

Reports from the Central Bank of Norway No 1/2006

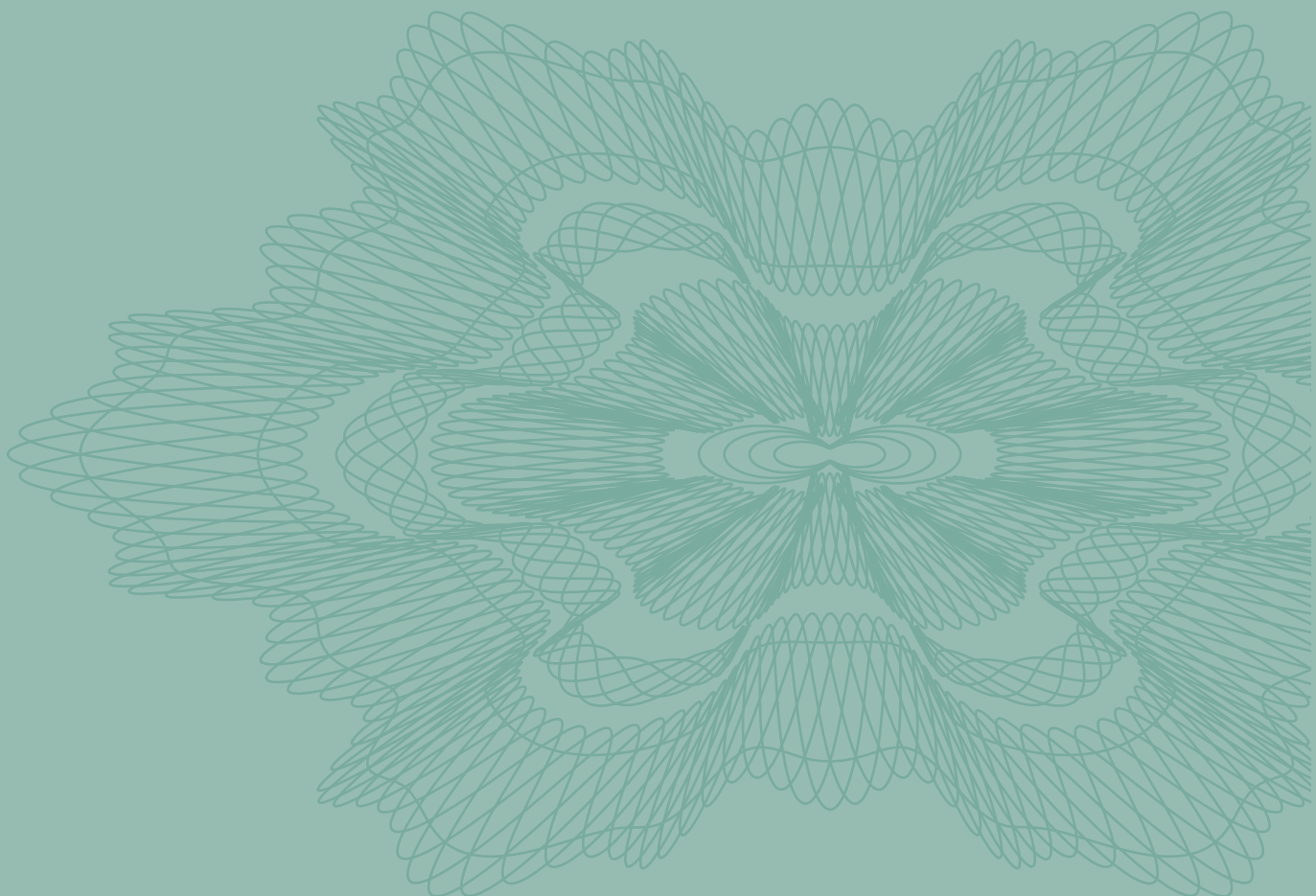


Inflation Report

with monetary policy assessments

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March



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* presents an assessment of the monetary policy outlook. The report contains projections for developments in the Norwegian economy, boxes in which particular themes are dealt with more fully, and a summary of Norges Bank's regional network reports.

At its meetings on 1 and 16 March, 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 16 March, 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 29 June 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 26 April, 31 May and 29 June.

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>.

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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

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Editorial	5
1. Monetary policy assessments and strategy	6
- Conclusions – monetary policy strategy	18
2. International conditions	19
3. Developments in the Norwegian economy	27
Boxes	
Choice of interest rate path in the work on forecasting	42
Recent price developments	44
Productivity growth in Norway	47
The yield curve and economic outlook in the US	49
The projections in <i>Inflation Report 3/05</i> and <i>1/06</i>	52
Evaluation of Norges Bank's projections for 2005	56
Annex I Regional network	59
Annex II Statistics, charts and detailed projections	65

The Inflation Report is based on information in the period to 10 March 2006

The monetary policy strategy in Section 1 was approved by the Executive Board
on 16 March 2006

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

A reasonable trade-off

Growth in the Norwegian economy has been high since summer 2003 and the upturn is now broad-based. Employment is moving up and unemployment is falling rapidly. The risk of bottlenecks and gradually higher cost inflation is increasing. However, inflation is still low, partly owing to sustained shifts in trade patterns and intensified competition. Monetary policy must strike a balance between the various objectives.

Low inflation can be ascribed to new patterns in world trade, changes in competitive conditions, substantial technological advances and increased cross-border labour flows. This is of benefit to the Norwegian and international economy and has also generated higher earnings for Norway. Low inflation is not the result of a decline in demand, activity and employment. In periods of extensive changes in the functioning of the Norwegian and the world economy, we may with our very open economy have to accept somewhat greater variability in inflation and deviations from the target, as we have witnessed over the past two-three years.

Low inflation implies that monetary policy should continue to be expansionary. However, monetary policy must gradually shift to a less expansionary stance so that capacity utilisation does not become too high. The assessments of economic developments ahead will determine how gradual the interest rate increase will be. Our current assessment implies an interest rate path where the interest rate is raised by about 1 percentage point this year. This is also in line with expectations in the money and foreign exchange market.

House price inflation and debt accumulation have been high for a long period. A gradual increase in the interest rate may also contribute to curbing house price inflation, thereby reducing the risk of a pronounced shift in house prices. When loan agreements are entered into, both lenders and borrowers must take into account that the loan must also be serviced when other interest rates apply.

On the basis of current information, the interest rate path outlined, where the interest rate is gradually increased in small, not too frequent steps, provides a reasonable balance between the objectives to be given weight by Norges Bank in its conduct of monetary policy. Changes in the assessment of the economic situation may lead to adjustments to the interest rate path. For the period to end-June, the Executive Board's assessment is that the interest rate should lie in the interval 2¼ - 3¼%.

16 March 2006
Jarle Berge

1 | Monetary policy assessments and strategy

The economic situation

The Norwegian economy is continuing to grow at a solid pace this year. Capacity utilisation is slightly above the normal level. The level of idle resources in the economy has probably been somewhat higher than previously assumed, but the growth rate is now higher than expected. Low interest rates, higher petroleum investment and stronger external growth have been the main driving forces. At the beginning of the recovery low interest rates led to high growth in private consumption and housing investment. In 2005, exports and business investment also showed buoyant growth. Demand for goods and services is now showing a broad-based increase. However, it has taken time for employment to pick up, but it appears that this is now the case.

Household debt is rising sharply. A marked rise in house prices and higher housing investment have probably fuelled credit growth. Growth in household consumption also remains strong.

The upswing in the world economy is expected to continue. The US, Japan and China have made the main contribution thus far. The upturn seems to be broadening to several other countries and growth this year is expected to be somewhat stronger than in 2005 and higher than assumed in *Inflation Report 3/05*. Growth in the US remains firm. In the euro area, confidence indicators point to growing optimism both among businesses and households. Activity in Sweden is picking up.

Since the previous *Report* oil spot prices have varied somewhat, but are now at about the same level as in November 2005. Futures prices remain above USD 60 per barrel several years ahead, which is almost USD 5 higher than when the previous *Report* was published. High prices for oil and other commodities have resulted in prospects of somewhat higher inflation in many countries, but so far core inflation has not moved up markedly.

In December and January, inflation in Norway was considerably lower than projected, but inflation edged up in February. Adjusted for the interest rate's direct effect on house rents and the effects of lower maximum day-care rates, the year-on-year rise in the CPI-ATE is estimated at 1.3% in February. CPI inflation has moved up and was 2.6% in the same period.

Some extraordinary conditions make it difficult to interpret the price statistics at the beginning of the year. In the short term, the CPI is being curbed by lower maximum day-care rates. This is partly offset by an increase in VAT rates from 1 January 2006. The rise in prices is not likely to move up

Monetary policy since the previous *Inflation Report*

Norges Bank's projections for economic developments in *Inflation Report 3/05*, which were published on 2 November 2005, implied a sight deposit rate in the interval 2-3% in the period to mid-March 2006. The monetary policy strategy was conditional on economic developments broadly in line with the projections. The Executive Board's assessment was that the interest rate should gradually – in small, not too frequent steps – be brought up to a more normal level. The interest rate path was assumed to provide a reasonable balance between the objective of bringing inflation up to target and the objective of stabilising developments in output and employment.

The previous *Report* underlined the risk that a low interest rate over a long period may result in strong pressures in the economy, with a risk of bottlenecks, rising cost inflation and debt accumulation. It was also noted that continued trade shifts and increased competition in labour and product markets might result in lower price and wage inflation and weaker pressures in the economy.

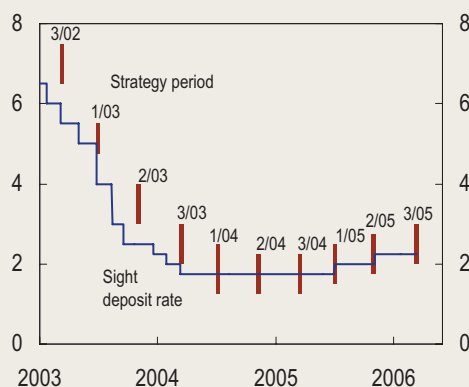
At the monetary policy meeting on 2 November, the Executive Board pointed out that output growth was strong and might in isolation suggest a faster increase in the interest rate. On the other hand, raising the interest rate more rapidly would amplify the risk of a stronger krone exchange rate which could prevent inflation from reaching the target of 2.5%. The sight deposit rate was raised by 0.25 percentage point to 2.25% at the monetary policy meeting.

The key rate was kept unchanged at the monetary policy meeting on 14 December. Developments in output, demand and inflation did not deviate considerably from the projections in *Inflation Report 3/05*. Imported price inflation had been slightly lower than expected. The krone exchange rate was somewhat weaker than assumed and there were prospects of an increase in the interest rate level among several of our trading partners. Neither these

factors nor other information provided a basis for changing the assessment of the outlook or the balance of risks.

The analyses in the previous *Report* implied an interest rate increase in the first quarter of 2006, either at the monetary policy meeting in January or March, and further interest rate increases thereafter. New information up to the monetary policy meeting on 25 January provided mixed signals. The fall in registered unemployment and the rise in the number of vacancies could indicate that the labour market was becoming tighter more quickly than assumed. House prices continued to rise and credit growth showed a further increase. These developments reflected high activity in some sectors of the economy. On the other hand, both imported and domestic inflation had been lower than projected. These features were similar to those embodied in the alternative scenario with stronger trade shifts and intensified competition as outlined in *Inflation Report 3/05*. At the monetary policy meeting on 25 January, the Executive Board pointed out that both the upside and downside risks had become more pronounced, but that on balance there was no basis for changing the assessment of the outlook for the Norwegian economy. The key rate was left unchanged.

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 – 10 Mar 06



Source: Norges Bank

markedly in the coming months. The appreciation of the krone through 2004 and 2005 and continued subdued external price impulses will curb the rise in prices.

We have a period behind us of very low real interest rates. The short-term real interest rate is substantially lower than what we consider to be a neutral level.¹ This deviation – the real interest rate gap – has been negative since 2004 (see Chart 1.1). The expansionary monetary stance must be seen against the background of very low inflation in recent years and spare capacity in the economy. The most recent interest rate reductions in 2004 were justified on the basis of the risk that inflation expectations might become entrenched at too low a level. The Executive Board stated that as inflation gradually picks up from a very low level, this will provide a basis for starting to move short-term interest rates in Norway to a more normal level.² Developments may indicate that monetary policy has had an impact.

Baseline scenario

Norges Bank operates a flexible inflation targeting regime and seeks to achieve an interest rate path that provides a reasonable balance between the objective of bringing inflation up towards 2.5% over time and stabilising developments in output and employment.

Interest-rate setting since last summer 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. Output growth is strong and the labour market is becoming tighter faster than expected. Higher growth in the economy may in isolation suggest a faster 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, the objective of bringing inflation up to the target of 2.5% and anchoring inflation expectations suggest in isolation that interest rates should not be increased further until there are clear signs of higher inflation.

Developments in prices for consumer goods over the past two-three years reflect favourable conditions in the Norwegian and international economy. The shift in trade towards low-cost countries has resulted in lower prices and higher real income. Furthermore, changes in the world economy have provided Norway with increased revenues thanks to terms-of-trade gains. Intensified competition has reduced the rise in prices for some domestically produced goods and services.

¹ Estimations may on an uncertain basis indicate that the neutral real interest rate for Norway is now close to 2½%.

² See, for example, Norges Bank's press release of 11 March 2004

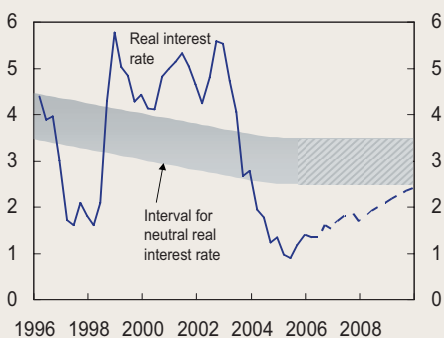
Criteria for an appropriate future interest rate path

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 1.1 3-month real interest rate¹⁾ and the neutral real interest rate in Norway. Per cent. Quarterly figures. 96 Q1 – 09 Q4²⁾



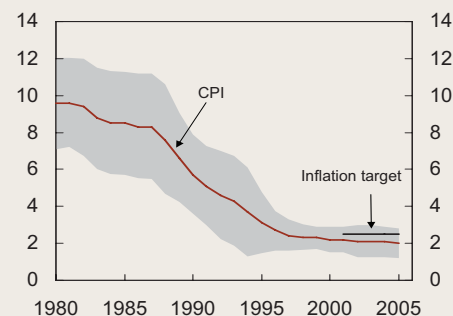
¹⁾ 3-month money market rate deflated by inflation measured by the CPI-ATE.
²⁾ The real interest rate forecasts for the period 06 Q1 – 09 Q4 are based on the baseline scenario.

Source: Norges Bank

When inflation deviates substantially from the target for a period, the interest rate is set with the aim of gradually returning inflation to target in order to prevent unnecessary swings in output and employment. Through the 1990s, inflation generally ranged between 1½ - 3½%. The degree of variability has increased slightly in recent years. In a period of increasing cross-border labour flows, substantial technological advances, changes in competitive conditions and new trade patterns, there will probably be somewhat greater variation in inflation and deviations from the target, as we have witnessed over the past two to three years (see Chart 1.2).

It may be difficult to interpret the low rise in prices for some goods and services even though increased competition and higher productivity in some industries have probably made a substantial contribution to keeping overall inflation low. It is nevertheless likely that continued high growth in demand and output will lead to higher price and cost inflation, but it may take time to materialise. The risk that inflation expectations might fall and become entrenched at too low a level now seems benign. An overall assessment therefore implies a less expansionary monetary policy through a gradual increase in the interest rate ahead. The objective of bringing inflation up towards target suggests that interest rate increases be made in small, not too frequent steps.

Chart 1.2 CPI. Moving 10-year average¹⁾ and variation²⁾. Per cent. Annual figures. 1980 – 2005³⁾

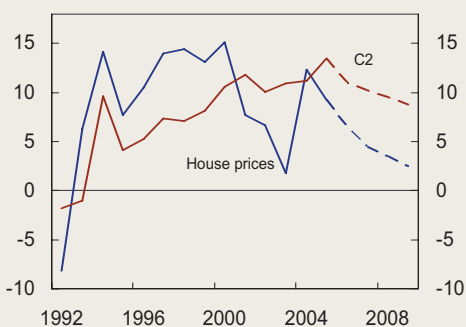


¹⁾ The moving average is calculated 7 years back and 2 years ahead.
²⁾ The band around the CPI is the variation in the average period, measured by +/- one standard deviation.
³⁾ Projections for 2006 – 2007 in this Report form the basis for this estimate.

Sources: Statistics Norway and Norges Bank

The effects of Norges Bank's key rates also depend on external interest rates. Key rates remain low among many of our trading partners, but since the previous *Report* the key rate has been raised in the US, the euro area and Sweden, among others. Market participants are expecting a gradual increase in key rates abroad, which will curb the effects on the krone of further interest rate increases in Norway.

Chart 1.3 House prices (annual rise) and credit to households (C2, annual change in credit). Per cent. 1992 – 2009¹⁾



¹⁾ Projections for 2006 – 2009

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

Wide fluctuations in asset prices and credit may constitute a source of instability in demand and output in the somewhat longer run. The low interest rate level in Norway has contributed to a sharp rise in house prices (see Chart 1.3). The level of house prices may now appear to be somewhat high in relation to developments in income, interest rates, unemployment and housing starts. A gradual increase in the interest rate level will probably contribute to a slower rise in house prices ahead. This may reduce the risk of a substantial correction in house prices further ahead.

Credit growth has been strong for a long period (see Chart 1.3). This may partly be attributable to the rise in house prices and the current high level of household confidence in the future. Since the mid-1990s, it may be that structural changes in the housing and credit markets have also influenced credit developments. Favourable cyclical conditions and low interest rates have contributed to low loan losses

and buoyant profitability in the banking industry. A gradual increase in interest rates towards a more normal level will in isolation curb growth in household debt. Businesses and banks have good buffers, and are well equipped to sustain a further interest rate increase. For most households it will also be fairly easy to cover gradually higher interest expenses.

Monetary policy cannot fine-tune economic developments, but it can prevent the largest effects from occurring when the economy is exposed to disturbances. In some situations, it may be appropriate to take into account particularly unfavourable developments.

A particularly unfavourable situation would arise should inflation become entrenched at a low level followed by a sharp fall in demand, for example as a result of an international downturn. Expectations of very low inflation will limit monetary policy's scope for stimulating the economy. The risk of such a scenario may imply that monetary policy should in advance be more expansionary than otherwise in order to ensure that inflation moves up to a higher level. Even though we have witnessed a period of inflation close to zero, there are no signs that inflation is expected to lie considerably lower than the inflation target (see Chart 1.4).

Another adverse development would be a rapid rise in cost inflation in a situation where households have accumulated a high level of debt. It might then be necessary to increase the interest rate markedly in order to bring down price and cost inflation. With a high debt burden, such an increase in interest rates would lead to a pronounced fall in disposable income. The risk of economic instability would increase. On the other hand, the high debt level would in isolation amplify the effect of an interest rate increase and thereby reduce the need for a marked interest rate increase. Growth in the Norwegian economy is now strong. An assessment of particularly adverse developments would warrant a gradual increase in interest rates.

An overall assessment implies a gradual increase in the interest rate in the baseline scenario towards a more normal level (see Chart 1.5a). Norges Bank assumes that money market rates among trading partners will also edge higher over the next three years (see Charts 1.6a-b). As in earlier *Inflation Reports*, Norges Bank's projections are based on the assumption that interest rates in Norway and abroad will rise somewhat faster in the longer term than current forward rates may imply. Exchange rate movements are difficult to project. Unexpected statistical outcomes may have made investments in NOK positions more uncertain and contributed to a depreciation of the krone exchange rate in recent months. The interest rate path at home and abroad (see Charts 1.6a-b) may be consistent with an

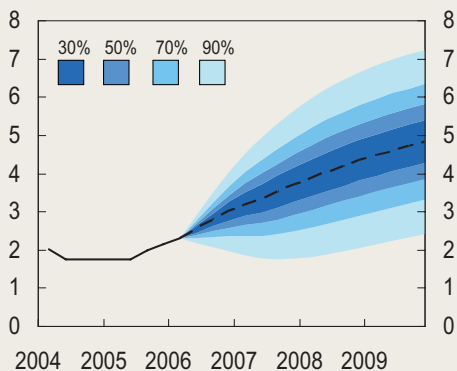
Chart 1.4 Expected consumer price inflation 2 years ahead. Employee/employer organisations and experts¹⁾. Per cent. Quarterly figures. 02 Q2 – 05 Q4



¹⁾ Employees in financial industry, macroanalysts and academics.

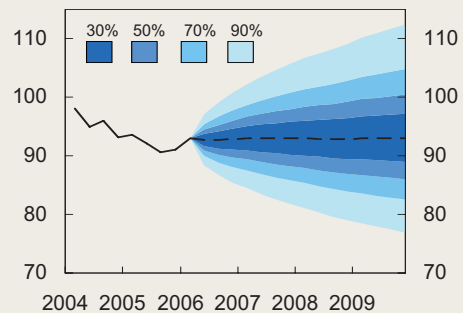
Source: TNS Gallup

Chart 1.5a The sight deposit rate in the baseline scenario with fan chart. Per cent. Quarterly figures. 04 Q1 – 09 Q4



Source: Norges Bank

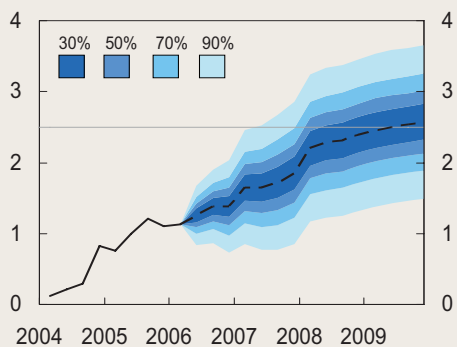
Chart 1.5b Import-weighted exchange rate (I-44)¹⁾ in the baseline scenario with fan chart. Quarterly figures. 04 Q1 – 09 Q4



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

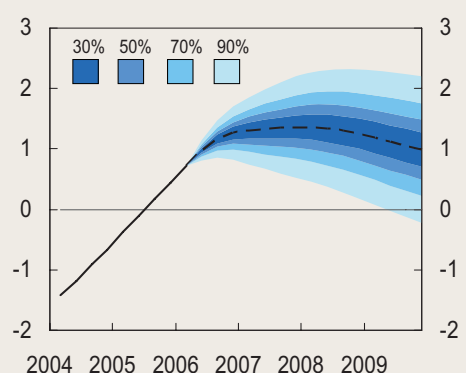
Chart 1.5c Projected CPI-ATE in the baseline scenario¹⁾ with fan chart. 4-quarter rise. Per cent. 04 Q1 – 09 Q4



¹⁾ CPI-ATE: CPI adjusted for tax changes and excluding energy products. A further adjustment is made for the estimated effect of reduced maximum day-care rates from January 2006. Other measures of underlying inflation are shown in a separate box.

Sources: Statistics Norway and Norges Bank

Chart 1.5d Estimated output gap in the baseline scenario with fan chart¹⁾. Per cent. Quarterly figures. 04 Q1 – 09 Q4



¹⁾ Uncertainty surrounding the current situation is not taken into account in the calculation.

Source: Norges Bank

approximately unchanged krone exchange rate (see Chart 1.5b). Charts 1.5c-d show Norges Bank's projected path for the Norwegian economy based on these developments in the interest rate, the krone exchange rate and other driving forces that are further described in Section 3.

The high growth rate in the economy implies a gradual pick-up in price and cost inflation. With interest rate developments as outlined above, CPI-ATE inflation is projected to increase from about 1¼% today to about 2% at the end of 2007. There are prospects of a further increase in inflation, with inflation projected to be close to the target of 2.5% three years ahead. With a gradual reduction in unemployment, Norges Bank expects wage growth to accelerate. At the same time, it may become easier for enterprises to pass on cost increases to prices in pace with the rise in demand and capacity utilisation.

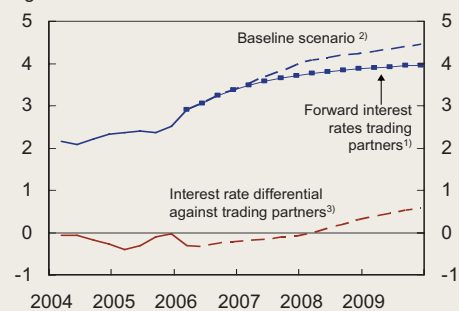
The output gap expresses our assessment of overall capacity utilisation in the economy in relation to a normal level. According to our estimates, capacity utilisation is now slightly higher than its normal level. Mainland GDP is projected to show sustained strong growth in 2006. The output gap is expected to increase over the next two years. Even though a gradual increase in the interest rate will curb demand growth after a period, monetary policy will still be expansionary. Growth in the global economy is projected to remain high, resulting in both high demand and favourable prices for the Norwegian export sector. There are prospects that high petroleum investment will contribute to sustaining the high level of activity in the Norwegian economy. In 2008 and 2009, a continued high level of petroleum revenues may imply an expansionary fiscal policy. When interest rates gradually rise, growth in household disposable income will slow as a result of a higher interest burden. Against this background, growth in household demand is projected to moderate gradually. After rising sharply in recent years, housing investment is expected to slacken ahead. A further interest rate increase will stabilise growth in output and employment. Capacity utilisation may edge down after a period. This will curb the rise in inflation, so that it stabilises close to target.

Developments in inflation and capacity utilisation in Chart 1.7 seem to provide a reasonable balance between the various objectives of monetary policy. The interest rate is sufficiently low for inflation to approach the target of 2.5% while preventing capacity utilisation from becoming too high.

Compared with the previous *Report*, the interest rate outlook remains virtually unchanged (see Chart 1.8). Faster-than-projected growth in the economy (see Chart 1.9) has in isolation contributed to pushing up the interest rate path. In addition, high oil prices have given rise to the prospect of higher petroleum investment and increased central government budget revenues. The krone has depreciated somewhat. The unexpected low rise in prices around the turn of the year (see Chart 1.9) points to the opposite. On balance, this suggests an interest rate path close to that projected in the previous *Report*.

The two previous *Inflation Reports* underlined the risk that a low interest rate over a long period may result in strong pressures in the economy, with a risk of bottlenecks, accelerating cost inflation and debt accumulation. On the other hand, the *Reports* also pointed to the risk that continued trade shifts and increased competition in labour and product markets might result in lower price and wage inflation and weaker pressures in the economy. Through autumn, statistics did not favour either alternative, but now we see signs of both. This may increase the uncertainty surrounding the

Chart 1.6a Interest rate forecasts for trading partners and interest rate differential. Quarterly figures. 04 Q1 – 09 Q4



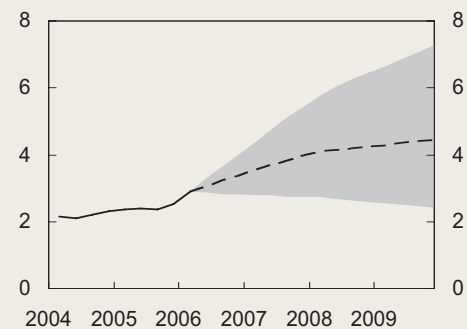
¹⁾ Estimated as a weighted average of trading partners' forward rates. Forward rate at 10 March.

²⁾ As in the three previous reports, the forward rate is adjusted somewhat as from 2007.

³⁾ Interest rate differential against trading partners in the baseline scenario from 06 Q1 (broken line).

Source: Norges Bank

Chart 1.6b Trading partners' interest rate¹⁾ in the baseline scenario with fan chart²⁾. Per cent. Quarterly figures. 04 Q1 – 09 Q4

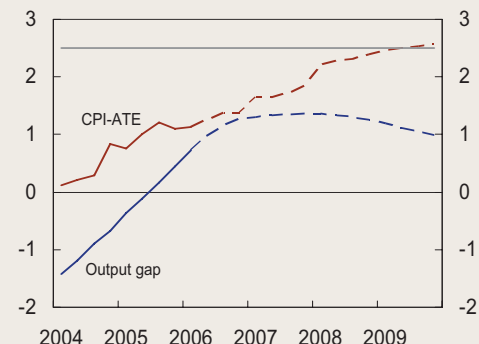


¹⁾ 3-month money market rate.

²⁾ The fan chart is based on prices for interest rate options. 90% confidence interval.

