NORGES BANK

Reports from the Central Bank of Norway No 1/2002

Inflation Report

1
02

February

Norges Bank's Inflation Report

In accordance with the Government regulation of 29 March 2001, Norges Bank's implementation of monetary policy shall be oriented towards maintaining low and stable inflation. The inflation target is set at 2½ per cent. The key interest rate is set on the basis of an overall assessment of the inflation outlook, normally two years ahead.

The *Inflation Report* discusses developments in the Norwegian economy and other factors that influence the inflation outlook. In addition, the balance of risks and uncertainty associated with the inflation projections are assessed. The main aspects of the *Inflation Report* are presented to the members of the Executive Board who discuss the contents of the report before it is published. The analyses in Norges Bank's *Inflation Report*, together with the Bank's current assessment of the outlook for price and cost inflation and developments in the money market and foreign exchange market, provide a basis for decisions concerning monetary policy instruments.

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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Inflation Report 1/2002

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Low-growth trap, but stable inflation

While high oil prices have resulted in sizeable revenues and surpluses on the current account and government budgets, growth in mainland output has been low over the last three years, at only 1¼% per year. The international downturn over the past year has only had a limited impact on activity in Norway. To the contrary, the sluggish growth rate is attributable to the supply side of the Norwegian economy. Extensive labour reforms have limited the supply of labour. Measured by person-hours, employment has fallen by 0.4% annually in this period. At the same time, labour shortages have persisted in many sectors and overt unemployment has been stable and low.

Labour market tightness is also reflected in a sharp rise in real labour costs. Labour costs have risen in real terms by 3 per cent annually over the last three years and the increase has been substantially stronger than productivity growth in the mainland economy.

A sharp rise in real labour costs intensifies the need for rationalisation and increased efficiency. This may have contributed to increased flows of discouraged workers into social security and other social schemes that have contributed to the fall in employment. Pressures on profitability in the business sector may also curb investment and hamper the development of new production capacity in the mainland economy. The sharp rise in labour costs may prove to be a source of increased overt unemployment.

Even though labour costs have exhibited a sharp rise, consumer price inflation has been close to 2½% in recent years. The low and stable rate of inflation reflects unchanged or declining prices for imported goods. Higher imports, particularly of clothing and footwear, from low-cost countries such as China have been an important factor. Moreover, since summer 2000 the Norwegian krone has appreciated and helped to keep inflation at bay.

Since the presentation of the last *Inflation Report* in October 2001, the risk of a deep and prolonged international downturn has been reduced somewhat. Oil prices have remained at around USD 20 per barrel. The projections for petroleum investment have been revised upwards considerably. Norwegian households are more optimistic about the outlook, and there are signs that growth in private consumption is picking up. Credit growth has remained high.

In the period ahead, the nominal rise in labour costs is expected to edge down. Prices for imported goods will probably pick up as growth in the global economy recovers and the effects of the substantial changes in the pattern of trade start to recede. All in all, we estimate that price inflation, with an unchanged interest rate, will be 2½% two years ahead. This projection is based on the technical assumption that the krone exchange rate remains stable. Annual wage growth is projected at 5% in the period ahead. If profitability in the manufacturing sector is of less importance than earlier and wage-wage spirals in sheltered sectors of greater importance, the nominal rise in labour costs will be higher. At the same time, the external economic environment is uncertain, and it may take longer before import prices begin to pick up. Overall, the risks surrounding the inflation projection are considered to be balanced.

Svein Gjedrem
21 February 2002

1 | Recent developments

1.1 The real economy

Weak external environment in 2001

Economic growth stagnated in the US and the euro area in the last three quarters of 2001. Growth remained somewhat firmer in the UK, but was moderate towards the end of the year. In Sweden, growth came to a halt in the first quarter of last year. In most countries, public and private consumption fuelled growth in demand, while the fall in capital formation and inventories has exerted downward pressure. GDP has fallen in Japan.

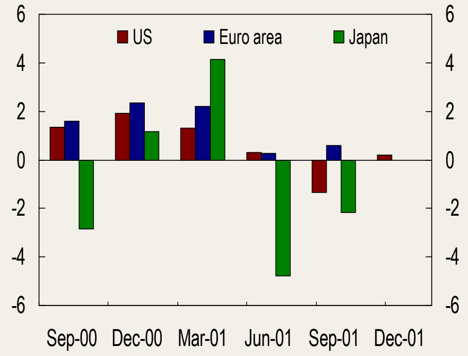
Industrial output, exports and the labour market remain weak in the US. Businesses have rapidly adjusted their workforce in response to lower production. The unemployment rate rose from 4.9% in September to 5.6% in January. However, the number of new unemployment benefit claimants and the fall in industrial output have tapered off in recent months. Monetary policy and fiscal easing have supported continued growth in private consumption. Equity prices, commodity prices and long-term interest rates have picked up since the sharp decline following the events of 11 September (see Chart 1.2). Consumer and business confidence indicators are more positive.

Destocking and lower investment and output growth have been common features of developments in many of the euro area countries. Economic activity has been especially weak in Germany, even though private consumption edged up last year and a weak euro has contributed to an increase in net exports. In France, consumption growth has been somewhat stronger and investment has fallen by a smaller margin than in Germany.

Stable oil prices

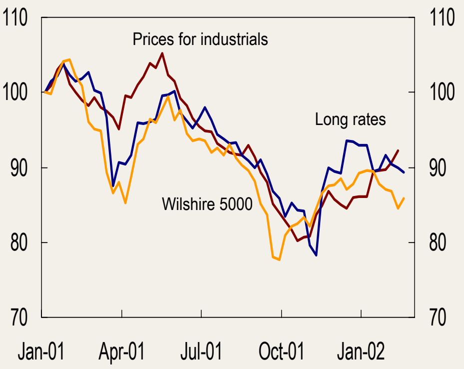
Oil prices fell sharply in the wake of the events of 11 September (see Chart 1.3). Developments towards the end of last year were marked by lower demand for oil, and were accompanied by growing uncertainty as to how OPEC countries would react if oil prices were to fall below the official target range of USD 22-28 per barrel. Weak state finances in many OPEC countries may have induced OPEC countries to sustain oil prices and strengthen solidarity among member countries. In December, the OPEC countries together with Russia, Mexico and Norway decided to limit oil production. This may have contributed to stabilising oil prices around USD 20 per barrel. At the same time, commercial and strategic oil stocks have been built up in the US, which has also contributed to maintaining oil prices.

Chart 1.1 GDP growth in the US, the euro area and Japan. Percentage change from previous quarter (annual rate)



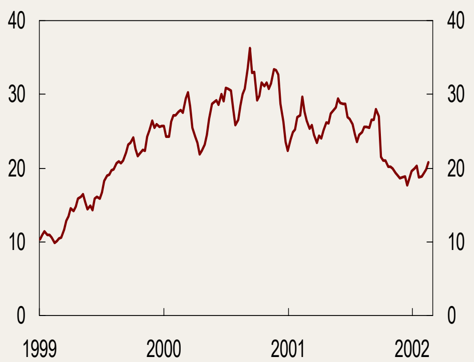
Source: EcoWin

Chart 1.2 Equity prices and long-term interest rates in the US and prices for industrials (USD). Index, Week 1 in 2001 = 100



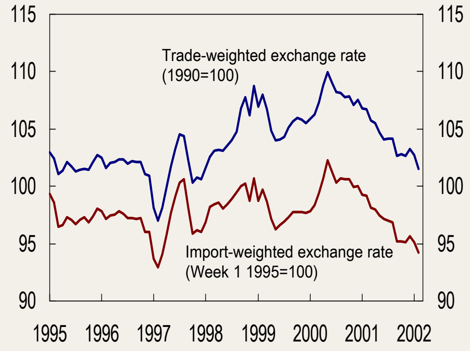
Sources: Norges Bank, EcoWin, *The Economist* and Wilshire Associates

Chart 1.3 Oil price, Brent Blend. USD per barrel



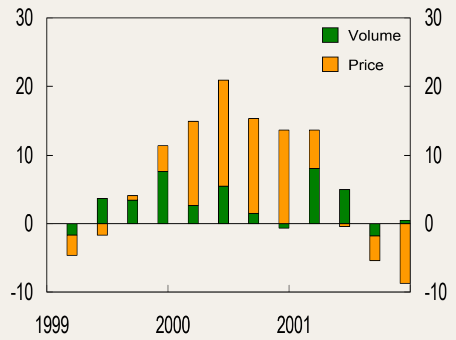
Sources: International Petroleum Exchange and Norges Bank

Chart 1.4 Effective NOK exchange rates. Import-weighted exchange rate and trade-weighted exchange rate



Source: Norges Bank

Chart 1.5 Traditional merchandise exports. Volume and price. Percentage rise on same quarter previous year



Source: Statistics Norway

The krone has appreciated

In response to the slowdown in the world economy, monetary policy has been relaxed markedly, particularly in the US. In the course of last year, the Federal Reserve cut the target for the federal funds rate by 4.75 percentage points. The European Central Bank lowered its key rate by 1.5 percentage points last year. Norges Bank reduced its key rate by 0.5 percentage point in December. The deposit rate is now 6.5%. The interest rate differential against trading partners has been a little more than 2 percentage points since spring 2000 and a good 3 percentage points since March 2001. This may be one of the reasons why the krone has appreciated over the last year and a half (see Chart 1.4). The krone exchange rate is now stronger than in October when the previous *Inflation Report* was published.

Lower exports

The global downturn started to have ripple effects on the Norwegian economy during autumn and winter. Prices for important Norwegian export products fell, and markets for many export industries have weakened. Mainland business investment has declined. The Norwegian stock market exhibited a sharp decline in September, but recovered partially towards the end of the year. Recently, the stock market has been stable. Manufacturing production has been far more stable than among our trading partners. The order backlog in Norwegian manufacturing enterprises edged down in the latter half of 2001, but still remains above the average for recent years, primarily reflecting the sizeable orders in the shipbuilding industry. Manufacturing industry's expectations as to production and employment fell in the third quarter last year and remained stable in the fourth quarter. The number of industrial leaders who expect a continued fall is now the same as the number who expect an increase in production.

The volume of traditional exports fell by close to 6%, seasonally adjusted, between the second and third quarter of 2001, following vigorous growth in the first half of the year. Fish, iron and steel exports exhibited the steepest declines. However, exports picked up in the fourth quarter. After rising sharply through 2000, prices have fallen for most export goods. Prices for traditional exports fell by a little more than 6% between the second half of 2000 and the second half of last year (see Chart 1.5). Salmon prices dropped by close to 20% in 2001, after reaching record levels the previous year. Higher supply on the world market has resulted in lower salmon prices, narrower profit margins and a loss of market shares. The salmon agreement with the EU stipulates a minimum price for Norwegian salmon exports. In 2001, this probably contributed to a loss of market shares for Norwegian producers.

Household optimism

Norwegian household expectations as to economic developments exhibited a moderate fall last year as a result of the fall-off in world growth, the slump in equity prices, a slight increase in unemployment and a largely uncertain environment (see Chart 1.6) However, according to Norsk Gallup's confidence indicator, household confidence in their own financial situation remained at a high level also during the autumn months. Household optimism with regard to the domestic economy gradually weakened, but without expectations of any effects on their own situation.

Overall consumer confidence rose sharply in the first quarter of 2002, with a particularly marked increase in household confidence in their current financial situation and their situation one year ahead. The index for measuring household expectations about their financial situation is now at the highest level since the index was first introduced in 1992.

Private goods consumption exhibited a sharp pick-up towards the end of last year, after remaining relatively stable through the first three quarters (see Chart 1.7). Private goods consumption increased by 1.3% between the third and fourth quarter. According to preliminary figures, however, spending on services remained unchanged during the same period. In spite of this, growth in private consumption was ¼ percentage point higher last year than projected in the October *Inflation Report*.

