and other goods. All six indices are now based on data for producer prices or export prices among our trading partners. Due to a lack of statistics, it was previously necessary to use consumer prices as an approximation of producer prices for audiovisual equipment, clothing and footwear, and furniture and white goods. There are a number of advantages to using producer prices and export prices instead of consumer prices:

- Consumer prices include a mark-up for domestic distribution costs. Over time, these costs will normally rise at a faster pace than purchase prices for the goods traded.
- Producer prices and export prices will capture changes in external price impulses earlier than consumer prices.

Price levels vary considerably in the countries from which we import goods. When imports shift from high-cost to low-cost countries, the difference in price levels will in isolation exert downward pressure on inflation. So far, such price level effects have only been taken into account in calculating the sub-index for clothing and footwear. In recent years, however, there has been a considerable shift in imports towards low-cost countries for several groups of goods partly as a result of China's membership of the WTO in 2001. In addition to clothing and footwear, the shift has been strong for audiovisual equipment and furniture and household articles (see Chart 1). The effects of shifts in imports towards low-cost countries on consumer prices among trading partners have been captured to some degree in earlier calculations. In the new calculations, however, the effects of the shifts are estimated more explicitly on the basis of our trading patterns, also for audiovisual equipment, furniture and household articles.

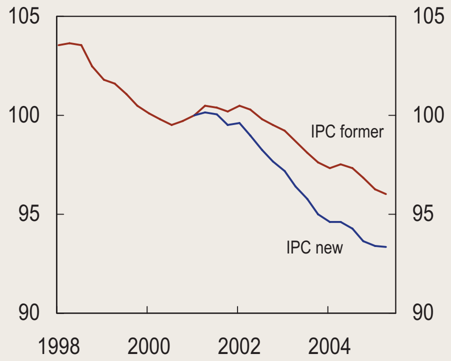
Both the new and the previous indicator show a fall in external price impulses to imported consumer goods since 2001 (see Chart 2).[2] The fall in external prices impulses reflects the shift in trading patterns towards low-cost countries and strong productivity growth in the production of some goods. In

Chart 1 Cumulative change in share of imports from various segments since 2000. Percentage points



Sources: Statistics Norway and Norges Bank

Chart 2 Former and new indicators of external price impulses. Index, 01 Q1 = 100. Quarterly figures. 98 Q1 – 05 Q2



Source: Norges Bank

addition, the global downturn after the turn of the millennium led to a fall in external prices. The fall in external price impulses has, however, been dampened recently, reflecting the increase in prices for oil and other important commodities.

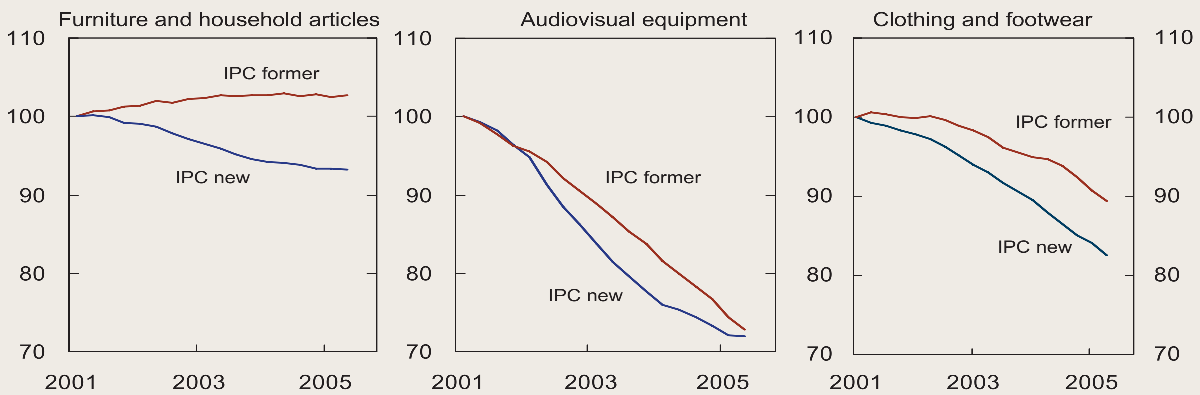
The new indicator shows a price fall of 5.7% since 2001, which is 2.7 percentage points more than calculated earlier. Furniture and household articles have contributed most to the difference (see Chart 3). The shift in imports towards low-cost countries is estimated to have pushed down the rise in prices for imported goods in this product group by approximately 2½ percentage points a year since 2001. In addition, the rise in prices in the former calculations may have been overestimated by close to 1 percentage point a year as a result of using consumer prices as an approximation of producer prices.

For the two other product groups, external price impulses have been overestimated earlier. Prices for clothing and footwear fell 4.1% per year in the former calculations in the period 2002 to 2004. The new calculations indicate that prices fell by 7.7% per year in the same period. The price fall for audiovisual equipment is now estimated at approximately 9% per year, which is 1 percentage point more than earlier estimates.

There is still considerable uncertainty associated with the indicator of external price impulses to imported consumer goods. It is particularly difficult to estimate the effect on prices of a shift in imports towards low-cost countries. Norges Bank is working on improving the statistical basis for the indicator. The quality of the price statistics for emerging economies will improve further over time. The indicator will also be revised gradually to include future trading partners.

[1] The indicator is described in more detail in *Economic Bulletin* 3/04.
[2] Due to data shortcomings, it is only possible to calculate the new indicator of external price impulses back to 2001.

Chart 3 Former and new indicators of external price impulses to some product groups. Index, 01 Q1 = 100. Quarterly figures. 01 Q1 – 05 Q2



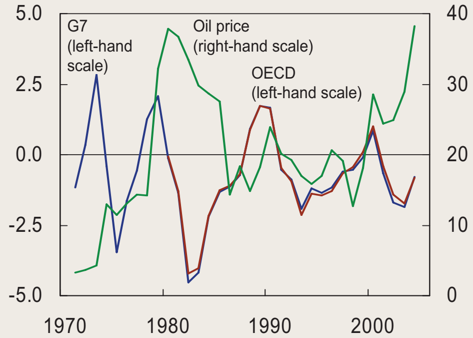
Source: Norges Bank

Effects of high oil prices on the world economy

Moderate effects of higher oil prices so far

The experience of the past 30 years has shown that sudden and sharp oil price increases can lead to higher inflation and lower global economic growth. The four previous economic downturns coincided with and were partly triggered by a sharp rise in oil prices (see Chart 1).

Chart 1 Oil price and estimates of the output gap (per cent) in the OECD countries and G7. Oil price in USD per barrel. Annual figures. 1971 – 2004



Sources: OECD Economic Outlook, EcoWin, Reuters and Norges Bank

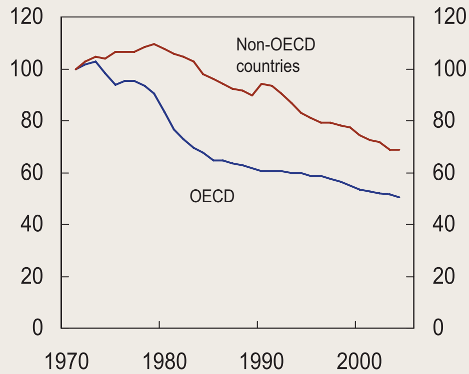
Oil prices have risen from close to USD 30 per barrel in October 2003 to about USD 60 in October this year. Previous studies indicated that such an increase in oil prices would have a substantial impact on growth and inflation.[1] Admittedly, global growth has slackened, but is still high. Inflation also remains low in spite of some increase recently. Recent estimates from the IMF indicate that the effects of the increase in oil prices are only half of what was suggested by previous experience.[2]

Several factors may explain why GDP growth has remained high and inflation low in spite of the rise in oil prices:

- *Demand-driven price increase*
The rise in oil prices over the past two years primarily reflects high growth in the global economy with an attendant rise in demand for oil. Earlier, high oil prices were often the result of a decline in oil production (OPEC I and II and the first Gulf War). The more gradual rise in oil prices observed this time may also have moderated the effect of higher oil prices on confidence in general economic developments in the business and household sector. The negative effects on growth in several Asian economies as a result of higher oil prices have been restrained through subsidies.