Sources: Reuters and Norges Bank

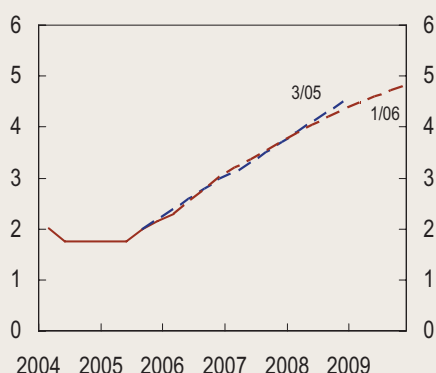
Chart 1.7 Projected CPI-ATE¹⁾ and output gap in the baseline scenario. Quarterly figures. Per cent. 04 Q1 – 09 Q4



¹⁾ CPI-ATE: CPI adjusted for tax changes and excluding energy products. A further adjustment is made for the estimated effect of reduced maximum day-care rates from January 2006.

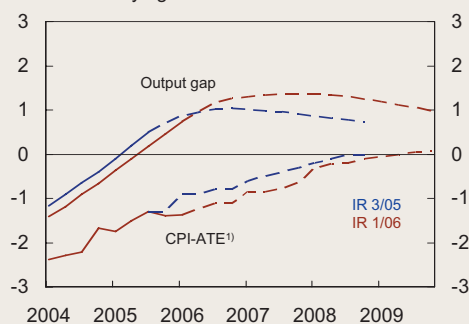
Sources: Statistics Norway and Norges Bank

Chart 1.8 The sight deposit rate in the baseline scenario in IR 3/05 and IR 1/06. Per cent. Quarterly figures. 04 Q1 – 09 Q4



Source: Norges Bank

Chart 1.9 Projected output gap and CPI-ATE¹⁾ (measured as deviation from the inflation target) in the baseline scenario in IR 3/05 and IR 1/06. Per cent. Quarterly figures. 04 Q1 – 09 Q4



¹⁾ CPI-ATE: CPI adjusted for tax changes and excluding energy products. A further adjustment is made for the estimated effect of reduced maximum day-care rates from January 2006.

Sources: Statistics Norway and Norges Bank

state of the Norwegian economy. Monetary policy must strike a balance between the various objectives. Higher growth in the Norwegian economy, a tighter labour market, a pronounced rise in equity prices and high credit growth must be weighed against unexpectedly low inflation.

We have illustrated the uncertainty surrounding forecasts for the interest rate, the krone exchange rate, inflation and the output gap with fan charts (see Charts 1.5a-d).³ The width of the fan charts are based on historical disturbances.⁴ However, there is no certainty that future disturbances will be of the same nature and scale. The wider the fan charts are, the more uncertain the projections. Uncertainty surrounding the interest rate reflects the monetary policy response to unexpected disturbances to inflation, output and the exchange rate.

When the interest rate, as projected in the baseline scenario, 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. According to our projections, inflation will be close to target three years ahead. We are uncertain about the functioning of the economy and how long it will take for resource shortages observed in some sectors of the Norwegian economy to translate into increased inflationary pressures. This may warrant small steps in interest rate setting.

Uncertainty surrounding the projections

The interest rate will not necessarily follow the projected path during the projection period. Forecasts for inflation, output, the interest rate and other variables are based on an assessment of the current situation and a perception of how the economy functions. Disturbances to the economy may result in changes in the forecasts. Norges Bank's ambition is to reduce the uncertainty surrounding its response pattern.

Current statistics and news about the Norwegian economy may reveal whether developments in the economy are in line with the scenario underlying the monetary policy strategy. Information about economic developments becomes available at different times and will not necessarily be clear-cut. 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.

³ Account has not been taken of the uncertainty surrounding the present situation.

⁴ See box in *Inflation Report 3/05* and Deputy Governor Jarle Berge's speech on 27 January for a further description of how fan charts are calculated.

Charts 1.10a-c analyse developments under alternative scenarios. 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): Inflation is lower than projected

Inflation has been lower than expected in recent years. The rise in prices for imported consumer goods has been particularly low. In this *Report*, Norges Bank has assumed in the baseline scenario that the price-curling effects of these trade shifts will persist, but will gradually dissipate. Nevertheless, stronger shifts in the import pattern cannot be ruled out and it may take longer for the rise in prices for imported goods to pick up. In this alternative scenario, inflation will be about ½ percentage point lower than in the baseline scenario without any attendant changes in the projections for developments in the real economy. Increased competition may also contribute to lower inflation.

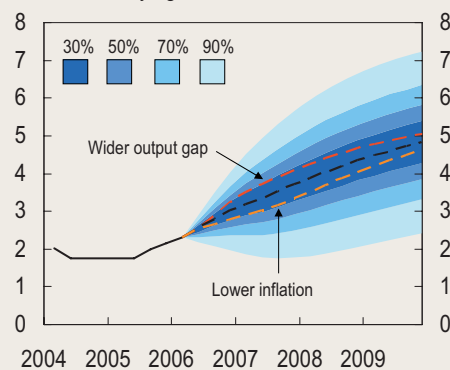
The alternative scenario is based on the assumption that the central bank maintains the interest rate path as outlined in the baseline scenario in the first months and does not respond to disturbances until autumn 2006. Nor are market participants, households or enterprises certain that the economy will follow a different path until that time. The reason for the delayed response is that it is difficult to distinguish between erratic statistical outcomes and real disturbances and thus it may take time to become aware that the economy is following a different path.

In isolation, lower inflation implies an interest rate path that is lower than in the baseline scenario. The output gap gradually becomes higher than in the baseline scenario as a result of lower interest rates. Inflation is lower than in the baseline scenario the next three years.

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

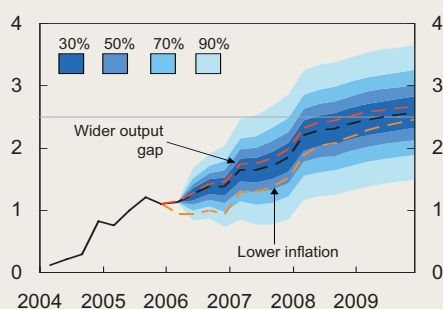
There are also reasons why price and cost inflation may be higher than expected. We have behind us a period of very low real interest rates. We have little experience of such low interest rates over a long period. Even though capacity utilisation is rising, there are no visible signs of a rapid increase in inflation. New information since the previous *Report* nevertheless suggests that the labour market is now becoming tighter more quickly than observed so far during this upturn. It is uncertain how fast prices and wages will react when growth in output and employment picks up. Previous experience shows that wage growth can quickly accelerate. Total wage growth last year seems to have been closely in line with projections even though the figures

Chart 1.10a Sight deposit rate in the baseline scenario and in the alternatives with lower inflation (yellow line) and a wider output gap (red line). Per cent. Quarterly figures. 04 Q1 – 09 Q4



Source: Norges Bank

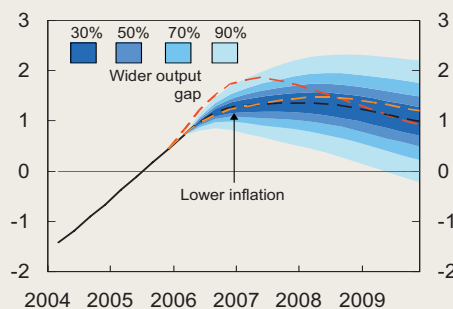
Chart 1.10b Projected CPI-ATE¹⁾ in the baseline scenario and in the alternatives with lower inflation (yellow line) and a wider output gap (red line). 4-quarter change. Per cent. 04 Q1 – 09 Q4



¹⁾ CPI-ATE: CPI adjusted for tax changes and excluding energy products. A further adjustment is made for the estimated effect of reduced maximum day-care rates from January 2006

Sources: Statistics Norway and Norges Bank

Chart 1.10c Estimated output gap in the baseline scenario¹⁾ and in the alternatives with lower inflation (yellow line) and a wider output gap (red line). Per cent. Quarterly figures. 04 Q1 – 09 Q4



¹⁾ Uncertainty surrounding the current situation is not taken into account when calculating the fan chart.

Source: Norges Bank

may be revised. In sectors where bonus payments have an influence wage growth was high. In interest rate setting, we must also consider whether we should attempt to counter the recurrence of a situation in the economy where there is a risk of a sharp rise in costs for enterprises.

A possible monetary policy response to this alternative scenario, where growth in the economy is stronger than assumed⁵, is illustrated in Chart 1.10a. The overall outcome for inflation and the output gap is illustrated in Charts 1.10b-c. In this scenario, it is also assumed that it takes time to identify the causes of the developments and to adjust policy. In isolation, this suggests a faster interest rate increase than in the baseline scenario in order to prevent the high output gap from persisting and inflation from overshooting the target.

Cross-checks

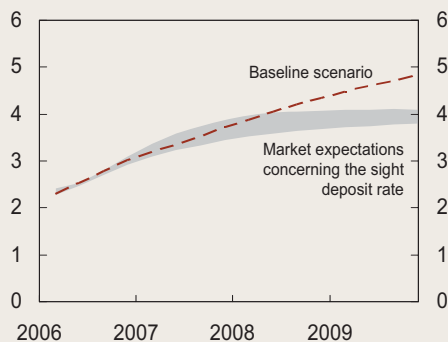
The monetary policy strategy should be cross-checked against various simple rules and indicators that are less dependent on a specific analytical framework and a specific forecast for the Norwegian economy. Simple interest rate rules and indicators will not capture all the details in the projections, but can provide an indication of whether the current interest rate level is reasonably adapted to the economic situation.

The real interest rate has been low in recent years (see Chart 1.1). The risk that expectations of a sustained low real interest rate may amplify cyclical fluctuations may suggest that monetary policy should be less expansionary through a gradual normalisation of the interest rate.

If Norges Bank's interest rate forecast deviates from market expectations, it may be that the central bank and market participants have divergent views of future economic developments. It may also indicate that market participants have a different monetary policy assessment than that of the central bank. Market expectations, as reflected in forward rates, will be a way of cross-checking the Bank's interest rate forecast.

Forward interest rates are somewhat higher further out than when the previous *Report* was published. By estimating forward interest rates as an expression of the sight deposit rate, we obtain an indication of market expectations of the future sight deposit rate (see Chart 1.11). There are now expectations that the key rate will increase gradually to 4% towards the end of 2008. These expectations broadly follow Norges Bank's interest rate path up to the end of 2006, but are somewhat higher through 2007 and the beginning

Chart 1.11 Sight deposit rate in the baseline scenario and market expectations concerning the sight deposit rate.¹⁾ Per cent. Quarterly figures. 06 Q1 – 09 Q4



¹⁾ Derived from estimated forward rates. The sight deposit rate was reduced by a credit risk premium and a technical difference of 0.20 percentage point. The grey, shaded interval shows the highest and lowest interest rates in the market's sight deposit rate path in the period 27 Feb – 10 Mar 2006.

Source: Norges Bank

⁵ It is assumed that the output gap rises by 1 percentage point in relation to the baseline scenario.

of 2008. Thereafter, Norges Bank's interest rate path is somewhat higher than market expectations. Market participants may have a different perception of the interest rate path necessary to stabilise inflation at target. The deviation towards the end of the projection period may also indicate that extraordinary conditions related to international capital flows have pushed down long-term interest rates in many countries (see Section 2 for further discussion).

Simple monetary policy rules have in many cases proved to be less sensitive to statistical shortcomings, even though they have other obvious drawbacks. These 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 are prone to extensive revision.

The Taylor rule⁶, as estimated by Norges Bank, implies that the interest rate is now too low (see Chart 1.12). The Taylor rule applies the output gap. However, the output gap cannot be directly observed and is thus an uncertain variable. Therefore, the growth rule⁷ instead uses observed GDP growth. This rule also implies that the interest rate should be increased. This must be seen in the light of high growth in the Norwegian economy and higher inflation. Nevertheless, as inflation remains below target in the short term, the monetary policy stance should also be expansionary over the next six months. The rules have some 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. Nor have simple monetary policy rules been able to describe actual interest rate setting for many other countries.

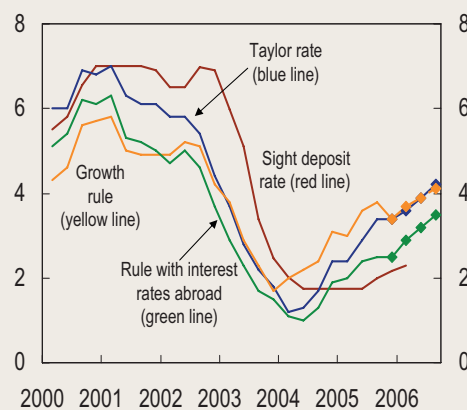
The rule involving external interest rates⁸ results in a somewhat lower interest rate than the other rules. This is because the external interest rate level is low. All three monetary policy rules imply that the interest rate is now too low, but the difference down to the sight deposit rate has narrowed

⁶The 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.

⁷ Athanasios Orphanides, among others, 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 (2000): "Errors in the measurement of the output gap and the design of monetary policy". Journal of Economics and Business, vol. 52, pages 117-141.

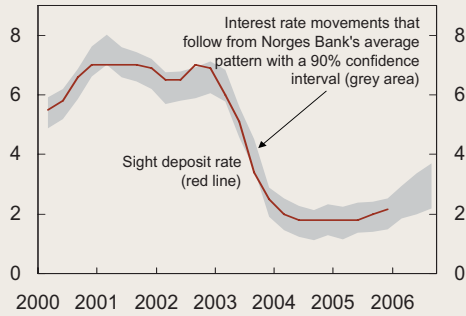
⁸The external interest rule: Interest rate = inflation target + equilibrium real interest rate + 1.5 (inflation – inflation target) + 0.5 output gap + 1.0 (real interest rate among Norway's trading partners) – real interest rate in Norway).

Chart 1.12 Sight deposit rate, Taylor rule, growth rule and rule with external interest rates. Quarterly figures. Per cent. 00 Q1 – 06 Q3



Source: Norges Bank

Chart 1.13 Sight deposit rate and interest rate developments that follow from Norges Bank's average pattern for the setting of interest rates¹⁾. Per cent. Quarterly figures. 00 Q1 – 06 Q3



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

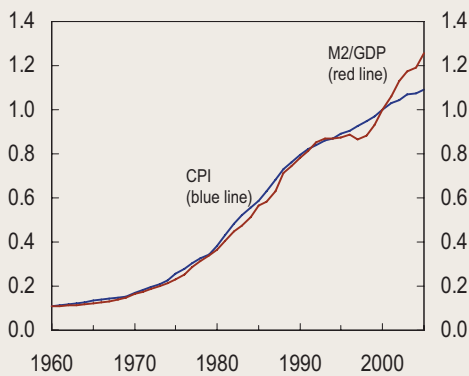
since the previous *Report*. This is because inflation has been lower than projected, the output gap has been revised down somewhat in 2005 and the sight deposit rate was raised by 0.25 percentage point on 2 November 2005.

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 1.13). It is primarily high GDP growth that explains why the reaction function results in higher interest rates ahead. The reaction function results in about the same interest rate as in the previous *Report*.

Historically, there has been some relationship between price developments on the one hand and the rate of M2 growth in relation to GDP on the other (see Chart 1.14). In recent years M2 has increased at a markedly faster pace than implied by developments in the activity level and prices. This may indicate possible price pressures. The relationship 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 these relationships.

M2 growth can be used as an indicator of price developments in the long term. Chart 1.15 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, but growth is somewhat lower than in the period prior to the publication of the previous *Report*.

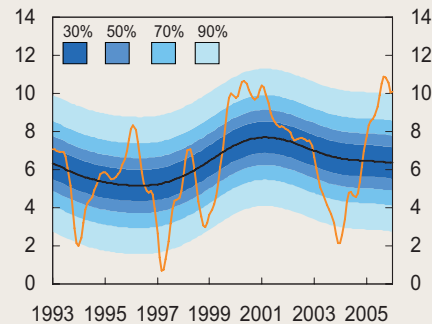
Chart 1.14 CPI and scaled money supply (M2/GDP)¹⁾. Index, 2000 = 1. Annual figures. 1960 – 2005



¹⁾ M2 is scaled by GDP at constant prices.

Sources: Statistics Norway and Norges Bank

Chart 1.15 Money supply (M2). 12-month growth, estimated trend growth and intervals.¹⁾ Per cent. Monthly figures. Jan 93 – Jan 06



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

Source: Norges Bank

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 available to Norges Bank 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 that monetary policy remains expansionary.
- The sight deposit rate should be in the interval 2¼ - 3¼% in the period to the publication of the next *Inflation Report* on 29 June 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 to the outlook for inflation and output. New information may reveal economic developments that indicate that the Norwegian economy is following paths other than that projected. Stronger trade shifts and increased labour market competition may, on the one hand, result in low price and wage inflation. The unusually low real interest rate may, on the other hand, result in accelerating output growth and inflation to a higher-than-projected level. The monetary stance must be assessed in the light of the reasons for, and the duration of disturbances.

2 | International conditions

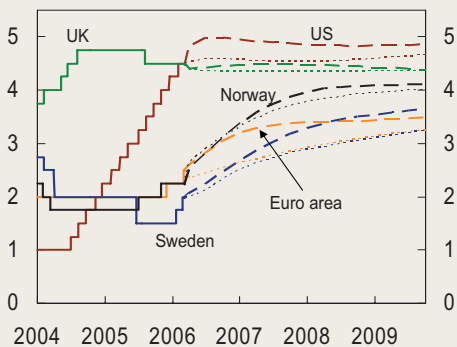
Financial market developments

Higher key rates, but long-term rates remain low

Growth among our trading partners is still solid, and appears on the whole to be somewhat stronger than assumed in *Inflation Report 3/05*. High commodity prices have contributed to somewhat higher inflation, but so far underlying inflation has not been pushed up. Key rates have been raised in a number of countries, and market participants expect further interest rate increases. Since the previous *Inflation Report*, key rates have been increased by 0.75 percentage point in the US and Canada and by 0.50 percentage point in the euro area and Sweden. In Switzerland and New Zealand, the key rate has been raised by 0.25 percentage point. The Bank of Japan has changed its operating target for monetary policy. The objective of maintaining a particularly high level of liquidity in the banking system no longer applies. The new operating target is the uncollateralised overnight call rate, which will still be kept at zero per cent. Key rates remain low among many of our trading partners. Market participants expect a gradual increase in key rates in the period ahead, both in Sweden and the euro area, and at a somewhat faster pace than when the previous *Inflation Report* was published (see Chart 2.1). In the US, the key rate is expected to increase by a further 50 basis points before peaking. In the UK, the key rate is expected to remain virtually unchanged in the period ahead.

19

Chart 2.1 Interest rate expectations. Actual developments. Daily figures. 1 Jan 04 – 10 Mar 06. Expected key rate on 27 Oct 05 and 10 Mar 06.¹⁾ Quarterly figures. 06 Q1 – 09 Q4

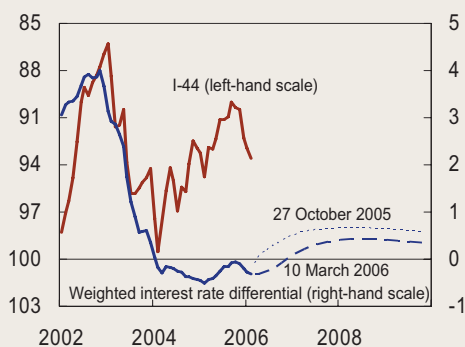


¹⁾ Broken lines show expectations on 10 March 2006. Dotted lines show expectations on 27 October 2005 (IR 3/05). Expectations are based on interest rates in the money market and interest rate swaps.

Sources: Reuters and Norges Bank

In Norway, the key rate was increased by 0.25 percentage point to 2.25% on 2 November 2005. A higher rise in interest rate expectations internationally than in Norway have contributed to reducing the expected interest rate differential against our trading partners (see Chart 2.2). Market pricing indicates expectations of a gradual increase in key rates in the period ahead. Markets have factored in that the key rate at the end of 2009 will be lower in Norway than in the US and the UK but higher than in the euro area and Sweden.

Chart 2.2 3-month interest rate differential and import-weighted exchange rate (I-44)¹⁾. Monthly figures. Jan 02 – Dec 09



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

Sources: Reuters and Norges Bank

In the US, short-term interest rates have increased more than long-term interest rates, which are still low. For the first time since the beginning of 2001, long-term interest rates in the US are at approximately the same level as short-term interest rates. Historically, such a yield curve has often been followed by a recession. Some factors suggest, however, that this is less likely now. Low long-term interest rates must be seen in relation to low inflation expectations internationally and generally high demand for US securities among Asian central banks and oil-exporting countries. Expected changes in regulations applying to pension funds have contributed to increasing the demand

for long-term securities. Most analysts and forecasters of developments in the US economy expect that growth will remain high (see box on page 49).

Long-term interest rates are also low in most other countries (see Chart 2.3). In Norway, Kredittilsynet's (Financial Supervisory Authority) recommendation to change the capital requirements for Norwegian insurance companies in the period 2007-2009 has contributed to keeping long-term interest rates low. Since the previous *Inflation Report*, long-term interest rates have fallen in the UK, but increased somewhat in the euro area and Sweden.

Weaker krone

The krone appreciated through much of 2005. The appreciation against the Swedish krona was particularly strong. This tendency was reversed in November 2005. As measured by the import-weighted index (I-44), the krone exchange rate has depreciated by 2.9% since 27 October 2005.

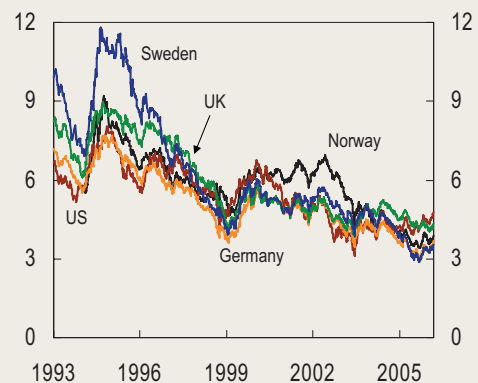
The depreciation of the krone since November may be due to a number of factors. As in some previous years, reductions in positive NOK positions contributed to a depreciation of the krone exchange rate in December. Lower-than-expected inflation in December and January reduced market interest rate expectations and led to the sale of NOK. However, the krone depreciated more than implied by the change in interest rate expectations. One of the reasons for this may be that the surprisingly low inflation figures increased the uncertainty surrounding Norges Bank's future interest rate setting and thus increased the risk of investing in NOK. The krone has appreciated somewhat recently.

Although the krone has depreciated since November, the krone exchange rate, measured by both the import-weighted index (I-44) and the trade-weighted exchange rate index (TWI), is still stronger than the average for the period from 1970 to 2005. The real exchange rate is also stronger. Measured by relative labour costs in a common currency, the real exchange rate so far this year can be estimated to be about 7% stronger (see Chart 2.4). Measured by consumer prices in a common currency, the real exchange rate can be estimated to be more than 6% stronger.

Continued rise in equity prices in Norway and internationally

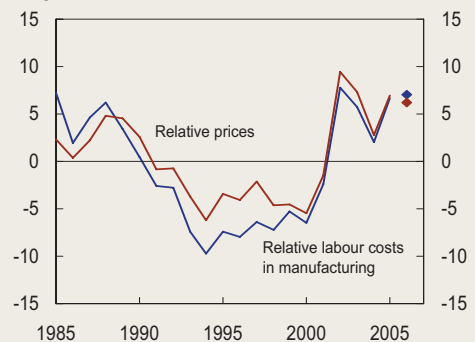
Equity prices in Norway and internationally have generally risen since 2003. High oil prices and expectations of higher earnings have contributed to a series of all-time highs on the Oslo Stock Exchange. Since the previous *Inflation Report*, the benchmark index has risen by 25%. The rise has been most pronounced in the energy and finance

Chart 2.3 10-year yield in various countries. Per cent. Weekly figures. Week 1 1993 – Week 10 2006



Source: Bloomberg

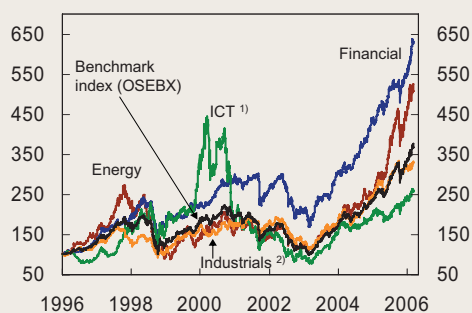
Chart 2.4 Real exchange rates (relative consumer prices and labour costs in common currency). Deviation from average 1970 – 2005. Annual figures. Per cent. 1985 – 2006¹⁾



¹⁾ Average nominal exchange rate (TWI) for 2006 based on the average so far this year through 10 March. Projected consumer price inflation and wage growth in 2006, based on the baseline scenario in IR 1/06.

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

Chart 2.5 Developments in some sub-indices on the Oslo Stock Exchange. Index, 2 Jan 96 = 100. Daily figures. 2 Jan 96 – 10 Mar 06



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

Sources: EcoWin and Norges Bank

indices, with a 28% and 25% rise respectively (see Chart 2.5). Compared with historical levels for book values, the pricing of companies listed on the Oslo Stock Exchange is relatively high. This reflects high actual and expected earnings. Stock exchange indices in Europe and the US have risen less, 17% and 9% respectively, than the Oslo Stock Exchange.

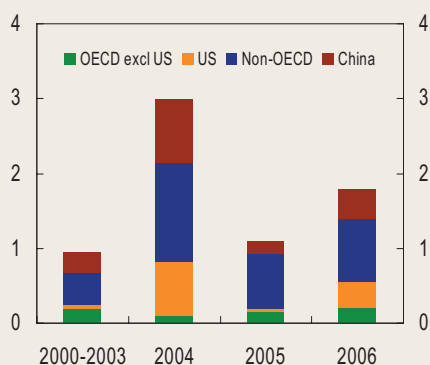
The oil and gas market

In 2004, there was strong growth in overall oil demand (see Chart 2.6). This was primarily due to strong growth in the global economy and in particular to high oil consumption for the production of energy in China. Excess production capacity, primarily in the OPEC countries, was substantially reduced. Oil prices rose markedly.

In 2005, growth in demand was more moderate. In China, demand growth slowed from 15.4% in 2004 to 2.5% in 2005. US demand for oil was unchanged compared with the preceding year after high prices curbed consumption somewhat. The hurricanes in the Gulf of Mexico also reduced growth in oil production. North Sea oil production declined as a result of accidents, maintenance shutdowns and delays. Total non-OPEC oil production was unchanged from 2004 to 2005. Therefore, growth in demand in 2005 was largely accommodated by oil from the OPEC countries, and oil prices increased further through 2005.

With little excess capacity, even small disturbances to supply or demand can have a substantial impact on the price of oil. In recent months, the political situation has become increasingly tense in important oil-exporting countries like Nigeria, Venezuela and Iran. Oil production disruptions in one or more of these countries cannot be fully offset by increased production in other countries, which entails a risk of higher oil prices.

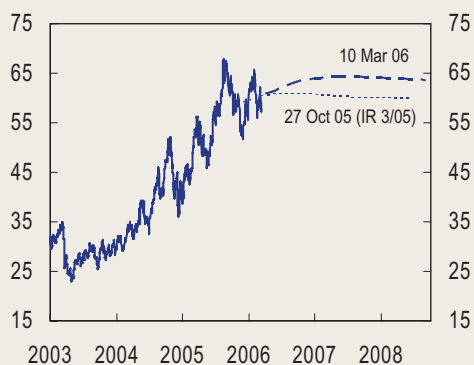
Chart 2.6 Growth in demand for oil. In million barrels per day. Annual figures. 2000 – 2006¹⁾



¹⁾ IEA forecasts for 2006.

Sources: EcoWin and International Energy Agency

Chart 2.7 Oil price (Brent Blend). USD per barrel. Daily figures. 2 Jan 03 – 10 Mar 06. Futures prices from 10 Mar 06. Monthly figures. Apr 06 – Sep 08



Sources: EcoWin, Reuters and Norges Bank

Growth in global oil demand is expected to approach 2% in 2006. This is in line with expected growth in supply from non-OPEC countries. On the whole, this indicates that the price of oil will remain high. The price of oil is at approximately the same level prevailing at the time of the November *Inflation Report*. Futures prices underlying the projections in this *Report* indicate that the price of oil will remain above USD 60 per barrel for the next few years (see Chart 2.7). This is nearly USD 5 higher than the futures price prevailing at the time of *Inflation Report* 3/05.