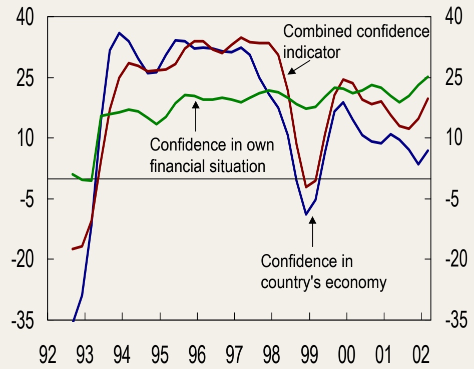
Housing investment is still on the rise. Growth is now estimated at 8% between 2000 and 2001, following 12% growth the previous year. Housing starts slowed somewhat towards the end of last year. House prices rose by about 5% between 2000 and 2001. Adjusted for normal seasonal variations, house prices exhibited a moderate rising trend towards the end of last year. The figures for January confirm this picture.

Household gross debt continued to expand sharply and was 11.4% higher in December than one year earlier (see Chart 1.8). This can be explained by a continued rise in house prices, higher housing investment and high turnover in the housing market.

Higher unemployment in the eastern part of southern Norway

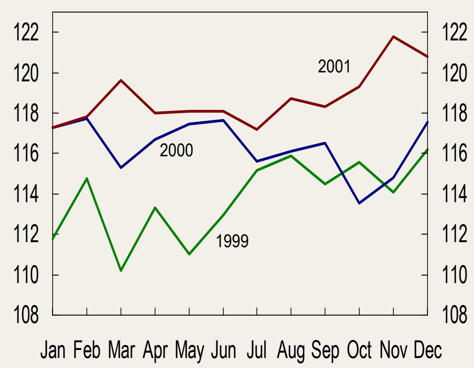
Employment stagnated early last autumn, but picked up again towards the end of the year. Unemployment edged up in the latter half of 2001 (see Chart 1.9). In January 2002, registered unemployment was 3.3%, or 0.3 percentage point higher than one year earlier. The increase in unemployment has mainly occurred in service sectors in the eastern part of

Chart 1.6 Consumer confidence indicator (level). Estimated trend.



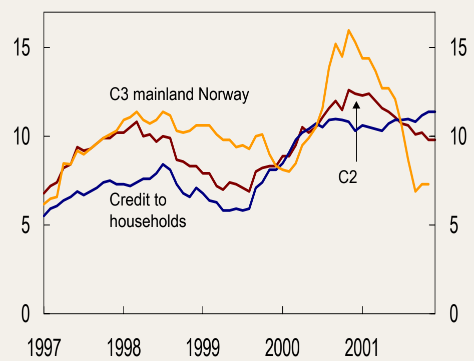
Sources: Norsk Gallup Institutt AS and Norges Bank

Chart 1.7 Goods consumption index. 1995 = 100. Seasonally adjusted volume



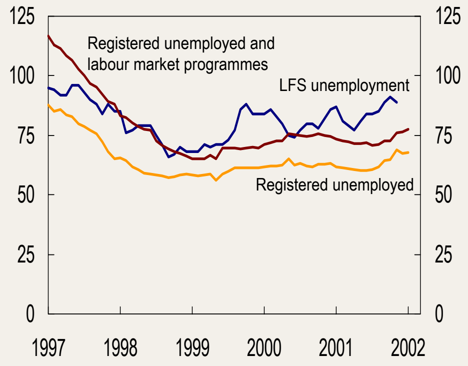
Source: Statistics Norway

Chart 1.8 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



Source: Norges Bank

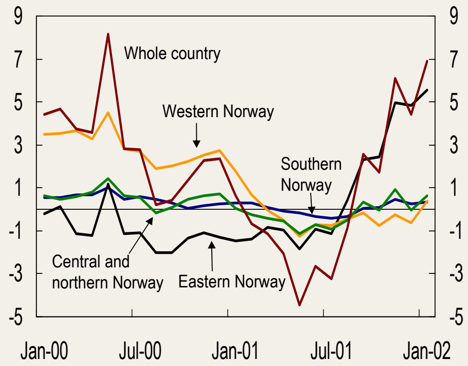
Chart 1.9 Number unemployed (LFS), number of registered unemployed and persons in labour market programmes. In thousands. Seasonally adjusted[1)]



[1)] LFS unemployment: 3-month moving average

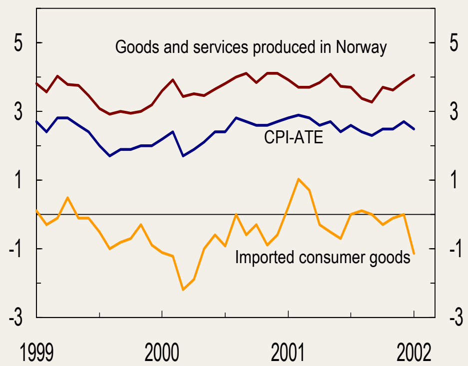
Sources: Statistics Norway and the Directorate of Labour

Chart 1.10 Change in unemployment on same month previous year. In thousands of persons



Source: Directorate of Labour

Chart 1.11 Consumer prices adjusted for tax changes and excluding energy products (CPI-ATE). Total[1)] and distributed by imported and domestically produced goods and services[2)]. 12-month rise. Per cent



[1)] Norges Bank's estimates up to July 2000, thereafter figures published by Statistics Norway

[2)] Norges Bank's estimates

Sources: Statistics Norway and Norges Bank

southern Norway (see Chart 1.10). Many enterprises in the ICT industry, travel industry, media and some retail sectors have reduced their workforce and cut costs. Unemployment has increased for occupational groups such as systems developers and programmers, administrative managers, salaried employees, and service and shop workers. Manufacturing unemployment has declined.

Although it is natural to attribute the increase in unemployment and weaker activity in the Norwegian economy to the global economic slowdown, the events of 11 September and the associated contagion effects, it is likely that some industries would have scaled down activities in spite of these developments. Profitability has been deteriorating in some segments of the aviation industry in Norway for a long time and activities are now being scaled back. Retail trade is faced with intensified foreign competition. Border trade with Sweden has increased substantially in recent years, which has placed pressure on some retailers, particularly in the eastern part of southern Norway and northward along the Swedish border. In the ICT industry, many companies, both telecom companies and consultancies, internet companies and companies that sell and service IT equipment, have probably had growth and earnings expectations that have been too high. Stock market developments reflected these expectations for a long period. The global decline in the IT and telecom sectors triggered a sharp fall in equity values in most countries, including Norway. A few large and nearly 200 smaller Norwegian ICT companies declared bankruptcy last year. The number of bankruptcies in the ICT sector increased by 45% between 2000 and 2001.

GDP growth in the mainland economy slowed in the last half of 2001. Both in the third and fourth quarter, GDP expanded by a seasonally adjusted 0.2% compared with the previous quarter. Mainland GDP expanded by 1.0% between 2000 and 2001. Growth was particularly strong in service sectors. Two additional vacation days made a negative contribution to growth last year. Lower electricity production compared with the previous year also contributed to pushing down growth.

1.2 Consumer price developments

Higher rise in service prices

Consumer price inflation adjusted for tax changes and excluding energy products (CPI-ATE) has been fairly stable since the summer of 2000 (see Chart 1.11). The year-on-year rise in the CPI-ATE was 2.5% in January after reaching 2.7% in December. The average rise in the CPI-ATE was 2.6% between 2000 and 2001.

The rate of increase in service prices including house rent has picked up. After falling in the period to summer, the year-on-year rise in the house rent index moved up from 3.3% in August to 4.7% in January (see Chart 1.12). House rent accounts for 17.4% of the total CPI. Prices for transport services have also exhibited a marked rise. Airfares have increased in particular, rising by 20% in the year to January 2001, despite lower fuel prices. Prices for rail transport rose by 7.6% in the same period.

Wage growth picked up in 2001, with annual wage growth reaching an average 5%, up from 4.4% in 2000. The rise in labour costs is estimated at 5¾%, reflecting the introduction of two additional vacation days.

The effect of high wage growth in recent years is reflected in the rise in prices for services with wages as the dominant cost factor. Price inflation for this component has hovered around 3-4 percentage points above the general rise in consumer prices (see Chart 1.12). In January, prices for these services were 5.2% higher than one year earlier.

The rise in prices for Norwegian produced goods and services has edged up since last summer. In January the rise in prices for these goods and services, adjusted for tax changes and excluding energy products, was 4.1% in the year to January 2002 (see Chart 1.11)

Lower prices for imported consumer goods

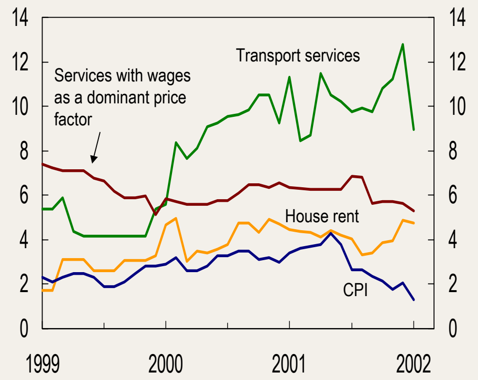
After rising sharply in 2000, the rise in international producer prices slowed through last year. In recent months, producer prices have fallen. Oil price developments have had a substantial impact. Internationally, consumer price inflation also edged down towards the end of last year.

Prices for imported consumer goods have fallen steadily since mid-1999 (see Chart 1.13). Adjusted for tax changes, prices for these goods were 1.1% lower in January than one year earlier. The main goods in the component "imported consumer goods" are clothing, footwear and cars. Clothing prices normally fall from December to January because of sales. This year, prices dropped by more than 11%, setting a new record. Imported consumer goods account for 27% of the CPI.

Lower taxes push down CPI inflation

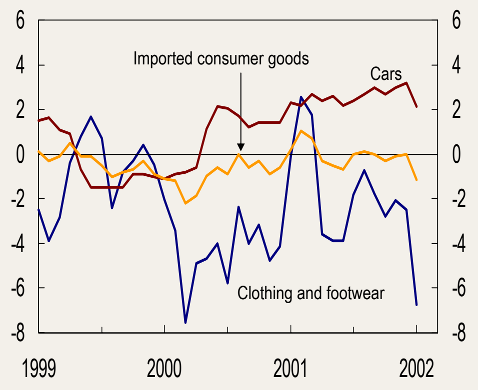
Consumer prices rose by 3.0% between 2000 and 2001. The year-on-year rate of increase was highest in May when it passed 4.3%. Price inflation exhibited a marked fall during the latter half of 2001. The year-on-year rate of increase was 1.3% in January 2002 (see Chart 1.14).

Chart 1.12 Consumer prices by delivery sector. 12-month rise. Per cent



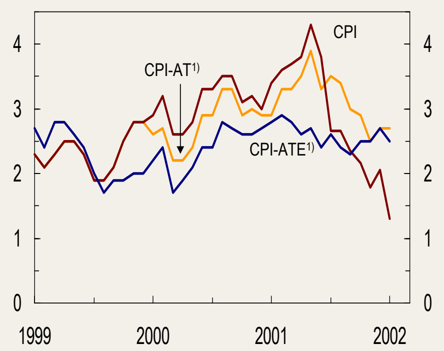
Source: Statistics Norway

Chart 1.13 Consumer prices adjusted for tax changes. Cars, clothing and footwear and imported consumer goods. 12-month rise. Per cent



Sources: Statistics Norway and Norges Bank

Chart 1.14 Consumer prices (CPI). Total and adjusted for tax changes and excluding energy products. 12-month rise. Per cent

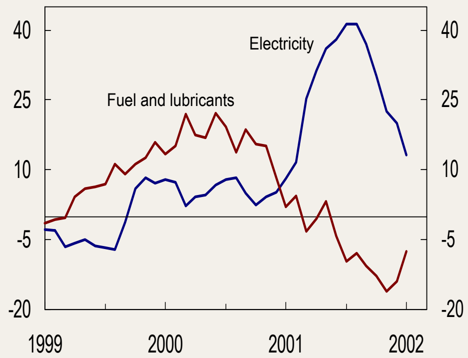


CPI-AT: CPI adjusted for tax changes
CPI-ATE: CPI adj. for tax changes and ex energy products

1) Norges Bank's estimates up to July 2000, thereafter figures published by Statistics Norway

Sources: Statistics Norway and Norges Bank

Chart 1.15 Consumer prices. Energy-related products[1]. 12-month rise. Per cent



[1] Electricity accounts for 3.3% of the total CPI. Fuel and lubricants account for 4.2% of the total CPI

Sources: Statistics Norway and Norges Bank

The variation in the inflation rate primarily reflects changes in VAT and some other indirect taxes. The VAT rate was increased from 23% to 24% on 1 January 2001. Energy taxes were also changed. As from 1 July, VAT on food was halved and the VAT base for services was broadened. At the same time, petrol taxes were reduced. Alcohol and electricity taxes were reduced from 1 January 2002.