- *Lower energy intensity*
Oil consumption as a percentage of GDP in OECD countries has fallen markedly over time (see Chart 2). As a result, these countries have become less vulnerable to oil price increases. Reduced energy intensity can be ascribed to several factors. For example, the service sector now accounts for a larger share of GDP. Moreover, new technology has reduced the energy intensity in many activities and processes.

Chart 2 Oil intensity. Kilos oil per unit of real GDP adjusted for purchasing power parity. Index, 1971 = 100. Annual figures. 1971 – 2004

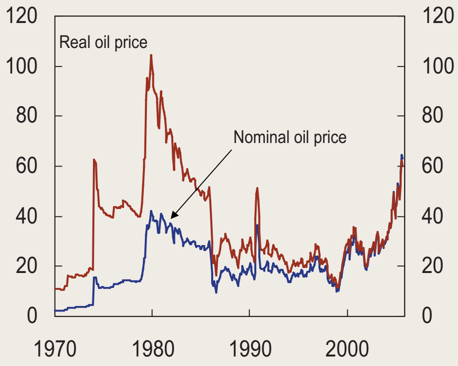


Sources: IMF and Norges Bank

- *Real oil prices and weaker dollar*
Real oil prices are still lower than during the first half of the 1980s (see Chart 3). In the period to 2005 the dollar also depreciated against a number of currencies, particularly the euro and the yen. This curbed the effect of the rise in oil prices in these countries.

- *Mild monetary policy response*
Enhanced monetary policy credibility has probably mitigated the impact of higher energy prices on core inflation and inflation expectations. Moderate wage growth indicates that employees

Chart 3 Real oil price and nominal oil price. USD per barrel. Real price in 2004-USD, deflated by the CPI in the US. Monthly figures. Jan 70 – Sep 05



Sources: EcoWin, Reuters and Norges Bank

have not demanded compensation for higher energy prices. So far, there has been little need to respond to the rise in oil prices with a strong monetary policy response. In addition, low long-term interest rates have made a substantial contribution to demand.

The limited effects on inflation in industrial countries must also be seen in connection with the low level of capacity utilisation in these countries in recent years. By way of comparison, capacity utilisation was relatively high during the oil price shocks in the 1970s and the 1980s (see Chart 1). Strong competition in product markets and relatively low capacity utilisation have left companies with little scope for counterbalancing higher production costs by increasing selling prices. The shift in imports towards low-cost countries has also contributed to keeping inflation low in industrial countries. Subsidies have curbed the effects on inflation in several Asian countries.

Persistently high oil prices imply a risk ahead

Oil prices have remained high over a longer period and oil futures prices indicate that prices may remain high. The business and household sector will have to adapt to persistently high oil prices and the effects on inflation may be more pronounced than observed so far. In the US, where petrol prices have increased substantially, the effects of higher energy prices on real disposable income may be relatively strong. With a low household saving ratio, this may have a considerable impact on household demand.

So far, high oil prices have had little impact on other consumer prices. If the rise in oil prices is perceived as long-lasting, this may result in higher wage demands, higher inflation expectations and a stronger pass-through to other prices. This may be further amplified by a marked increase in other energy prices such as gas prices. This may require a stronger monetary policy response.

Many of the rapidly expanding Asian economies have subsidised oil and oil products. The process of reducing subsidies has been started in some countries, which will increase the price of oil paid by households and businesses and may curb growth and fuel inflation in these countries.

The rise in oil prices has had a considerable impact on global external balances. A further increase in the US current account deficit would entail an increase in global imbalances and correcting these imbalances may imply a period of sluggish growth.

A further increase in oil prices cannot be ruled out. OPEC's idle production capacity is at a historically low level. In addition, it seems that refinery capacity is too low in relation to demand for oil products. Partly owing to limited refinery capacity, the relatively wide price difference between refined products and crude oil may persist.

As a result of a tight oil market there have been wide fluctuations in oil prices before and after the hurricanes in the US. The real price of petrol in the US after Katrina was as high as in 1980. This shows that the oil market is now highly sensitive to new disturbances. An increase in oil prices caused by supply-side factors will probably have a greater effect on household and business confidence than a demand-driven price rise.

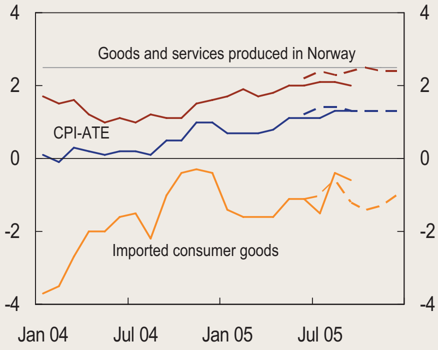
[1] See, for example, "The Impact of Higher Oil Prices on the Global Economy", IMF December 2000.
[2] World Economic Outlook, September 2005.

The projections in *Inflation Report* 2/05 and 3/05

The projections in Inflation Report 2/05

In *Inflation Report* 2/05, growth in the Norwegian economy was projected to remain strong this year and in 2006. Low real interest rates, high petroleum investment and favourable prices for many export goods were important forces driving the upturn. Capacity utilisation was assessed to be at an approximately normal level in the first half of 2005. In the light of prospects of continued high growth, capacity utilisation was projected to rise further out in the period. CPI-ATE inflation was still low, but substantially higher than in 2004. The risk of falling prices and lowered inflation expectations was assessed to be lower. Higher wage growth and margins coupled with a decelerating fall in prices for imported consumer goods were expected to lead to a gradual rise in inflation towards the target.

Chart 1 CPI-ATE[1]. Total and by supplier sector[2]. Actual inflation and projections in IR 2/05 (broken line). 12-month change. Per cent. Jan 04 – Dec 05



[1] CPI-ATE: CPI adjusted for tax changes and excluding energy products.
[2] Norges Bank's calculations.

Sources: Statistics Norway and Norges Bank

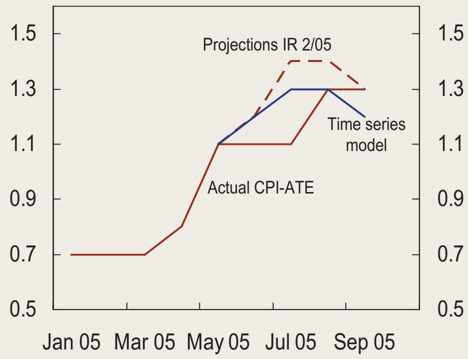
Developments since Inflation Report 2/05

Preliminary national accounts figures show that mainland GDP grew in line with the projections in *Inflation Report* 2/05 through the first half of 2005. Registered unemployment has fallen broadly in line with projections. However, employment growth has been somewhat weaker than expected, and LFS unemployment has remained steady. There are therefore signs that the labour market is somewhat less tight than assumed in the previous *Report*. Partly owing to this, the output gap estimate for the second half of 2005 is somewhat lower than in *Inflation Report* 2/05, but capacity utilisation is still assessed to be somewhat higher than normal in the second half of this year.

In June and July, CPI-ATE inflation was somewhat lower than the projections in *Inflation Report* 2/05, but it rose again towards the projected path in August and September (see Chart 1). Prices for goods and services produced in Norway have increased somewhat less than projected in *Inflation Report* 2/05. The rise in prices for imported consumer goods has varied fairly widely since the summer. Developments have been particularly affected by relatively wide, abnormal fluctuations in clothing prices. In the 12 months to September, prices for imported consumer goods fell somewhat less than projected in *Inflation Report* 2/05.