Developments in the gas market are becoming increasingly important for Norway. According to the Petroleum Directorate, gas exports are expected to increase from about 85bn standard cubic metres (Sm³) per year to more than 100bn Sm³ within a few years. The Directorate also expects oil production to remain at approximately the same

level during the next few years and to decline thereafter. During the next 10 years gas production may reach the same level as oil production, measured by energy content. Nevertheless, revenues from gas exports will be lower than revenues from oil exports for a few more years. In 2005, the value of natural gas exports accounted for 24% of Norway's total petroleum revenues.

Long-term contracts, where volume has been agreed in advance and price has been tied to the price of oil or alternative energy sources such as heating oil, have dominated Norwegian gas exports for many years (see Chart 2.8). When production starts on the Snøhvit and Ormen Lange fields in 2007, a large portion of natural gas will be exported to the UK and the US, where the gas price will largely be set in independent markets that may be compared to the Nordic energy market.

In the second half of 2005, gas prices in both the UK and the US were very high (see Chart 2.9). Gas production in the US was heavily affected by the hurricanes last autumn. It was impossible to replace the decline in production by importing gas or by drawing on stocks as was the case for oil. Therefore, gas prices rose sharply and remained high for a longer period than oil prices. In the UK, North Sea gas production declined more than expected and import capacity is limited. Cold weather and high consumption has thus led to a substantial price rise. During the last few weeks, gas prices in both the US and the UK have fallen somewhat again. This must be seen in the light of the increase in gas production in the Gulf of Mexico and the reduction in UK demand as a result of warmer weather.

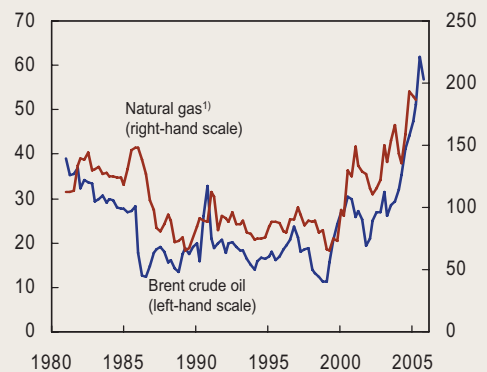
Economic developments among trading partners

Global growth remained high last year even though the pace softened somewhat compared with 2004. As in previous years, China and the US contributed most to growth, although growth in Japan and a number of other Asian countries was also solid. In the UK, growth slowed considerably from 2004 to 2005. In Sweden, activity picked up through 2005. In the euro area, growth remained low.

High growth in the global economy also contributed to a further rise in commodities other than oil. This increase has continued in 2006. In spite of a slight decline recently, metal prices have increased substantially in recent months. There has also been a pronounced increase in futures prices (see Chart 2.10), indicating expectations of a sustained upward movement in metal prices similar to that of oil prices.

High commodity prices have contributed to somewhat higher inflation, but so far underlying inflation has not risen

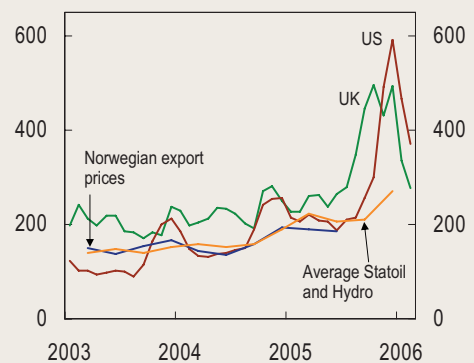
Chart 2.8 Prices for natural gas (USD per 1000 Sm³ and crude oil (USD per barrel). Quarterly figures. 81 Q1 - 05 Q4



¹⁾ Price of Norwegian gas exports. Figures up to 05 Q2.

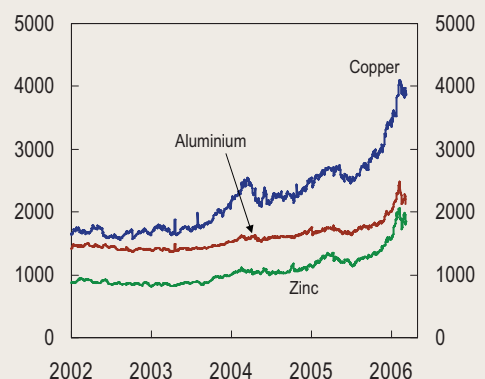
Sources: EcoWin, Statistics Norway and Norges Bank

Chart 2.9 Prices for natural gas. USD per 1000 Sm³. Monthly and quarterly figures. Jan 03 – Feb 06



Sources: EcoWin, ICE, NYMEX, Statistics Norway, Statoil, Hydro and Norges Bank

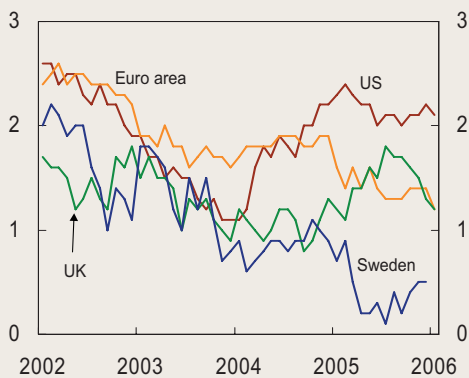
Chart 2.10 Metal futures prices¹⁾. USD per ton. Daily figures. 1 Jan 02 – 10 Mar 06



¹⁾ Delivery in 27 months.

Sources: London Metal Exchange and EcoWin

Chart 2.11 Core inflation¹⁾, 12-month rise. Per cent. Jan 02 – Jan 06



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

Source: EcoWin

(see Chart 2.11). Increased trade has led to high demand for maritime freight and ships. However, an increase in the number of available vessels contributed to reducing freight rates in 2005 compared with 2004. Rising commodity prices and buoyant activity in markets that are important for Norway have fuelled growth in the Norwegian economy, even though growth has been low in some of Norway's most important export markets.

We assume that the upturn will continue for our trading partners as a whole. Growth is projected to be somewhat stronger in 2006 than in 2005 and slightly higher than assumed in the November *Inflation Report* (see Table 2.1). Nevertheless, there will still be idle resources, especially in a number of European countries, which implies continued low inflation.

US

In the US, private consumption and private fixed investment contributed to high growth in 2005. Investment growth is being underpinned by solid profitability in the business sector. Consumption growth was sustained by a sharp rise in house prices. Housing investment has also increased. The household saving ratio has fallen further and is now negative (see Chart 2.12). Even though debt has increased rapidly, the rise in house prices has contributed to increasing the value of net household wealth.

Growth in both private consumption and housing investment decelerated markedly from the third to the fourth quarter. This was partly due to the after-effects of the hurricanes last autumn. Consumption, as well as consumer confidence, picked up again towards the end of 2005. The housing market has shown signs of weaker developments, with a lower rise in prices, reduced turnover and a decline in the turnover rate for dwellings. Growth in business fixed investment slowed in the fourth quarter. Various short-term indicators for the business sector suggest, however, that activity is picking up. Consumer prices have increased as a result of higher energy prices, but core inflation has remained at around 2%.

Looking ahead, US households are expected to increase saving somewhat, with a gradual moderation in housing investment. Solid profitability in the business sector may pave the way for continued growth in fixed investment and employment. Increased employment will contribute to sustaining growth in consumption. In the near term, reconstruction following the hurricanes will also contribute to increased activity. On the whole, we assume that growth will slow somewhat this year compared with 2005. Consumer prices will still be affected by fluctuations in energy prices, but core inflation is expected to show little change.

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

	2006	2007	2008	2009
US	3	3	3	3
Japan	2½	2	1½	1¼
Germany	1½	1½	1½	1½
France	2	2	2	2
UK	2	2¼	2½	2½
Sweden	3½	2¾	2½	2¼
Trading partners ¹⁾	2¾	2½	2½	2½
Euro area ²⁾	2	2	2	2
China ³⁾	9	8½	9	8

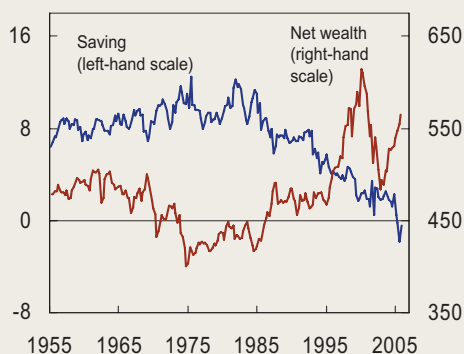
¹⁾ Export weights

²⁾ Weights from Eurostat

³⁾ Projections from Consensus Forecasts

Sources: Consensus Forecasts and Norges Bank

Chart 2.12 Household net wealth and saving in the US. Percentage of disposable income. Quarterly figures. 55 Q1 – 05 Q4



Source: EcoWin

Europe

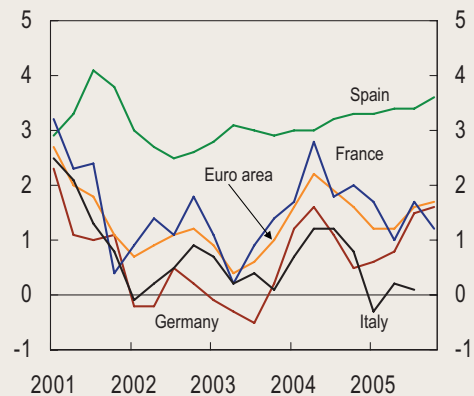
GDP growth in the euro area was relatively low again in 2005, at 1.3%. Growth in the euro area showed signs of rising GDP growth in the first three quarters of 2005. Growth in the fourth quarter was weak, however, partly due to stagnation in Germany. Private consumption growth in the euro area was low in 2005. Fixed investment and net exports made the largest contributions to growth in total demand. Growth in France was roughly in line with the average for the euro area, while growth in Spain was clearly stronger. In Germany and Italy, GDP growth was below the euro area average in 2005 (see Chart 2.13)

There are signs that growth in the euro area will pick up. Industrial output is rising. A number of indicators of business activity and confidence also point to increased growth (see Chart 2.14). We expect a further increase in fixed investment in the euro area. In spite of weak GDP growth, unemployment has declined and there are signs of improvement in consumer confidence. This may lead to an increase in private consumption. Due to high energy prices, euro area inflation is somewhat higher than target, but core inflation is low and stable. On the whole, GDP growth is expected to pick up somewhat in the period ahead. At the same time, there will still be idle resources so that core inflation will probably remain low (see Table 2.2).

In 2005, growth in the UK was at its lowest level since 1992. This is due in particular to slow growth in private consumption when the increase in house prices came to a halt. In the fourth quarter, activity picked up somewhat with strong growth in the service sector. House prices rose again towards the end of 2005 and may provide a basis for strong consumption growth in the period ahead. High energy prices pushed inflation up slightly above the 2% target, but since then inflation has fallen. Core inflation is still moderate. Pressures in the economy diminished somewhat in 2005. Even though growth is expected to pick up in the period ahead, there are no signs of the emergence of substantial pressures in the economy. This implies that inflation will remain moderate in the period ahead.

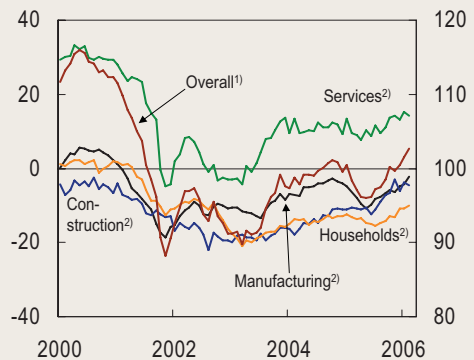
In Sweden, activity picked up through 2005. The labour market improved somewhat towards the end of the year. Looking ahead, employment growth is expected to sustain growth in consumption. Fiscal policy is expected to stimulate activity in the period ahead. Growth picked up in Denmark in 2005. Growth in business fixed investment gathered pace, while household demand continued to rise. Inflation has remained low in both Sweden and Denmark, but increasing capacity utilisation may push up inflation somewhat.

Chart 2.13 GDP. 4-quarter growth. Per cent. 01 Q1– 05 Q4



Source: EcoWin

Chart 2.14 Confidence indicators for the euro area. Indices. Monthly figures. Jan 00 – Feb 06



¹ Composite index, 100 = average for 1990 – 2003 (right-hand scale).

² Diffusion index (left-hand scale).

Source: EcoWin

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

	2006	2007	2008	2009
US	2¼	2½	2½	2½
Japan	¼	½	¾	1
Germany ¹⁾	1¾	2	1¾	1½
France ¹⁾	1¾	2	2	2
UK ¹⁾	2	2	2	2
Sweden	1½	2	2	2
Trading partners ²⁾	2	2	2¼	2
Euro area ³⁾	2	2	2	2
China ⁴⁾	2¼	2¼	3¼	3

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

Asia

China continued to record strong growth through 2005. Net exports made a substantial contribution to growth, although fixed investment and private consumption also rose sharply. Revised figures show that GDP is substantially higher than previously assumed. The revision is mainly related to service industries and led to a pronounced upward adjustment of production and probably service consumption as well. Total consumption may therefore account for a larger share of GDP than indicated by the preliminary figures. The corollary is a reduction in investment's share of GDP. After the adjustment, growth in China appears to be more balanced. The investment share is still high, however, and there is still a risk of a downturn due to overinvestment.

We assume that China will be competitive in an increasing number of areas and that net exports will continue to contribute to growth in the period ahead. Infrastructure development will probably continue to contribute to investment growth in China. We expect employment to increase and fuel rapid growth in consumption. China still has an abundant supply of cheap labour and productivity growth is high. Therefore, inflation will probably remain low even if strong growth in output continues (see Chart 2.15).

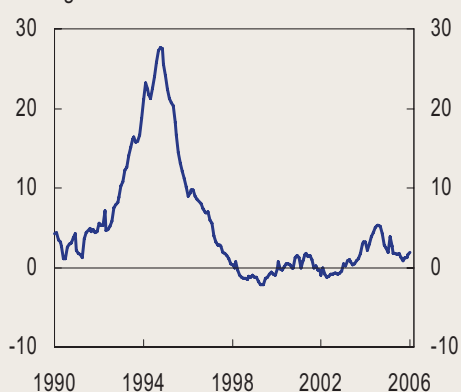
In Japan, growth was solid for the second consecutive year. Fixed investment increased markedly, probably as a result of strong export growth and solid profitability in the business sector. We expect continued solid growth in the Japanese economy. Various business confidence indicators point to optimism, and industrial output is picking up. Consumer confidence is improving, and higher wage growth and increased employment will lay the basis for growth in private consumption. Measured by the GDP deflator, deflation continues, but consumer prices rose from January 2005 to January 2006. Rising activity levels and a tightening of the labour market may gradually lead to a rise in prices.

Growth was also strong in other Asian countries last year (see Chart 2.16). Growth in China and Japan is expected to stimulate activity in the period ahead. Growth also remained strong in India. The authorities in India are becoming more open to foreign trade and investment, which may underpin growth in the period ahead.

Risk factors

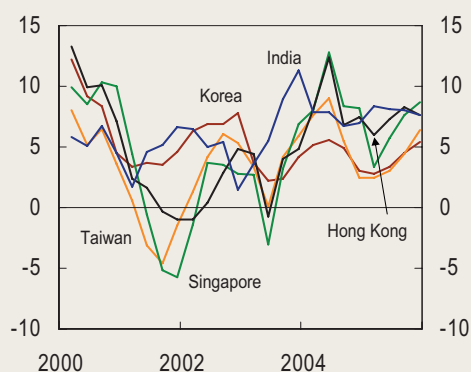
There are substantial imbalances in the world economy. The current account deficit in the US increased to more than 6% of GDP in 2005. At the same time, the current account surplus is growing in oil-exporting countries and countries in East Asia. Even though growth is expected to slow in the US and accelerate somewhat in other countries,

Chart 2.15 Consumer prices in China. 12-month change. Per cent. Jan 90 – Jan 06



Sources: EcoWin and National Bureau of Statistics China.

Chart 2.16 GDP. 4-quarter growth. Per cent. 00 Q1– 05 Q4



Sources: EcoWin and Norges Bank

the imbalances will not change substantially. If the imbalances were to lead to abrupt and considerable corrections, the result could be substantially weaker developments than assumed.

One risk is that US households increase saving markedly, which might be triggered by a weaker housing market. This would reduce demand in the US and curb imports from other countries. Weaker growth in the US will have an impact on many countries, but Asian countries would be particularly hard hit. With such a development, interest rates might fall and the USD might depreciate.

Several years ago, the US current account deficit was mainly financed by capital inflows from the private sector. In recent years, other countries' central banks, both in Asia and in oil-exporting countries, have accounted for a considerable share of USD financing. If some of these investors no longer want to increase their holdings of USD assets, the currency could depreciate substantially. A markedly weaker USD would reduce the growth outlook for other countries. Even though a depreciation of the USD strengthens the growth outlook for the US, the overall effect could be a global recession.

The sharp increase in prices for oil and other energy products is also generating uncertainty. So far, high prices have not had a strong negative impact (see box in *Inflation Report* 3/05). Over time, however, high energy prices may curb growth and lead to higher inflation. Initially, the impact on Norway will be limited because oil-related activities will remain buoyant or increase. On the other hand, if prices for oil and other commodities fall, for example as a result of a recession in the US, Norway could be relatively hard hit.

Other factors that could lead to weaker international developments include a potential escalation of conflicts in various parts of the world and terrorist attacks. A pandemic resulting from avian influenza could at worst lead to a downturn in the global economy.

There are other factors that may contribute to stronger growth than projected in this *Report*. Solid profitability in the business sector may result in even higher fixed investment in a number of countries. Consumption may also increase more rapidly than anticipated. GDP growth, particularly in Japan and Europe, might then be stronger than envisaged and the slowdown in the US might be very moderate. Oil prices might then increase further. For Norway, such a scenario would provide stronger positive impulses from both our largest trading partners and from important commodity markets.

3 | Developments in the Norwegian economy

The economic situation

Demand, output and capacity utilisation

Growth in the Norwegian economy has been high since summer 2003. The expansion has gradually broadened. Low interest rates have contributed to a relatively sharp rise in household demand throughout the upturn. At the same time, solid global growth has led to increased demand for many Norwegian export goods and high prices. Fixed investment in the petroleum sector has increased sharply, resulting in growing demand for goods and services supplied by mainland enterprises. Mainland fixed investment has also picked up gradually. So far in the economic upturn, the mainland economy has grown by an average of about 3.5% quarterly, measured as an annualised rate (see Chart 3.1).

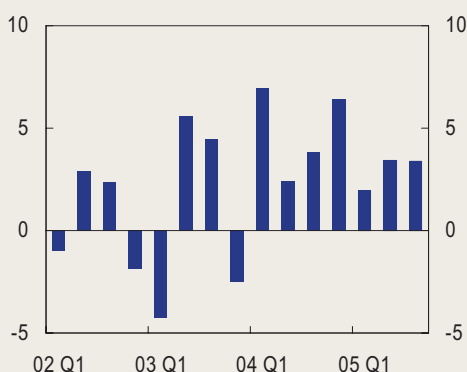
Thus far, a substantial share of output growth has been attributable to strong growth in person-hours worked. The decline in sickness absence in 2004 provided enterprises with extra labour. Mainland productivity has shown relatively moderate growth in recent years. There are signs that productivity growth has gradually edged up. According to preliminary national accounts figures, productivity increased by about 2% from 2004 Q3 to 2005 Q3.

Our assessment of total capacity utilisation in the economy is reflected in our estimate for the output gap (see Chart 3.2). The output gap is the percentage difference between actual output and potential output. Potential output is not observable and indicates the level of output that is consistent with stable price and cost inflation.¹ Output has increased more rapidly than potential output for 2-3 years. Much of the available capacity has been put to use. The estimates in this report are based on the assumption that mainland GDP was approximately ½% higher than its potential level at end-2005.

In assessing the size of the output gap, technical calculations are compared with other information about capacity utilisation in the economy. In our regional network, 49% of our contacts report that they will have some or considerable problems in satisfying an increase in demand (see Chart 3.3). This is higher than in the previous rounds. We have only a tenuous basis for translating this figure into a particular output gap level, since the data from the network do not cover a full business cycle. However, experience abroad indicates that a share of 49% implies a positive output gap.²

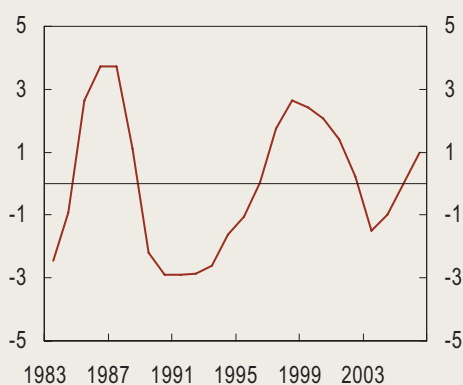
There seems to be some degree of variation in capacity utilisation across industries. The construction industry is proba-

Chart 3.1 Mainland GDP. Seasonally adjusted, annualised quarterly growth. Per cent. 02 Q1 – 05 Q3



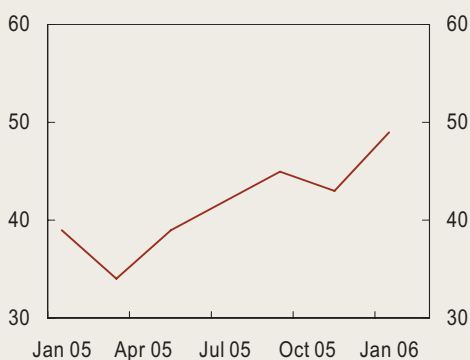
Sources: Statistics Norway and Norges Bank

Chart 3.2 Estimates for the output gap. Per cent. Annual figures. 1983 – 2006



Source: Norges Bank

Chart 3.3 Capacity utilisation. Regional network. Share reporting that they have some or considerable difficulty in accommodating an increase in demand. Per cent. Jan 05 – Jan 06



Source: Norges Bank

¹ See the box on “Norges Bank’s estimate of the output gap” in *Inflation Report* 2/04 for a more detailed account of methods for estimating the output gap.

² In the Canadian central bank’s regional network, a similar question regarding capacity utilisation has been posed since 1999. The Canadian experience is that capacity problems in 40% of enterprises may be consistent with an output gap of around zero. During expansions, the share of enterprises with capacity problems has approached 60%.

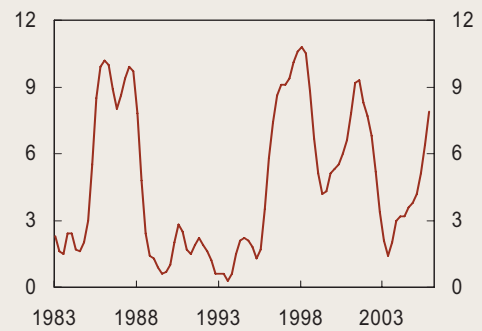
bly operating at capacity limit. In our regional network, over 80% of construction enterprises report that they will have capacity problems if demand increases. There is a shortage of engineers and project managers. Manufacturing also reports high capacity utilisation, particularly among suppliers to the petroleum industry. According to Statistics Norway's business tendency survey, the shortage of labour is a constraint on production for a growing number of manufacturers. The share reporting such constraints is high, but still somewhat lower than in 1998 and 2001 (see Chart 3.4).

According to the regional network, there is no indication of a shortage of capacity in retail trade and other service industries. Together these industries account for a large share of the mainland economy. Capacity utilisation in retail trade has increased somewhat over the past year, but has shown little change in service industries as a whole. However, consultancies report increased competition for labour.

Unemployment is falling. For a long period, the two sets of unemployment statistics provided different signals as to how rapidly labour market tightening is taking place, but in recent months both have shown that unemployment is falling rapidly (see Chart 3.5). In February, there were 19 000 fewer registered unemployed than one year earlier. Seasonally adjusted unemployment as a percentage of the labour force was 2.9%, the same level as at end-1997. Statistics Norway's Labour Force Survey also shows that unemployment fell towards the end of 2005. Nevertheless, LFS unemployment has not fallen by more than 5000 since the recovery started in 2003 Q2. The difference between unemployment as measured in the LFS and registered at the employment offices is higher than normal. LFS unemployment is probably being pushed up owing to an increase in the number of occupationally disabled with labour market attachment since the transfer of responsibility for follow-up from social security offices to the Directorate of Labour. As a result, it may be that a larger share of occupationally disabled than previously report that they are unemployed in the LFS. The LFS unemployment level that is consistent with balance in the labour market may therefore have increased slightly. If this is taken into account, average LFS unemployment last year was probably close to a level that is consistent with normal resource utilisation. The level of registered unemployment may imply somewhat higher resource utilisation.

Developments in the labour force, the number employed and person-hours worked also provide a basis for assessing capacity utilisation in the economy. The number of person-hours worked during this economic upturn has increased appreciably more than the number employed. The difference is largely due to the fall in sickness absence in 2004. At the same time, average working hours per employee have increased because fewer work part-time and the use of overtime has increased. However, the rise in the number employed gathered momentum towards the end of last year and into 2006 (see Chart 3.6).

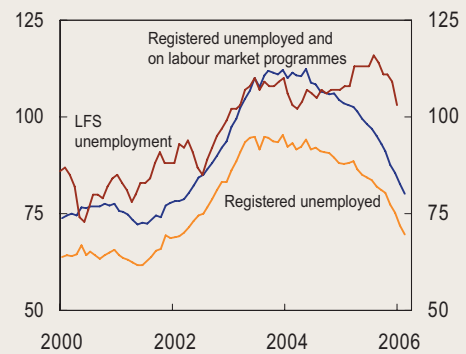
Chart 3.4 Business climate index. Labour shortages in manufacturing.¹⁾ Smoothed. Per cent. Quarterly figures. 83 Q1 – 05 Q4



¹⁾ Share of companies reporting that a labour shortage is a production constraint.

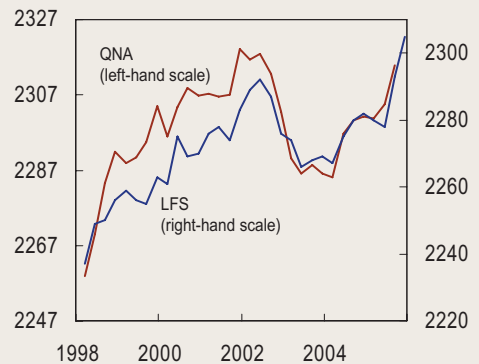
Source: Statistics Norway

Chart 3.5 Unemployed. LFS unemployment, registered unemployed and persons on ordinary labour market programmes. In thousands. Seasonally adjusted. Monthly figures. Jan 00 – Feb 06



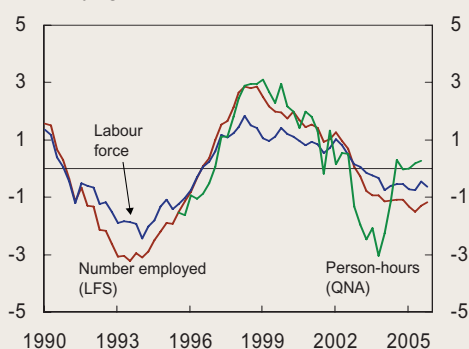
Sources: Statistics Norway and the Directorate of Labour

Chart 3.6 Employment. Labour Force Survey (LFS) and quarterly national accounts (QNA). Seasonally adjusted. In thousands. Quarterly figures. 98 Q1 – 05 Q4



Source: Statistics Norway

Chart 3.7 Employment, person-hours worked and labour force. Percentage deviation from trend¹⁾. Quarterly figures. 90 Q1 – 05 Q4

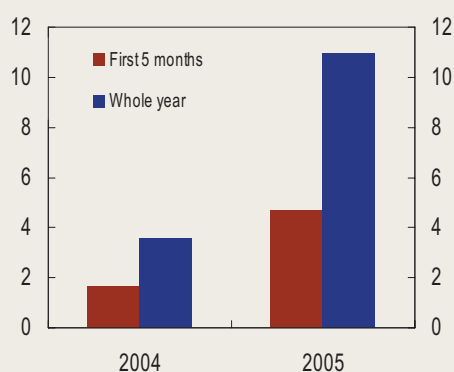


¹⁾ Trend calculated using HP filter. See Staff Memo 2005/2 (www.norges-bank.no) for further information.

Sources: Statistics Norway and Norges Bank

The level of the labour force, the number employed and person-hours worked normally fluctuate in pace with the business cycle (see Chart 3.7). During an upturn, employment increases and the number of job-seekers rises. Towards the end of 2005, the level of the labour force and the total number employed were still somewhat lower than their estimated trend levels. In isolation this may indicate that there was still some unutilised labour in the economy. However, the level of person-hours worked was higher. Final national accounts figures for 2003 show that the use of labour declined somewhat more during the last economic downturn than the preliminary figures indicated. This suggests that capacity utilisation was somewhat lower when the recovery began than assumed previously. We have accordingly made a small downward adjustment to the estimated output gap in 2005 and in the preceding years. In our view, resource utilisation in the labour market in 2005 as a whole was consistent with an output gap of close to zero.