Price inflation is also influenced by fluctuations in energy prices. Petrol prices fell as a result of lower oil prices last autumn. In January, petrol prices were 8.3% lower than one year earlier. Electricity prices have been relatively stable since the summer of last year. Normally, electricity prices exhibit a seasonal decline in the spring and an increase in autumn. In 2001, this seasonal pattern was broken. Low electricity production and high demand pushed up prices in the first six months of the year. In December, electricity prices were 20% higher than one year earlier (see Chart 1.15). Electricity prices showed a further rise in January as a result of higher grid charges. Prices rose by 4% between December and January. All in all, the fall in petrol prices are offset by the increase in electricity prices.

2 | The economic outlook

2.1 International developments

Continued risk of a prolonged downturn

The outlook for global economic growth has remained virtually unchanged since the October *Inflation Report*. Following sluggish developments throughout 2001, an expansionary monetary and fiscal policy combined with lower oil prices is expected to fuel demand through the year. The reduction in inventories last year implies that an increase in demand will gradually translate into a rise in production. The easing of economic policy has been particularly strong in the US. Key rates have also been reduced in Europe. In the euro area, there are no plans for substantial easing of fiscal policy other than allowing automatic stabilisers to have an effect. Strong growth in public demand is expected in the UK and tax cuts are expected in Sweden. There are no prospects for an early recovery in Japan.

There is still a risk of a deep and prolonged downturn in the global economy, but in our assessment, the risk has diminished since the last *Inflation Report*. There is less uncertainty associated with the situation in Afghanistan. A rise in equity prices and higher yields on government bonds indicate that financial market participants now believe that there is less uncertainty than in the immediate aftermath of 11 September.

Modest recovery in the US economy

Our projections are based on the assumption that GDP growth in the US will recover through 2002 (see Chart 2.1). There is still uncertainty, but a number of indicators suggest that a turnaround is imminent. Increased confidence in future economic developments and high real wage growth may push up consumption growth and generate positive GDP growth from the second quarter of 2002. Growth will pick up further as companies increase investment.

The upturn is expected to be moderate. Household consumption has increased throughout the downturn, resulting in a low saving ratio (see Chart 2.2). Housing investment has also remained high. Although business investment fell sharply last year, it is at a relatively high level in relation to GDP. Corporate profitability and capacity utilisation are low. Consequently, we expect moderate growth in consumption and that it will take time before investment increases. Although growth is projected to pick up, GDP growth in 2002 is estimated at only ¾ percentage point partly reflecting weak developments at the end of last year and the beginning of this year. GDP growth is projected at 3¼% in 2003.

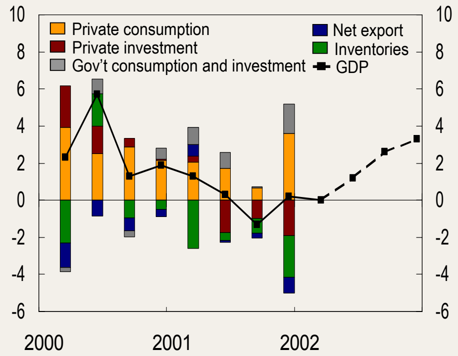
Table 2.1 GDP estimates. Percentage change from previous year.

	2002	2003	2004
US	¾	3¼	3½
Japan	-1	¾	1½
Germany	¾	2¼	2¼
France	1½	2½	2½
UK	1¾	2½	2½
Sweden	1½	2½	2½
Norway's trading partners[1)]	1¼	2½	2½
Euro area[2)]	1¼	2½	2½

1) Weighted by export weightings
2) Weighted by the IMF's GDP weightings adjusted for purchasing power

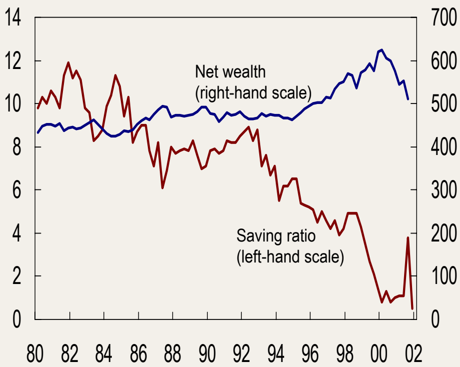
Source: Norges Bank

Chart 2.1 Quarterly change in US GDP, annualised. Contribution to growth in volume. Seasonally adjusted. Per cent



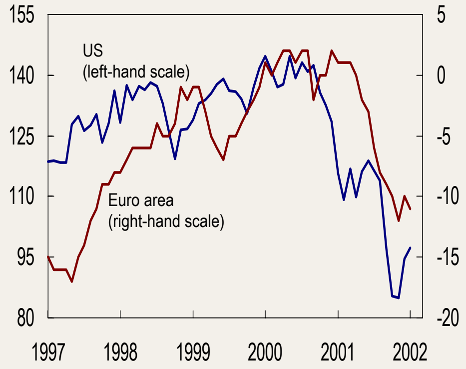
Sources: Bureau of Economic Analysis and Norges Bank

Chart 2.2 Private saving and household net wealth in the US as a percentage of disposable income



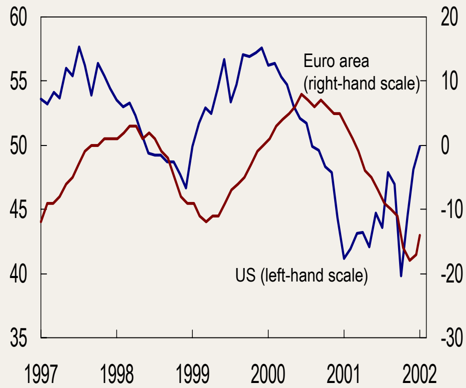
Sources: Datastream, EcoWin, the Federal Reserve and Bureau of Economic Analysis

Chart 2.3 Consumer confidence indicators in the US and the euro area



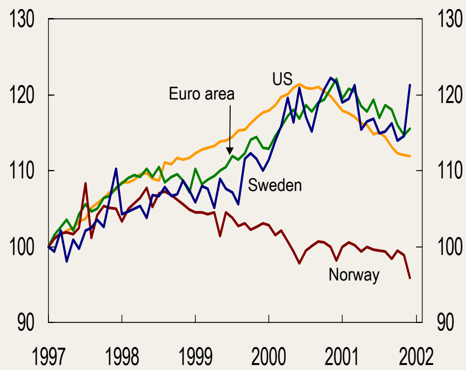
Sources: EcoWin, the European Commission and The Conference Board

Chart 2.4 Business sentiment indicators in the US and the euro area



Sources: EcoWin, ISM and the European Commission

Chart 2.5 Industrial output. Seasonally adjusted indices, January 1997=0



Sources: EcoWin and Statistics Norway

A recovery in the US will gradually lead to stronger growth in the global economy. Our projections are based on the assumption that the path for Europe will be virtually the same as in the US, although growth is expected to be somewhat lower as a result of less monetary and fiscal stimulus. In addition, it will probably take some time before higher production starts to fuel employment growth and household demand.

So far, confidence in the economic outlook has not improved to the same extent in the euro area as in the US (see Charts 2.3 and 2.4). The assessment of future developments is somewhat more positive, however, both in the household and business sectors. Growth projections for the euro area remain virtually unchanged. Among the largest economies, performance growth is strongest in France. In Germany, growth prospects are weaker. The Ifo Business Climate Index, which measures German companies' confidence regarding employment and output, has risen somewhat the last few months. However, this index remains at a low level, indicating that German industrial output will be low the next few months. The growth forecast for Germany has been revised downwards somewhat this year.

In Sweden, tax reductions will fuel private demand while a weak Swedish krona implies that enterprises will rapidly be able to reap the benefits of higher global demand. In the UK, demand is being supported by continued strong growth in public expenditure.

The outlook in Japan is still weak. Banks are in a vulnerable position. Household real income and wealth are declining. Due in part to falling prices, purchases of consumer durables are being postponed. There are no prospects of an early recovery in demand and output in Japan, even though an international upswing and a depreciation of the Japanese yen may gradually fuel export growth. The outlook has improved somewhat for most other Asian countries.

The international downturn is contributing to lower export growth

Manufacturing accounts for nearly 90% of traditional exports from Norway, while the remainder is primarily fresh fish. In Norway, the international downturn has had less impact on exports than in many other countries, although manufacturing production was low in December. This is probably due to different industry structures. The industrial ICT sector in Norway is very small. The global downturn last year had an especially strong impact on this sector. On the other hand, Norway did not experience the strong upswing in the latter part of the 1990s and the beginning of 2000 (see Chart 2.5).

The capital-intensive process industry, which accounts for more than 50% of traditional exports, is the most export-oriented sector of Norwegian manufacturing. Lower spot prices have had little effect on the aluminium industry's output and exports. The market situation for the ferroalloys industry in particular has deteriorated. Some sectors of the paper and pulp industry are also facing reduced demand and lower prices. In the more labour-intensive technology industry, new orders declined somewhat through the autumn, both in the mechanical and the electro technical industries (see Chart 2.6). The global economic downturn has caused further difficulties for finished goods sectors that produce for the international consumer market.

We expect a decline in exports in 2002 compared with last year. If international growth gradually recovers this year, it seems likely that both export prices and volumes will rise somewhat. Growth in world trade will probably be appreciably higher than export growth. Many export companies are currently operating with squeezed margins, partly reflecting several years of high wage growth. This applies in particular to the most labour-intensive manufacturing sectors exposed to international competition, but also to parts of the process industry, such as the ferroalloys industry.

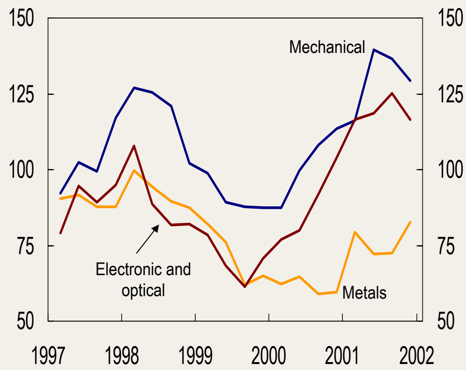
2.2 Domestic demand

Upward revision of growth forecasts for the Norwegian economy

The growth outlook for the Norwegian economy has been revised upwards for the next few years, compared with the projections in the October *Inflation Report*. This largely reflects a sharp upward revision of projections for petroleum investment. New projections from the Norwegian Petroleum Directorate indicate that petroleum investment will rise again following the downward trend that has persisted since the peak year 1998 (see Chart 2.7). The upward revision of investment estimates is due primarily to increased investment in fields on stream and expected earlier development of major gas fields. Investment is now projected to remain unchanged in 2002 and increase by 15% next year. In the October *Inflation Report*, we projected a 5% decline in investment both this year and next. The forecast for investment in 2002 and 2003 is now NOK 18bn higher than in our last report.