Chart 2 provides a comparison of predictions from a simple time series model that captures the trend rise and seasonal fluctuations in the CPI-ATE with actual inflation and projections in *Inflation Report* 2/05. In June and July, inflation was lower than implied by the time series model. In September, actual inflation was in line with our projections, but the time series model indicated slightly lower price inflation that month.

Chart 2 CPI-ATE. Projections in IR 2/05, projections from a time series model and actual price movements. 12-month change. Per cent. Jan 05 – Sep 05



Sources: Statistics Norway and Norges Bank

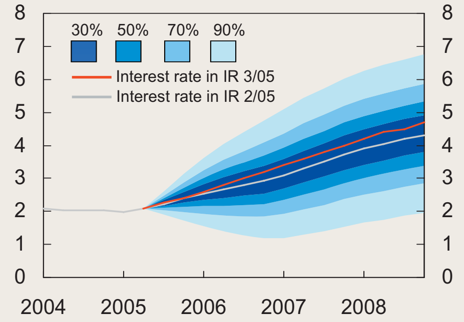
Changes in driving forces ahead

Projections for global developments have shown little change since the previous *Inflation Report*. The rise in energy prices will result in slightly higher inflation in the near term. Interest rate expectations abroad have increased somewhat, partly because high energy prices may generate stronger inflationary impulses. Oil prices are assumed to shadow futures prices. They are now at approximately the same level as when *Inflation Report* 2/05 was published, but the recent very high oil price has caused an increase in export and producer prices among our trading partners. This will add impetus to the rise in prices for imported consumer goods in the near term. However, we assume that the shift towards imports from low-cost countries will continue further into the period. This will contribute to curbing the rise in prices for imported consumer goods in the final years of the projection period. On balance, these adjustments imply a somewhat higher rise in prices for imported consumer goods in 2006, while the rise in these prices may be slightly lower in 2007 and 2008 than projected in *Inflation Report* 2/05.

The projections for petroleum sector investment have been revised upward somewhat for 2006, largely because of higher estimates in Statistics Norway's investment intentions survey and a new cost profile for the Snøhvit LNG development project. In view of the low level of exploration activity, a moderate fall in petroleum investment is now projected for 2008. Towards the end of the projection period we now expect somewhat stronger fiscal impulses than assumed in the previous *Inflation Report* as a result of increased fiscal scope.

The overall changes in our assessment of the current economic situation and of the driving forces that will influence economic developments in the years ahead are relatively small compared with the previous *Inflation Report*. This also implies that there will only be minor deviations in interest rate developments from our assumptions in *Inflation Report* 2/05. The projections in this report are based on the assumption that the interest rate in Norway will follow a path which, in the Executive Board's view, will result in a reasonable balance between the objectives of monetary policy. In the baseline scenario, the interest rate increases gradually – in small, not too frequent steps – towards a more normal level (see Chart 3). This path is described in more detail in Section 1, and implies an interest rate path close to that assumed in *Inflation Report* 2/05. Interest rates in other countries are assumed to shadow forward rates over the next year before increasing somewhat faster. This results in somewhat higher interest rates abroad than assumed in the previous *Inflation Report*. We assume a path for the krone exchange rate that is consistent with developments in interest rates in Norway and abroad. This implies a path where the krone exchange rate remains at approximately the current level in the years ahead, and does not deviate substantially from the assumption in *Inflation Report* 2/05 (see Chart 4).

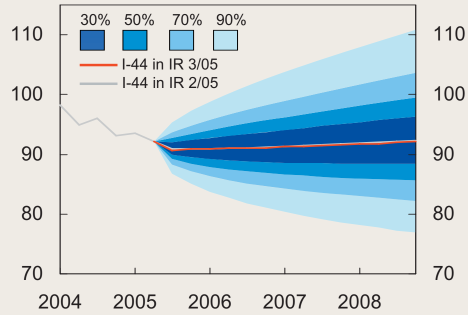
Chart 3 3-month money market rate[1)] in baseline scenario in IR 2/05 and 3/05. Fan around interest rate from IR 2/05. Per cent. Quarterly figures. O4 Q1 – 08 Q4



[1)] The money market rate is normally about ¼ percentage point higher than the sight deposit rate.

Source: Norges Bank

Chart 4 Krone exchange rate (I-44)[1)] in baseline scenario in IR 2/05 and 3/05. Fan around exchange rate from IR 2/05. Quarterly figures. 04 Q1 – 08 Q4



[1)] A rising curve denotes a weaker krone exchange rate. It is assumed that strengthening by a certain percentage is just as likely as weakening by the same percentage

Source: Norges Bank

Changes in projections from Inflation Report 2/05 to Inflation Report 3/05

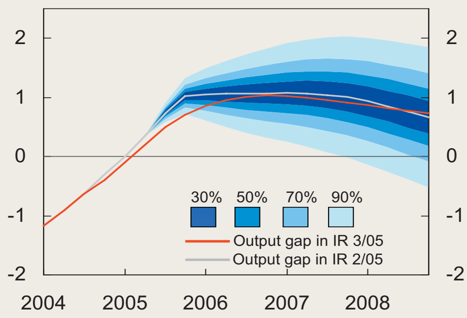
The projections presented in this report are fairly similar to the projections presented in the previous *Inflation Report* (see Table 1). As shown in Charts

Table 1 Projections for main macroeconomic aggregates in *Inflation Report* 3/05. Change from projections in *Inflation Report* 2/05 in brackets.

	2005		2006		2007		2008	
Mainland demand	3¾	(-¼)	3¾	(0)	2½	(0)	2¼	(¼)
GDP, mainland Norway	3¾	(0)	3¼	(¼)	2½	(0)	2¼	(0)
Employment	¾	(-¼)	1½	(0)	1	(0)	¾	(¼)
LFS unemployment (rate)	4½	(¼)	4	(¼)	4	(¼)	4	(0)
CPI-ATE	1	(0)	1¾	(¼)	2	(0)	2½	(0)
CPI	1½	(¼)	2	(¼)	2	(0)	2½	(0)
Annual wage growth	3½	(0)	4¼	(-¼)	4½	(0)	4½	(0)

Source: Norges Bank

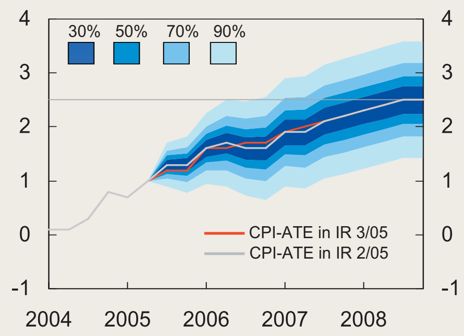
Chart 5 Estimates for output gap[1)] in IR 2/05 and 3/05. Fan[2)] around estimate in IR 2/05. Per cent. Quarterly figures. 04 Q1 – 08 Q4



1) The output gap measures the difference between actual and trend mainland GDP.
2) Uncertainty concerning the current situation is not taken into account in the calculation.

Sources: Norges Bank

Chart 6 Projections for CPI-ATE[1)] in IR 2/05 and 3/05. Fan around projection in IR 2/05. Per cent. Quarterly figures. 04 Q1 – 08 Q4



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

Sources: Statistics Norway and Norges Bank

5 and 6, the revisions made to the projections are also small compared with the uncertainty associated with the projections.