Chart 3.8 Number of registered foreign workers from new EU accession countries. In thousands



Sources: Central Office - Foreign Tax Affairs and Norges Bank

The labour supply is also influenced by increasing inward labour migration from the new EU accession countries. These changes are difficult to measure in official labour market statistics. Alternative sources, such as the number of temporary work permits from the Norwegian Directorate of Immigration, show an increase of approximately 8000 work permits from January 2005 to January 2006. The Central Office – Foreign Tax Affairs recorded an increase of about 7000 employees from the new EU accession countries from 2004 to 2005 (see Chart 3.8). This figure includes employees in both Norwegian and foreign enterprises. The increase in the actual supply of labour underlying these figures is uncertain, because there is no information about the duration of periods of employment. On balance, however, there are signs that the use of foreign labour has contributed to dampening the pressure on economic resources through the economic upturn. The effect has probably been most pronounced in the construction industry, as reflected in particular in continued moderate wage growth last year, despite the very high level of activity.

There are also considerable labour inflows from other Nordic countries, but measured in terms of number of persons, the supply of labour from these countries does not appear to have changed substantially in recent years. Swedish nationals have accounted for the bulk of the supply of labour from Nordic countries. In view of the tightening taking place in the Swedish labour market, there may be reason to expect a reduction in the supply of Swedish labour to Norway.

Our estimate of the output gap can also be compared with developments in financial variables. The strong rise in credit and house prices in recent years may be indicative of stronger pressures in the Norwegian economy than we have assumed. Developments in the labour force, employment and inward labour migration may point in the opposite direction, however.

There are prospects that mainland GDP growth will remain high for the next few quarters. The assessments of industrial leaders as expressed in the business sentiment indicator and a high level of new orders in manufacturing imply continued output growth in the period ahead. Activity in the construction industry is high, and growth in turnover in property management and commercial services has also gathered pace. Continued solid growth in household demand will probably contribute to increased activity in both goods and service industries. The rise in the number employed has picked up in the last few months. The number of vacancies is increasing. Developments in registered unemployment point towards a more rapid tightening of the labour market than previously projected. Overall, it appears likely that capacity utilisation in the economy will increase further in the next few quarters, and somewhat more rapidly than projected in the previous *Inflation Report*. Changes in the projections since the previous *Report* are discussed further in a box on page 52.

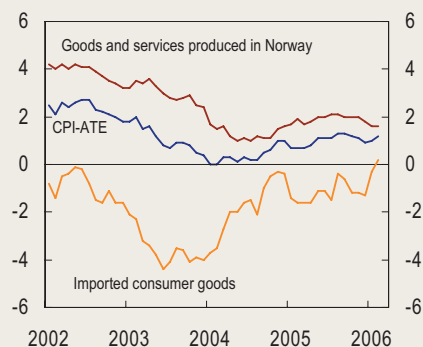
Inflation

As the recovery became more broadly based, inflation gradually began to edge higher (see Chart 3.9). The depreciation of the krone through 2003 contributed to a slower fall in prices for imported consumer goods through 2004. The impact on domestic inflation of extraordinary conditions, such as sharper price competition in the airline industry and grocery sector, gradually dissipated or was reversed. In the second half of 2005, the 12-month rise in consumer prices adjusted for tax changes and excluding energy products (CPI-ATE) varied between 1 and 1½%, before a surprising fall in December and January. In February, inflation edged up again. Monthly variations in the CPI-ATE have been fairly pronounced recently. In recent years, there has been a tendency of higher monthly variability in CPI-ATE inflation (see Chart 3.10)

From 1 January, maximum day-care rates were reduced by NOK 500. The reduction is estimated to have pushed down the year-on-year rise in the CPI-ATE in January by 0.2 percentage point. If the CPI-ATE is also adjusted for the estimated direct effect of the decline in interest rates on house rents, inflation can be estimated at 1.3% in February. Other indicators of underlying inflation indicate somewhat higher inflation than the rise in the CPI-ATE (see Chart 3.11). Since last summer, the increase in the trimmed average and weighted median has varied between 1½ and 2% (see box on page 44).

Higher petrol prices contributed to a rise in consumer price inflation (CPI) from spring 2005, to 2% in September last year. Thereafter, CPI inflation edged down again, partly because oil prices fell temporarily towards the end of last year. This year, the contribution from energy prices to overall CPI inflation has increased again. The CPI rose by 2.6% in the twelve months to February. The contribution from energy prices was 1.4 percentage points.

Chart 3.9 CPI-ATE¹. Total and by supplier sector². 12-month change. Per cent. Jan 02 – Feb 06

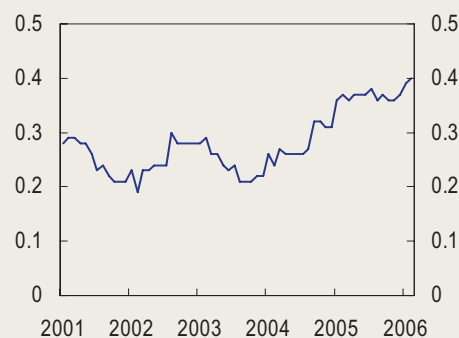


¹ CPI-ATE: CPI adjusted for tax changes and excluding energy products. A further adjustment is made for the estimated effect of reduced maximum day-care rates from January 2006.

² Norges Bank's calculations.

Sources: Statistics Norway and Norges Bank

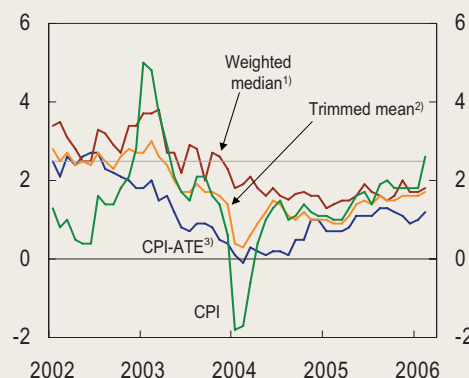
Chart 3.10 Volatility in the CPI-ATE¹. Measured as standard deviation of monthly change over the past 12 months. Jan 01 – Feb 06



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

Sources: Statistics Norway and Norges Bank

Chart 3.11 CPI and indicators of underlying inflation. 12-month change. Per cent. Jan 02 – Feb 06



¹ Estimated on the basis of 146 sub-groups of the CPI

² Price changes accounting for 20 per cent of the weighting base are eliminated.

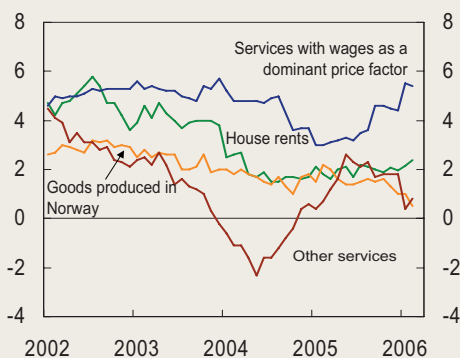
³ CPI-ATE: CPI adjusted for tax changes and excluding energy products. A further adjustment is made for the estimated effect of reduced maximum day-care rates from January 2006.

Source: Statistics Norway

On an annual basis, prices for imported consumer goods fell over several years. Between 2004 and 2005, these prices fell by 1.2%. Lower import prices are ascribable to higher imports of consumer goods from low-cost countries as a result of the dismantling of trade barriers. At the same time, production capacity has increased substantially in many countries, resulting in strong international price competition for a number of consumer goods.

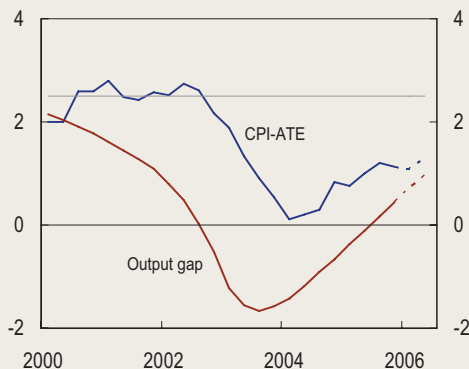
Following a fairly substantial rise in prices for imported goods in the CPI from July to September 2005, inflation was lower than expected up to December. As expected, the year-on-year fall in prices was less pronounced in January. In February, the year-on-year rise showed a small increase. However, the effects of a somewhat stronger krone in the two preceding years and continued low external price impulses imply that the rise in prices for imported consumer goods may edge down again in the near term. An increase in import prices in *External Trade Statistics* towards the end of 2005 may indicate the opposite, however. Normally, these prices are a precursor of developments in prices for similar goods in the CPI.

Chart 3.12 Changes in prices for goods and services produced in Norway. By supplier sector. Adjusted for taxes. 12-month change. Per cent. Jan 02 – Feb 06



Sources: Statistics Norway and Norges Bank

Chart 3.13 CPI-ATE¹⁾ and estimates of the output gap²⁾. Per cent. Quarterly figures. 00 Q1 – 06 Q2³⁾



¹⁾ CPI-ATE: CPI adjusted for tax changes and excluding energy products. A further adjustment is made for the estimated effect of reduced maximum day-care rates from January 2006.

²⁾ Quarterly figures for the output gap have been derived from the annual figures.

³⁾ Projections for period 06 Q1 – 06 Q2.

Sources: Statistics Norway and Norges Bank

The rise in prices for services in the CPI has also edged higher during this economic upturn. In particular, prices for services with wages as a dominant factor have increased appreciably in recent months (see Chart 3.12). Prices for other services also increased somewhat through 2005, but edged down towards the end of the year. In January 2006, these prices fell sharply, but this is partly attributable to the reduction in maximum day-care rates.

The rise in prices for domestically produced goods is very low. The year-on-year rise in prices for domestically produced goods facing international competition has hovered around zero through 2005 and in early 2006. This probably reflects both the strong international competition faced by Norwegian manufacturers, and the possibility that some goods are now being imported but are still classified as produced in Norway. The rise in prices for domestically produced goods that are sheltered from competition is somewhat higher, but slowed towards end-2005 partly as a result of a lower rise in food prices. From 1 January, the VAT rate for food was increased from 11% to 13%. Statistics Norway's calculations of the CPI-ATE are based on the assumption that the tax increase is immediately passed on to retail prices. In practice, the adaptation to new rates probably takes place over a period. Inflation, measured by the CPI-ATE, may therefore be somewhat underestimated in the months immediately following such indirect tax increases. The low rise in food prices in the CPI may also reflect a new method for measuring developments in food prices introduced last year. The new method better captures the effects of a shift in consumer demand towards goods for which prices show a relative fall. For example, special offers for food products will have a stronger effect than previously.

There are no prospects that inflation will increase substantially in the near term. If the effect of reduced day-care rate is excluded, the year-on-year rise in the CPI-ATE is projected to be slightly higher than 1% in the first and second quarter of 2006 (see Chart 3.13). Inflation will be dampened by continued low external price impulses and the appreciation of the krone through 2004 and 2005. After a period, the unwinding of the sharp rise in petrol prices through 2005 will probably lead to some decline in the year-on-year rise in the CPI (see Chart 3.14).

According to a preliminary report from the Technical Reporting Committee on Income Settlements (TRC), annual wage growth in 2005 was just over 3¼% for all employees as a group. Wage growth for manufacturing employees was approximately in line with the average, while wage growth for white-collar workers in manufacturing was about one percentage point higher (see Chart 3.15). In industries where bonus payments have an influence, wage growth was considerably higher. This probably reflects improved profitability in some Norwegian business sectors. A tighter labour market implies somewhat higher wage growth this year. Annual wage growth for 2006 is projected at 4%. This projection also includes costs relating to the introduction of minimum standards for occupational pensions.

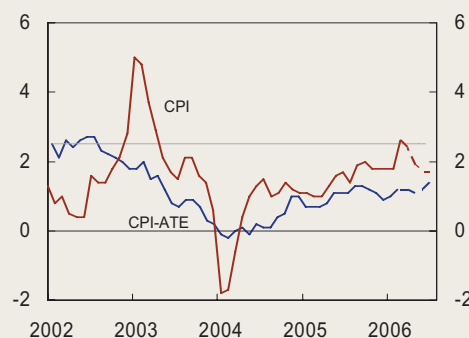
The outlook for the years ahead

Household demand

In the past couple of years, low interest rates and relatively high real wage growth have contributed to strong growth in household purchasing power (see Chart 3.16). With prospects of improved labour market conditions and relatively low inflation through the projection period, growth in household real labour income will probably remain fairly high in the years ahead. On the other hand, household debt has risen sharply over several years (see Chart 3.17). Debt as a percentage of disposable income is high and on the rise. A gradual normalisation of the interest rate level will dampen growth in disposable income as the interest burden increases. Overall, household real disposable income is expected to increase by an average of about 2¼% per year through the projection period.

Private consumption has increased substantially in recent years. Measured in terms of both value and volume, consumption as a share of mainland GDP has increased markedly since 1998 (see Chart 3.18). Housing wealth is households' most important capital asset. This wealth has increased with rising house prices. Equity prices have also risen markedly. Favourable developments in household wealth may have contributed to high consumer demand, and will probably continue to do so. With prospects of somewhat higher interest rates and a substantial increase in households' interest expenses, however, we have assumed slower consumption growth in the period to 2009. The adaptation leading to slower consumption growth will probably take place gradually,

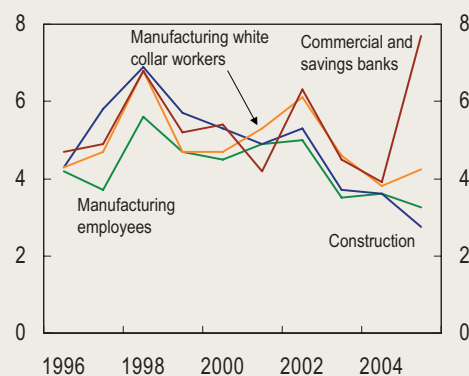
Chart 3.14 CPI and CPI-ATE¹⁾. 12-month change. Per cent. Jan 02 – Jun 06²⁾



¹⁾ CPI-ATE: CPI adjusted for tax changes and excluding energy products. A further adjustment is made for the estimated effect of reduced maximum day-care rates from January 2006.
²⁾ Projections for Mar 06 – Jun 06.

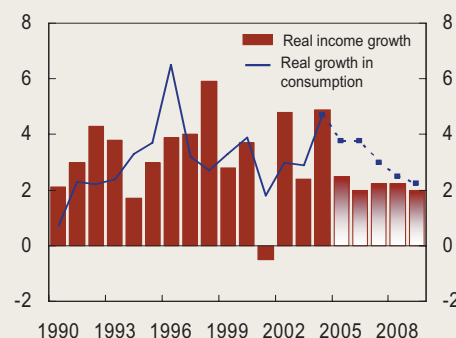
Sources: Statistics Norway and Norges Bank

Chart 3.15 Annual wage growth. Per cent. Annual figures. 1996 – 2005



Source: Technical Reporting Committee on Income Settlements

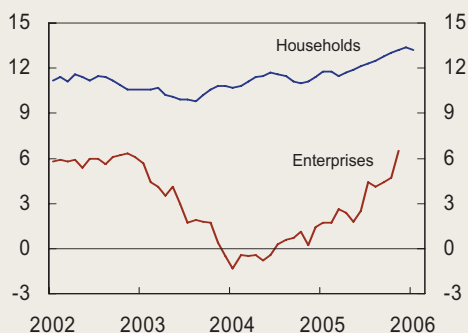
Chart 3.16 Real growth in household disposable income¹⁾ and consumption. Per cent. Annual figures. 1990 – 2009²⁾



¹⁾ Adjusted for estimated reinvested share dividends since 2001.
²⁾ Projections for 2005 – 2009.

Sources: Statistics Norway and Norges Bank

Chart 3.17 Credit to households¹⁾ and enterprises²⁾. 12-month change. Per cent. Jan 02 – Jan 06



¹⁾ From domestic sources (C2).

²⁾ Total debt of mainland non-financial enterprises (C3).

Source: Norges Bank

which means that the saving ratio may fall somewhat in the next few years, before levelling off to some extent towards the end of the projection period (see Chart 3.19).

There is considerable uncertainty associated with household saving. According to Norges Bank's financial market statistics, household net lending is lower than the level indicated by the national accounts. Using this more direct measurement of net lending, the saving ratio was lower in 2005. The statistical difference adds to the uncertainty as to how households will adapt to a gradually higher interest rate level. If saving is lower at the outset, consumption growth may moderate to a further extent ahead than we have projected.

Growth in housing investment moved up further in 2005 from the record-high level in 2004. Housing starts are at a very high level. Our regional network reports that activity levels are high, but that housing starts are expected to be somewhat lower ahead. Norges Bank expects housing investment to show some growth this year, followed by a softening in the years ahead.

A gradual normalisation of the interest rate level and a larger supply of new dwellings are expected to curb the rise in resale home prices in the years ahead (see Chart 1.3). Growth in household borrowing is projected to edge down through the projection period. As a result of the sharp rise in house prices in recent periods, credit growth may moderate at a relatively slow pace.

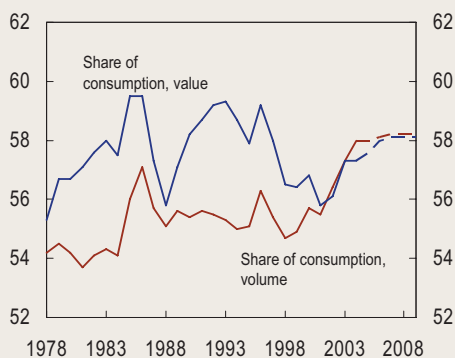
Public sector

The fiscal rule implies a gradual phasing-in of petroleum revenues into the economy, approximately in pace with the expected real return on the Government Pension Fund – Global, which is estimated at 4%. The petroleum revenue spending rule applies under normal cyclical conditions. In a situation with high activity in the economy, the fiscal stance should be tightened accordingly, while a downturn may necessitate an increase in the use of petroleum revenues.

In the final central government budget bill for 2005, supplementary allocations were made, which had the overall effect of increasing the structural, non-oil deficit by about NOK 1 billion compared with the estimate in the National Budget for 2006.

In the central government budget for 2006, the structural, non-oil deficit is estimated at 4.6% of trend mainland GDP. This is the same as in 2005 and as in the proposal from the previous government. The approved government budget for 2006 entails a balanced budget change in relation to the budget proposed by the previous government. Increased expenditure is being financed by higher direct and indirect taxes amounting to NOK 6.4 billion. This also means that signals from the current government's policy declaration to return the tax level to the level in 2004 are being followed

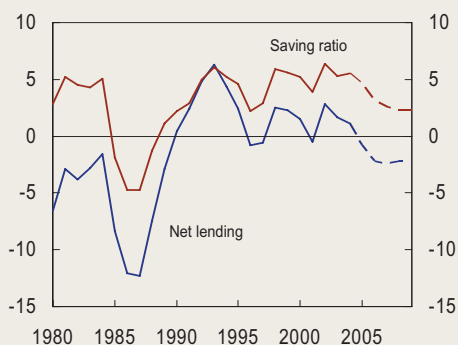
Chart 3.18 Private consumption as a share of mainland GDP. Constant and current prices. Per cent. Annual figures. 1978 – 2009¹⁾



¹⁾ Projections for 2005 – 2009.

Sources: Statistics Norway and Norges Bank

Chart 3.19 Household saving ratio and net lending as a share of disposable income. ¹⁾ Annual figures. 1980 – 2009²⁾



¹⁾ Adjusted for estimated reinvested share dividends since 2001.

²⁾ Projections for 2005 – 2009.

Sources: Statistics Norway and Norges Bank

up. Most of the increase will be implemented in 2006. It is assumed that the remainder of the tax increase, around NOK 2 billion, will be implemented in 2007.

The 2006 budget implies an underlying rise in government budget expenditure of 4½% compared with the 2005 accounts estimate (see Chart 3.20). This is an increase of ¾ percentage point on the estimate in the National Budget. Larger transfers to the local government sector and day-care centres account for most of the new spending increases. Local government income that is not ear-marked will increase by NOK 5.7 billion compared with 2005. No substantial amounts were set aside in the government budget to meet unforeseen expenditure other than wage settlement provisions.

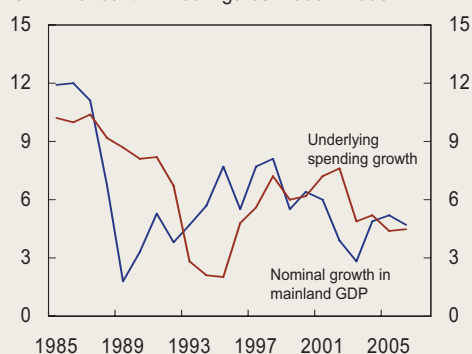
The Government Pension Fund – Global is likely to expand sharply in the years ahead. On the basis of our assumptions for developments in oil prices ahead (oil futures prices), a mechanical application of the 4% rule implies that the use of petroleum revenues will increase by over NOK 31 billion from 2006 to 2009 (see Chart 3.21). This is somewhat higher than the estimates in the Government’s supplement to the budget for 2006. The difference can partly be explained by the fact that at end-2005 the Fund’s capital was higher than that estimated by the Government, and partly that the Government assumed lower oil prices ahead than current oil futures. For 2007, we assume an approximately unchanged structural non-oil deficit. Given our estimates for developments in the Government Pension Fund – Global, a mechanical application of the fiscal rule implies that the structural, non-oil deficit may increase by NOK 14.4 billion, at 2006 prices, in both 2008 and 2009.

With continued solid growth in the Norwegian economy, it would be in line with the fiscal rule if the use of petroleum revenues is lower than the expected real return on the Government Pension Fund – Global over a few years. Our projections are based on the assumption that fiscal policy will provide some stimulus to aggregate demand and output in 2008 and 2009, but somewhat less than a mechanical application of the fiscal rule based on our oil price assumption would imply.

Petroleum investment

In recent years, investment in the petroleum sector has increased sharply (see Chart 3.22). Investment is now estimated at about NOK 88 billion in 2005. Investment growth has generated substantial impulses to the mainland economy in recent years. The large development projects relating to Snøhvit outside of Hammerfest and Ormen Lange at Aukra have made a large contribution to the high level of investment. Both these projects also involve large onshore development, which may have generated stronger impulses to the business sector locally than pure offshore projects. Investment activity associated with Snøhvit and Ormen Lange will probably decline in the period towards completion in 2007.

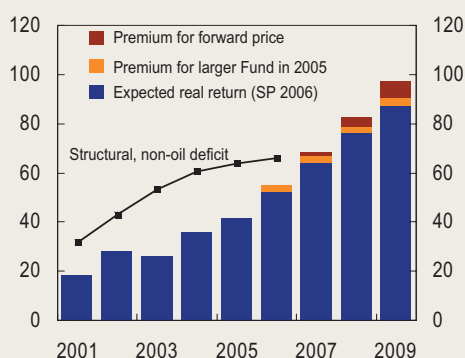
Chart 3.20 Underlying spending growth in the government budget and nominal growth in mainland GDP. Per cent. Annual figures. 1985 – 2006¹⁾



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

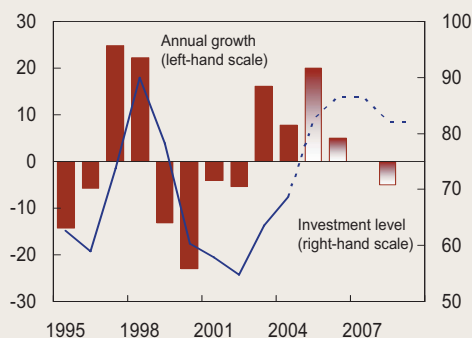
Sources: Ministry of Finance (Supplementary proposition 2006) and Statistics Norway

Chart 3.21 Expected real return on the Government Pension Fund - Global. In billions of 2006-NOK. Annual figures. 2001 – 2009



Sources: Ministry of Finance (Supplementary proposition 2006) and Norges Bank

Chart 3.22 Investment in oil and gas recovery incl. pipeline transport. Investment level in billions of NOK (constant 2003-prices) and annual growth in per cent. 1995 – 2009¹⁾



¹⁾ Projections for 2005 – 2009.

Sources: Statistics Norway and Norges Bank

High oil prices have led to a strong increase in activity on the Norwegian continental shelf. Many projects have been launched to increase recovery from fields in operation. A number of oil companies have revised upwards the long-term oil prices that are used as a basis for investment decisions, but they are still moderate compared with futures prices.

The number of new exploration wells was very low last year, since much of the rig capacity was being used to drill new production wells in fields in operation. Despite relatively limited exploration activity in recent years, the results are described by the Petroleum Directorate as highly interesting. Investment is likely to increase further in 2006, partly because a number of projects planned for 2005 were postponed. Information from Norges Bank's regional network shows that enterprises supplying goods and services to the petroleum industry have expanded rapidly in recent years. These enterprises also expect solid growth ahead. As a result of strong growth in petroleum investment, the rise in prices underlying investments may be somewhat higher in the next few years.

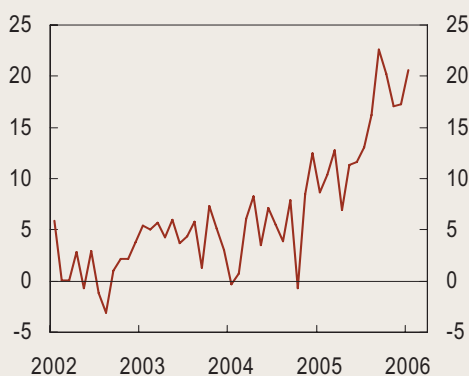
Further out in the projection period, developments in petroleum-related investment are highly uncertain. It is assumed that overall activity will decline somewhat when Snøhvit and Ormen Lange are completed, but that the high oil price will contribute to maintaining investment at a relatively high level throughout the projection period.

Mainland business investment

The easing of monetary policy has contributed to an improvement in corporate profitability in recent years. Enterprises' liquid assets (M2) grew at an annual rate of around 20% in the last months to January this year (see Chart 3.23). Surveys conducted by TNS Gallup and Norges Bank's regional network indicate that enterprises expect profitability to remain at a high level again this year. Solid earnings and optimism form the basis for strong growth in corporate investment.

Manufacturing output increased by 2.5% from 2004 to 2005. Optimism appears to be greater than in many years. Norwegian industrial leaders also report positive market prospects at the beginning of 2006. Strong growth in petroleum investment contributes to high demand for capital goods, and the order situation for shipyards and suppliers to the petroleum industry is very favourable. There are expectations of increased employment in manufacturing. Capacity utilisation is higher than the historical average (see Chart 3.24). This points to increased investment in the period ahead. Statistics Norway's investment intentions survey for 2006 shows strong growth in estimated investment in the non-oil energy sector compared with last year. Large individual projects are making a substantial contribution to growth, but a number of smaller development projects and upgrading of existing power plants are expected to be carried out in the next few years.

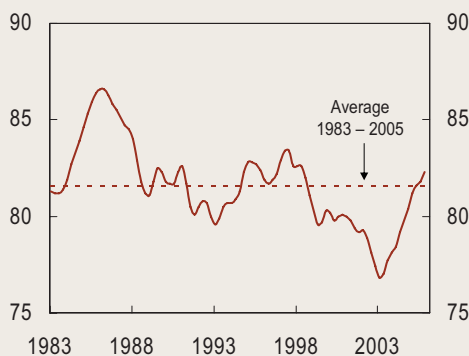
Chart 3.23 Enterprises' liquid assets¹⁾. 12-month change. Per cent. Jan 02 – Jan 06



¹⁾ Non-financial enterprises' liquid assets (M2).

Source: Norges Bank

Chart 3.24 Capacity utilisation rate in manufacturing. Trend. Per cent. Quarterly figures. 83 Q1 – 05 Q4



Sources: Statistics Norway and Norges Bank

The commercial property market improved through 2005. Low long-term interest rates have made commercial property a more attractive investment. Rental prices for office premises have risen, particularly in central urban areas. The share of vacant office premises in Oslo, Asker and Bærum has fallen (see Chart 3.25). Both refurbishing of existing buildings and building starts are expected to increase in the period ahead. In 2005, there was a clear increase in building starts in property management and commercial services compared with the previous year. The order backlog for refurbishing of non-residential buildings has also increased markedly. Overall, investment in commercial buildings is expected to contribute to sharp growth in investment in service industries in the next few years.