Increased petroleum investment will contribute to higher output in parts of the shipbuilding, platform and engineering industries. This will in turn push up demand in the rest of the mainland economy. There is some uncertainty, however, about the distribution of demand impulses between the domestic economy and imports. Traditionally, domestic deliveries for investment in fields on stream have been substantial. Aker Stord was recently awarded a contract worth NOK 5bn in connection with the Kristin field

Chart 2.6 Unfilled orders in the technology industry. Value indices, 1995=100



Source: Statistics Norway

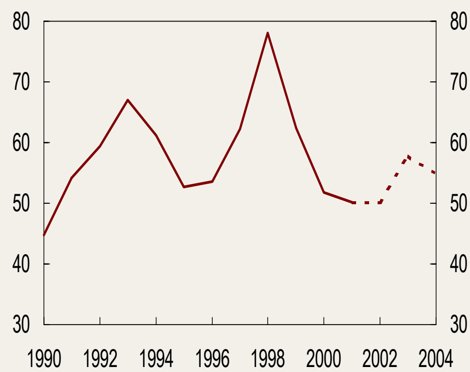
Table 2.2 Key aggreates for Norway 2002-2004. Percentage change from previous year

	2002	2003	2004
Mainland demand	2½	2½	2¾
Private consumption	3½	3¼	3
Public consumption	2	2¼	2¼
Fixed investment	-¼	1¼	1¾
Enterprises	-3	1	1¼
Dwellings	4	3¼	2¾
General government	4¾	0	2¼
Petroleum investment	0	15	-5
Traditional exports	-½	2	3
Imports	2¼	4¾	3
GDP	1¼	2½	2
Mainland GDP	1¾	2¼	2
Employment	½	½	½
LFS unemployment[1)]	3¾	3¾	3¾

1) Percentage of labour force

Source: Norges Bank

Chart 2.7 Gross investment in petroleum activities. In billions of NOK. Constant 1997 prices



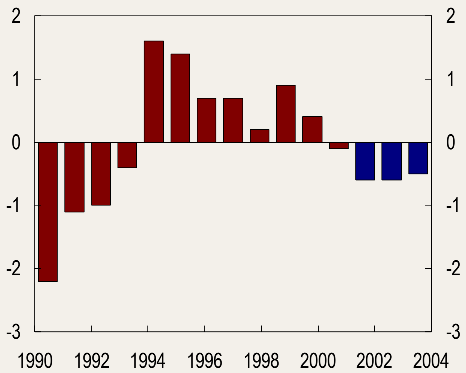
Sources: Statistics Norway and Norges Bank

development. Even if Norwegian land-based industry should win the contracts, some of the production will probably be moved abroad. In recent years, a rising cost level in Norway has made it increasingly profitable to use foreign subcontractors and move entire or parts of production to low-cost countries. This trend may continue and intensify. If this happens, an increase in demand will have less impact on mainland Norway than earlier. At the same time, a large share of the increase in petroleum investment projected between this year and next will be linked to plants and installations that will probably have a high import share.

The phasing in of petroleum revenues provides an annual stimulus to the Norwegian economy

The guidelines for fiscal policy imply a use of petroleum revenues equivalent to the expected real return on the Government Petroleum Fund. The new fiscal rule implies that central government budgets will contribute to stimulating activity in the Norwegian economy in the years ahead.

Chart 2.8 Structural non-oil budget balance[1)]



[1)] The budget balance is the change on the previous year, expressed as a percentage of trend mainland GDP.

Sources: National Budget and Supplementary Proposition 2002, Ministry of Finance

The central government budget for 2002 was approved by the Storting at the end of November. The use of petroleum revenues will be increased by NOK 6bn or 0.6% of mainland GDP from 2001. This is in line with the assumptions in the October *Inflation Report*. However, the Storting approved more extensive tax cuts than assumed in the last report. Tax cuts equivalent to NOK 12bn at accrued values or about 1% of mainland GDP were approved for 2002. By comparison, tax cuts in connection with the tax reform in 1992 amounted to about ½% of mainland GDP. Real underlying central government spending growth from 2001 to 2002 is estimated at 1¼%. This is somewhat lower than previously assumed, primarily reflecting lower transfers to the private sector. Taxes were reduced considerably more than spending. The gap was partly covered by increasing dividends from state-owned enterprises.

For 2003, National Budget estimates and the guidelines for fiscal policy indicate an increase in the use of petroleum revenues of somewhat more than NOK 7bn compared with the previous year. For 2004, the use of petroleum revenues is projected to increase by a further NOK 6bn. Our projections are based on the technical assumption that the change in the budget is equally distributed between public spending and tax cuts for the household and business sectors. We have not made assumptions about specific tax cuts that affect consumer price inflation.

Strong growth in consumption

In 2002, the halving of VAT on food, a reduction in property taxes, an increased threshold for the income surtax and an increase in the standard deduction will make a substantial contribution to real income growth in the household sector.

The reduction in the interest rate in December will also contribute. Combined with continued high wage growth and growth in employment, evidence suggests that household net real disposable income may increase by more than 4% this year. It is assumed that some of the rise in income will be saved. Even with some increase in saving, growth in private consumption may be considerably higher than in the last two years. Consumption growth is projected at 3½% in 2002, which is an appreciable upward revision from the October *Inflation Report.* Private consumption is projected to rise by 3¼% in 2003 and 3% in 2004.

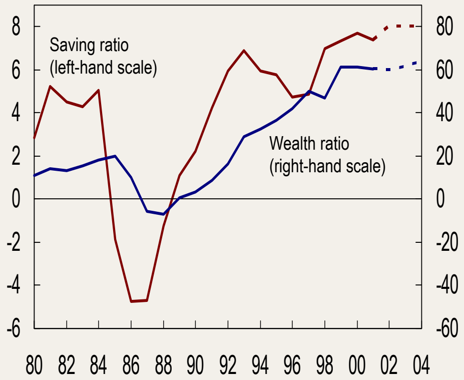
In recent years, the central government budget surplus has been high due to substantial petroleum revenues. Last year, the surplus was over 17% of GDP. In other countries, such as the US, high public saving has for some time been accompanied by low private saving. In Norway, public saving has been high while the household saving ratio has also been high and rising (see Chart 2.9). In 2001, the household saving ratio was about 7½%. An explanation may be that an increasing portion of the population is reaching an age when saving is high. Therefore, the household sector will save more on average even if the saving behaviour of each age group remains constant.

Household debt is rising sharply. Debt as a share of disposable income has increased over the last two years (see Chart 2.10). On the other hand, as a result of high and rising saving and a substantial rise in house prices over many years, the average wealth position is thus solid. On balance, the financial position of the household sector as a whole is still strong.

Modest growth in mainland corporate investment

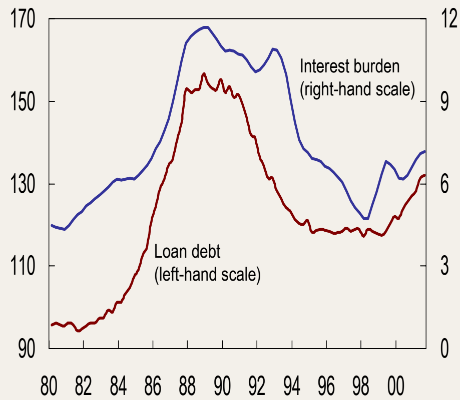
The last *Inflation Report* indicated that the drop in equity prices and uncertainty concerning future developments could affect the investment climate in Norway. Equity prices recovered partially towards the end of last year after falling sharply last autumn. The stock market has been stable in recent months (see Chart 2.11). Uncertainty now appears to have diminished. It appears that growth in demand may be stronger than previously assumed. The key interest rate has been reduced. This should contribute to somewhat stronger growth in mainland investment than assumed in the last *Inflation Report.* However, relatively slow growth in mainland investment is still projected. During the budget deliberations for 2002, the Storting decided to postpone the elimination of the investment tax until 1 October 2002. It is likely that many investment projects in retail trade and service sectors will be postponed because of this. This may lead to an upswing in investment towards year-end and in 2003.

Chart 2.9 Household saving and net financial wealth. Percentage of disposable income



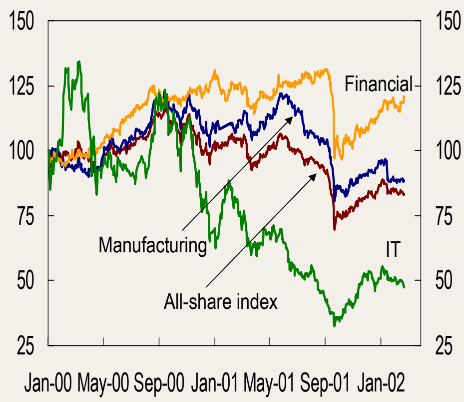
Sources: Statistics Norway and Norges Bank

Chart 2.10 Household loan debt as a percentage of disposable income and household interest expense after tax as a percentage of cash income



Source: Norges Bank

Chart 2.11 Developments in some indices on the Oslo Stock Exchange. Daily figures, 01.01.00-21.02.02. Indices, 3 January 2000 = 100



Source: EcoWin

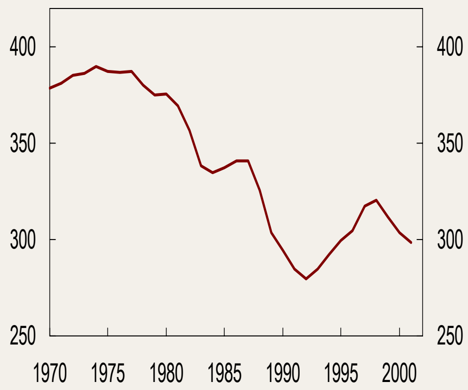
Manufacturing has been exempted from the investment tax. Statistics Norway's investment intentions survey indicates a rise in manufacturing investment this year, due in particular to a pronounced expansion in the aluminium industry. Major projects have been initiated both at Sunndalsøra and in Mosjøen. Therefore, manufacturing investment may increase somewhat this year. Growth in manufacturing investment is expected to be weak in the longer term as a result of falling investment in the metallurgical industry following a peak this year and pressure on earnings in Norwegian manufacturing.

2.3 Employment and production

Higher domestic demand will sustain employment growth

Strong growth in private consumption will fuel demand for labour in consumer-oriented industries, such as retail trade and private services. The demand for labour may rise in parts of the petroleum-related industry as a result of increased petroleum investment. The demand for labour in the public sector may continue to rise, as a result of both a planned increase in the use of petroleum revenues over the government budget and the development of the school and health sectors. Public sector investment in schools and residential construction, through interest-free loans to municipalities and the State Housing Bank's increased lending limits, will stimulate demand for labour in the construction industry as early as this year. Continued growth in housing investment will have the same effect. These factors combined may lead to persistent capacity problems in the construction sector.

Chart 2.12 Manufacturing employment, 1970-2001. In 1000s of people employed.

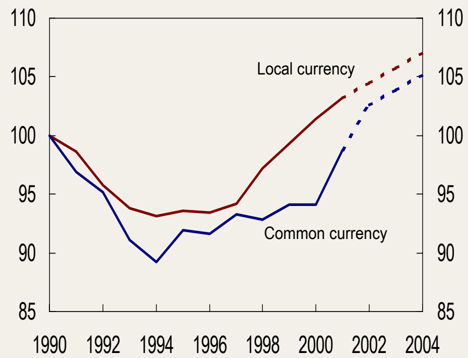


Source: Statistics Norway

Internationally exposed industries are being scaled back

Several years of high cost inflation and deterioration in competitiveness will lead to a contraction of the internationally exposed sector. Historically, the internationally exposed sector has been scaled back in waves. In the period from 1977 to 1984 and from 1987 to 1992 in particular, manufacturing industry contracted sharply (see Chart 2.12). Both periods were preceded by a considerable deterioration in cost competitiveness in manufacturing.