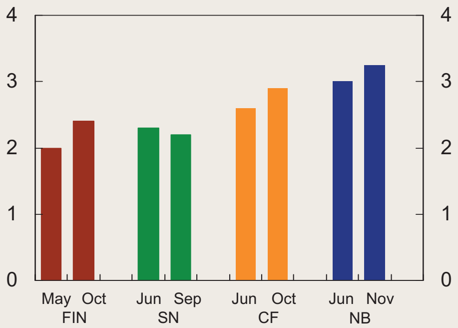
Although capacity utilisation is estimated to be somewhat lower this year than assumed in the June *Inflation Report*, our output gap estimate ahead shows little change. In the light of higher petroleum investment, the output gap for the mainland economy is expected to peak at about 1 percentage point next year. The output gap is not expected to decline until 2008 (see Chart 5).

So far this year, labour force developments have been broadly in line with expectations, while employment growth has been somewhat more moderate. LFS unemployment has therefore fallen less than projected in the previous report. We have not changed our projections for growth in employment or the labour force in the years ahead. Unemployment is now projected to be ¼ percentage point higher in the next few years than the figure in the previous *Inflation Report*. As a result, growth in labour costs next year is projected to be slightly lower than projected in *Inflation Report* 2/05.

There are only minor changes in the growth projections for the various expenditure components. Lower growth in real wages will contribute to lower growth in consumption next year than previously projected. The projections for mainland investment have been revised up somewhat, both because investment has increased more than expected so far this year, and because corporate earnings appear to remain at a high level.

Given the fairly small changes in the projections for capacity utilisation and wage growth, the projection for CPI-ATE inflation shows little change (see Chart 6). However, prices for energy products appear to be rising at a somewhat faster pace than projected in the previous *Inflation Report*, and our projections for CPI inflation in 2005 and 2006 have been revised upwards (see Table 1). We are now expecting somewhat stronger second-round effects of higher energy prices on consumer prices. Slightly lower wage growth projections for next year have the opposite effect. In isolation, changes in our import price projections will contribute to higher consumer price inflation in the first part of the projection period, and to a lower rise at the end of the period (see above).

Chart 7 Mainland GDP. The last two projections published for 2006[1)]. Percentage growth



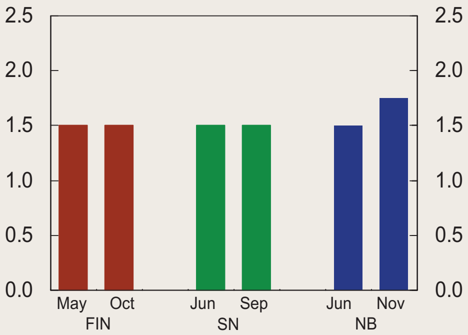
1) All projections published in 2005.

Sources: Revised National Budget 2005, National Budget 2006, *Economic Survey* 2/05 and 3/05, *Inflation Report* 2/05 and 3/05 Consensus Forecasts June and October 2005

Projections from other institutions

The Ministry of Finance and Statistics Norway's projections for economic growth in 2006 show a somewhat weaker picture than Norges Bank (see Chart 7). Norges Bank now projects mainland GDP growth at 3¼% in 2006, ¼ percentage point higher than in the previous *Inflation Report*. Around the publication of *Inflation Report* 2/05, Statistics Norway forecast mainland GDP growth at 2.3% next year. In the September edition of *Economy Survey*, this figure is more or less unchanged. Statistics Norway assumes that global cyclical impulses will be substantially weaker than the projections on which this report is based. In the National Budget, released in October, the Ministry of Finance projects that mainland GDP will grow by 2.4%[1] from 2005 to 2006. This is an upward revision of the projection from the Revised National Budget in May 2005. Statistics Norway and Norges Bank have fairly similar projections for mainland demand growth in 2006, while the Ministry of Finance's figure is somewhat lower. The average projection from Consensus Forecasts has also been revised upwards since the publication of *Inflation Report* 2/05. In June, the average growth forecast for 2006 of the eight participating institutions was 2.6%, while in October it had risen to 2.9%.

Chart 8 CPI-ATE. The last two projections published for 2006[1)]. Percentage rise



1) All projections published in 2005.

Sources: Revised National Budget 2005, National Budget 2006, *Economic Survey* 2/05 and 3/05, *Inflation Report* 2/05 and 3/05

The Ministry of Finance, Statistics Norway and Norges Bank are fairly close in their view concerning the inflation outlook for 2006 (see Chart 8). In this *Inflation Report*, CPI-ATE inflation is projected at 1¾% in 2006, or ¼ percentage point higher than in the previous report. Statistics Norway and the Ministry of Finance both project CPI inflation of 1.5% in 2006, i.e. unchanged since the previous publication. Consensus Forecasts does not collect projections for CPI-ATE inflation.

The Ministry of Finance's figures are from 6 May and 14 October, while Statistics Norway published its projections on 16 June and 15 September. Consensus Forecasts compiled its figures on 13 June and 10 October. As the institutions publish projections at different times, the information on which the projections are based may differ.

[1] The projection is 2.7% when it is taken into account that the Ministry of Finance projects a substantial decline in electricity production from 2005 to 2006.

Earlier boxes 2001-2005

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Uncertainty surrounding future interest rates developments
Accuracy of short-term interest rate expectations
Output gap uncertainty
Increased imports from low-cost countries
Effects of high oil prices on the world economy
The projections in Inflation Report *2/05 and 3/05*

2/05:
Developments in the krone exchange rate
The projections in Inflation Report *1/05 and 2/05*

1 / 05:
Criteria for an appropriate future interest rate path
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3 / 04:
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Why has the krone excange rate appreciated?
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Why have clothing prices fallen?
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Why has the rise in prices for imported consumer goods been low?
Uncertain oil prices and pressure on OPEC
Growth potential of the Norwegian economy

Annex I
Regional network

Norges Bank`s regional network

Norges Bank's regional network was established in autumn 2002 and consists of enterprises, organisations and local authorities throughout Norway. Five times a year, we interview to business and community leaders concerning financial developments in their enterprises and industries. Each round of interviews comprises about 290 visits. The contacts reflect the production side of the economy, both in terms of industry sector and geographic area. The network comprises approximately 1500 individuals who are interviewed once or twice 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 provide us with information earlier and more frequently than available government statistics. It also provides us with supplementary information about areas not covered by other statistical sources, and we learn which issues are of particular concern to enterprises. In addition, the regional network will provide us with insight into the effects of specific events and enable us to study relevant issues. Official statistics will continue to form the basis for our perception of the state of the economy, but given the time lags and revisions associated with these statistics other sources, such as our regional network provide a useful supplement.

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

We have divided Norway into seven regions, and for six regions we have engaged regional research institutions to be 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
Region Central Norway (Nord-og Sør-Trøndelag)	Centre for Economic Research at the Norwegian University of Science and Technology
Region Northwest (Møre og Romsdal, Sogn and Fjordane)	Møreforsking in Molde
Region South-West(Rogaland og Hordaland)	Rogalandsforskning
Region South (Aust- og Vest-Agder, Telemark, Vestfold)	Agderforskning
Region Inland (Hedmark og Oppland)	Østlandsforskning
Region East (Buskerud, Akershus, Oslo, Østfold)	Covered by Norges Bank

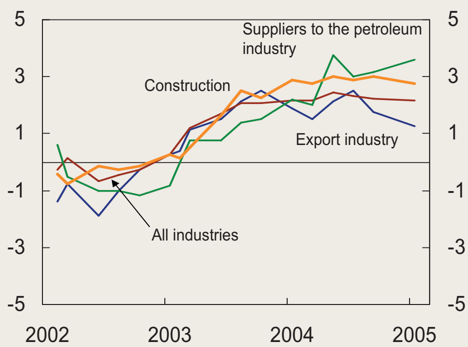
Summary of the contact rounds since the last *Inflation Report*

In the contact rounds since *Inflation Report* 2/04, approximately 300 regional network contacts have been interviewed. The interviews were conducted in August and September. A national summary and summaries for each region will be available on Norges Bank's website on 3 November. The summary below is based on regional reports from the institutions responsible for the various regions and does not necessarily reflect Norges Bank's view of economic developments.