Foreign trade

Exports of traditional goods and services have contributed to GDP growth throughout the current upturn. Initially, exports of intermediate goods such as aluminium and other metals showed the sharpest increase. After a period, demand for capital goods also picked up. Internationally, there is now a need to expand production capacity following a period in which production increased as a result of improved utilisation of existing productive capital. The production of engineering products and other capital goods is more labour-intensive than the production of intermediate goods. This explains why employment in the export industry has not picked up until recently.

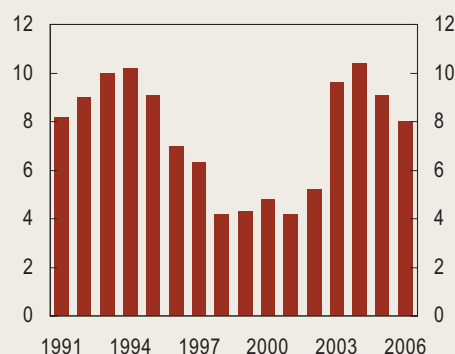
Since the second half of the 1990s, growth in Norwegian exports has generally been lower than growth in world trade. Signs of somewhat stronger growth among trading partners and the depreciation of the exchange rate in recent months will probably result in fairly high export growth in the next few years. In 2006 and 2007, it is assumed that Norwegian exports of manufactured goods will grow in pace with world trade. Further out in the projection period, the effect of a weaker exchange rate will dissipate, and Norwegian market shares may again be reduced.

Since the 1980s, Norwegian import prices have risen less than prices for goods and services produced in Norway (see Chart 3.26). As a result, imported goods and services account for a steadily larger share of domestic demand. This trend will probably continue, but in the short term a weaker krone may result in somewhat higher import prices this year and next. The import share is therefore projected to grow at slightly lower rate than its historical average for the next two years before picking up again (see Chart 3.27).

Output

The Norwegian economy is now in a period of expansion. A number of the driving forces behind the upturn in the past few years will continue to contribute to strong economic growth for a period ahead (see Table 3.1). Interest rates are still low, and demand for retail goods and services is

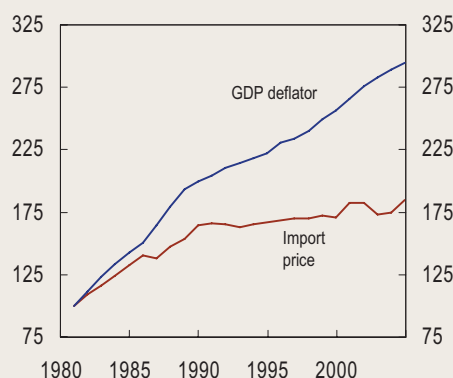
Chart 3.25 Vacant office premises in Oslo, Asker and Bærum. Share of total real estate stock. Annual figures. 1991 – 2006¹⁾



¹⁾ As at February

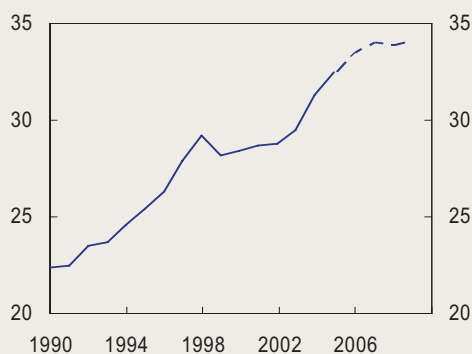
Source: Eiendomsspar AS

Chart 3.26 Overall import prices and GDP deflator for mainland Norway. Index, 1980 = 100. Annual figures. 1980 – 2004



Sources: Statistics Norway and Norges Bank

Chart 3.27 Share of imports for mainland Norway.¹⁾ Per cent. Annual figures. 1990 – 2009²⁾



¹⁾ Traditional merchandise imports, travel and other services.

²⁾ Projections for 2005 – 2009.

Sources: Statistics Norway and Norges Bank

Table 3.1 Projections for main macroeconomic aggregates. Change from previous year in per cent unless otherwise stated.

	2005	2006	2007	2008	2009
Mainland demand	4	3½	3	2½	2½
Private consumption	3½	3½	3	2½	2½
Public consumption	1½	2½	1½	3	3
Mainland fixed investment	8½	6	4½	2½	1½
Petroleum investment	20	5	0	-5	0
Traditional exports	5½	6	5	3½	3½
Imports	7½	6	3½	1½	2½
GDP, mainland Norway	3½	3½	2½	2½	2½
Output gap ¹⁾ , M-Norway	0	1	1½	1½	1
Employment	¾	1½	1	¾	½
LFS unemployment ²⁾	4.6	3½	3½	3½	3½
CPI-ATE ³⁾ 4)	1.0	1½	1½	2½	2½
Annual wage growth ⁵⁾	3½	4	4½	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⁾ Adjusted for that the reduction in maximum day-care rates push down the rise in the CPI-ATE by an estimated 0,2 percentage points in 2006.

⁵⁾ Based on TRCIS definitions and calculations. Includes costs related to the introduction of compulsory occupational pensions.

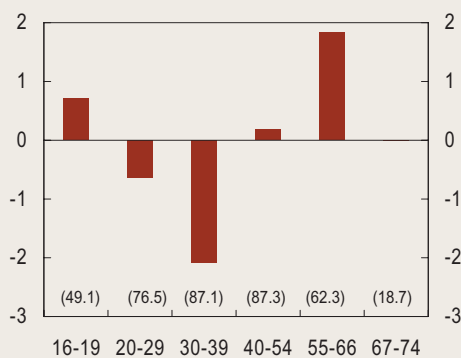
Sources: Statistics Norway, Technical Reporting Committee on Income Settlements and Norges Bank

Table 3.2 Growth in population and labour force

	2005	2006	2007	2008	2009
Growth in population aged 16-77	0.8	0.8	0.9	0.9	0.9
Contribution from demographic change in labour force	-0.1	-0.2	-0.2	-0.3	-0.3
Contribution from increase in number of disability pensioners	-0.2	-0.2	-0.2	-0.2	-0.2
Contribution from cyclical conditions	0.2	0.5	0.3	0.3	0
Growth in labour force	¾	1	¾	¾	½

Sources: Statistics Norway and Norges Bank

Chart 3.28 Composition of the population. Changes for various age groups from 2004 to 2009. Percentage points. Labour force participation rates for 2004 in brackets



Sources: Statistics Norway and Norges Bank

expected to hold up. Growth in the international economy is projected to remain firm, resulting in strong demand for our traditional export goods and high prices. A somewhat weaker krone also points to strong growth and solid profitability in the export sector. Petroleum investment is projected to grow a little more this year than projected in the previous *Inflation Report*, and high petroleum investment appears likely to contribute to buoyant activity in each year up to 2009. A positive fiscal stimulus in 2008 and 2009 will also contribute to sustaining growth. After a while, however, interest rates will lead to somewhat slower economic growth. In the last two years of the projection period, mainland GDP growth is projected to be close to growth in potential output, at approximately 2½%.

The labour market

The increase in the supply of labour, measured by number of persons, is determined over time by population growth, the age composition of the working age population and developments in the number of disability pensioners.

According to Statistics Norway's population projections, the working age population will increase by 0.8-0.9% annually from 2005 to 2009 (see Table 3.2). The number of disability pensioners has risen relatively sharply since the 1990s. In our projections, we have assumed that the rise in the number of disability pensioners will continue at about the same pace, dampening growth in the labour force.

Labour force participation varies widely across different age groups. Participation is highest among persons between 30 and 55 years of age. After 55, it falls relatively sharply. Developments in the labour supply are influenced by changes in age composition. In the years ahead, an increasing portion of the population will be in the upper age groups (see Chart 3.28). Developments will be gradual.

The effects of changes in age composition will be partly counteracted by a rise in labour force participation, which usually occurs when the economy is in a period of expansion. We have assumed that this will contribute to an increase in labour force participation of about ½ percentage point this year, and somewhat less in the following years. Under these assumptions, the labour force will increase by about 1% this year and then at a somewhat slower pace in the following years. The labour supply will also be affected by any rise in imported labour.

Compared with previous periods, it took a relatively long time for employment to increase substantially in this upturn. However, according to the Labour Force Survey, the rise in employment accelerated through the second half of last year. Since June, LFS employment has increased on average by more than 5 800 per month. This is equivalent to an annual growth rate of 3%. A considerable portion of this is due to unusually strong employment growth towards the end of last

year and into 2006. In our projections, we have weighed the recent unusually strong growth against the considerable uncertainty associated with LFS figures and the subsequent revisions of the figures, which on occasion may be extensive. Employment is projected to grow by 1¾% from 2005 to 2006. In the following years, employment growth is expected to slow as a result of somewhat more moderate growth in demand and output.

Sickness absence is now showing signs of a small increase again. When employment rises rapidly, the use of overtime can be expected to normalise somewhat. The number of person-hours worked may therefore increase somewhat less than the number employed this year.

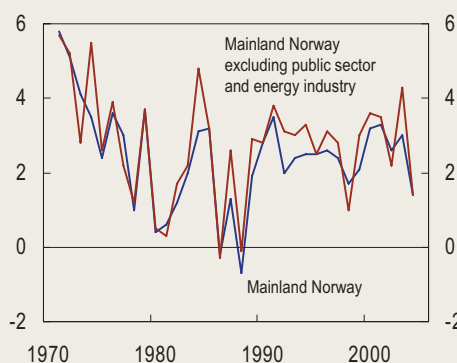
With our projections for labour force growth and employment, LFS unemployment will decline from 4½% in 2005 to 3¾% this year. Unemployment is expected to remain around this level in the following years. The projections for developments in the labour force, employment and LFS unemployment are based on definitions used until 2006. Developments in these variables in the period ahead may be affected by definitional changes in Statistics Norway's Labour Force Survey.

Productivity

Since 1990, mainland productivity, measured as gross output per person-hour worked, rose by an average 2.4% annually (see Chart 3.29). If the public sector and electricity production are excluded, the increase is 2.9%. In previous upturns, we have observed that productivity increases somewhat more sharply than trend growth in the early stages of the upturn. Many enterprises hoard labour through a downturn and have spare capacity at the beginning of an upturn. Further into the upturn, existing resources are used more intensively and the need arises to increase employment and investment.

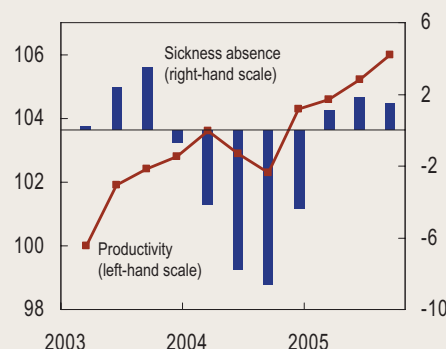
For this upturn as a whole, productivity is expected to rise somewhat less than the average since 1990 (see box on page 47). The relatively slow rise in the early part of the upturn should probably be seen in the context of sickness absence, measured as person-days lost, which fell by about 2 percentage points over a two-year period after 2003. This provided additional labour in many enterprises and may have curbed the rise in productivity (see Chart 3.30). The increase in the labour supply, however, probably contributed to growth in potential output that was somewhat higher than trend output growth in this period. Potential output is estimated to have been pushed up by a total of ¾ percentage point over the two years of declining sickness absence. Now that sickness absence is edging up again, the rise in person-hours worked is expected to be more moderate and productivity growth is expected to edge up again. For the whole projection period, mainland productivity is projected to rise by an average of

Chart 3.29 Mainland productivity and mainland productivity excluding the public sector and energy industry. Annual growth. Per cent. 1971 – 2004



Sources: Statistics Norway and Norges Bank

Chart 3.30 Productivity. Index, 03 Q1 = 100. Sickness absence. Seasonally adjusted quarterly growth. Per cent. 03 Q1 – 05 Q3



Sources: Statistics Norway and Norges Bank

Chart 3.31 Annual wage growth¹⁾ and LFS unemployment rate. Per cent. Annual figures. 1993 – 2009²⁾



¹⁾ Average for all groups. Including estimated costs of increase in number of vacation days and introduction of mandatory occupational pension.

²⁾ Projections for 2006 – 2009.

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

about 2% annually, which is slightly lower than the average since the 1990s. This is because the projections are based on some normalisation of productivity growth in retail trade, which was very high through most of the 1990s. In addition, employment growth ahead is expected to be somewhat higher in the public sector than in other parts of the economy where measured productivity growth has been higher.

Wage growth

The tightening now observed in the labour market will probably result in somewhat higher real wage growth this year than last year. Annual wage growth is projected to increase from just over 3¼% last year to 4% this year (see Chart 3.31). This year's projection also includes costs associated with the introduction of minimum standards for occupational pensions. In the following years, nominal wage growth is projected to edge up as a result of labour shortages and rising consumer price inflation.

It is uncertain what effect increased inward labour migration will have on wage formation in Norway. The use of foreign labour in Norway appears to have increased after the enlargement of the EU and the EEA on 1 May 2004 (see page 29). This may have curbed emerging pressures and restrained cost inflation in, for example, the construction industry where activity is high.

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 therefore probably also contributed to curbing cost inflation even though demand growth has been strong.

Increased use of labour from the new EU accession countries eased the pressure on economic resources in Norway through last year. At the same time, a general application of wage agreements has been introduced for an increasing number of groups. As a result of the general application of wage agreements, foreign suppliers of services are losing much of their competitive edge in relation to Norwegian enterprises. At present, however, growth in the supply of foreign labour does not appear to be slowing.

The new Working Environment Act, which entered into force on 1 January 2006, has reintroduced overtime rules as they were applied prior to 2003. This represents a tightening in relation to the overtime rules the past three years. This may place some constraints on the supply of labour resources.

Prices

The rise in prices for domestically produced goods and services slowed somewhat towards the end of 2005 and into 2006. Several factors, however, point to rising prices. Capacity utilisation in the Norwegian economy is increasing, and a tighter labour market may result in higher wage growth in the coming years. The rise in oil prices is resulting in higher input costs for producers. We have projected on an uncertain basis that the rise in oil prices may contribute to a rise in consumer prices of around ¼ percentage point this year and next. Overall, the rise in consumer prices for domestically produced goods and services is projected to rise gradually from 1.3%³ at the beginning of 2006 to 3½% towards the end of 2009.

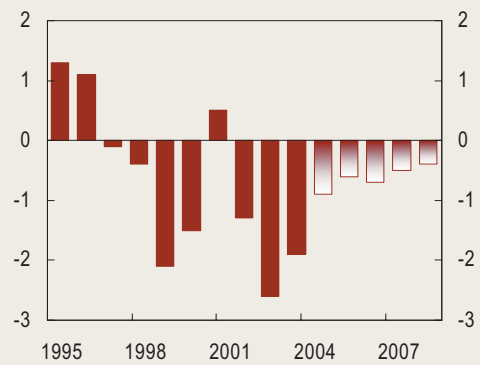
Price impulses from Norway's imported consumer goods have been negative virtually every year since the mid-1990s. This is due to trade liberalisation and a shift towards imports from low-cost countries. In the projections, we have assumed that the shift in imports will persist and continue to have a restraining effect on the rise in prices in the years ahead. The rise in prices for oil and other commodities is expected to result in a somewhat sharper rise in producer and export prices among our trading partners in the near term. This implies that price impulses to imported consumer goods are expected to fall slightly less this year than in previous years (see Chart 3.32).

Consumer prices for goods imported and produced in Norway are affected by developments in distribution and selling costs in Norway. For several years, relatively high productivity growth in retail trade has probably contributed to low cost inflation. Somewhat higher wage growth and slightly lower productivity growth in this industry is expected to lead to gradually higher cost inflation, and contribute to pushing up the rise in prices for consumer goods through the projection period. Overall, the fall in prices for imported consumer goods is projected to moderate gradually. From 2008 to 2009, prices for imported consumer goods are projected remain approximately unchanged (see Chart 3.33).

Total CPI inflation picked up from 0.5% in 2004 to 1.6% in 2005 (see Chart 3.34). Electricity prices were lower in 2005 than in 2004, but picked up towards the end of the year. So far this year, electricity prices charged to households have increased further. A sharp rise in petrol prices last autumn contributed to a rapid year-on-year increase in the CPI. Oil futures prices may indicate that petrol prices will not rise to the same extent this year. Against this background, the year-on-year rise in the CPI will moderate somewhat in summer and autumn 2006. For the following years, we have assumed that CPI inflation will be in line with CPI-ATE inflation.

³ Adjusted for reduced maximum day-care rates from January 2006, the rise in prices for domestically produced goods and services can be estimated at 1.6% in February.

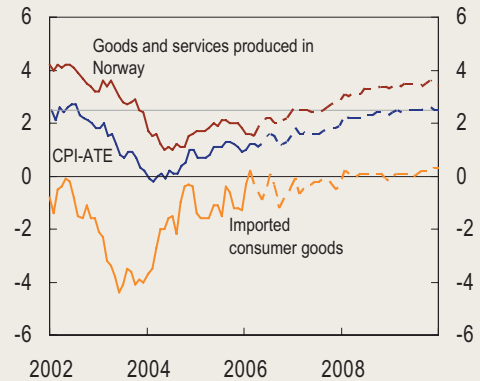
Chart 3.32 Indicator of external price impulses to imported consumer goods measured in foreign currency. Annual figures. Per cent. 1995 – 2009¹⁾



¹⁾ Projections for 2005 – 2009.

Source: Norges Bank

Chart 3.33 CPI-ATE¹⁾. Total and by supplier sector²⁾. 12-month change. Per cent. Jan 02 – Dec 09³⁾



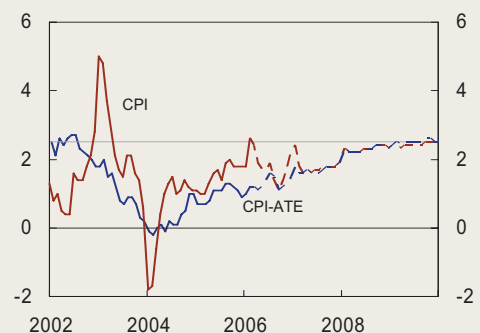
¹⁾ CPI-ATE: CPI adjusted for tax changes and excluding energy products. A further adjustment is made for the estimated effect of reduced maximum day-care rates from January 2006.

²⁾ Norges Bank's calculations.

³⁾ Projections for Mar 06 – Dec 09.

Sources: Statistics Norway and Norges Bank

Chart 3.34 CPI and CPI-ATE¹⁾. 12-month change. Per cent. Jan 02 – Dec 09²⁾



¹⁾ CPI-ATE: CPI adjusted for tax changes and excluding energy products. A further adjustment is made for the estimated effect of reduced maximum day-care rates from January 2006.

²⁾ Projections for Mar 06 – Dec 09.

Sources: Statistics Norway and Norges Bank

Boxes

Choice of interest rate path in the work on forecasting

Recent price developments

Productivity growth in Norway

The yield curve and economic outlook in the US

The projections in *Inflation Report 3/05* and *1/06*

Evaluation of Norges Bank's projections for 2005

Choice of interest rate path in the work on forecasting¹

Norges Bank seeks to achieve an interest rate path that provides a reasonable balance between the objective of stabilising inflation at target and the objective of stabilising developments in output and employment. The analyses in the *Inflation Report* were previously based on the technical assumption that the interest rate would move in line with market expectations. Since *Inflation Report 3/05*, the analyses have been based on the Bank's own forecast of future interest rates.

The Bank publishes its own interest rate forecast partly with the aim of increasing monetary policy predictability. Norges Bank's key rate is a very short-term rate, but it can influence the economy through market expectations as to future interest rates.¹ In the *Inflation Report*, the Bank presents an overall assessment of the current situation in the economy, the outlook for the coming years and probable implications for interest-rate setting ahead. If the central bank is not successful in communicating the monetary policy outlook, the consequences may be greater instability both in real economic variables and inflation. Monetary policy is probably most effective when the central bank communicates its monetary policy intentions directly rather than commenting on others' interest rate expectations.

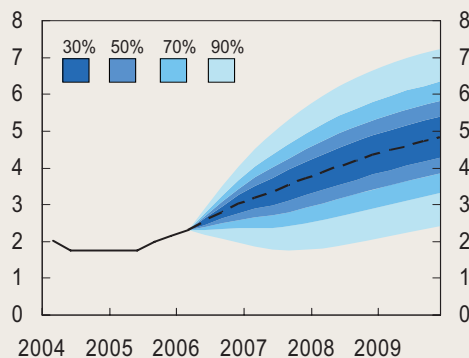
The interpretation and evaluation of the Bank's forecasts will also be more difficult if they are based on an interest rate assumption that is not consistent with the rate Norges Bank considers most realistic. If the forecasts for inflation and output are to reflect the Bank's best estimates, the underlying interest rate assumption must be a rate the Bank perceives to be realistic.

The transition from basing analyses on the assumption that interest rate developments follow market expectations to presenting the Bank's own forecast has been a gradual one. On previous occasions, the Bank has stated that the interest rate should move on a different path than that indicated by market expectations, and thus differ from the interest rate assumption on which the forecasts have been based. For example, *Inflation Report 2/04* stated that "the most appropriate alternative now seems to be that the interest rate should be kept

unchanged for a longer period than indicated by market expectations". However, a precise indication of the Bank's intended interest rate path was not provided. In the first two *Inflation Reports* in 2005, the forecast was still based on market rates, but with a substantial upward adjustment based on judgment in the latter part of the forecast period. This provides further confirmation that the Bank has for a long period assessed whether the interest rate assumption underlying the projections was reasonable, although it was not until *Inflation Report 3/05* that monetary policy intentions were explicitly communicated through the Bank's own interest rate forecast.

Forecasts for the interest rate and other variables are based on incomplete information about the current situation and the functioning of the economy. If the economy is exposed to disturbances, or if the central bank changes its perception of how the economy functions, developments in the interest rate and other variables may deviate from the forecasts. Thus, there is considerable uncertainty associated with these forecasts. Chart 1 shows the interest rate forecast in this *Report* with a fan chart showing uncertainty around the forecast. The wider the fan chart, the more uncertain the forecast is. The uncertainty is calculated on the basis of disturbances to the Norwegian economy in the period 1993-2005. Fan charts are based on a number of

Chart 1 The sight deposit rate in the baseline scenario with fan chart. Per cent. Quarterly figures. 04 Q1 - 09 Q4



Source: Norges Bank

assumptions and it is difficult to be precise about the degree of uncertainty in the forecasts. The fan chart illustrates, however, the considerable emphasis the Bank places on the uncertainty of the forecast.²

In its forecasting of economic variables, Norges Bank uses a broad approach. Current statistics and impressions from Norges Bank regional network are important in assessing the current economic situation. Our forecasting builds a bridge between our short-term assessment and long-term relationships in the economy. In this process, the Bank uses several macroeconomic models: one core model and a number of smaller models. The macroeconomic models provide a simplified description of the economy and only serve as a forecasting tool. The forecasts for inflation, output, the interest rate and other variables in the economy must be perceived as a result of the Bank's best judgment. There is no mechanical relationship between the models the Bank uses and its forecasts.

The models are nevertheless a useful forecasting tool. In the process of arriving at an interest rate path that in the Bank's assessment provides a reasonable balance between the different objectives of monetary policy, there is a need for an analytical framework in which the interest rate and other economic variables are interdependent, while economic agents are at the same time forward-looking and responsive to expected economic developments. The core model has these features.³

Model-based predictions must be adjusted using judgment. As a guideline for the work on forecasting, Norges Bank has drawn up six criteria for a good interest rate path (see box in Section 1).⁴ The criteria take into account that the interest rate path shall provide a reasonable balance between the different monetary policy objectives. The criteria cannot provide an absolutely precise guide as to how the interest rate should be set, but points to factors that should have been taken into account. In some contexts, the various criteria may conflict. It is particularly important then that the assessment involves judgment.

¹ For a further discussion of the arguments below, see speech by Deputy Governor Jarle Berge, "Projections, uncertainty and choice of interest rate assumption in monetary policy", www.norges-bank.no.

² Professor Michael Woodford of Columbia University expresses this when he says that monetary policy is the "management of expectations"... "For not only do expectations about policy matter, but (...) very little else matters"... "[T]he current level of the overnight interest rates as such is of negligible importance for economic decision making", see Woodford, M. (2005): "Central-Bank communication and policy effectiveness", presented at Sveriges Riksbank's conference: "Inflation Targeting: implementation, communication and effectiveness": <http://www.riksbank.com/templates/Page.aspx?id=15814><http://www.riksbank.com/templates/Page.aspx?id=15814>.

³ The uncertainty associated with the projections is discussed in more detail in *Inflation Report 3/05*.

⁴ See Norges Bank *Staff Memo* 2004/3 "A small calibrated macro model to support inflation targeting at Norges Bank".

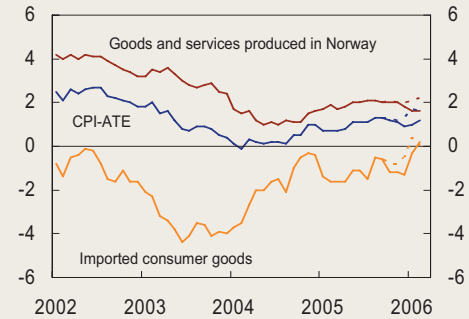
⁵ The criteria for an appropriate interest rate path are discussed in more detail in Norges Bank *Staff Memo* 2005/5, "When does an interest rate path "look good?" Criteria for an appropriate future interest rate path – A practitioner's approach".

Recent price developments

The operational target for monetary policy is low and stable inflation, with a year-on-year rise in consumer prices of close to 2.5% over time. In general, the direct effects on consumer prices of changes in the interest rate level, taxes, excise duties and extraordinary, temporary disturbances are not taken into account. In the CPI-ATE, the effects of tax changes and energy prices are excluded and can thus be an indicator of underlying inflationary pressures in the economy. Other price indicators and the rise in prices for goods and services from different sectors can, however, also provide useful information about inflation developments.

The year-on-year rise in the consumer price index (CPI) was 2.6% in February (see Chart 1). Inflation has been lower than projected in the previous *Inflation Report*. This is due to both a more moderate rise in underlying inflation and a slower-than-expected rise in energy prices. The year-on-year rise in the CPI picked up through 2005, but levelled off below 2% in the last half of the year. Underlying inflation measured by the rise in consumer prices adjusted for tax changes and excluding energy products (CPI-ATE) slowed from 1.3% in September to 0.8% in January, but picked up to 1.0% in February. The reduction in day-care rates in January this year pushed down the rise in the CPI-ATE by an estimated 0.2 percentage point. Adjusted for this, CPI-ATE inflation was 1.2% in February (see Chart 2). This is 0.4 percentage point lower than projected in the November *Inflation Report*. Lower-than-expected inflation primarily reflects a lower rise in domestic inflation than projected earlier (see Chart 2). The rise in food prices and prices for some services

Chart 2 CPI-ATE¹⁾. Total and by supplier sector²⁾. Historical inflation and projections IR 3/05 (broken line). 12-month change. Per cent. Jan 02 – Feb 06



¹⁾ CPI-ATE: CPI adjusted for tax changes and excluding energy products. A further adjustment is made for the estimated effect of reduced maximum day-care rates from January 2006.

²⁾ Norges Bank's projections.

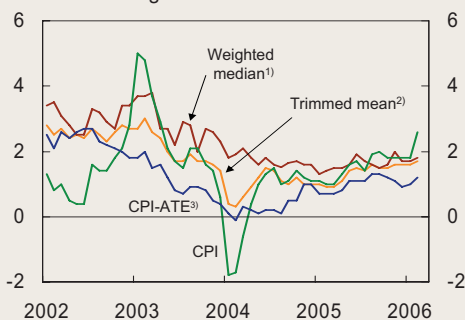
Sources: Statistics Norway and Norges Bank

slowed unexpectedly towards the end of 2005 and in the first months of 2006. However, the rise in prices for services where wages are a dominant factor seems to be picking up. This includes craftsman services.

Higher prices for imported consumer goods

Through 2005 the year-on-year fall in prices for imported consumer goods varied between 0.4% and 1.6%. In February 2006, prices for imported consumer goods were 0.2% higher than in the same month one year earlier. This is the first time in four years that prices for imported consumer goods showed a twelve-month rise. The rise in prices largely reflects the extraordinarily sharp fall in prices for imported consumer goods in the CPI-

Chart 1 CPI and indicators of underlying inflation. 12-month change. Per cent. Jan 02 – Feb 06



¹⁾ Estimated on the basis of 146 sub-groups of the CPI.