Chart 2.13 Relative labour costs in Norwegian manufacturing compared with trading partners. Index, 1990=100



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

During the last five years, labour costs in Norway have increased considerably more than among our trading partners (see Chart 2.13). Many companies in the most labour-intensive and least specialised manufacturing sectors have transferred parts of their production to low-cost countries. This trend will probably continue and intensify the next few years and contribute to reducing manufacturing employment. In the ferroalloys industry, which is relatively capital-intensive, a number of companies have temporarily shut down production facilities due to poor profitability. Norsk

Hydro has closed its Herøya magnesium plant because of weak competitiveness in relation to new production countries like China. Elkem has recently decided to close down production of ferrochrome at its Mo i Rana plant in the period to summer. On the other hand, the aluminium industry is planning a sharp increase in production capacity over the next three years. Nevertheless, employment in this industry will probably decline due to more capital-intensive activities and new technology.

A small rise in unemployment

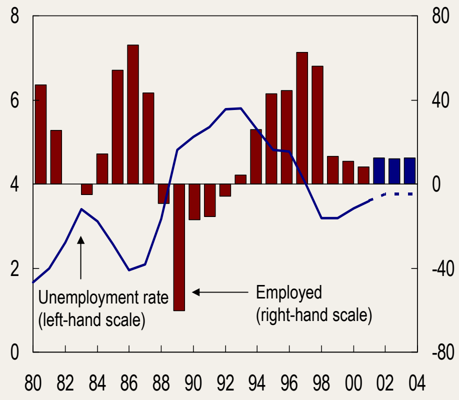
Total employment is estimated to grow on average by about ½% per year the next three years. Following a larger-than-expected rise in unemployment towards the end of 2001, unemployment, based on LFS figures, is projected at 3¾% in 2002. The estimate is ¼ percentage point higher than in the last *Inflation Report.* The effect of last autumn's decisions regarding cost and labour cutbacks may be reflected in unemployment figures for some sectors this spring, in particular the airline industry and parts of the media industry, but probably the ICT industry as well. On the other hand, demand growth is projected to pick up.

Moderate growth in mainland GDP

During the last decade, the percentage of the working-age population that was either employed or seeking employment reached a record-high level (see Chart 2.15). The potential for growth in the labour force over and above that implied by demographic factors has therefore declined. Assuming that the share of each age group that exits the labour force due to rehabilitation and early retirement and the share of non-employed remain at current levels, the labour force might grow by 0.3 - 0.4% annually the next few years.

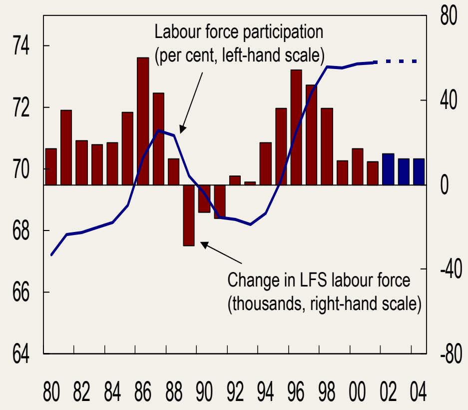
Slow growth in the labour supply implies that the growth potential for the mainland economy is limited in the years ahead (see separate box in *Inflation Report 3/2001*). In 2002, the effective labour supply measured in person-hours will probably decline due to the introduction of two additional vacation days. Our projections are based on productivity growth in the mainland economy in line with an historical average of around 1¾%. Mainland GDP is projected to grow by 1¾% in 2002, 2¼% in 2003 and 2% in 2004.

Chart 2.14 Change in number employed from previous year (in thousands) and LFS unemployment rate



Sources: Statistics Norway and Norges Bank

Chart 2.15 Change in labour force from previous year, and labour force as a percentage of population aged 16-74 (labour force participation rate)



Sources: Statistics Norway and Norges Bank

Evaluation of Norges Bank's projections for 2000

Norges Bank's projections for developments in the Norwegian and international economy form an important basis for monetary policy decisions. Norges Bank places emphasis on the importance of evaluating the forecasts in our *Inflation Report* and on transparency in our forecasting work. In this box, we take a closer look at the Bank's projections for 2000, which were presented in *Inflation Report 4/1998* and *4/1999*.[1]

How accurate were our forecasts?

At the end of 1998, our forecasts were influenced by the Asian crisis in 1997, the crisis in Russia in August 1998 and in Brazil in October/November of the same year. In autumn 1998, the forecasts for global economic developments were relatively pessimistic. That year was also a turbulent one for the Norwegian economy. Oil prices dropped to USD 10 per barrel and the wage settlement resulted in markedly higher wage growth than expected. In conjunction with the unrest in financial markets, this led to a sharp depreciation of the krone exchange rate. Money market rates rose from 3.5% to 8% in 1998. In the December 1998 *Inflation Report*, Norges Bank projected relatively weak economic growth, a fall in employment and higher unemployment. The downturn would come as a result of deteriorating competitiveness, slower growth in the world economy and a fall in business fixed investment.

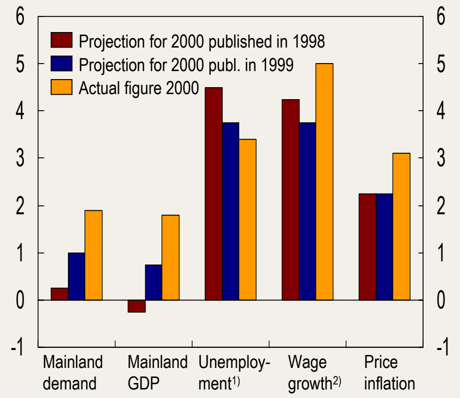
World growth was considerably underestimated for both 1999 and 2000. Monetary stimulus in the US and Europe, a rapid recovery in Asia and renewed stability in international financial markets contributed to a much earlier growth rebound than expected. The Norwegian economy also moved on a different path than we had projected (see Chart 1). Economic growth was markedly higher in 2000 than forecast in December 1998. We underestimated demand growth in both 1999 and 2000. In particular, private consumption was underestimated, but business fixed investment was also significantly higher than projected. House prices exhibited a sharp rise in both 1999 and 2000, while we expected a moderate fall.

Because demand picked up faster than expected, employment and production also showed higher-than-estimated growth. In addition, mainland GDP was pushed up by unexpectedly high electricity production in 2000. Employment increased and unemployment remained low.

With a tighter labour market than we had assumed, wage growth was higher than projected in 2000. Consumer price inflation was also higher than estimated. Oil prices moved up from around USD 10 per barrel at the end of 1998 to more than USD 30 in the autumn of 2000. The surge in oil prices spilled over to Norwegian consumer prices via higher petrol prices. At the same time, the tax on electricity was increased. Price inflation adjusted for tax changes and excluding energy products was 2.1% in 2000 or approximately as projected in December 1998.

Through 1999, it became clear that the downturn in the Norwegian economy would be nearly as pronounced as we had anticipated at the end of 1998 (see Chart 1). The effects of the Asian crisis proved to be more short-lived than we had feared. Demand – both private consumption and investment – exhibited a sharper pick-up than expected. Our forecasts for demand and production were revised upwards during 1999. In spite of this, growth in 2000 was significantly underestimated.

Chart 1 Projections for some key variables for 2000 published at various times. Annual increase. Per cent



1) Level
2) Including the costs of additional vacation days

Sources: Statistics Norway and Norges Bank

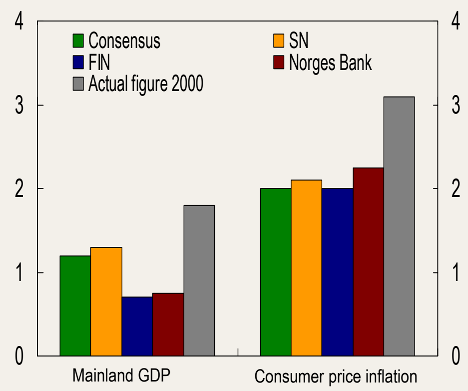
While our projections for most real variables were revised upwards through 1999, the projection for annual wage growth was revised downwards. This

[1] A more in-depth analysis will be published in *Economic Bulletin 1/2002*.

was because wage growth was lower than projected in 1999 and that we expected continued adherence to wage moderation in 2000. The forecast for consumer price inflation was nevertheless left unchanged as a result of the increase in oil prices and new assessments of the indirect tax programme for 2000.

Chart 2 shows that other institutions were also off the mark in 2000. According to Consensus Forecasts, some market participants and Statistics Norway were more optimistic than Norges Bank and the Ministry of Finance, but they all underestimated GDP growth in 2000. Consumer price inflation was also underestimated. Norges Bank's forecast was slightly higher than that of the other institutions, but all the deviations were as wide as ¾ -1 percentage point.

Chart 2 Estimates for some key variables for 2000 published in December 1999 by various institutions. Annual increase. Per cent



Sources: Consensus Economics Inc., Statistics Norway (SN), Ministry of Finance (FIN) and Norges Bank

What caused the deviations?

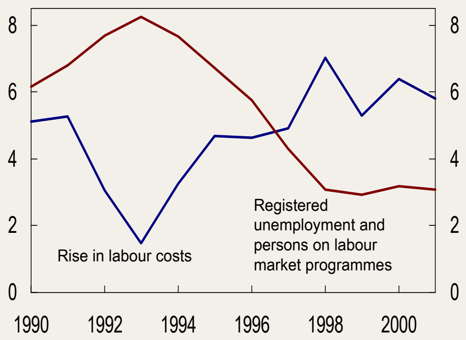
Forecast errors can retrospectively be attributed to erroneous assumptions, model deficiencies or assessment errors. Moreover, there is substantial uncertainty attached to current statistics. Even the accounts presented in February by Statistics Norway, which are the first preliminary accounts for the previous year, are associated with substantial margins of error. On average, the difference between the preliminary figures for mainland GDP growth in the preliminary accounts and the final national accounts figures was close to 1 percentage point in the period 1979-1997.

The deviations between our forecasts for 2000 and the outturn can be primarily explained by the following factors:

- Oil prices picked up faster than expected. This was the main source of error in the forecast for price inflation. The import-weighted krone exchange rate depreciated by 2½% between 1999 and 2000, while we had assumed a constant rate. However, this was only reflected in consumer price inflation to a limited extent. In spite of the rise in oil prices and the marked depreciation of the krone, prices for imported consumer goods fell by 0.9% in 2000. One reason may have been that the weakening of the krone countered an even steeper fall in import prices. Another explanation may be that a change in the krone exchange rate affects import prices with a lag. The krone exchange rate appreciated again from the latter half of 2000, which may indicate that the preceding depreciation had little impact on prices.
- World growth recovered earlier than expected. Combined with the rise in oil prices, this fuelled optimism in the household and business sectors in Norway.
- The impact of the interest rate cuts fed through to the Norwegian economy at an earlier stage than expected and the effects were stronger than anticipated. Domestic demand exhibited stronger growth than projected. As a result of this, we also underestimated growth in employment and production. New estimates show that short-term interest rates have had a significant explanatory power in relation to private consumption since the end of the 1980s. A consumption equation with such an interest rate effect was first used in the anlysis in Spring 2000 (see box in the June 2000 *Inflation Report).*

3 | Inflation projections

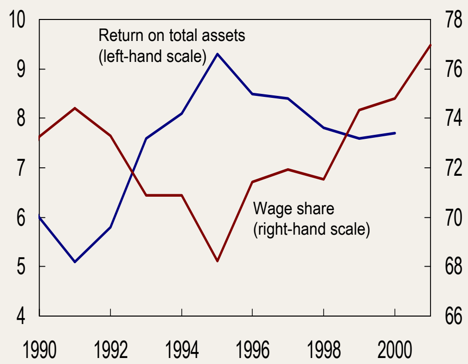
Chart 3.1 Rise in labour costs[1] and unemployment rate. Per cent



[1] Hourly labour costs in mainland Norway including the costs of additional vacation days. For 2001 we have excluded extraordinary pension payments to KLP (the municipal sector pension fund) in local government

Sources: Statistics Norway and the Directorate of Labour

Chart 3.2 Profitability in manufacturing. Wage share[1] and return on total assets[2]

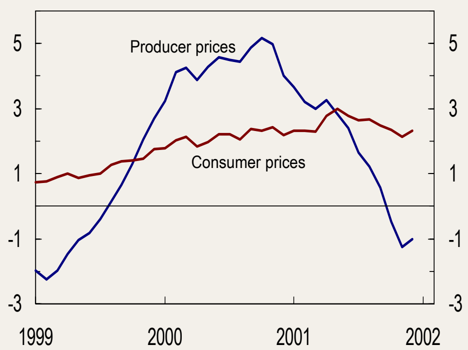


[1] Labour costs as a percentage of value added

[2] Result for the year + net interest and financial costs as a share of total assets. Excluding oil companies

Sources: Statistics Norway and Norges Bank

Chart 3.3 Producer and consumer prices for Norway's trading partners. 12-month rise. Per cent



Sources: EcoWin, Datastream, the OECD and Norges Bank

3.1 Domestic inflationary impulses

Continued high rise in labour costs

The rise in labour costs is expected to remain high in the years ahead. Unemployment is currently about 0.2 percentage point higher than projected in the October 2001 *Inflation Report*. The increase in unemployment is concentrated in some regions and industries. So far, there are no signs that higher unemployment has led to more moderate pay demands. The labour market is still regarded as tight.