Demand, output and market outlook

The general impression from the companies in the regional network is that the cyclical upturn in the Norwegian economy is continuing. All industries report increasing demand (see Chart 1). Domestic manufacturing supplying goods to the household sector and the construction industry report solid developments. The concrete industry, for example, reports strong growth, particularly for concrete elements. The publishing and graphics industries also report solid growth, driven by strong growth in the newspaper sector due to job and branding advertisements. The engineering industry in Region North, on the other hand, is marked by somewhat reduced activity due to lower orders from the fishing fleet and a high debt-to-equity ratio.

Chart 1 Norges Bank's regional network: demand and production. Index[1]. Oct 02 – Sep 05



[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

In the *export industry*, there is growth in the technology industry and in the fishing and fish farming industry, and there is increased activity in the shipbuilding industry. In the process industry, including the smelting industry, developments are somewhat weaker due to high energy prices, which rose markedly after the introduction of CO_2 emissions quotas in Europe. The build-up of production capacity in China is also intensifying competition. On the whole, growth in the export industry is moderate and somewhat weaker than during the last round. For some companies, the decline in exports is due to stronger Norwegian demand combined with higher prices in the domestic market than in the export market. *Suppliers to the petroleum industry* report strong growth as a result of persistently high oil prices and record-high investment. In Norway, this is primarily due to the Snøhvit and Ormen Lange field developments. Internationally, increased exploration activity and various measures to increase production are contributing to growth. A result of the persistently high oil price is that drilling capacity worldwide is underdimensioned and a number of commercial fields are queuing up due to a shortage of drilling rigs and service vessels.

The *construction industry* continues to experience substantial growth, but in some regions, growth has slowed. The activity level remains high in residential construction, but growth is more subdued. Growth in the market for private commercial buildings is moderate with low growth in the market for office buildings. On the other hand, growth in the market for public commercial buildings is stronger and is driven by extensive rehabilitation projects in the public sector and particularly in the school sector. Large road investments, power development projects, major development projects in Oslo and the Snøhvit and Ormen Lange field developments are all contributing to solid growth in the construction sector.

Growth in *retail trade* continues and is particularly strong for building materials. This is particularly the case for home and garden products, such as hardware items, interior and paint products. There is solid growth for clothing, footwear and electrical appliances, but developments in car sales have levelled off. Private car sales are lower, partly because of high sales last year and a saturated used car market, but increased sales of vans and trucks for the business sector are compensating for this.

Service industries report solid growth, particularly for commercial services such as temporary employment agencies and the advertising and consulting sectors. Growth in household services is also solid, although the growth rate is slower than for corporate services. The difference is reflected particularly in activities that are oriented to both households and the business sector, including hotels, restaurants and banks.

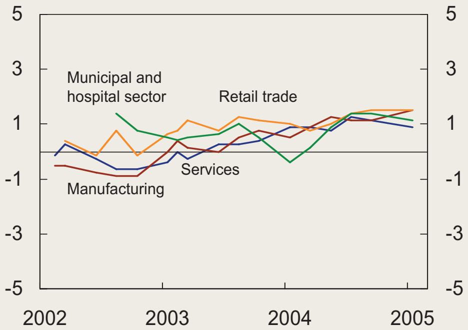
The market outlook for the next six months indicates that growth in the Norwegian economy will continue, and will be at least as strong as the current level. Suppliers to the petroleum industry are even more optimistic than earlier about the future. It appears, however, that the peak has been reached in the construction sector. Growth in residential construction is expected to slow. In retail trade and service industries, growth is expected to be the same as in the last round.

Capacity utilisation and investment

45% of all companies report that they would have some or considerable difficulties accommodating increase in demand. This is a somewhat higher share than earlier this year. There are capacity problems in parts of petroleum-related operations and in construction, particularly in Western Norway. The shortage of skilled labour and project managers appears to be the most important constraint.

All industries report moderate to solid growth in investment plans for the next 6-12 months (see Chart 2). 42% of the companies plan to increase investment, while 20 per cent expect to reduce investment. The strongest growth is expected in manufacturing and retail trade. Manufacturing plans to increase investment compared with spring and will invest in capacity, efficiency and product development. Retail trade is upgrading and expanding premises and building stock. In the service sector, a number of companies in the transport industry are expanding capacity.

Chart 2 Norges Banks regional network: investment plans. Change in investment in next 6 – 12 months. Index[1]. Oct 02 – Sep 05



[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

Employment and labour market

Employment is increasing in the entire private sector, in pace with the economic upturn. Employment growth in construction and retail trade is somewhat stronger than this past spring, whereas growth has been virtually stable in manufacturing and the service sector. There is no growth in employment in the municipal and hospital sector. It appears that the positive developments in the private sector will continue during the next three months. Manufacturing employment is expected to rise, but the growth rate is expected to slow somewhat in the rest of the private sector. The construction sector indicates that they are not seeking to increase capacity substantially and that they expect growth to be more subdued in the period ahead. Employment in the municipal and hospital sector is stable.

With the exception of construction and petroleum-related manufacturing, the network contacts do not appear to be experiencing any particular labour shortages. This is reflected in reports of low wage pressures in all industries, including construction. On average, our contacts expect annual wage growth of 3.5% in 2005. Low wage growth in the construction industry is often explained by the large share of foreign labour.

Costs, prices and profitability

Increasing resource shortages have led to a sharper rise in prices in construction and petroleum-related industries. The export industry has also experienced a marked increase in prices in the last 12 months, primarily due to rising commodity prices. The shipbuilding industry also reports solid developments in export markets. The rise in prices has been moderate in the other industries. In the period ahead, there are as many companies that expect a higher rise in prices as those that expect a lower rise in prices, and price expectations appear to have moderated somewhat compared with earlier in the year. The export industry expects a decline in prices in the period ahead, partly as a result of a levelling off of commodity prices and partly due to competition from eastern Europe and Asia.

Increased demand, a rise in selling prices and generally low wage pressures are contributing to improving profitability in all industries again in this round. Profitability has increased sharply in the last few months for suppliers to the petroleum industry.

Enterprises and organisations that have been contacted in the work on this *Inflation Report*