²⁾ Price changes accounting for 20% of the weighting base are eliminated.

³⁾ CPI-ATE: CPI adjusted for tax changes and excluding energy products. A further adjustment is made for the estimated effect of reduced maximum day-care rates from January 2006.

Source: Statistics Norway

Chart 3 Prices for imported consumer goods from External Trade Statistics. Index, 2000 = 100. Quarterly figures. 01 Q2 – 05 Q4



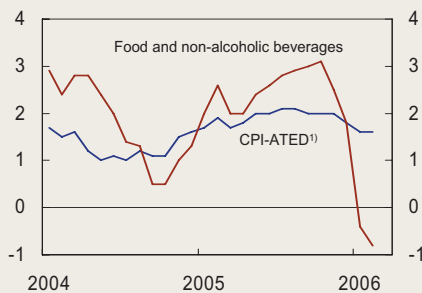
Sources: Statistics Norway and Norges Bank

ATE in January 2005, although it may also partly reflect the more than 2% increase in import prices for consumer goods in the fourth quarter of last year (see Chart 3).

Slower rise in food prices

Prices for food and non-alcoholic beverages fell by 0.8% from February 2005 to February 2006, down from -0.4% in January and 1.8% in December (see Chart 4). From 1 January 2006, VAT on food products increased from 11% to 13%. Statistics Norway's calculations for the CPI-ATE are based on the assumption that the rise in VAT will immediately spill over into selling prices. In practice, the adaptation to new VAT rates probably takes place over some time. Inflation in the first months after such indirect tax increases may therefore be underestimated in the CPI-ATE.

Chart 4 Prices for food and non-alcoholic beverages and domestic inflation. Adjusted for taxes. 12-month change. Per cent. Jan 04 – Feb 06

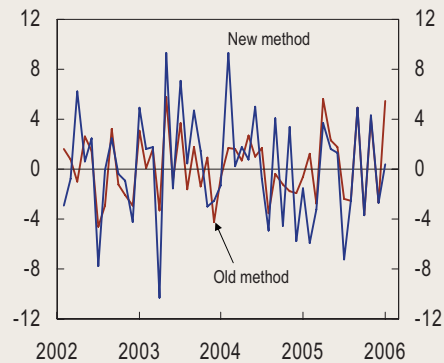


¹⁾ CPI-ATED: Norges Bank's own estimates for domestic price inflation adjusted for tax changes and excluding energy products. A further adjustment is made for the estimated effect of reduced maximum day-care rates from January 2006.

Sources: Statistics Norway and Norges Bank

A slower rise in food prices may also be related to Statistics Norway's method of measuring the rise in food prices, which was changed in August last year. With the new method, the weights are changed every month to capture changes in the demand pattern in the month they occur. The effect will be particularly evident for categories of food products where prices and sales vary considerably through the year, such as fruit (see Chart 5). The new method of measurement may therefore result in wider monthly fluctuations in the index. This will affect the seasonal pattern in the CPI, generating increased uncertainty around the projections for the month-on-month rise. The CPI will now to a greater extent capture changes in household consumption patterns for food products and this may in isolation point to a lower measured rise in food prices over time.

Chart 5 Change in fruit prices calculated by old and new methods. Change on previous month. Per cent. Feb 02 – Jan 06



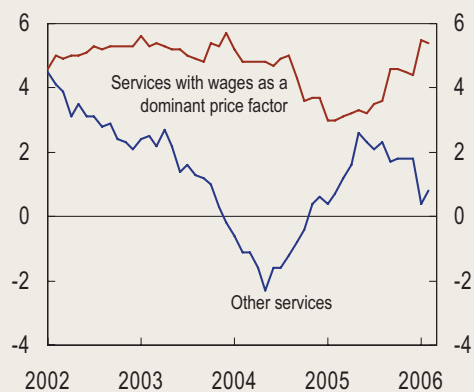
Source: Statistics Norway

According to contacts in our regional network, there is strong competition between grocery chains, and prices have become more uniform as chains with relatively high prices have reduced their prices. Outsourcing of purchasing is also reported to be more common. As a result, purchases are larger and rely increasingly on foreign producers.

Substantial differences in the rise in prices for services

The rise in prices for services where wages are a dominant factor accelerated through 2005, but levelled off somewhat towards the end of the year. However, the rise in prices for these services now seems to have picked up sharply in spite of relatively low wage growth (see Chart 6). The year-on-year rise was 5.5% in January and 5.4% in February, up from a year-on-year rise of 4.4% in December

Chart 6 CPI-ATE. Groups of services. 12-month change. Per cent. Jan 02 – Feb 06



Source: Statistics Norway

2005. Increasing pressures on prices for these services may be the result of particularly strong demand in some sectors, such as craftsman services.

The rise in prices for services excluding house rents and services with dominant cost factors other than wages (“other services”) accelerated markedly up to summer, but slowed in the last half of 2005. The introduction of lower maximum day-care rates contributed to a marked fall in the rate of increase in January. After rising somewhat since January, prices in February are 0.8% higher than in February last year. A slower rise in prices for services, such as financial services, is also curbing the rise in prices. The rise in prices for services such as banking and insurance services may have been restrained somewhat by increased price competition because Internet makes it easier to compare prices for these services. Greater media focus on ranking and comparing prices for financial services is having a similar effect. In addition, foreign banks have contributed to increased competition in the Norwegian banking market.

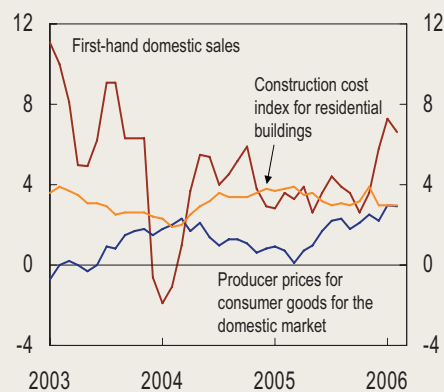
Indicators of underlying inflation

The year-on-year rise in the CPI-ATE was 1.0% in February. Adjusted for the direct effect of interest rate changes on house rents and the effects of lower maximum day-care rates, the year-on-year rise in the CPI-ATE according to our calculations is 1.3%. The trimmed average¹ and weighted median² are indicators that place less emphasis on the most extreme price changes. They showed a twelve-month change in February of 1.7% and 1.8% respectively (see Chart 1).

Other indicators of inflation

The indices for both domestic wholesale and producer prices have increased fairly markedly in the past six months (see Chart 7). The year-on-year rise in producer prices for consumer goods increased from 0.1% in March 2005 to 2.9% in February 2006. The rise in wholesale prices increased from 3.3% to 6.6% in the same period. The construction cost index increased markedly in 2004, but the rise in prices has subsequently levelled off at around 3%.

Chart 7 Other inflation indicators. 12-month change. Per cent. Jan 03 – Feb 06



Source: Statistics Norway

Higher energy prices in the CPI

Annual consumer price inflation including tax changes and energy products was 2.6% in February, increasing markedly after remaining stable at 1.8% in recent months. Developments in energy prices were somewhat weaker than expected towards the end of 2005. However, electricity prices charged to households picked up sharply in February, and were 24.4% higher than in February 2005.

Petrol prices in the CPI were 12.4% higher in February than in the same month last year. Petrol prices remained unchanged from January to February and only small changes are expected in the coming months. The price level is, however, high, and petrol prices will push up annual consumer price inflation in the period ahead.

¹ A trimmed average for inflation is estimated by excluding the prices and services with the largest price movements when inflation is calculated. The goods and services excluded vary from month to month.

² A weighted median is estimated by sorting price changes in the individual goods and services in ascending order. The median is the middle value when the weights in the CPI are taken into account.

Productivity growth in Norway

The supply of labour and how effectively it is used in production is a determinant of developments in potential output, and hence how rapidly the economy can grow over time without accelerating price and cost inflation. Labour productivity is often measured as gross output per person-hour worked. Many factors influence productivity. Both real capital spending and improved work methods and organisation generate productivity gains.

The figures for actual productivity growth for mainland Norway vary widely. Trend productivity growth provides a better picture of underlying growth. Trend productivity growth cannot be observed, however, and must therefore be estimated. The forecasts for potential growth ahead are based on annual trend productivity growth of about 2%. The estimate is discussed in this box.

Historical trend productivity growth can be calculated using different methods. A simple method is to use the average for a longer period as a basis for the estimate. By using this method, the estimates are not influenced by cyclical swings and transitory conditions. On the other hand, this method may not capture important information concerning structural changes that influence underlying productivity growth.

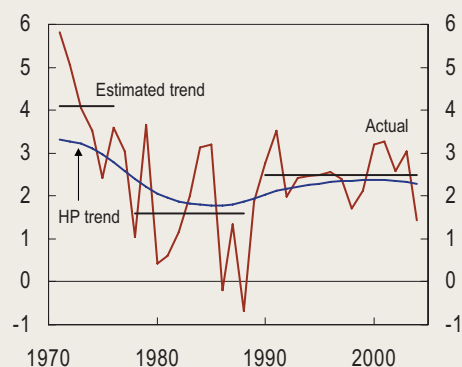
Other methods allow changes in trend productivity growth. The Hodrick-Prescott filter decomposes a time series into a trend component and a cyclical component. By stripping out the cyclical compo-

nent, we obtain an expression of the long-term trend in the series. Alternatively, we can test for any average shifts. Such a method can determine with greater precision the time of any structural breaks in trend productivity.

These two methods indicate three different phases for productivity growth since 1970 (see Chart 1). In the 1970s, output per hour growth was high, but falling. Developments in the beginning of 1970s may be seen in connection with the continued catch-up with technological lead of the US. Unstable economic developments, partly as a result of oil price shocks, may have contributed to low and variable productivity growth towards the end of the 1970s and in the 1980s. For example, much energy-intensive production equipment became unprofitable. In the 1990s and up to the cyclical downturn after the turn of the millennium, productivity growth was high and stable in Norway. Low inflation during this period may have improved resource allocation, and pushed up productivity growth. Since 1990, mainland productivity growth has increased by an average 2.4% per year.

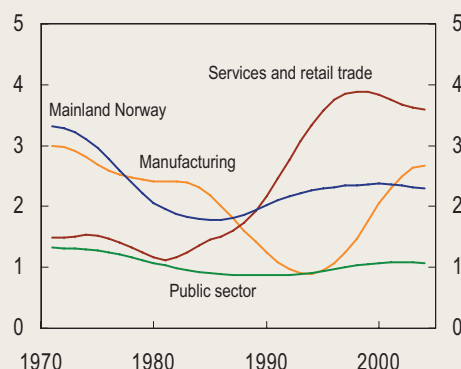
Productivity growth in services and retail trade was low up to the mid-1980s (see Chart 2). Subsequently, growth picked up markedly and remained well above the average for mainland Norway in the 1990s. Structural changes in some sectors as a result of chain-store cooperation and the introduction of information and communication technology led to an increase in productivity in retail trade by an

Chart 1 Productivity growth in mainland Norway. Actual and trend. Per cent. Annual figures. 1971 – 2004



Sources: Statistics Norway and Norges Bank

Chart 2 Productivity growth in mainland Norway and by main sector. Trend. Per cent. Annual figures. 1971 – 2004



Sources: Statistics Norway and Norges Bank

average 6.5% annually between 1992 and 2001. The increase in productivity growth early in the 1990s also reflects rationalisation in the banking sector in the wake of the banking crisis.

In recent years, productivity growth in manufacturing has been about the same as in the period from 1970 to the mid-1980s. Developments in the 1990s were weaker, primarily owing to weak productivity growth in sheltered manufacturing sectors. For example, productivity growth in this period was pushed down as a result of low growth in the food and beverage industry. With intensifying competition, productivity growth in this industry has picked up since the beginning of the new millennium. Productivity in the public sector is very difficult to measure. The national accounts are based on annual productivity growth of about 1% in this sector.

Our estimate of annual trend productivity growth for mainland Norway of about 2% is in line with the historical average for the period 1980-2003. Developments in productivity since 1990 can in isolation suggest somewhat higher trend productivity growth than 2% for the mainland economy. On the other hand, it is reasonable to assume that productivity growth in retail trade and the service sector will be somewhat lower ahead than in the period 1999-2003, which was marked by substantial structural changes and the introduction of new technology. As shown in Chart 2, there is now a tendency towards slowing productivity growth in these sectors. Moreover, it may be that high energy prices will push down productivity growth somewhat as some capital equipment becomes economically obsolete, as observed towards the end of the 1970s.

The yield curve and economic outlook in the US

Since June 2004, the US Federal Reserve has raised the federal funds rate in 14 increments by a total of 3½ percentage points. Long-term interest rates in the US are now at about the same level or a little lower than in spring 2004, and the yield curve in the US is almost inverted.¹ In this box, we explore how the yield curve can have a shape that has historically indicated an increased likelihood of recession², at the same time as the outlook for the US economy is widely assessed as favourable.

Inverted yield curve – a reliable indicator?

Chart 1 shows the relationship between the term spread (the slope of the US yield curve) and recessions in the US economy. An inverted yield curve has

- predicted all recessions since 1960, including the most recent one in 2000-2001
- been followed by recession after four to six quarters
- only given a wrong signal in 1967
- given better growth predictions than other leading indicators³

The usual economic explanations that an inverted yield curve is a warning of recession are based on the premise that long-term interest rates reflect economic agents' expectations as to future short-term interest rates. Weaker growth prospects raise expectations of lower future short-term interest rates, and the yield curve flattens. The indicator's

historical predictive properties are also linked to monetary policy. In order to counter high cost and price inflation, a tight monetary policy has been conducted ahead of several recessions in the US. This has contributed to weaker growth prospects. Temporary high short-term interest rates, combined with expectations of future easing of monetary policy, have then resulted in an inverted yield curve.

The Federal Reserve and other observers have recently commented the US term spread. Many of these analyses argue that the relationship between the forward differential and growth has changed in recent years, and that the indicator is now a less reliable growth predictor than earlier.⁴

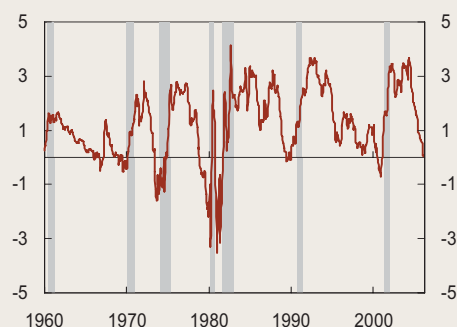
Several indicators point to sustained high growth

The equity market and the spread between corporate and government bond yields are two variables that have been used as leading indicators of economic growth. The US equity market has been moving on an upward trend since the beginning of 2003, and recent developments lend little support to the prospect of a recession in the US economy. The spread between bond yields with different credit risks has narrowed in recent years and there are no signs of a widening. Wider yield differentials could have been an indication of an increased likelihood of slower growth in the US.

Forecasters are generally optimistic

Forecasts do not indicate any prospect of a recession in the US economy. The February Consensus Forecasts report expects growth in the US to remain relatively strong ahead, even though some respondents expect somewhat lower growth in 2007 than in 2006. The spread in the growth forecasts is small and no respondents expect markedly lower growth the next two years. This is also the view of the Federal Reserve, which forecasts growth in 2006 at around 3½% and 3 – 3½ % in 2007.

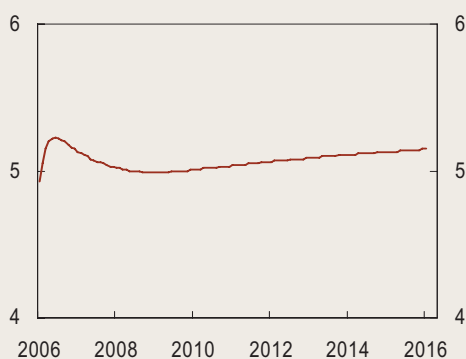
Chart 1 Recessions in the US and differential between 10-year and 3-month yields.¹⁾ Percentage points. Monthly figures. Jan 60 – Feb 06



¹⁾ Shaded areas indicate recession in the US using NBER's definition.

Sources: Federal Reserve and National Bureau of Economic Research (NBER)

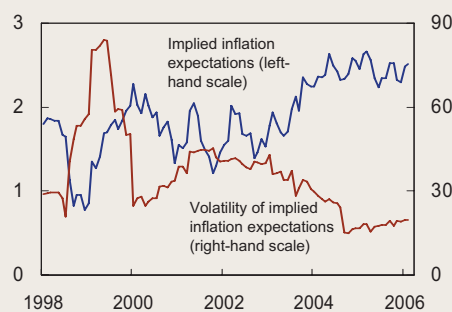
Chart 2 Expected 3-month forward rates in the US.¹⁾
Per cent. Monthly figures. Mar 06 – Mar 16



¹⁾ Average forward rates in the period 27 Feb 06 – 10 Mar 06.

Source: Norges Bank

Chart 3 Implied inflation expectations for the US 10 years ahead and volatility¹⁾ of implied inflation expectations. Per cent. Monthly figures. Jan 98 – Feb 06



¹⁾ Calculated as 12-month standard deviation of monthly percentage changes, annualised.

Sources: Bloomberg and Norges Bank

In the February Merrill Lynch Fund Manager Survey only 13% of global fund managers surveyed responded that a recession was very likely or fairly likely in the next 12 months. The fraction of managers that expect this is somewhat higher than in previous surveys, but still represents a clear minority.

Many analyses point to developments in the housing market and energy prices as two downside risks to growth. A sharp fall in house prices could increase household saving and thereby reduce household consumption. An increase in energy prices could also translate into lower consumption and lower growth. These risks may partly explain why the yield curve in the US is falling from one to three years ahead (see Chart 2)

Reduced risk premia

A normal assumption is that long-term interest rates can be looked upon as the sum of future real interest rates, inflation and the risk premia required by investors because future interest rate developments are uncertain, partly because of the uncertainty associated with developments in inflation and growth. From a historical perspective, long-term interest rates are now very low.⁵ The low level of long-term interest rates to a large extent reflects lower risk premia. Sharp movements in risk premia mean that changes in long-term interest rates do not only reflect changes in interest rate expectations. In that situation, an inverted yield curve will not necessarily signal a recession.

Increased globalisation and the weight given by central banks to low and stable and inflation have resulted in more stable long-term inflation expectations. This is reflected in lower and less variable inflation today than in the 1970s and 1980s. Market participants now see the risk of a substantial increase or fall in inflation as relatively small (see Chart 3).

Uncertainty about future interest rate developments also seems to have been reduced because cyclical fluctuations in the US economy have become less pronounced. The uncertainty surrounding developments in real interest rates may have abated. Increased transparency about the Federal Reserve's monetary policy strategy may also have reduced uncertainty about future interest rate developments.

These factors, which have all contributed to lessening the uncertainty about future interest rate developments, have probably reduced risk premia considerably over several years. The marked fall in long-term interest rates in recent years may also be attributable to other factors, however.

A generally high liquidity surplus may have induced households and businesses to reduce their holdings of cash and short-term bank deposits, and increase their positions in equities, property and long-term bonds. Such portfolio adjustments may have pushed up certain asset prices such as equity and property prices, and have probably influenced bond prices and long-term interest rates as well. Asian central banks have for a period been investing heavily in US government bonds, and recently oil-exporting countries have also shown increasing interest. Pension funds have also been purchasing long-term government

bonds. This activity reflects these investors' need to reduce the interest rate risk that arises when companies' liabilities and assets have very different maturities. Prospects of regulatory changes with regard to pension funds have also increased the need for companies to invest in long-term bonds. With such portfolio adjustments, demand may be relatively price inelastic. In conjunction with a limited supply of government bonds, this may have contributed to keeping long-term interest rates low.

The low level of long-term interest rates is the main reason behind the nearly inverted US yield curve. The fall in long-term interest rates seems to be primarily attributable to reduced risk premia. This is a significantly different situation than earlier when the yield curve was inverted because of high short-term interest rates and when the yield curve to a greater extent reflected expectations of lower growth and a fall in short-term interest rates. The outlook for

the US economy still appears relatively auspicious. The uncertainty associated with developments in the US housing market and energy prices are probably two factors that explain why the market expects a somewhat lower key rate in the US one to three years ahead.

¹ The yield curve is said to be inverted when long yields, e.g. the yield on 10-year government bonds, are lower than short yields, e.g. the yield on 3-month Treasury bills.

² By recession, we mean here a substantial fall in activity in several sectors of the economy, which persists longer than a few months. This is the definition of recession formulated by the National Bureau of Economic Research (NBER).

³ The yield curve's predictive properties are documented in "The Yield Curve as a Leading Indicator: Frequently Asked Questions", Arturo Estrella, New York FED, October 2005.

⁴ See, inter alia, "Remarks by Vice Chairman Roger W. Ferguson, Jr.", Howard University Economics Forum, March, 2006, and letter from Alan Greenspan to the Joint Economic Committee, November 28, 2005.

⁵ See box "Why are long-term interest rates so low?" in Inflation Report 1/2005 for a further description of the factors that have contributed to low long-term interest rates.

The projections in *Inflation Report 3/05* and 1/06

This box presents an analysis of the changes in the projections in relation to the previous *Inflation Report*. The changes have been made partly because developments since November last year have differed from our projections. New information has also emerged concerning the driving forces that will influence the economy in the period ahead. First, we examine some isolated effects of new information on the interest rate projections. We then show the overall effect on the output gap and inflation in the context of the new interest rate projections. Finally, we compare Norges Bank's projections for 2006 with projections from other institutions.

Recent developments

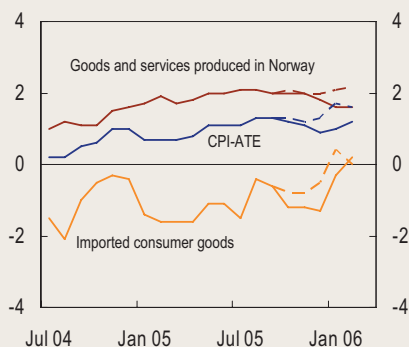
New information indicates that the economy is growing at a somewhat faster pace than projected in *Inflation Report 3/05*. Reports from Norges Bank's regional network indicate that both growth and capacity utilisation in enterprises are higher than previously. The outlook for the period ahead is also regarded as favourable. Manufacturing production showed strong growth in the fourth quarter of 2005. Directorate of Labour figures have indicated for some time that unemployment is falling. LFS figures from Statistics Norway also now show a clear decrease in unemployment and strong employment growth. The projections for mainland investment in the petroleum industry have been revised upwards somewhat for the projection period as a whole. There may have been somewhat more slack in

the economy than we previously assumed. Final national accounts figures for 2003 show that the use of labour declined somewhat more during the last economic downturn than the preliminary figures indicated. This indicates that capacity utilisation was somewhat lower at the beginning of the upturn than previously assumed. In relation to the previous *Inflation Report*, the level of the output gap has therefore been revised downwards for 2005, but at the same time the growth rate towards the end of the year is estimated to be higher.

Projected economic growth among Norway's trading partners has been revised upwards slightly since the previous *Inflation Report*. Combined with a somewhat weaker krone, this contributes to a continued favourable outlook for Norwegian exports.

The rise in consumer prices adjusted for tax changes and excluding energy products (CPI-ATE) has been lower recently than projected in *Inflation Report 3/05* (see Chart 1). In the second half of 2005, the year-on-year rise in the CPI-ATE varied between 1 and 1½%, before falling unexpectedly in December and January. In February, inflation edged up again, but was still lower than projected in the previous *Report*. Inflation developments have also been weaker in relation to a simple time series model (see Chart 2). If the CPI-ATE is adjusted for the reduction in day care rates introduced at the beginning of the year and the estimated direct effect of the decline in interest rates on house rents, inflation can be estimated at 1.3% in February.

Chart 1 CPI-ATE¹⁾. Total and by supplier sector²⁾. Actual inflation and projections from IR 3/05. 12-month change. Per cent. Jul 04 – Feb 06

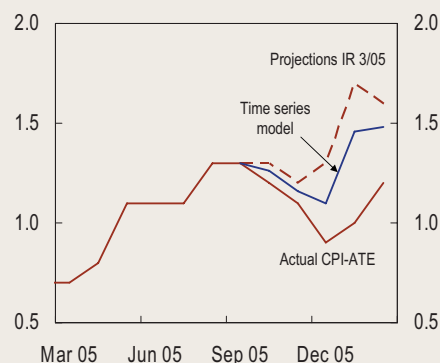


¹⁾ CPI-ATE: CPI adjusted for tax changes and excluding energy products. A further adjustment is made for the estimated effect of reduced maximum day-care rates from January 2006.

²⁾ Norges Bank's calculations.

Sources: Statistics Norway and Norges Bank

Chart 2 CPI-ATE¹⁾. Projections in IR 3/05, estimates from time series model and actual price developments. 12-month change. Per cent. Mar 05 – Feb 06



¹⁾ CPI-ATE: CPI adjusted for tax changes and excluding energy products. A further adjustment is made for the estimated effect of reduced maximum day-care rates from January 2006.

Sources: Statistics Norway and Norges Bank

If the effect of reduced day-care rates is excluded, CPI-ATE inflation is projected to be a little higher than 1% in the first and second quarters of 2006. This is somewhat lower than projected in the previous *Report*.

The effects on the interest rate path

Chart 3 shows the interest rate forecast from *Inflation Report 3/05* with a fan chart showing uncertainty around the forecast. With the aid of Norges Bank's models, we can illustrate the isolated effects on the interest rate of the various information we have received since the previous *Report*.

Lower-than-expected inflation points to an interest rate path below the interest rate path from the previous *Inflation Report*. Chart 3 shows the interest rate effect.

On the other hand, higher-than projected growth in the domestic and global economy implies in isolation a somewhat tighter monetary policy than we envisaged in the previous *Inflation Report*. This is illustrated in Chart 4.

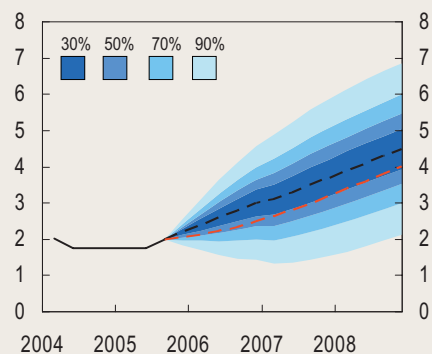
In addition, the krone is weaker than we assumed in *Inflation Report 3/05*. This can in isolation provide scope for a higher interest rate path than in the previous *Report*.

The macroeconomic models provide a simplified description of the economy and only serve as a tool in the forecasting process. The forecasts for the interest rate and other variables in the economy must be perceived as a result of the Bank's best judgment.

Changes in the projections ahead

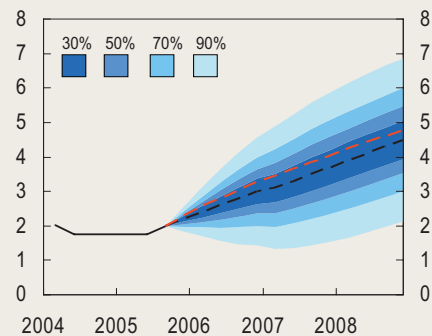
Overall, new information implies an interest rate path close to the path we projected in *Inflation Report 3/05*. The projections in this *Report* are based on the

Chart 3 Sight deposit rate in the baseline scenario in IR 3/05 with fan chart and interest rate path resulting from new information on CPI-ATE (red line). Per cent. Quarterly figures. 1. 04 Q1 – 08 Q4



Source: Norges Bank

Chart 4 Sight deposit rate in the baseline scenario in IR 3/05 with fan chart and interest rate path resulting from new information on output growth in Norway and abroad (red line). Per cent. Quarterly figures. 04 Q1 – 08 Q4



Source: Norges Bank

assumption that the interest rate will follow a path which, in the Executive Board's view, will provide 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 5). This is discussed further in Section 1. Interest rates in other countries are assumed to shadow forward rates over the next year before increasing somewhat

Table 1 Projections for main macroeconomic aggregates in Inflation Report 1/06. Change from projections in Inflation Report 3/05 in brackets.

	2005	2006	2007	2008	2009
Mainland demand	4 (¼)	3¾ (0)	2¾ (¼)	2½ (¼)	2½
GDP, mainland Norway	3¾ (0)	3½ (¼)	2¾ (¼)	2½ (¼)	2¼
Employment	¾ (0)	1¾ (¼)	1 (0)	¾ (0)	½
LFS unemployment (per cent of labour force)	4.6	3¾ (-¼)	3¾ (-¼)	3¾ (-¼)	3¾
CPI-ATE ¹⁾	1.0	1¼ (-½)	1¾ (-¼)	2¼ (-¼)	2½
CPI	1.6	1¾ (-¼)	1¾ (-¼)	2¼ (-¼)	2½
Annual wage growth	3¾ (-¼)	4 (-¼)	4½ (0)	4¾ (¼)	4¾

¹⁾ Adjusted for that the reduction in maximum day-care rates push down the rise in the CPI-ATE by an estimated 0,2 percentage points in 2006.