Wage settlements in the manufacturing sector have traditionally provided a framework for settlements in other sectors of the Norwegian economy. Increased labour shortages in the sheltered sector of the economy have been exerting pressure on the traditional wage-bargaining model in recent years. Special pay packages for some groups have fuelled demands for high pay increases for other groups ahead of this year's negotiations.

The competitiveness of many sectors that are exposed to international competition has been substantially reduced by several years of rising labour costs. Labour costs have increased as a share of the overall value added in manufacturing, and are again at the level of the late 1970s and early 1980s. At the same time, the krone has appreciated. Export growth was weak in the second half of 2001, and the global outlook is still uncertain. The profitability of many labour-intensive enterprises is poor, and lay-offs are being reported. These are factors that may contribute to curbing wage growth.

The rise in labour costs is expected to ease somewhat compared with 2001, but to remain high in the next few years (see separate box on wage growth). Wage growth is estimated at 5% each year from 2002 to 2004, as projected in the October *Inflation Report*.

3.2 International inflationary impulses

International price inflation has also slowed, reflecting the global downturn. World producer prices have dropped more than expected since the previous *Inflation Report*. Oil prices have hovered round USD 20 per barrel recently. Lower energy prices have pushed down consumer price inflation abroad. Among trading partners, consumer price inflation is expected to edge down further this year. International price inflation is expected to increase as economic growth picks up.

On balance, prices for imported consumer goods have fallen slightly since October, in line with projections in the October report. The fall in commodity prices and world producer prices, combined with the appreciation of the krone, will probably lead to a further fall in prices for imported consumer goods this year. Prices for imported consumer goods are projected to fall by 1¼% on average from 2001 to 2002. As global growth picks up, imported price inflation may also rise. Assuming an unchanged exchange rate, we expect the rise in prices for imported consumer goods to gradually reach around 1% in 2004.

Table 3.1 CPI and factors contributing to CPI inflation. Percentage change on previous year

	2002	2003	2004
Annual wages	5	5	5
Productivity[1]	1¾	1¾	1¾
Import prices, consumer goods[2]	-1¼	½	1
CPI	1¼	2½	2½
CPI-ATE	2¼	2½	2½

[1] Mainland Norway
[2] Adjusted for changes in real taxes

Source: Norges Bank

3.3 The inflation outlook

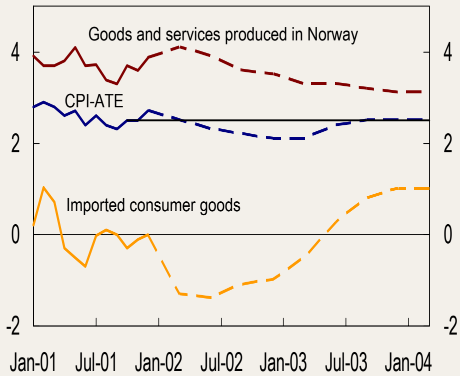
We project a continued high rise in prices for domestically produced goods and services as a result of strong growth in consumption, an expansionary fiscal policy and a sharp increase in labour costs. On the other hand, a temporary dip is expected in prices for imported consumer goods. Given the expected path of imported price inflation, consumer price inflation will decline somewhat this year before picking up again in 2003 (see Chart 3.4). The projections for month-to-month price inflation remain virtually unchanged from the October *Inflation Report*.

The rise in consumer prices adjusted for tax changes and excluding energy products (CPI-ATE) is projected at 2¼% in 2002 and 2½% in 2003 and 2004. The projection for 2002 has been revised upwards compared with the October report, reflecting higher-than-expected price inflation towards the end of last year. The projections are based on the technical assumptions of an unchanged key interest rate, an unchanged krone exchange rate and an oil price of USD 20 per barrel.

In 2001, the CPI was pushed up by a sharp rise in electricity prices, which was followed by a more gradual decline during autumn. A mild winter with relatively high precipitation may contribute to a continued fall in electricity prices in 2002. Petrol prices were relatively high at the beginning of last summer, but dropped in the latter half of the year as a result of lower oil prices and reduced petrol taxes. If the oil price remains at the current level of around USD 20 per barrel, petrol prices may remain stable over the next year. The overall effect of energy prices will depress CPI inflation in 2002. Electricity and petrol prices are both assumed to rise in pace with consumer price inflation in 2003 and 2004.

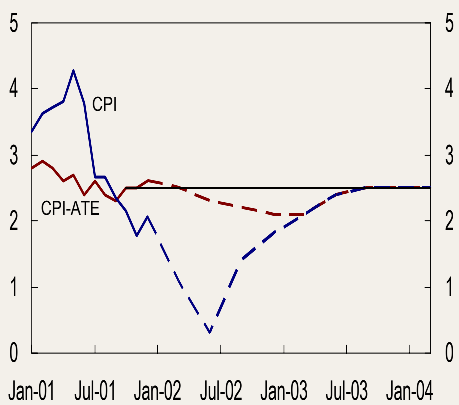
In 2002, lower indirect taxes are also curbing consumer price inflation. In isolation, the reduction in VAT on food from 1 July last year will push down price inflation by an average of ½ percentage point in 2002. On 1 January this

Chart 3.4 Consumer prices adjusted for tax changes and excluding energy products (CPI-ATE). Total and distributed by imported and domestically produced goods and services. 12-month rise. Per cent



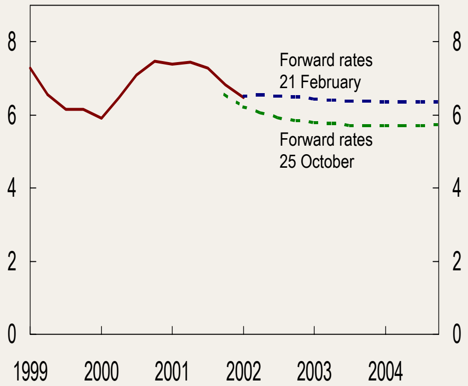
Sources: Statistics Norway and Norges Bank

Chart 3.5 Consumer prices (CPI). Total and adjusted for tax changes and excluding energy products (CPI-ATE). 12-month rise. Per cent



Sources: Statistics Norway and Norges Bank

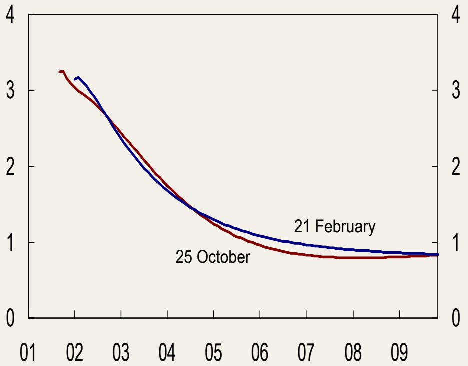
Chart 3.6 Expectations concerning short-term money market rates[1]). Per cent



[1]) 3-month money market rates up to 21 February. Three-month forward rates are estimated using four money market rates and five government bond yields with different maturities as observed on 21 February.

Source: Norges Bank

Chart 3.7 Forward rate differential against Germany. Percentage points



Source: Norges Bank

year, the tax on electricity was cut by 2 øre per kWh. At the same time, alcohol taxes were reduced, and some services were exempted from VAT. Moreover, the air passenger tax will be abolished on 1 April 2002. Overall, changes in indirect taxes are projected to push down consumer price inflation by almost 1 percentage point in 2002. Given these developments in taxes and energy prices, CPI inflation is projected at 1¼% in 2002 and 2½ % in 2003 and 2004.

Markets expect price inflation in line with the inflation target

According to a survey in February by Consensus Economics Inc., a selection of market observers expected consumer price inflation of 1.6% this year, and 2.3% in 2003.

In the October 2001 survey, observers had long-term expectations of an inflation rate in line with Norway's inflation target of 2½%.

Forward rates, calculated using the yield curve in money and bond markets, may provide an indication of expected short-term interest rates in the years ahead, with the possible addition of risk premia. Forward rates in Norway for the next few years have risen since the October *Inflation Report*, and are around 6¼% up to end-2004 (see Chart 3.6). This may reflect market expectations of a more moderate decline in interest rates than was expected at the time of the October report.

In the long term, up to 10 years ahead, the forward rate differential between Norway and Germany may reflect differences in expected inflation, and a risk premium for investing in Norwegian bonds. This premium may reflect risk associated with factors such as low liquidity in the Norwegian bond market. Chart 3.7 shows that the level of the long-term forward rate differential against Germany is about the same as in October. The positive differential of almost 1 percentage point is probably due to Norway's inflation target, which is higher than the target for the euro area, and the risk premium for investments in Norway.

Wage growth

In the long term, labour costs will be compatible with the value added that is generated by workers. If labour costs are too high as a share of value added, profitability will not be sufficient to provide an adequate return on investment. Investment and employment will therefore fall. It is reasonable to assume that wage growth will then decline, thereby enhancing profitability and allowing investment and employment to rise again.

The ratio of total labour costs to value added is called the wage share. If W = labour costs per hour, N = number of person-hours, P = the price of goods and services produced and Y = gross product, the wage share can be expressed as follows:

$$(1)\quad WAGE\ SHARE = \frac{Labour\ costs}{Value\ added}$$

$$= \frac{W \cdot N}{P \cdot Y} = \frac{W}{P \cdot \frac{Y}{N}} = \frac{W}{P \cdot Z}$$

where Z = labour productivity, i.e. gross product per hour worked. The wage share varies over business cycles, but in the long term must be at a level that ensures an adequate return on capital. An appropriate starting point may therefore be that in the long term the wage share will be constant. By putting (1) in logarithmic form[1], differentiating and assuming that the wage share is in equilibrium at a given level, the equation can be written as:

$$(2)\quad \Delta w - (\Delta p + \Delta z) = 0$$

i.e.

$$(3)\quad \Delta w = \Delta p + \Delta z$$

According to equation (3), the rise in labour costs will be equal to the sum of price inflation and productivity growth in the long run. The equation can be interpreted as an equilibrium condition in the long term. Over the last 20 years, productivity growth in mainland Norway has averaged 1½-2% per year. With price inflation equivalent to the inflation target of 2½% and productivity growth in line with the historical average, the rise in labour costs will normally be in the range 4-4½% per year.

Historically, there has been higher productivity growth in the production of goods that are traded internationally than in the production of goods and services that are sheltered from international competition. The rise in prices for sheltered goods and services will therefore be slightly higher than the inflation target. The exchange rate will change so that imported price inflation will be slightly under the inflation target. In the long term, the krone will depreciate to an extent equivalent to the inflation differential plus any difference in productivity growth between Norway and its trading partners.