Abeo AS
Adecco Norge AS
Adecco region Øst
Advokatfirma Schjødt
Advanced Production and Loading AS
Aetat Molde
Aetat Sør-Trøndelag
AF Gruppen ASA
Ahead Frisør
Ahlshell
Air Products AS
Aker Aukra AS
Aker Kværner
Alphatron AS
Alsvåg Plater AS
Ankenes Sparebank
Arendal Auto AS
AS Nesseplast
Asplan Viak AS
Atlantic Auto AS
B&T Låsservice AS
Bademiljø
Bakers AS
Bakke El-installasjon AS
Ballangen Camping AS
Bautas AS
BecoTek
Bedriftskompetanse AS
Berendsen Tekstil Service AS
Berg & Co
Berg-Hansen, Region Vest
Bergen kommune
Bergens Tidende
Berg-Hansen Reisebureau
Big Horn Steak House Norge AS
Bilhuset AS
Bilia personbil
Bjølseth Caravan AS
Bjørn Ovik AS
Bohus Interiør AS
Boliden AS
Borregaard
Bravida Sørøst AS
Buer Entreprenør AS
Busengdal Transport as
Buskerud Sentralsykehus
Bussen Trafikkselskap AS
Byggkjøp Farsund Bygg
Byggmaker Norgros
Cap Gemini Norge AS
Choice Hotels AS
City Syd AS
Comrod AS
Connex Vest AS
Conoco Phillips Norway
Constructor Norge AS
Coop Lofoten BA
Coop NKL BA
Coop Sunndalsøra BA
CTM Utvikling AS
Damm
Den Norske Bank ASA, Tønsberg
DNB NOR Eiendom
Dyno nobel
EFD Induction AS
Eiendomsmegler 1
Elektro AS
Elektro Hvitevarer AS
Elektrotema Agder AS
Elkem ASA Materials
Elsafe International
Ewos AS
Expert ASA
Fame fotografene AS
Finny Sirevaag AS
Fjordline - Bergen
Fokus Bank Bedriftsmarked
Forestia AS
Fosen Mekaniske Verksteder AS
Fosnavaag Seafood AS
Franzefoss kalk As
Fundia Arneringsstål AS
Furnes Hamjern Holding AS
Gaupen Henger AS
Gausdal Landhandleri AS
Gilde Bøndernes Salgslag BA
Gilde Vest BA
Gjensidige NOR forsikring
Gjestal Spinneri ASA
Gravdahl AS
Gresvig ASA
Grieg Seafood AS
Grytnes Betong AS
Hedalm Anebyhus AS
Hedmark Fylkeskommune
Helgeland Plast AS
Helse Bergen HF
Helse Nord RHF
Herlige Stavanger AS
HSH
Hunderfossen Familiepark AS
Hunton Fiber AS
Hydro Aluminium AS
Hydro Aluminium Structures Raufoss AS
Høllalaks as
Hålogalandsykehuset Narvik
IBM Norge
ICA Distribusjon AS
IKEA Åsane
Industriverktøy AS
Innovasjon Norge
ISS Norge AS
Itab Industrier AS
Ivar Mjåland, Mandal
JcDecaux
Jørstad AS
Kanstad Trelast AS
Kappahl
Karmsund Maritime Service AS
KENO reklame AS
Klæbu kommune
Klaastad Brudd DA
Kongsberg Gruppen AS
Kongssenteret
KPMG Trondheim
Kraft Foods Avd. Disenå
Kristiansand Cementstøperi AS
Kristiansand Kommune
Kristiansand Næringsforening
Krogsveen AS
Kroken Caravan AS
Kruse Smith
Kuben kjøpesenter
Landskapsentreprenørene AS
Leksvik kommune
Lians Caravan & Fritid
Lindesnes kommune
Lindorff
Linjegods AS
Litra AS
LKAB
Lofotprodukt AS
Loreal Norge AS
LPO Arkitektur & Design AS
Lund kommune
Lycro AS
Lyng Elektronikk AS
Maihaugen
Malermester Harald Askautrud AS
Martin Olsen
Mascot Electronics
Melby Snekkerverksted AS
Mesta AS
Mester Grønn AS
Miljøbygg AS
Moelven Nordia
Molab AS
Moss kommune
Møre og Romsdal Kornsilo ANS
Narvik Kommune
Narvik Rørleggerforretning AS
Narvikmegler'n AS
NCC Construction
Nergård AS
NINA
NOR Tekstilservice
Norac AS
Norcem
Nordea Bank Norge ASA
Nordic Sales AS
Nordic Semiconductor ASA
Norisol Norge AS
Norsvin
Notar Eiendom Vestfold AS
Notar Eiendom Ålesund AS
Nylander Næringsmegling
NYMO AS
Nyvågar Drift AS
Obos
Oddstøl Elektronikk AS
Officelink AS
Olav Thon Eiendomsselskap
Oljedirektoratet
Optimera Vest
Oracle
Oras armatur AS
Orkideekspressen Østerdal Reisebyrå AS
Orkla Media AS
Os Husdyrmerkefabrikk AS
OVDS ASA
Owens Corning Fiberglas Norway AS
Pallin AS
Plantasjen Norge AS
Polimoon AS
Powel ASA
PricewaterhouseCoopers DA
Prior Norge BA Kjøttdivisjonen
Proffice AS
Prognosesenteret AS
Prosafe
Protan AS
QS Manager AS
Quality Hafjell Hotell AS
Quality Hotel Sogndal
Rapp Bomek AS
Remvik & Standal
Remøy Shipping AS
Rica Arctic Hotell
Rica Park Hotel
Riibe Mynthandel
Ringerike kommune
Ringnes AS
Ringsaker kommune
Rissa kommune
Rolfsen
Rosenborg Malerforretning AS
Rostein AS
Rygge-Vaaler Sparebank
Sandefjord kommune
SAS Ground Services
Savalen Fjellhotell AS
Schlumberger
Securitas - Regionkontor Bergen
Servi Cylinderservice AS
Sigerfjord Aqua AS
Sikkerehetssenteret Aukra
SinkaBerg-Hansen AS
Sivesind KI AS
Skagen Fondene
Skagen Opplevelser AS
Skanem
Skanska AS
Skedsmo kommune
Slatlem & Co AS
Sogn og Fjordane Energi as
Sparebank 1 Oslo AS
Sparebank Sør
Sparebanken Hedmark
Sparebanken Volda Ørsta
Sports Club Stavanger AS
SR Bank
St. Olavs Hospital
Statens Vegvesen Region Sør
Stella Polaris AS
Stordal kommune
Stordal Møbler AS
Subsea7 AS
Sult AS
Sunnmørsposten AS
Surnadal Transport AS
SWIX Sport AS
Sykehuset Telemark HF
Sylteosen Betongvarefabrikk AS
Sørensen Maskin AS
Sørhøy Distribusjon AS*
Sør-Trøndelag fylkeskommune
Tag Systems AS
Technor ASA
Teknisk Bureau AS
Telenor Mobile
Thommessen Krefting Greve Lund AS
Ticket
Tine BA
TNT Norge
Toyota Hell-Bil AS
Trehuseksperten AS
Trondheim Torg
TV 2 Gruppen AS
TV Nordvest AS
Tyrholm & Farstad AS
Tønsberg kommune
Ullevål sykehus
Union Hotel
Valldal Høvleri AS
Veidekke Entreprenør AS Indre Østland
Vestbase AS
Vestre Toten kommune
Vetco Aibel
VIA Ferieverden
Vikomar AS
Volmax AS
Vågan Kommune
West Contractors AS
Wist Last og Buss
YIT Building Systems AS
Økonor Norge AS
Øyer kommune
Ålesund Kommune
Aarbakke AS
Aasen Bygg AS

Annex II
Statistics, charts and detailed projections

Monetary policy meetings in Norges Bank

with changes in sight deposit rate

Date	Sight deposit rate[1]	Change
Future meetings		
29 June 2006		
31 May 2006		
26 April 2006		
16 March 2006		
25 January 2006		
14 December 2005		
Previous monetary policy meetings		
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
26 May 2004	1.75	0
21 April 2004	1.75	0
11 March 2004	1.75	-0.25
28 January 2004	2	-0.25
17 December 2003	2.25	-0.25
29 October 2003	2.5	0
17 September 2003	2.5	-0.5
13 August 2003	3	-1
25 June 2003	4	-1
30 April 2003	5	-0.5
05 March 2003	5.5	-0.5
22 January 2003	6	-0.5

[1] The sight deposit rate is Norges Bank's key rate. The sight deposit rate is the interest rate on banks' deposits in Norges Bank. The sight deposit 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 sight deposit rate.