Source: Statistics Norway and Norges Bank

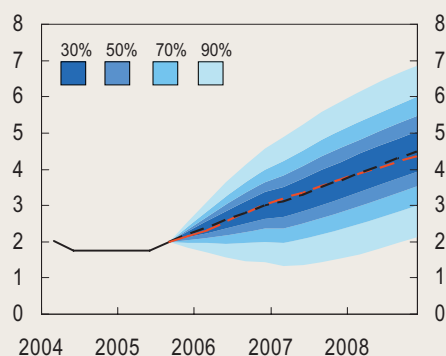
faster. This results in somewhat higher interest rates abroad than assumed in the previous Report. Exchange rate movements are difficult to project. Unexpected statistical outcomes may have made NOK investments more uncertain, and contributed to a weaker exchange rate in recent months. The interest rate path in Norway and abroad may be consistent with an approximately unchanged krone exchange rate (see Chart 6).

In this Report, slightly higher growth in mainland GDP is projected for the period ahead than in the previous Report. This results in a somewhat higher output gap (see Chart 7). In 2008, the output gap is expected to be about ½ percentage point higher than we estimated in the previous Report. Inflation measured by the CPI-ATE, on the other hand, is projected to be somewhat lower over the next two years (see Chart 8).

We now expect the labour market to be somewhat tighter in the years ahead than in the previous Report. This is because registered unemployment is now lower than we previously assumed and because economic growth is expected to be somewhat stronger in the years ahead. LFS unemployment remained at a higher-than-projected level for a long period, but is now falling relatively rapidly. Projections for registered unemployment have been revised downwards as from 2006. Against the background of lower unemployment, real wage growth is projected to be somewhat higher in the years ahead than projected in the previous Report.

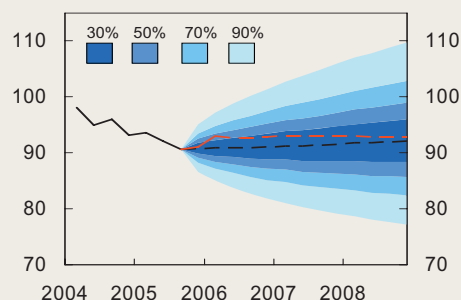
No major changes have been made in the projections for the various demand components. Somewhat higher global growth and a weaker krone have contributed to the upward revision of the projec-

Chart 5 Sight deposit rate in the baseline scenario in IR 3/05 with fan chart and sight deposit rate in the baseline scenario in IR 1/06 (red line). Per cent. Quarterly figures. 04 Q1 – 08 Q4



Source: Norges Bank

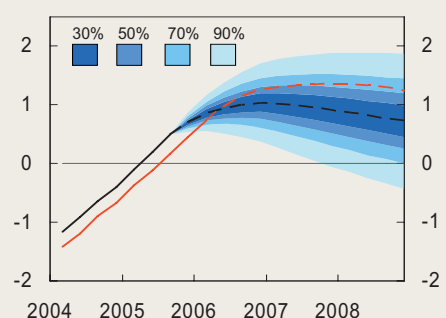
Chart 6 Imported-weighted exchange rate (I-44)¹⁾ in the baseline scenario in IR 3/05 with fan chart and I-44 in the baseline scenario in IR 1/06 (red line). Quarterly figures. 04 Q1 – 08 Q4



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

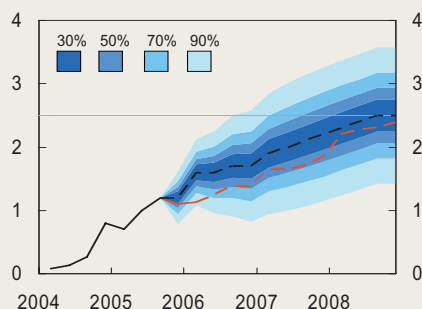
Chart 7 Estimated output gap in the baseline scenario in IR 3/05 with fan chart¹⁾ and output gap in the baseline scenario in IR 1/06 (red line). Per cent. Quarterly figures. 04 Q1 – 08 Q4



¹⁾ Uncertainty surrounding the current situation is not taken into account in the calculation.

Source: Norges Bank

Chart 8 Projected CPI-ATE¹⁾ in the baseline scenario in IR 3/05 with fan chart and CPI-ATE in the baseline scenario in IR 1/06 (red line). 4-quarter rise. Per cent. 04 Q1 – 08 Q4



¹⁾ CPI-ATE: CPI adjusted for tax changes and excluding energy products. A further adjustment is made for the estimated effect of reduced maximum day-care rates from January 2006.

Sources: Statistics Norway and Norges Bank

tions for export growth. Higher real wage growth is contributing to a longer period of continued high growth in private consumption than we assumed in the previous *Report*.

The projection for inflation measured by the CPI-ATE has been revised downwards. The change in the inflation projection is largest for the current year. The main reason for this is that inflation at the beginning of 2006 was lower than projected in the previous *Report*. The deviation from the inflation target is greater than we expected last autumn. For the years 2007 and 2008, the changes in the projections are smaller. Higher capacity utilisation and real wage growth and a somewhat weaker krone contribute to gradually higher inflation in this *Report* than projected in November. As in the November *Report*, the gradual rise in the interest rate is projected to bring capacity utilisation down after a period, stabilising inflation close to target.

Projections from other institutions

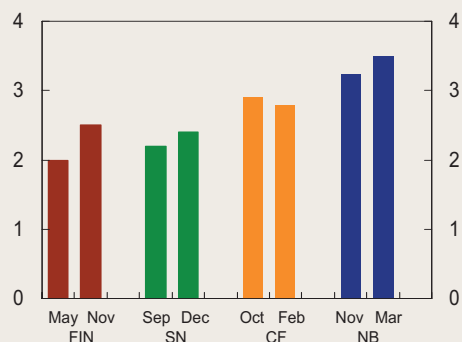
Norges Bank's projection for economic growth in 2006 is higher than projections from the Ministry of Finance, Statistics Norway and the average in Consensus Forecasts (see Chart 9). In this *Report*, mainland growth is projected at 3½% this year, ¼ percentage point higher than in the previous *Report*. Since November, Statistics Norway has revised its projection for growth in 2006 upwards by 0.2 percentage point to 2.4%. Statistics Norway assumes about the same growth in mainland demand as Norges Bank. However, more subdued developments in exports and somewhat stronger import growth are projected by Statistics Norway.

The average projection from Consensus Forecasts has shown little changes since the beginning of November. Forecasters in this survey are still on average expecting mainland growth to be below 3% this year. In the 2006 Supplementary proposition presented in November last year, the Ministry of Finance projected growth at 2.5% this year.

In this *Inflation Report*, Norges Bank has revised down its projection for CPI-ATE inflation this year from 1¾ to 1¼%, when adjusting for the reduction in maximum day-care rates from 2006. The downward revision on the previous *Report* primarily reflects low inflation in the first months of 2006. The adjustment for the reduction in maximum day-care rates pushes up, in isolation, the CPI-ATE projection by 0.2 percentage point in 2006. The Technical Reporting Committee on Income Settlements put CPI-ATE inflation at 1.3% this year. Neither the Ministry of Finance nor Statistics Norway has published projections so far this year. Thus, it has not been possible for them to take account of the low rise in prices in their projections. In November, the Ministry of Finance projected CPI-ATE inflation at 1.5% in 2006. In December, Statistics Norway raised its forecasts for CPI-ATE inflation to 1.7%. Consensus Forecasts does not collect projections for CPI-ATE inflation.

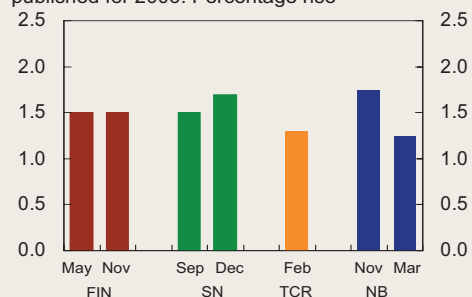
The Ministry of Finance's projections were published on 6 May and 10 November 2005. Statistics Norway published its projections on 15 September and 15 December last year. Consensus Forecasts collected its figures on 10 October 2005 and 13 February 2006. As the institutions publish projections at different times, the information on which the projections are based may differ.

Chart 9 Mainland GDP. The last two projections published for 2006. Percentage rise



Sources: Revised National Budget 2005, Supplementary proposition 2006, Economic Survey 4/05 and 6/05, Inflation Report 3/05 and 1/06, Consensus Forecasts October 2005 and February 2006

Chart 10 CPI-ATE¹⁾. The last two projections published for 2006. Percentage rise



¹⁾ CPI-ATE: CPI adjusted for tax changes and excluding energy products. A further adjustment is made for the estimated effect of reduced maximum day-care rates from January 2006 in the projections from Norges Bank.

Sources: Revised National Budget 2005, Supplementary proposition 2006, Economic Survey 4/05 and 6/05, On the basis for income settlements 2006, Inflation Report 3/05 and 1/06

Evaluation of Norges Bank's projections for 2005¹

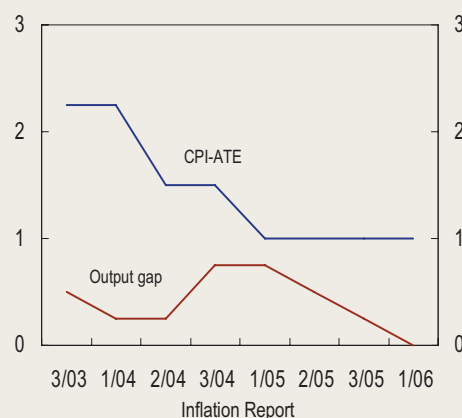
Consumer prices adjusted for tax changes and excluding energy products (CPI-ATE) increased by 1.0% in 2005. This is considerably lower than Norges Bank projected at the beginning of 2004. This is partly due to a stronger-than-assumed appreciation of the krone through 2004 and 2005. Moreover, wage growth was lower than projected. After prices for imported consumer goods exhibited a surprisingly pronounced fall in the beginning of 2005, the projections published through 2005 have been closely in line with actual price developments (see Table 1). However, towards the end of the year, inflation slowed unexpectedly.

Slightly lower output gap than previously projected

The output gap, as estimated by Norges Bank, was probably slightly lower in 2005 than previously projected (see Chart 1). This is primarily because the level of the output gap in 2003 and 2004 seems to have been somewhat more negative than previously assumed.

Revised national accounts figures show that labour utilisation edged down somewhat more in the last downturn than provisional figures indicated. Other indicators also point to a higher level of idle capacity. Domestic inflation has been low and it has taken longer than expected for employment growth to pick up. Sickness absence fell markedly in 2004. This resulted in an increase in available person-hours. Combined with labour inflows from the new EU accession countries, the fall in sickness absence may have contributed to higher growth potential than normal over the past two years.

Chart 1 Projected change in the CPI-ATE and output gap level for 2005 from IR 3/03 to IR 1/06. Per cent



Source: Norges Bank

The downward revision of the output gap retrospectively has to some extent been offset by what now appears to be somewhat higher growth in the economy in 2005 than projected at the beginning of 2004. There are several contributing factors:

- Up to *Inflation Report 2/05*, Norges Bank based its projections on forward interest rates. In 2005, the interest rate was slightly lower than implied by forwards interest rates at the beginning of 2004. Lower-than-assumed interest rates have contributed to higher-than-projected growth.
- The sharp rise in oil prices has contributed to considerably higher growth in petroleum investment than previously assumed, which has generated strong impulses to mainland activity.

Table 1 Main assumptions and projections for main macroeconomic aggregates for the Norwegian economy in 2005. Change from previous year in per cent unless otherwise stated.

	IR 3/03	IR 1/04	IR 2/04	IR 3/04	IR 1/05	IR 2/05	IR 3/05	IR 1/06
Interest rate (level, per cent) ¹⁾	4.2	2.6	3.2	2.3	2.3	2.2	2.2	2.2
Exchange rate (level, I-44)	96.1	99.0	95.2	93.3	93.3	92	91.8	91.9
GDP, Trading partners	2¼	2½	2½	2½	2¼	2	2¼	2.4
International price impulses	¾	-½	-¼	¼	-¾	-1½	-1	-0.9
Oil price (Brent Blend, USD per barrel)	23.4	28.9	33.1	46.0	50.6	54.3	55.0	54.5
GDP, mainland Norway	2¼	3¼	3	3½	4	3¾	3¾	3¾
LFS unemployment (per cent of labour force)	4½	4¼	4	4	4	4¼	4½	4.6
Annual wage growth	4¾	4¾	4½	4½	4	3½	3½	3½
CPI	2	2¼	1¾	2¼	1¼	1¼	1½	1.5
CPI-ATE	2¼	2¼	1½	1½	1	1	1	1.0
Output gap (level)	½	¼	¼	¾	¾	½	¼	0

¹⁾ Three-month money market rates
Source: Norges Bank

¹ The box is based on the article "Evaluation of Norges Bank's projections for 2005" in *Economic Bulletin* 1/06 (to be published in spring 2006).

- Overall, growth among Norway's trading partners has been in line with previous projections. Increased industrialisation among emerging economies has led to rising commodity prices, and increased trade has led to high shipping freight rates. In spite of the appreciation of the krone, export growth has been strong.

In line with previous projections, capacity utilisation increased in 2005. The economy probably entered into an expansionary phase in the course of the latter half of 2005. Norges Bank's output gap estimates in 2005 may still change as a result of revisions of national accounts figures or assessments based on other new information.

Inflation in 2005 was lower than projected in 2004, but in line with projections presented in 2005

CPI-ATE inflation was 1¼ percentage points lower in 2005 than projected at the beginning of 2004. There are several reasons behind this deviation:

- The krone exchange rate appreciated during 2004 and 2005 and was on average almost 8% stronger than assumed in the March 2004 *Inflation Report*. The deviation can partly be explained by developments in external interest rates, which were not raised as quickly as implied by market expectations. As a result, it became more attractive to take NOK positions. Higher oil prices may also have made a contribution.
- In the beginning of 2005, prices for imported consumer goods fell more than that implied by exchange rate developments and external price impulses. Changes in VAT rates and unusual sales activity around the turn of the year 2004/2005 may also have pushed down the rise in prices, however.

- In the March 2006 *Inflation Report*, wage growth was projected at 4¾% in 2005. Preliminary figures from the Technical Reporting Committee on Income Settlements indicate that wage growth turned out to be a good 3¼% in 2005. This is partly attributable to a higher-than-expected supply of labour. In 2004, sickness absence fell and the labour inflows from the new EU accession countries increased. Unemployment did not fall in line with projections.

In Table 2, we have decomposed the difference between actual and projected inflation in *Inflation Report* 1/04 and 1/05 on various explanatory variables. The decomposition shows that the main factors contributing to the projection error from the first *Inflation Report* in 2004 is a stronger exchange rate and lower wage growth than expected. In the decomposition, account is not taken of the possible repercussive effects of the level of inflation on wage developments. Had we taken account of this, low wage growth may have explained a smaller fraction of the forecast error in the CPI-ATE.

Norges Bank's projections for CPI-ATE inflation in all the *Reports* in 2005 were fairly close to the mark. Towards the end of the year, both lower domestic inflation and a faster fall in prices for imported consumer goods pushed down CPI-ATE inflation slightly more than we had projected.

Chart 2 shows Norges Bank's and some other institutions' projections for CPI-ATE inflation in 2005 at various points in time. In 2003 and 2004, none of the institutions expected inflation to be as low as 1.0% in 2005. Such a comparison must be interpreted with caution as the forecasts are made at different times and are thus based on different information.

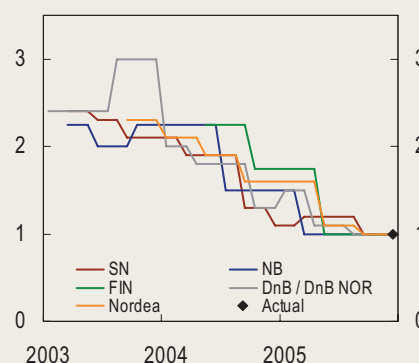
Table 2 Decomposition of the deviation between actual and projected inflation in 2005 presented in *Inflation Report* 1/04 and 1/05

	IR 1/04	IR 1/05
Deviation between actual and projected CPI-ATE inflation. Percentage point	-1¼	-0.1
<i>Decomposition of deviation</i>		
Stronger exchange rate	-0.4	0
Lower external price impulses	-0.1	0
Lower wage growth	-0.4	-0.1
Interest rate's direct effect on house rents	-0.2	0
Other factors / unexplained ¹⁾	-0.2	0

¹⁾ Primarily relating to the fall in prices for imported consumer goods in 2005

Source: Norges Bank

Chart 2 CPI-ATE. Projections for 2005 published at different times. Annual rise. Per cent



Sources: Statistics Norway (SN), the Ministry of Finance (Fin), DnB NOR, Nordea and Norges Bank

Boxes 2002-2006

1 / 06:

Choice of interest rate path in the work on forecasting
Recent price developments
Productivity growth in Norway
The yield curve and economic outlook in the US
The projections in Inflation Report 3/05 and 1/06
Evaluation of Norges Bank's projections for 2005

3 / 05:

Uncertainty surrounding future interest rates developments
Accuracy of short-term interest rate expectations
Output gap uncertainty
Increased imports from low-cost countries
The effects of high oil prices on the global economy
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
Why are long-term interest rates so low?
Low inflation in the Nordic countries
Developments in household debt
Evaluation of Norges Bank's projections for 2004

3 / 04:

Estimated relationship for interest rate setting
Developments in household debt
Preliminary evaluation of the projections in Inflation Report 2/04
Norges Bank's foreign exchange purchases for the Government Petroleum Fund
The current account surplus and demand for Norwegian kroner

2 / 04:

Increase in number of working days in 2004
Financial stability
Norges Bank's estimate of the output gap
A change in inflation expectations?
Preliminary evaluation of the projections in Inflation Report 1/04
What are the factors behind the rise in oil futures prices?

1 / 04:

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

3 / 03:

Direct effects of interest rates on house rents
Imbalances in the US
Assumptions concerning the exchange rate
Flexible inflation targeting and indicators of pressures in the real economy

2 / 03:

Low consumer price inflation
Evaluation of inflation reports in countries with inflation targets
Why does household debt growth remain high?
Levels of real capital in enterprises still too high?

1 / 03:

Factors behind the development in the krone exchange rate
Output gap
Imported price inflation and the exchange rate - the UK experience
Evaluation of Norges Bank's projections for 2001 and 2002

3 / 02:

The Scandinavian model of inflation - revisited

2 / 02:

Why has the krone exchange rate appreciated?
New expectations survey
Why have clothing prices fallen?
The impact of higher oil prices
How does the krone exchange rate influence the CPI?

1 / 02:

Evaluation of Norges Bank's projections for 2000
Wage growth
Have Norges Bank's interest rate decisions been expected?

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 talk to business and community leaders concerning financial developments in their enterprises and industries. Each round of talks 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 1300 individuals who are contacted 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 the time lags and revisions associated with these statistics make supplementary sources, such as our regional network, useful.

The information obtained from the regional network, along with other available information on economic developments, will 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)	Møreforskning 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

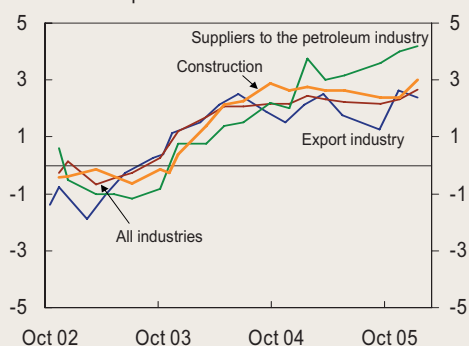
Summary of the contact rounds since the previous *Inflation Report*

In the contact rounds since *Inflation Report 3/05*, completed in November and January, approximately 580 regional network contacts have been interviewed. A national summary and summaries for each region from the round in January will be published on Norges Bank's website on 17 March. 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 activity level is high and that growth in the Norwegian economy remains firm. Growth in demand and output is stronger in all business sectors, compared with autumn 2005 (see Chart 1). *Domestically-oriented manufacturing* reports that demand and output growth are solid in all regions. Developments in domestically-oriented manufacturing are marked by strong household purchasing power and robust activity in other

Chart 1 Norges Bank's regional network. Growth in demand and production. Index¹⁾. Oct 02 – Jan 06



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

sectors such as building and construction and petroleum-related activities. Suppliers to the fish farming and fishing industries report solid growth as a result of positive developments in the fish farming industry and increased activity in parts of the fishing industry. The shipbuilding industry reports high and stable production as well as capacity pressures in shipbuilding enterprise. This is mainly the result of orders from the defence industry and the offshore sector.

On the whole, growth is solid in the *export industry*. The fish farming industry reports strong growth in demand from the EU and Russia. Both sales volumes and average prices have increased. Suppliers

of ships' gear and the pharmaceutical industry also report strong growth. There is solid growth in the engineering industry. In the process industry, the picture is somewhat mixed. Developments are positive for producers of iron, steel and metal products and existing capacity is being fully utilised. The ferroalloys industry has reduced production capacity due to intense competition from China and Russia. *Suppliers to the petroleum industry* report continued strong growth, both in domestic and export markets. Growth is stronger than in autumn. In Norway, major projects such as the Kristin, Snøhvit, Ormen Lange and Langed field developments, combined with increased exploration and production activity internationally, are contributing to the robust growth in this industry. There is still a shortage of rigs, which is placing some constraints on exploration activity.

Building and construction report solid and accelerating growth. Growth is solid to strong in all regions and the growth rate is strongest in Western Norway. In several rounds, the industry has signalled a need to keep the activity level low, but the high level of market activity and new orders are nevertheless pushing up the activity level. Activity is increasing in the building and refurbishment of dwellings and commercial buildings in both the private and public sectors. The rate of growth in residential construction has levelled off somewhat in recent months and the market expects fewer building starts in the period ahead. There is solid growth in public sector commercial construction, with substantial investment in the expansion and refurbishment of hospitals, nursing homes, schools, day-care centres, and assisted living facilities. 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.

Retail trade reported slower growth in autumn, but growth has picked up again and is solid. The building materials sector reports particularly solid growth. There is solid growth in sales of consumer durables such as furniture, white and brown goods and electrical appliances. Growth in the clothing industry is more moderate. New car sales on the whole are considered to be stable, although new car sales are rising in some regions.

In *service industries*, growth is solid and stronger than last autumn. Growth in commercial services remains solid. There is increasing demand

for auditing and consulting services, IT, architectural and legal services and advertising. A tighter labour market, with intense competition for labour in some segments, is contributing to continued strong growth in demand for employment services. Banks report strong growth in lending to both the household and corporate sectors. Growth is also solid in the insurance industry due the introduction of compulsory occupational pension schemes. The travel industry reports solid growth, with increased activity in the course/conference, accommodation and travel segments.

The market outlook for the next six months indicates that the Norwegian economy will continue to grow, but at a slower pace than during the previous three months. Growth is expected be highest for suppliers to the petroleum industry and building and construction.

Capacity utilisation and investment

49% of all companies interviewed in the January round report that they would have some or considerable difficulties accommodating an increase in demand. The share has increased during the autumn and since the beginning of 2006. Capacity problems have intensified in particular in petroleum-related manufacturing and building and construction. These problems are most pronounced in Western Norway. The shortage of skilled labour and project managers appears to be the main constraint.

All industries report moderate to strong growth in investment plans for the next 6-12 months (see Chart 2). 40% of the companies plan to increase investment, while 15% expect lower investment. Manufacturing and the local government and hospital sectors are expecting the strongest growth. In manufacturing, the strongest growth is expected

among suppliers to the petroleum sector and in the export industry. Investments are concentrated on capacity increases, production equipment, product improvements and rationalisation. Retail trade investments are related to new buildings, expansion and modernisation of premises. In the service sector, investment plans range from simple maintenance to IT equipment, capacity increases and measures to upgrade skills. Municipalities are investing in nursing homes, schools, day-care centres, psychiatric care and assisted living facilities, roads and water and sewage services.

Employment and labour market

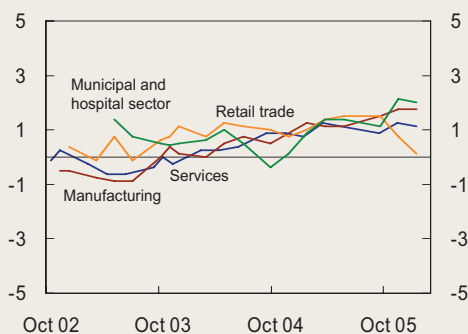
Employment is increasing in the business sector, in pace with the economic upturn. Employment growth in manufacturing and service industries is now somewhat stronger than during autumn, while growth in building and construction and retail trade has been more or less stable. There is some growth in employment in the local government and hospital sectors. It appears that the positive developments in the business sector will continue during the next three months. Employment expectations include increased growth in manufacturing, no change in the current growth rate in building and construction and a reduction in the growth rate in retail trade and service industries. In the municipal and hospital sectors, employment growth is expected to remain at the level prevailing during the last three months.

One in three enterprises cites the supply of labour as a constraint on output. This is an increase since the autumn and confirms labour market tightening. The shortage of skilled labour is still most pronounced in building and construction and petroleum-related manufacturing, although parts of the service sector also report problems recruiting qualified labour.

Costs, prices and profitability

Annual wage growth is expected to be somewhat higher in 2006 than in 2005, at 3¾% on average. All industries report a moderate rise in prices in the last 12 months. The rise in prices has been highest in building and construction and lowest in retail trade. In the period ahead, a majority of companies expects a higher rise in prices. Higher selling prices combined with increased demand are contributing to a solid improvement in profitability for most sectors. Suppliers to the petroleum sector stand out, with a strong improvement in profitability. A number of companies in the building and construction sector report a decline in profitability or weaker growth as a result of an overly rapid expansion and cost control problems.