In the short term, wage growth may be influenced by the business cycle, conditions in the labour market and changes in the pattern of trade and terms of trade. Wage growth from one year to the next is determined by negotations between employers and employees. Profitability will be decisive for the wages the businesse sector is willing to pay employees. If there is a labour shortage, workers will have a greater possibility of gaining acceptance for their wage demands. High expected price inflation could be met by demands for compensation in order to maintain purchasing power.

Annual data from 1983 to 2001 can be used to derive a simple empirical model for developments in hourly labour costs in mainland Norway which incorporates requirements regarding developments over time, and which also takes into account that in the short term there will be factors that cause wage growth to deviate from the long-term equilibrium level[2]:

$$(4)\quad \Delta w_t = -0{,}20 + 0{,}52\Delta p_t^e - 0{,}04u_{t-1} - 0{,}06\Delta u_t + 0{,}58\Delta z_t - 0{,}25[wage\ share]_{t-1}$$

In the short term, wage growth in this model depends on:

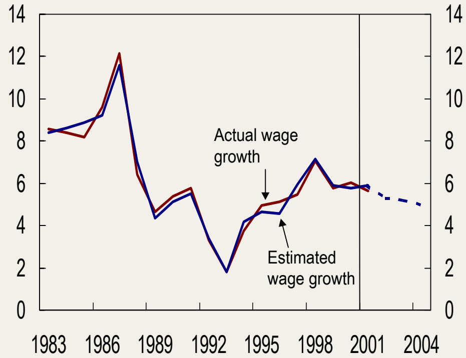
- expected consumer price inflation[3] (Δp^e)
- the unemployment rate (u)
- changes in the unemployment rate (Δu)
- productivity growth (Δz)
- profitability (*wage share*)

The higher expected price inflation is, the higher wage growth will be. The higher unemployment is, the lower wage growth will be. If unemployment rises, wage growth will decline. The higher productivity growth is, the higher wage growth will be.

Moreover, wage growth in the model depends on profitability in the short term as well. The lower wage growth is, the higher the wage share is. Conversely, the lower the wage share is, the higher wage growth will be. This is a self-correcting mechanism in the wage model which ensures that the wage level moves toward an equilibrium level. In equilibrium, the wage share in the model will be constant. In the long term, the rise in labour costs in the model will therefore be equal to the sum of price inflation and productivity growth.

The chart illustrates how the model explains the rise in labour costs in mainland Norway historically. The deviation between modelled and actual wage growth has only as an exception been higher than ½ percentage point. Measured in absolute values, the deviation has averaged 0.3 percentage point.

Labour costs per person-hour, mainland Norway. Actual[1)] and estimated. Percentage change from previous year.



1) For 2001 we have excluded extraordinary pension payments to KLP (municipal pension fund) in local government

Sources: Statistics Norway and Norges Bank

Norges Bank's estimates for economic developments are based on analyses of the most important relationships in the Norwegian economy and key assumptions about economic policy and the international situation. The analysis reflects an overall assessment of economic developments. The RIMINI macroeconomic model is an important tool in this work. Smaller models, developed to study special factors, are also used.

In this box we have presented one such simple model of wage growth in mainland Norway. Given the developments in the Norwegian economy presented in this report and expected price inflation equal to our estimate for the rise in the CPI-ATE, this model points to an annual rise in labour costs of around 5¼% for the next few years. The wage equation in the RIMINI model, which places more emphasis on profitabiity in the manufacturing sector alone, indicates wage growth of 4½-4¾% in the same period. The results of these models provide a reference for wage growth estimates. On the basis of an overall evaluation of different models, and ongoing developments in the Norwegian economy, wage growth is estimated in this report at 5% this year, next year and in 2004 as well. However, in our assessment of the uncertainty associated with the projection, we have pointed out that there is a risk that wage growth will be higher than this.

[1] Lower case letters indicate that the variable is in logarithmic form. For example, w = ln(W).
[2] All variables are statistically significant. The model has been estimated using the instrument variable method. We have used consumer price inflation among our trading partners as an instrument for expected price inflation. The model explains wage growth relatively well over the period 1983-2001 (see chart). For 2001 we have excluded extraordinary pension payments to KLP (the municipal sector pension fund) in local government.
[3] As a measure of expected price inflation, we have used the projections from Norges Bank for the years 1983-2001 presented at the end of the previous year.

3.4 Risks to the inflation outlook

There is still a risk that *international developments* will be weaker than assumed in this report. Nevertheless, developments during the autumn and winter indicate a reduced risk of a prolonged or more pronounced downturn. Our estimates are based on the assumption that an expansionary fiscal and monetary policy, the decline in the oil price and reduced uncertainty will contribute to higher growth over the next few years. However, there are still imbalances in the US economy. There may be further corrections in the US equity market following the strong gains up to 2001.

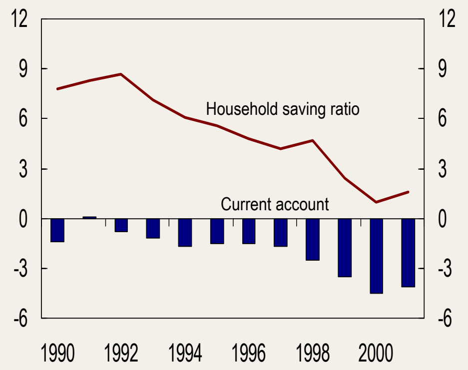
Developments in the US economy will have a decisive effect on global growth. The upturn may be delayed if US households increase saving, enterprises choose to consolidate their financial positions or equity prices drop sharply. However, some factors suggest that growth in the US economy may be higher than we have assumed. The US economy seldom remains in recession for long. Since enterprises were swift to adjust their workforces to falling output, there may be reason to expect that employment will pick up rapidly again when demand increases. This may contribute to stronger growth in consumption than we have assumed. On the other hand, rapid cuts in the workforce may be due to surplus capacity in a number of enterprises, in which case employment will not pick up again to the same extent.

If the slowdown should be more pronounced or prolonged, international price inflation over the next couple of years may be lower than assumed, which might also push down imported price inflation.

The *oil price* is assumed to remain at USD 20 per barrel up to 2004. Futures prices are stable at USD 20 per barrel through this year and 2003. Announced production limitations in the OPEC countries, Russia, Mexico and Norway may have helped to stabilise oil prices. Option prices in the oil market indicate a balance between the upside and downside risks around the projection.

The *import-weighted exchange rate* is assumed to remain unchanged from the average for the past month. This implies that on average this year the krone will be 2½% stronger than in 2001. The phasing in of petroleum revenues into the Norwegian economy may imply a real appreciation of the krone exchange rate over the next few years. On the other hand, high cost inflation and expectations of rising interest rates internationally may imply a depreciation of the krone. Option prices in the foreign exchange market indicate a balance between the upside and downside risks around the current exchange rate.

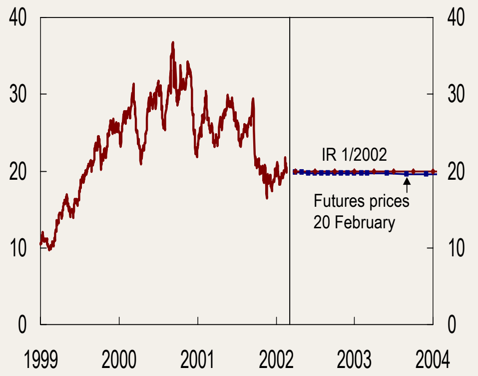
Chart 3.8 Household saving as a percentage of disposable income and the current account balance[1] as a percentage of GDP in the US



[1] OECD estimates for 2001

Sources: OECD and Bureau of Economic Analysis

Chart 3.9 Oil price, Brent Blend. USD per barrel



Sources: International Petroleum Exchange and Norges Bank

All in all, we now consider the upside and downside risks surrounding *domestic demand and output* to be balanced. In the October *Inflation Report*, we indicated that domestic demand and output might be lower than estimated. Our assessment was based on the possibility that a high real interest rate, uncertainty regarding the global economic situation and the fall in equity prices in Norway might exert a negative influence on expectations and curb house prices and demand in the household and enterprise sectors.

Uncertainty regarding the ripple effects of 11 September has diminished. Equity prices have partially recovered, house prices have continued to rise and households are more optimistic about the outlook. In addition, interest rates have been reduced by 0.5 percentage point, and private consumption has increased more than expected. Household income will rise sharply this year. We do not expect this to be fully reflected in increased consumption, and the saving ratio is projected to rise. Should saving instead remain at last year's level, and credit growth rise further, the increase in private consumption will be higher than estimated in this report.

On the other hand, the relatively high rise in labour costs in Norway over a period of several years has contributed to a high cost level. If the cost level becomes too high, the business sector will find it unprofitable to employ all those seeking employment. The business sector must restructure rapidly when real wages increase sharply. Many activities will no longer be profitable and will be shut down. This may lead to higher unemployment as a result of restructuring. However, lower employment will not necessarily be reflected in unemployment figures. We may instead see a flow of discouraged workers into, for example, disability pensions, early retirement schemes or various types of social packages.

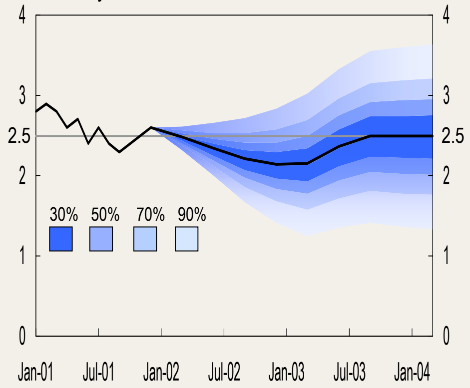
The largest upward revision in this report has been made to the estimate for petroleum investment. We may have underestimated the demand stimulus from petroleum investment to Norwegian enterprises. On the other hand, the estimate is based on a rapid start-up of some large projects, in particular the Snøhvit field. Any delays here may result in a postponement of oil investment.

The risks associated with *public demand* appear to be balanced. Our fiscal estimates are based on the budget adopted for 2002 and the new fiscal rule.

There is still a risk that *wage determination* in Norway, which traditionally has largely reflected the profitability of industries exposed to competition, may now be more heavily influenced than previously by labour shortages in the sheltered sector. In the event, the rise in labour costs may not fall to 5% as estimated. Unemployment has increased somewhat, but the labour market is still regarded as tight. Domestic inflationary impulses remain strong. On the other hand, some manufacturing segments have low profitability after several years of high cost inflation. The wage growth estimates are based on the assumption of essentially unchanged wage determination. This means that wage settlements in exposed industries will continue to exert a strong influence on settlements in other sectors. However, there are considerable strains in the labour market. Labour shortages are particularly severe in some sheltered industries. The phasing in of petroleum revenues will probably reinforce this tendency. As a result, the focus on manufacturing competitiveness may be reduced. On balance, uncertainty concerning wage formation implies a risk that labour costs will increase more than estimated in this report.

The *overall uncertainty* surrounding the inflation projection is illustrated in Charts 3.10 and 3.11. Combined, the risks surrounding the inflation projection are balanced.

Chart 3.10 Consumer price inflation[1]. Projection and uncertainty. 12-month rise. Per cent

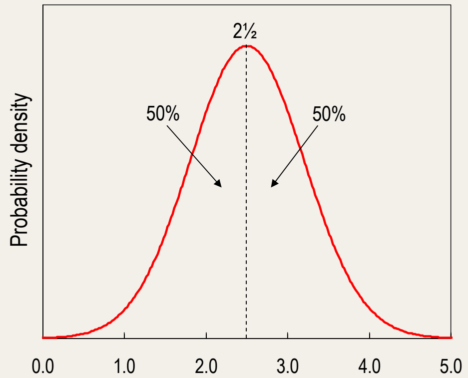


[1] Adjusted for tax changes and excluding energy products (CPI-ATE).

The bands in the fan indicate different probabilities for consumer price inflation.