Table 1 Main macroeconomic aggregates

Percentage change from previous year/ quarter		GDP	Mainland GDP	Private con-sump-tion	Public spending on goods and servi-ces	Mainland fixed inv.	Petroleum inv.[1]	Exports trad. goods	Imports
1997		5.2	4.9	3.2	2.5	11.8	24.9	7.6	12.4
1998		2.6	4.1	2.7	3.3	8.6	22.2	5.4	8.5
1999		2.1	2.7	3.3	3.2	-0.1	-13.1	2.2	-1.8
2000		2.8	2.5	3.9	1.3	-1.2	-23.0	5.1	2.7
2001		2.7	2.1	1.8	5.8	4.3	-4.1	1.5	0.9
2002		1.1	1.4	3.0	3.7	2.5	-5.3	0.4	0.7
2003		0.4	0.7	3.0	1.4	-2.2	16.9	5.1	2.2
2004		2.9	3.5	4.4	2.3	6.1	12.3	3.0	9.1
2004[2]	Q1	1.2	0.6	2.1	1.5	-2.3	7.4	-1.9	3.4
	Q2	1.0	0.9	-0.1	0.8	3.1	2.2	-0.6	2.3
	Q3	-0.8	1.0	0.9	-0.3	4.8	3.3	5.0	3.5
	Q4	1.1	1.5	1.3	0.4	7.4	9.8	2.5	3.0
2005[2]	Q1	0.3	0.6	-0.3	1.1	-8.3	-8.1	-1.9	-3.2
	Q2	1.3	0.9	2.5	0.4	7.2	22.5	-0.8	4.7
Level 2004, in billions of NOK		1688	1307	756	371	227	73	210	498

1) Extraction and pipeline transport
2) Seasonaly adjusted quarterly figures

Source: Statistics Norway

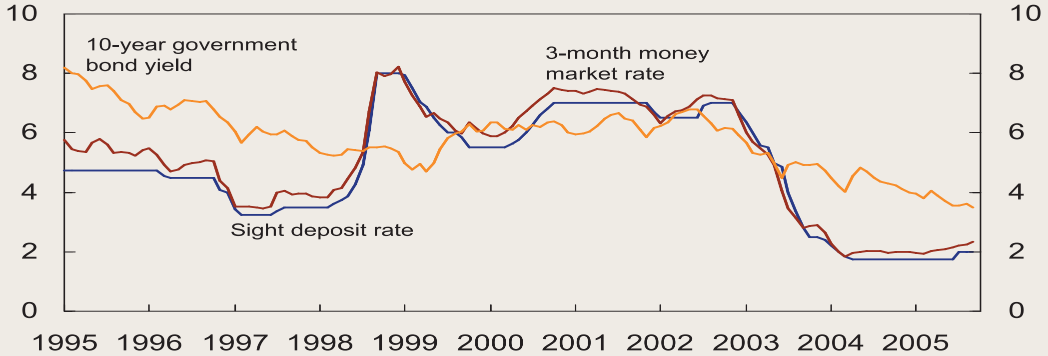
Table 2 Consumer prices

Twelve-month rise. Per cent		**CPI**	**CPI-ATE[1]**	**CPI-AT[2]**	**CPI-AE[3]**	**HICP[4]**
1997		2.6			2.3	2.5
1998		2.2			2.9	2.0
1999		2.3			2.3	2.1
2000		3.1			2.3	3.0
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
2004	Jul	1.5	0.2	1.1	0.6	1.6
	Aug	1.0	0.1	0.5	0.6	1.1
	Sep	1.1	0.5	0.6	0.8	1.1
	Oct	1.4	0.5	0.9	1.0	1.4
	Nov	1.2	1.0	0.8	1.4	1.4
	Dec	1.1	1.0	0.6	1.4	1.2
2005	Jan	1.1	0.7	0.5	1.2	0.9
	Feb	1.0	0.7	0.4	1.3	0.9
	Mar	1.0	0.7	0.5	1.1	0.9
	Apr	1.3	0.8	0.8	1.3	1.2
	May	1.6	1.1	1.2	1.5	1.5
	Jun	1.7	1.1	1.3	1.4	1.6
	Jul	1.4	1.1	1.1	1.4	1.4
	Aug	1.9	1.3	1.5	1.6	1.8
	Sep	2.0	1.3	1.7	1.6	2.2

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.

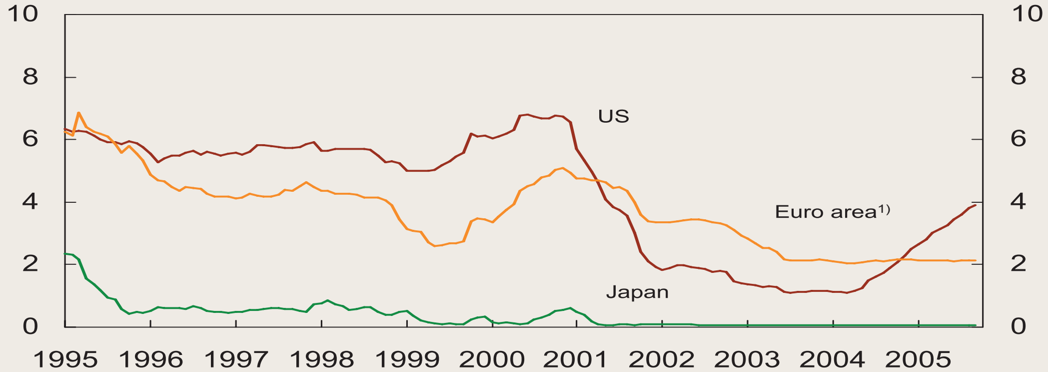
Source: Statistics Norway

Chart 1 Norwegian interest rates. 3-month money market rate, sight deposit rate and 10-year government bond yield. Monthly figures. Jan 95 – Sep 05



Source: Norges Bank

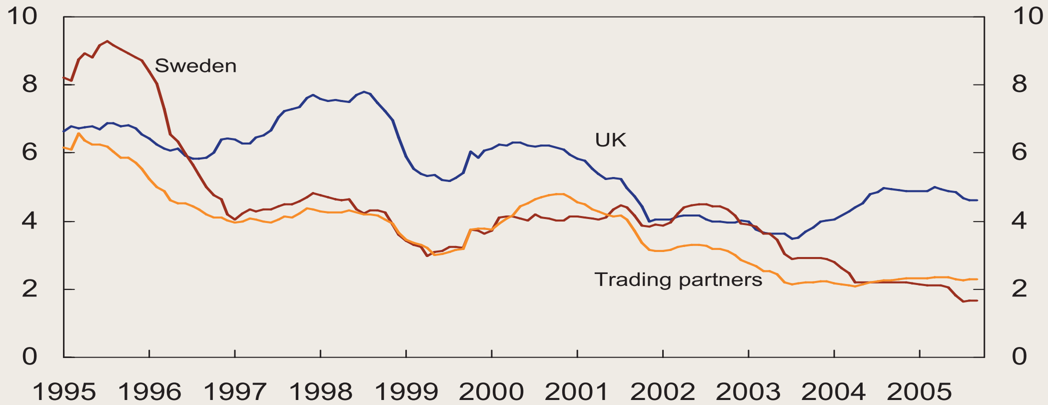
Chart 2 3-month interest rates in the US, the euro area and Japan. Monthly figures. Per cent. Jan 95 – Sep 05



[1)] Theoretical ECU rate up to and including December 1998.