Chart 2 Norges Bank's regional network. Investment plans. Change in investment in next 6 – 12 months. Index¹⁾. Oct 02 – Jan 06



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

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

7. himmel
A. Bøckmann AS
ABB
ABB Flexible Automation
Accenture
Active Nurse AS
ADCom Data
Adecco Nordland
Adecco Troms
Adidas Norge AS
Advokatene Reinsnes, Strøm, Husmo og Torrisen
Aetat Grenland, hovedkontor Telemark
Aetat Nord-Trøndelag
Aetat Sør-Trøndelag
Aetat Vestfold
Aker Brattvåg AS
Aker Kværner Stord
Aker Seafoods Finnmark
Aksel L. Hansson
Aktietrykkeriet
Akvasmart
Alf R. Johansen AS
Alfr. Nettet AS
Alléen Auto AS
Allianse Øst
Alvdal Skurlag AL
Alvdal Tynset Sport AS
American Express Business Travel
Amfi Drift AS
Amfi Namsos
Amneus Boghandel AS
A-Møbler AS
Andreassen Jan Malermester AS
Applica
Apropos internett AS
APS Norway (Flowtite Norway AS)
ARKI arkitektar AS
Arkitektfirma Brandsberg-Dahl
Arkitektfirmaet C F Møller Norge AS
Arne Rustand AS
Arntzen de Besche
Art In Dent AS
Asko Agder AS
Asko Midt-Norge AS
Atelier Ekren AS
Autokarosseri
Avantor
Avisa Glåmdalen
Baker Hughes Inteq
Barlindhaug
Bates AS
BearingPoint Norway AS
Beitostølen Resort
Berg Hansen NOR AS avd. Bodø
Bergene Holm AS
BergHansen Reisebyrå Vestfold AS
Bernhard Olsen AS
Betong Øst AS
Bilsenteret Namsos AS
Bjørge-Gruppen AS
BKK
Bleffjell sykehus
Block Berge Bygg AS
Bodø Bilskadesenter
Bodø kommune
Bodø Sildoljefabrikk
Bohus Møbelhuset AS
Box delivery
Br. Reme AS
Bravida AS
Bravida geomatikk AS
Brevik Construction AS
Brilleland
Brunvoll AS
Bryggen gastronomi AS
Brødrene Dahl
Brødrene Flaarønning AS
Brødrene Pedersen AS
Brødrene Røsand AS
Bussbygg
Bygg og Maskin AS
Byggholt
Byggmo Eiendom AS
Byggservice Nord-Østerdal AS
Byhaven kjøpesenter
Byåsen Bakeri AS
Bøhmer Entreprenør AS
Børset og Bjerkset AS
Børstad Transport AS
Cad Net Øst
Capinor AS
Central Drift Hotel AS
Cerum AS
Christensen Yngvar AS
Clarion Hotel Ernst AS
Color Line
Coop Nord avd. OBS Bygg
Coop Sogn og Fjordane BA
Coop Trondheim og omegn BA
Coop Økonom
CorrOcean ASA
Cowi AS
Dale Bruk AS
Dark Arkitekter AS
De 3 stuer konsern AS
DIPLOM-IS AS
DnB NOR Kongsvinger
DNH Den Norske Høytalerfabr AS
Domstein Bodø AS
E. Flasnes Transport AS
EDB gruppen Norge AS
Egersund Trål AS
Eidesvik Offshore ASA
Eidsvoll kommune
Eiendomsmegler 1 AS
Eiendomsmegler 1 Midt-Norge AS
Eiendomsspar AS
Ekornes ASA
Elektro Bodø AS
Elkem Aluminium ANS
Elkem ASA Materials
Elkem Salten
Elkjøp
Elkjøp stormarked Tromsø
Elverum kommune
Engen O L & CO AS
Enger Lefsebakeri
Engum Elkjøp AS
Enskilda Securities
Eramet Norway
ErgoRunit AS
Erling Moen AS
Ernst & Young
Esko Graphics AS
Eurospar Sogndal
Evensen & Evensen AS
Exact Eiendomsmegling AS
Fabelaktiv AS
Falkanger Sko AS
Farveringen AS
Fatland AS
Fauske Hotell AS
Fauske kommune
FAV Gruppen
Felleskjøpet Trondheim
Figgjo AS
Finnøy Gear & Propeller AS
Finsbråten AS
Firda Avishuset
Fjeldseth AS
Flekkefjord kommune
Flora kommune
Follum fabrikker
Fosen Trafikklag ASA
Fossberg Hotell AS
Fredrikstad kommune
Friele kaffehus
Frost Entreprenør AS
Fru Haugans Hotell AS
Fundator AS
Funderud Gartneri AS
GE Health Care AS
Gjensidige avd. Ålesund
Gjensidige Forsikring
Gjensidige Nor Forsikring Oppland
Gjøco AS
Glamox ASA
Glomsrød AS
Glåmå Bygg AS
Godstrafikk og Bilspedisjon AS
Goldfish Boats AS
Grane Kommune
Granit Kleber AS
Grenland Framnæs AS
CorrOcean ASA
Grieg Logistics
Grimstad kommune
Grunnarbeid AS
Gudbrandsdalens uldvarefabrikk
Gunnar Hippe AS
Gunvald Johansen Bygg AS
H&M Hennes & Mauritz AS
H. O. Bernhardsen
Hagen og Godager AS
Halden kommune
Halliburton
Hamco Bygg AS
Hammerfest Kommune
Hamworthy KSE
Handelsbanken
Handelshuset Martinsen
Handicare produksjon AS
Hansa Borg Bryggerier ASA
Haram Kommune
Harila Midt-Troms
Havila AS
Havkrefter AS
Heidenreich AS
Heimdals Gruppen AS
Helkama Grepa AS
Helse Midt-Norge
Helse Nord RHF
Helse Sunnmøre HF
Hennig-Olsen Is AS
Herregalleriet AS
Herøy kommune
Hifi klubben
Hoff norske potetindustrier BA
Holm Grafisk AS
Holmen Fjordhotell
Hordaland Reiseliv
Hotel Augustin AS
Hotell Continental
HSD AS
HTH kjøkkenforum Oslo
Hydro Olje og Energi. Drift.
Hydro Polymers AS
Hydrotech Gruppen AS
Høie AS
Hå Kommune
Håg ASA
I. P. Huse AS
ICA Norge AS
Idecon AS
Iittala AS
IKM gruppen
Indre Sogn Sparebank
Ingeniør Gunnar M. Backe AS
Innoventi Reklamebyrå AS
Innvik Sellgren Industrier AS
Island Offshore AS
ISS Renhold AS, Region Telemark & Vestfold
Itet AS avd. ERP
Ivar Mjåland, Mandal
Iversen Hans H.
J. M. Nilsen
Jangaard Export AS
Joar Ryttervoll Tømmermester AS
John Galten AS
Jotunheimen og Valdresruten bilselskap
Jærentreprenør
K. Lund AS
Kaffebrenneriet AS
Kimek AS
Kino1 Stavanger Sandnes
Kirkenes Bil AS
Kirkenes byggservice AS
Kirkenes Trelast AS
Kirkenesterminalen
Kirkestuen transport
Kitron ASA
Kitron Microelectronics AS
KLP Eiendom Trondheim
Knutsen OAS
Komplett ASA
Kongsberg Automotive Raufoss
Kontali Analyse AS
Kosberg Arkitektkontor AS
KPMG AS
KPMG Bodø
Kraft Foods Norway
Kragere kommune
Kremmertorget kjøpesenter
Kristiansund Kommune
Kristiseter M Entreprenør AS
Kruse Smith AS
Kvalitet & Ledelse AS
Kvikne's Hotel
La Bionda Frisører AS
Laerdal Medical AS
Langmorkje almenning
Langset AS
Larvik kommune
Lebesby kommune
Leif Gromstads Auto AS
Leiv Eriksson Nyformidling AS
Lenvik kommune
Leo Burnett
Leonhard Nilsen Sønner AS
Lillehammer kommune
Lindex
Linjebygg Offshore
Linstow AS
Lofotprodukt AS
Lom møbelindustri AS
Lom og Skjåk sparebank
Luxo Industrier AS
Lyse Energi AS
Lørenskog kommune
Løvenskiold-Fossum
Løvdals Industri AS
Mandal Industrier AS
Mandal kommune

Manpower AS
 Manpower AS avd. Møre og Romsdal
 Manpower Hedmark og Oppland
 Marine Harvest
 Maritech AS
 Maritime Hydraulics AS
 Maritime Pusnes AS
 Maxit
 Maxmat AS
 Meglerhuset AS
 Meglerhuset Nylander AS
 Melhus Kommune
 Melhus Sparebank
 Mercur shoppingssenter
 Mesna Bruk AS
 Meyer Butikkdrift AS
 Mezina AS
 Midsund Bruk AS
 Midt-Troms Kjølleservice AS
 Mills
 Minde Sjokolade
 Mo Mekaniske AS
 Moderne byggfornyelse
 Moelven Eidsvoll Værk AS
 Moelven Limtre AS
 Moelven Van Severen AS
 Moelven Våler AS
 Moelven Wood AS
 Moen Slip AS
 Moi Rør AS
 Molde kommune
 Moxy Engineering AS
 MTU Telekom AS
 Multi Elektro AS
 Multiconsult AS
 Møbel-Sven AS
 Møllergruppen
 Møre Tre AS
 Mørenot AS
 Nammo AS
 Namsos kommune
 Naper Informasjonsindustri AS
 Narvesen
 Nedre Eiker kommune
 Nerland Granitindustri AS
 Nestle-Norge AS
 Net transe services AS
 Netcom AS
 Nettbuss Sør AS
 Nexans Norway AS
 Nobø Electro AS
 Norbook AS
 NorDan AS
 Nord-Aurdal kommune
 Nordea AS
 Nordea Bank Norge ASA
 Nordfjord Hotell
 Nordfjord og Sunnmøre Billag AS
 Nordia AS
 Nordkyn Seafood AS
 Nordlaks AS
 Nordland Betongindustri AS
 Nordox AS
 Norfolier AS
 Norgesgruppen
 Norgestaxi Trondheim AS
 Norpower Brødr. Malo AS
 NorSea AS
 Norsk Stein AS
 Norsk Stål avd Brumunddal
 Norsk Tipping AS
 Nortrans Touring AS
 Norwegian
 Notar Eiendom Troms AS
 Notodden Mur- og
 Entreprenørforretning AS
 Nova-Group
 Nycomed Pharma AS
 Nysted AS
 Nyvågar Drift AS
 Nøsted Kjetting AS
 O. Kavli AS
 Oasen
 Odffjell ASA
 Olympic Shipping AS
 OPPEGÅRD KOMMUNE
 Optimera Engro AS
 Opus AS
 Oras AS
 OSK Elektrotillbehør AS
 Oslo kommune
 Oslo Sportslager AS
 Ottadalen Mølle AL
 Otteren Gullsmed
 Overhalla Cementvare AS
 P4 radio hele Norge ASA
 Pasvikurist
 Pedersen Birger AS
 Per Aaland AS
 Peterson Linerboard AS
 Plastal AS
 Pon Power
 Porsgrunds Porselænsfabrik AS
 Poseidon Simulations AS
 Prepan Norge AS
 PriceWaterhouseCoopers
 Primahus AS
 Proffice
 Profilteam AS
 Protech AS
 Q-Free ASA
 Quality Fagernes hotell AS
 Quality Hotel Røros AS
 Radisson SAS Caledonien Hotel
 Ragasco AS
 Rambøl Unico AS
 Ramsvik Frisør
 Rapp Hydema AS
 Rasmuss Tallaksen
 Rauma kommune
 Reber Schindler Heis AS
 Refa Frøystad Group
 Rescon Mapei AS
 Reslab Reservoir Laboratories AS
 Restech Norway AS
 Revisorgruppen Vestfold AS
 Rica Maritim Hotell
 Rikshospitalet
 Ringnes AS
 Risa AS
 Risør kommune
 Rogaland Felleskjøp
 Rogaland Kunnskapspark
 Rogne Bygg AS
 Rolls-Royce Marine AS
 Ruukki Profiler AS
 Røros kommune
 Røros Tweed AS
 Raadhuset
 S.A.T.S. Norge
 Saga Fjordbase A/S
 Saint Gobain Ceramic Materials AS
 Sandefjords Blad AS
 Sandnes kommune
 Sarpsborg kommune
 SAS Braathens
 SAS Royal Garden Hotel AS
 ScanRope AS
 Schibsted ASA
 Seafarm Invest AS
 Selmer Skanska AS
 Sentrum Bygg
 Siemens
 Sig.Halvorsen AS
 Sigdal Kjøkken AS
 SIVA Selskapet for industrivekst SF
 Sjøvik AS
 Skagen Brygge Hotell
 SKANSKA AS
 Skanska Norge AS
 Skanska Norge Indre Østland
 Skanska, Rogaland
 Skeidar AS
 Skipsplast AS
 Skipsteknisk AS
 Skodje Byggvare AS
 Skretting AS
 Slipen Mekaniske AS
 Sogn Billag AS
 Solstad Offshore
 Sortland Entreprenør AS
 Sparebank 1 Midt-Norge
 Sparebank 1 Nord Norge
 Sparebank1 SR-Bank
 Sparebanken Pluss
 Sparebanken Sogn og Fjordane
 Sparebanken Sør
 Sparebanken Vest
 Spenncon AS
 Spenst Bodø AS
 Spis Norge AS
 Sportshuset AS
 Stallgården restaurantus
 Stange kommune
 Stansfabrikken Lillesand AS
 Statholdergaarden
 Statoil Stjørdal
 Stavanger Aftenblad
 Stavanger Toyota
 Stavanger Universitetssykehus
 Stavangerske AS
 Stensaas Reinsdyrslakteri
 Stillasservice AS
 Stjern AS
 Stjørdal kommune
 Stoa Storkjøp AS
 Stord Kommune
 Storebrand ASA
 Stor-Elvdal kommune
 Stormoa Butikksenter
 Storvik AS
 Strand kommune
 Strand Sea Service AS
 Strandtorget Kjøpesenter
 Studentsamskipnaden i Agder
 Støren Trelast AS
 Sulland Gruppen AS
 Surnadal Kommune
 Sykehuset Asker og Bærum HF
 Sykehuset Innlandet HF
 Sykehuset Østfold HF
 Synnøve Finden ASA
 Søgne og Greipstad sparebank
 Søral
 Sørco AS
 Sørlandet sykehus HF
 T.Stangeland Maskin AS
 Tandberg Data ASA
 Team Trafikk AS
 Teeness ASA
 Tele-team AS
 Terra Skadeforsikring AS
 Thon Hotel Arendal
 Thon Hotels
 Thrane-Steen AS
 TI Group Automotive Systems AS
 Timpex
 Tine Meierier Sør
 Tine Midt-Norge AS
 Tinn kommune
 TNS Gallup
 Tonotel Bergen Brygge
 Trafikk & Anlegg AS
 Trebetong AS
 Trelleborg Viking AS
 Triplex AS
 Tromsø Kommune
 Trondheim Aktivum AS
 Trondheimsfjorden interkommunale
 havn
 Tysvær kommune
 Ulstein Verft AS
 Umoe Mandal AS
 Unex AS
 Universal Sodexho
 Universal Spedisjon AS
 Universitetssykehuset i Nord-Norge
 Valdres auto AS
 Valdres last
 Vann og Varme AS
 Varner-Gruppen
 Vegdirektoratet
 Veidekke ASA
 Vest Inkasso AS
 Vesta forsikring
 Vestlandshus
 Veøy AS
 VIA Travel Trondheim AS
 VIBO Entreprenør AS
 Vik-Sandvik Group
 Villa Service AS
 Visma Services
 Vital Forsikring ASA
 Vizrt
 Voice
 Volvat
 Våga Rekneskapslag AL
 Vågå kommune
 Våler kommune
 Wartsila Norway
 Widerøes flyveselskap AS
 Wikborg Rein
 Windy Boats AS
 WM Data Consulting AS
 Yara Glomfjord
 YIT Building Systems AS
 Ø.M Fjeld AS
 Økonor Flisa
 Øksnes Entreprenør AS
 Østbyen Bil AS
 Østereng & Benestad AS
 Åmot kommune
 Åsen & Øvrelid 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		
1 November 2006		
27 September 2006		
16 August 2006		
29 June 2006		
31 May 2006		
26 April 2006		
Previous monetary policy meetings		
16 March 2006	2.5	+0.25
25 January 2006	2.25	0
14 December 2005	2.25	0
2 November 2005	2.25	+0.25
21 September 2005	2	0
11 August 2005	2	0
30 June 2005	2	+0.25
25 May 2005	1.75	0
20 April 2005	1.75	0
16 March 2005	1.75	0
2 February 2005	1.75	0
15 December 2004	1.75	0
3 November 2004	1.75	0
22 September 2004	1.75	0
11 August 2004	1.75	0
1 July 2004	1.75	0
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

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 consumption	Public spending on goods and services	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	1.1	1.4	2.9	1.3	-3.7	16.1	4.4	1.1
2004	2.8	3.4	4.7	2.2	7.2	7.8	3.4	8.9
2004 ²⁾ Q1	2.0	1.7	2.4	1.3	-3.7	-5.1	-1.1	3.6
Q2	0.9	0.6	-0.2	1.3	5.5	14.4	-1.9	2.3
Q3	-1.0	0.9	0.7	0.4	4.1	2.2	4.6	2.4
Q4	1.3	1.6	1.8	0.5	6.7	10.9	4.4	2.7
2005 ²⁾ Q1	0.2	0.5	0.3	0	-7.7	-9.4	-1.2	-2.4
Q2	1.3	0.8	1.7	0.4	4.6	21.4	-1.9	4.3
Q3	0.8	0.8	0.9	-0.2	0.5	-5.3	5.3	2.8
Level 2004, in billions of NOK	1710	1327	761	371	227	71	210	490

1) Extraction and pipeline transport

2) Seasonally adjusted quarterly figures

Source: Statistics Norway

Table 2 Consumer prices

Twelve-month rise. Per cent	CPI	CPI-ATE ¹⁾	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
2005	1.6	1.0	1.1	1.4	1.5
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
Oct	1.8	1.2	1.5	1.4	1.9
Nov	1.8	1.1	1.5	1.4	1.9
Dec	1.8	0.9	1.5	1.3	2.0
2006 Jan	1.8	0.8	1.5	1.1	1.8
Feb	2.6	1.0	2.3	1.2	2.7

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

2) CPI-AT: CPI adjusted for tax changes

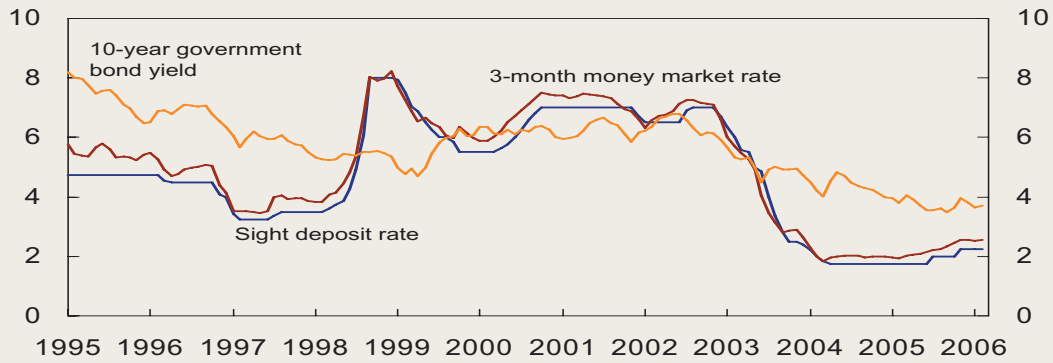
3) CPI-AE: CPI excluding energy products

4) HICP: The Harmonised Index of Consumer Prices. The index is based on international criteria drawn up by Eurostat.

Source: Statistics Norway

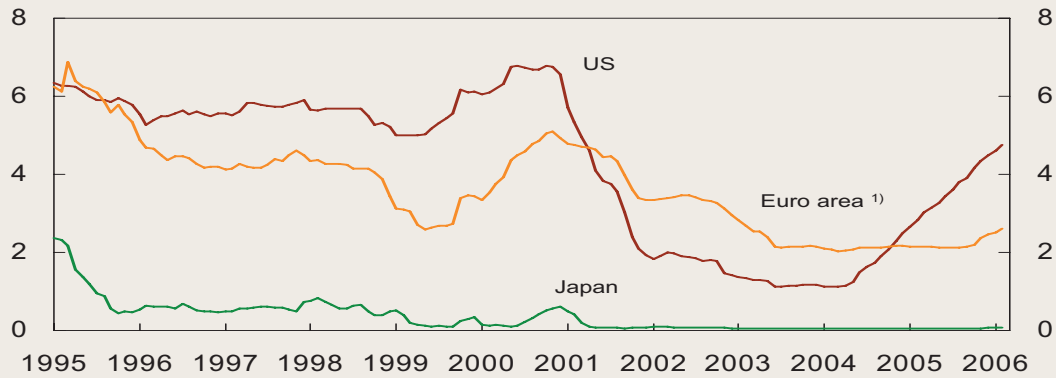
Charts

Chart 1 Norwegian interest rates. 3-month money market rate, sight deposit rate and 10-year government bond yield. Monthly figures. Jan 95 – Feb 06



Source: Norges Bank

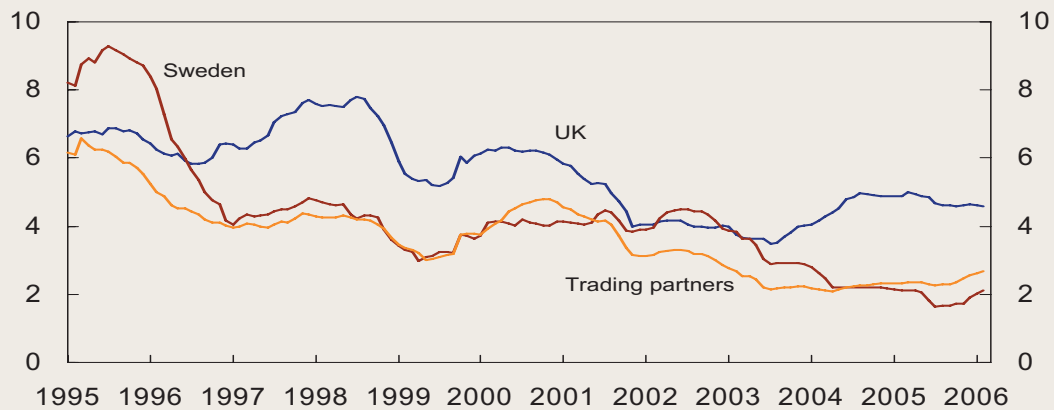
Chart 2 3-month interest rates in the US, the euro area and Japan. Monthly figures. Per cent. Jan 95 – Feb 06



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

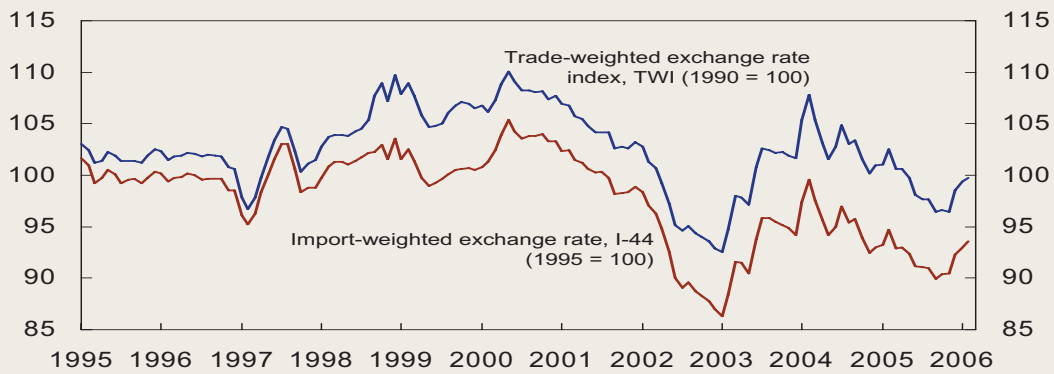
Source: EcoWin

Chart 3 3-month interest rates in the UK, Sweden and among trading partners. Monthly figures. Per cent. Jan 95 - Feb 06



Sources: EcoWin and Norges Bank

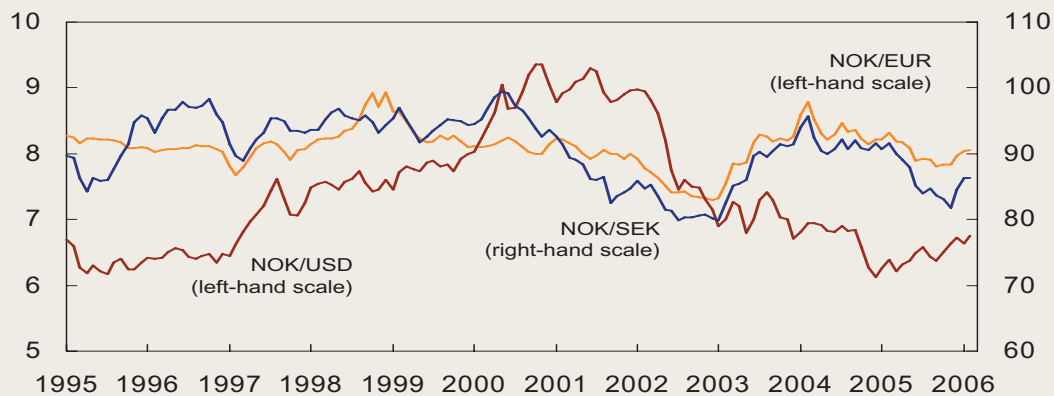
Chart 4 Trade-weighted exchange rate index (TWI) and import-weighted exchange rate (I-44).¹⁾ Monthly figures. Jan 95 – Feb 06



¹⁾ A rising curve denotes a weaker krone exchange rate

Source: Norges Bank

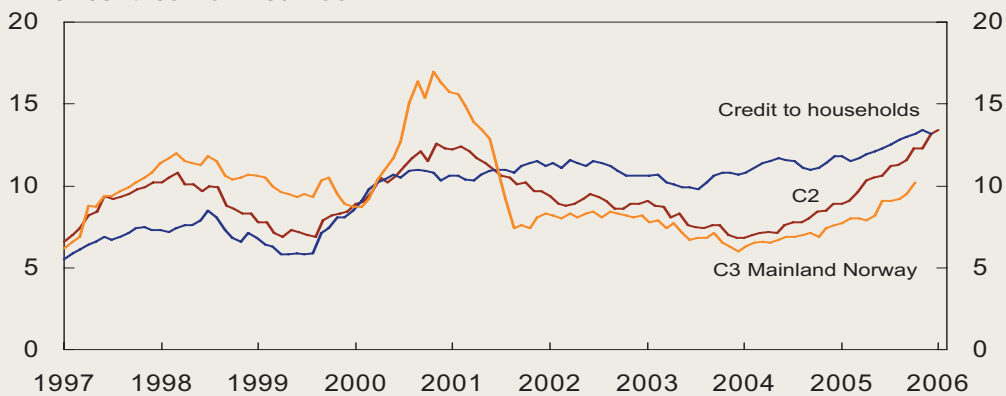
Chart 5 Bilateral exchange rates¹⁾. Monthly figures. Jan 95 - Feb 06



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 - Jan 06



Source: Norges Bank

Table 3 GDP growth in other countries

Percentage change from previous year
Projections for 2006-2009

	US	Japan	Germany	France	UK	Sweden	Trading-partners ¹⁾	Euro area ²⁾
2005	3.5	2.8	0.9	1.4	1.8	2.7	2.4	1.3
Projections								
2006	3	2½	1½	2	2	3½	2¾	2
2007	3	2	1½	2	2¼	2¾	2½	2
2008	3	1½	1½	2	2½	2½	2½	2
2009	3	1¼	1½	2	2½	2¼	2½	2

1) Export weights, Norway's 25 most important trading partners.

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 2006-2009

	US	Japan	Germany ¹⁾	France ¹⁾	UK ¹⁾	Sweden	Trading-partners ²⁾	Euro area ³⁾
2005	3.4	-0.3	1.9	1.9	2	0.5	1.9	2.2
Projections								
2006	2¾	¼	1¾	1¾	2	1¼	2	2
2007	2½	½	2	2	2	2	2	2
2008	2½	¾	1¾	2	2	2	2¼	2
2009	2½	1	1½	2	2	2	2	2

1) HICP, Harmonized Indices of Consumer Prices

2) Import weights, Norway's 25 most important trading partners.

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)				
	2004	2004	Projections				
			2005	2006	2007	2008	2009
Real economy							
Mainland demand ¹⁾	1469	4.4	4	3¾	3	2½	2½
- Private consumption	761	4.7	3¾	3¾	3	2½	2¼
- Public consumption	371	2.2	1¾	2½	1¾	3	3
- Fixed investment ²⁾	227	7.2	8¾	6	4½	2¼	1¾
Petroleum investment ³⁾	72	8.4	20	5	0	-5	0
Traditional exports	210	3.4	5½	6	5	3¾	3½
Imports ²⁾	490	8.9	7¼	6	3¾	1¾	2¾
GDP	1710	2.8	1½	3	2½	2¼	2
Mainland GDP	1327	3.4	3¾	3½	2¾	2½	2¼
Potential mainland GDP		3	2¾	2½	2½	2½	2½
Output gap, mainland Norway ⁴⁾		-1	0	1	1¼	1¼	1
Labour market							
Employment		0.4	¾	1¾	1	¾	½
Labour force, LFS		0.3	0.8	1	¾	¾	½
Registered unemployment (rate)		3.9	3.5	2¾	2¾	2¾	2¾
LFS unemployment (rate)		4.5	4.6	3¾	3¾	3¾	3¾
Prices and wages							
CPI		0.4	1.6	1¾	1¾	2¼	2½
CPI-ATE ^{5) 6)}		0.3	1.0	1¼	1¾	2¼	2½
Annual wage growth ⁷⁾		3.5	3¾	4	4½	4¾	4¾
Interest rate and exchange rate							
Sight deposit rate (level)		1.8	1.9	2¾	3½	4	4¾
Import-weighted exchange rate (I-44) ⁸⁾		95.6	91.9	92¾	93	93	93

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

2) The projections do not include the import of two frigates in 2006, and the import of one frigate in the years 2007-2009. Each frigate is estimated to cost NOK 3.5 billion.

3) Extraction and pipeline transport.

4) The output gap measures the deviation in percent between actual and projected potential GDP.

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

6) Adjusted for that the reduction in maximum day-care rates push down the rise in the CPI-ATE by an estimated 0.2 percentage point in 2006.

7) Annual wage growth is based on the Technical Reporting Committee on Income Settlements' definitions and calculations. The projections include estimated costs related to the introduction of compulsory occupational pensions.

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

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