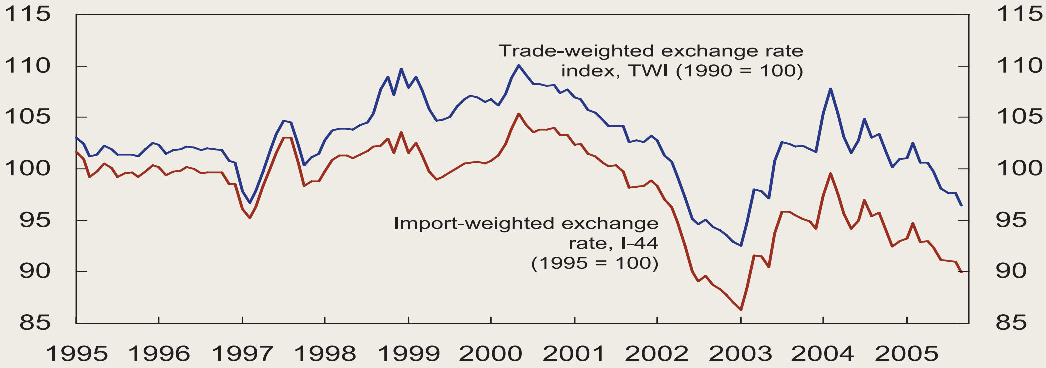
Source: EcoWin

Chart 3 3-month interest rates in the UK, Sweden and among trading partners. Per cent. Monthly figures. Jan 95 – Sep 05



Sources: EcoWin and Norges Bank

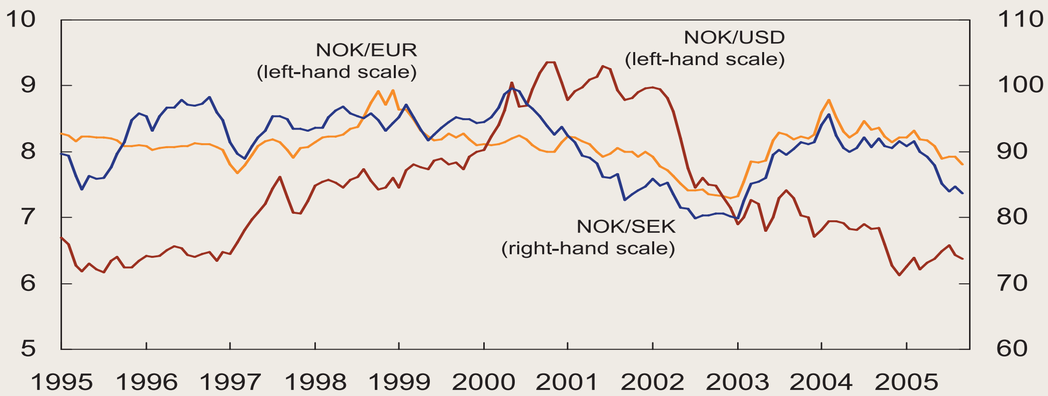
Chart 4 Trade-weighted exchange rate index (TWI) and import-weighted exchange rate (I-44).[1] Monthly figures. Jan 95 – Sep 05



1) A rising curve denotes a weaker krone exchange rate.

Source: Norges Bank

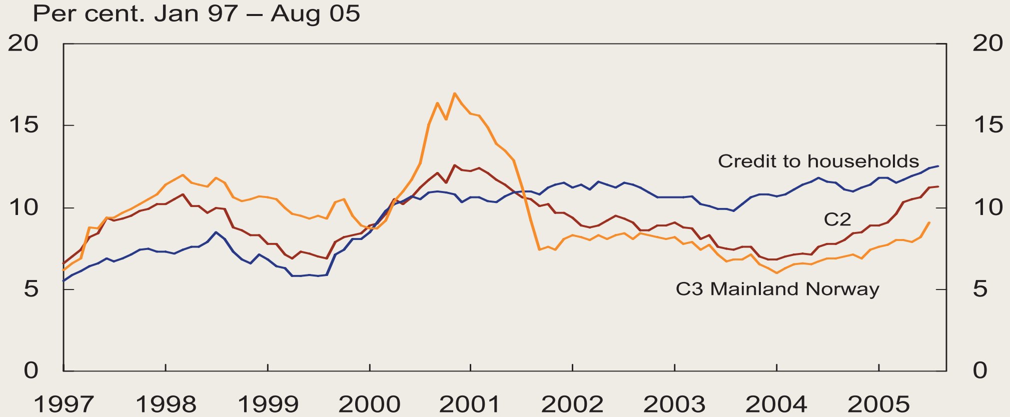
Chart 5 Bilateral exchange rates[1]. Monthly figures. Jan 95 – Sep 05



1) A rising curve denotes a weaker krone exchange rate.

Source: Norges Bank

Chart 6 The credit indicator (C2), credit to households and total credit to the non-financial private sector and municipalities, mainland Norway (C3). 12-month rise. Per cent. Jan 97 – Aug 05



Source: Norges Bank

Table 3 GDP growth in other countries

Percentage change from previous year
Projections for 2005-2008

	US	Japan	Germany	France	UK	Sweden	Trading-partners[1)]	Euro area[2)]
2004	4.2	2.7	1.6	2.0	3.2	3.6	3.0	2.0
Projections								
2005	3½	2¼	¾	1¼	2	2½	2¼	1¼
2006	3	1½	1¼	1½	2	2¾	2½	1½
2007	2¾	1½	1¼	2	2¼	2½	2½	2
2008	2¾	1¼	1½	2	2¼	2½	2½	2

1) Export weights, Norway's 25 most important trading partners. Since *Inflation Report* 2/05 Russia and China have been included in the aggregate, while Singapore and Thailand are no longer included
2) Weights from Eurostat

Sources: IMF, EU Commission and Norges Bank

Table 4 Consumer prices in other countries

Percentage change from previous year
Projections for 2005-2008

	US	Japan	Germany[1)]	France[1)]	UK[1)]	Sweden	Trading-partners[2)]	Euro area[3)]
2004	2.7	0.0	1.8	2.3	1.3	0.4	1.9	2.1
Projections								
2005	3½	-¼	2	2	2	½	2	2¼
2006	3¼	¼	1¾	1¾	1¾	1½	2	2
2007	2½	½	1½	2	2	2	2	2
2008	2½	¾	1¾	2	2	2	2¼	2

1) HICP, Harmonized Indices of Consumer Prices
2) Import weights, Norway's 25 most important trading partners. Since *Inflation Report* 2/05 Russia and China have been included in the aggregate, while Singapore and Thailand are no longer included
3) HICP. Eurostat weights (each country's share of total euro area consumption)

Sources: OECD, EU Commission and Norges Bank

Table 5 Main macroeconomic aggregates

	In billions of NOK	Percentage change (unless otherwise stated)				
			Projections			
	2004	2004	2005	2006	2007	2008
Real economy						
Mainland demand[1)]	1355	4.1	3¾	3¾	2½	2¼
- Private consumption	756	4.4	3¾	3½	2¾	2
- Public consumption	371	2.3	1¾	2	1¾	3
- Fixed investment	227	6.1	7¾	6	3¼	2½
Petroleum investment[2)]	73	12.3	20	2½	-2½	-5
Traditional exports	210	3.0	3½	3¼	3½	3¼
Imports	498	9.1	7¼	4¼	2¼	1¾
GDP	1688	2.9	2½	2¾	2¼	2¼
Mainland GDP	1307	3.5	3¾	3¼	2½	2¼
Potential mainland GDP		3	2¾	2½	2½	2½
Output gap, mainland Norway[3)]		-¾	¼	1	1	¾
Labour market						
Employment		0.2	¾	1½	1	¾
Labour force, LFS		0.3	¾	1	1	¾
Registered unemployment (rate)		3.9	3½	3¼	3¼	3¼
LFS unemployment (rate)		4.5	4½	4	4	4
Prices and wages						
CPI		0.4	1½	2	2	2½
CPI-ATE[4)]		0.3	1	1¾	2	2½
Annual wage growth[5)]		3.5	3½	4¼	4½	4½
Interest rate and exchange rate						
Sight deposit rate (level)		1.8	2	2¾	3½	4¼
Import-weighted exchange rate (I-44)[6)]		95.6	91.8	91.0	91.4	91.9

1) Private and public consumption and mainland gross fixed investment.
2) Extraction and pipeline transport.
3) The output gap measures the deviation in percent between actual and projected potential GDP.
4) CPI-ATE: CPI adjusted for tax changes and excluding energy products.
5) Annual wage growth is based on the Technical Reporting Committee on Income Settlements' definitions and calculations. The projections include estimated costs connected to the introduction of compulsory occupational pensions.
6) Level. The weights are estimated on the basis of imports from 44 countries, which comprises 97 per cent of total imports.

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

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