Sources: Statistics Norway and Norges Bank

Chart 3.11 Evaluation of the risks to the inflation projection for the first quarter of 2004



Source: Norges Bank

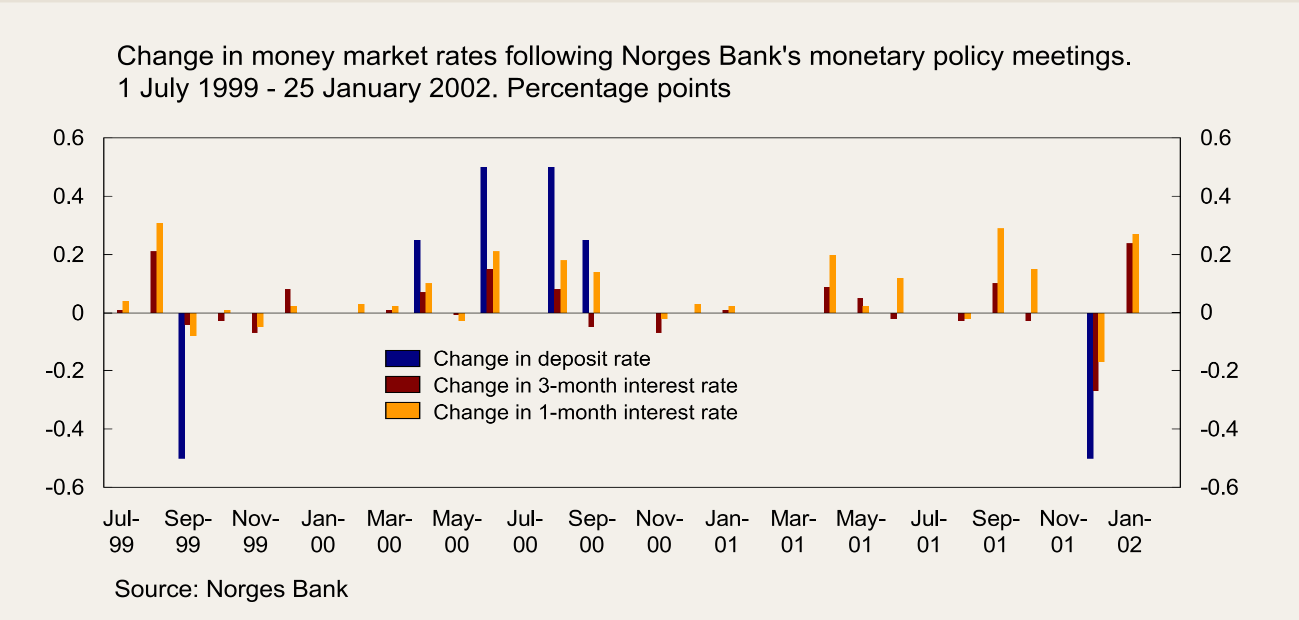
Have Norges Bank's interest rate decisions been anticipated?

Since June 1999, the dates of Norges Bank's Executive Board's monetary policy meetings have been announced in advance. The reactions of money market rates following the interest rate decisions may provide an indication of whether the decisions came as a surprise to market participants. A substantial change following a meeting indicates that the decision was unexpected. A limited change indicates that the decision had largely been factored in[1].

The chart shows the impact on money market rates following the monetary policy meetings held since June 1999, when the Bank began publishing the Executive Board's meeting schedule. The chart shows the change in one-month and three-month money market rates from the day before to the day after the announcement of the interest rate decision[2]. An increase in money market rates after the announcement indicates that market participants had expected the key interest rate to be lower than the outcome. A decline in money market rates after the interest rate decision indicates the opposite.

While the one-month rate reflects expectations regarding the outcome of a single monetary policy meeting, the three-month rate reflects expectations about interest rate decisions over the next three months, i.e. a period that always spans more than one monetary policy meeting. The interest rate decision at a single meeting may be more difficult to predict than the direction over a somewhat longer period. This may explain why the impact on the one-month rate is generally more pronounced than the impact on the three-month rate.

With some exceptions, the reactions of money market rates following the monetary policy meetings have been fairly moderate since mid-1999. The positive reactions through 2000 may indicate that monetary policy was tightened somewhat more than market participants had expected. Thus, interest rate expectations were revised upwards after several of the monetary policy meetings. Similarly, the positive changes through 2001 suggest that market participants expected reductions in the key rate that did not materialise. The interest rate reduction announced on 12 December 2001 appears, however, to have been somewhat greater than expected. In this case, the three-month rate changed more than the one-month rate. This was probably because Norges Bank's also left its assessment of the inflationary outlook unchanged, i.e. the probability that inflation two years ahead would be lower than 2½% was still greater than the probability that it would be higher. This, combined with the interest



1 For a more comprehensive analysis of a similar topic for the UK, see Clare, A. and R. Courtenay (2001) "Assessing the impact of macroeconomic news announcements on securities prices under different monetary policy regimes", Bank of England Working Paper No. 125.

2 This measure is fairly rough and there is a risk that it captures other information that may also have influenced interest rate expectations. On the other hand, the relatively wide time interval ensures that market reactions reflect the basis for the interest rate decision, which is presented at the press conference in the afternoon.

rate decision, may have led to a more substantial change in the longer-term interest rate expectations than in the very short-term expectations. Before the monetary policy meeting on 23 January 2002, it appeared that market participants had factored in a further reduction in the key interest rate.

Substantial changes in money market rates after monetary policy meetings may be an indication of inadequate communication. It is not realistic, however, to avoid such reactions altogether. It is difficult to set a limit on the size of the reaction that is consistent with good communication. One possible yardstick, however, is whether the changes in money market rates after Norges Bank's monetary policy meetings are in line with those observed in other countries with similar monetary policy targets.

Table 1 shows the average absolute changes in one-month and three-month money market rates following the monetary policy meetings in Norway, Sweden, the UK and the euro area since 1 July 1999. The average changes in the one-month and three-month rate in Norway have been 0.10 and 0.07 percentage point respectively in this period. The average change in the one-month rate is somewhat higher than in Sweden, the UK and the euro-area. The difference is smaller for the three-month rate.

Table 1 Average absolute change in one-month and three-month money market rates following monetary policy meetings.
1 July 1999 – 25 January 2002.
Percentage points unless otherwise indicated

	Norway	Sweden	UK	Euro-area
Change in 1-month rate	0.10	0.06	0.07	0.04
Change in 3-month rate	0.07	0.06	0.05	0.03
No. of monetary policy meetings	26	24	32	61
No. of changes in key rates	6	5	11	11

The average reactions tend to be weaker in countries that have frequent monetary policy meetings. When meetings are held frequently, there will normally be more meetings where the interest rate remains unchanged. In a number of cases, this outcome may seem fairly obvious in advance so that the impact is small.

In Table 2, we adjust for this by calculating the average absolute value of the ten largest reactions for each country since 1 July 1999. The averages in brackets exclude the key interest rate changes announced during the first week after 11 September 2001. These decisions were made at extraordinary meetings and were thus difficult for market participants to anticipate. The table shows that the effects were somewhat larger in Norway than in other countries, especially with regard to the one-month rate. The difference is smaller for three-month rates.

Table 2 Average absolute values of the 10 largest changes in the period 1 July 1999 – 25 January 2002.
Figures in brackets show the average of the ten largest changes excluding the changes following extraordinary monetary policy meetings held in the first week after 11 September 2001.
Percentage points

	Norway	Sweden	UK	Euro-area
Change in 1-month rate	0.21	0.13 (0.09)	0.15 (0.13)	0.17 (0.12)
Change in 3-month rate	0.14	0.12 (0.08)	0.11 (0.10)	0.13 (0.10)

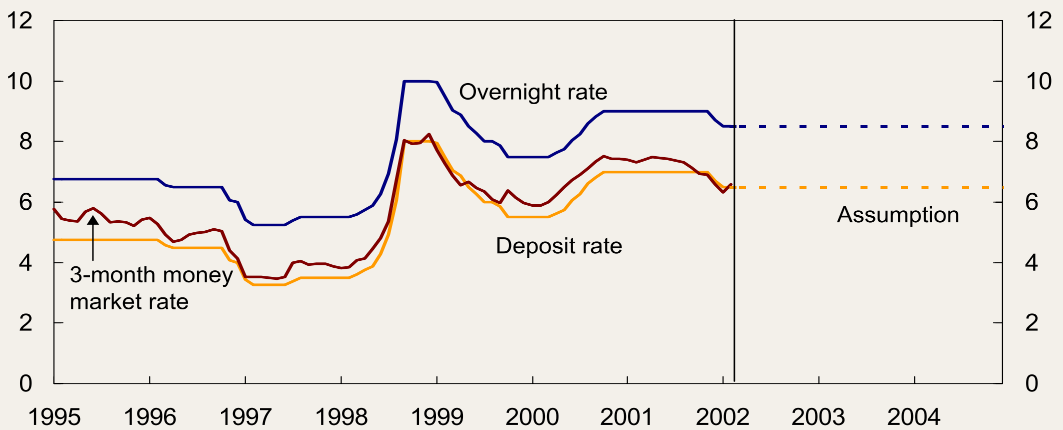
On the whole, it appears that interest rate decisions have surprised market participants in Norway somewhat more than in comparable European countries. This is partly due to the fairly substantial reactions following the monetary policy meetings in late 2001 and early in 2002 (see chart). During this period, the degree of uncertainty surrounding economic developments was unusually high. Through 2001, weak developments in the global economy resulted in substantial reductions in key interest rates in many countries. Market participants may have expected interest rate developments in Norway to be more in line with international developments than proved to be the case. The more substantial money market reactions in Norway than in other countries may also be related to the fairly recent introduction of an inflation target in Norway and that it could take some time for market participants to gain insight into the Bank's response pattern and communication.

Statistical annex

Table 1 Interest rates

		Norges Bank's key rates (average)		Money market rates NIBOR[1]			Yield on government bonds[2]
		Deposit rate	Overnight lending rate	1-week	3-month	12-month	10-year
1995		4.8	6.8	5.5	5.5	5.9	7.4
1996		4.5	6.5	5.0	4.9	5.1	6.8
1997		3.4	5.4	3.6	3.7	4.1	5.9
1998		5.5	7.5	5.9	5.8	5.6	5.4
1999		6.4	8.4	6.9	6.5	6.0	5.5
2000		6.2	8.2	6.6	6.7	7.1	6.2
2001		7.0	9.0	7.2	7.2	7.1	6.2
2000	Jul	6.3	8.3	6.5	6.9	7.5	6.2
	Aug	6.6	8.6	6.9	7.1	7.5	6.2
	Sep	6.8	8.8	7.1	7.3	7.7	6.3
	Oct	7.0	9.0	7.3	7.5	7.8	6.4
	Nov	7.0	9.0	7.3	7.4	7.5	6.2
	Dec	7.0	9.0	7.6	7.4	7.3	6.0
2001	Jan	7.0	9.0	7.4	7.4	7.2	6.0
	Feb	7.0	9.0	7.3	7.3	7.2	6.0
	Mar	7.0	9.0	7.3	7.4	7.4	6.0
	Apr	7.0	9.0	7.6	7.5	7.4	6.2
	May	7.0	9.0	7.3	7.5	7.5	6.5
	Jun	7.0	9.0	7.3	7.4	7.6	6.6
	Jul	7.0	9.0	7.3	7.4	7.5	6.7
	Aug	7.0	9.0	7.1	7.3	7.3	6.5
	Sep	7.0	9.0	7.1	7.1	7.0	6.4
	Oct	7.0	9.0	7.2	6.9	6.6	6.1
	Nov	7.0	9.0	7.1	6.9	6.4	5.9
	Dec	6.7	8.7	6.9	6.6	6.2	6.2
2002	Jan	6.5	8.5	6.6	6.3	6.2	6.2
2002	18. Jan	6.5	8.5	6.6	6.2	6.2	6.2
	25. Jan	6.5	8.5	6.5	6.3	6.4	6.3
	01. Feb	6.5	8.5	6.7	6.5	6.6	6.3
	08. Feb	6.5	8.5	6.7	6.6	6.6	6.4
	15. Feb	6.5	8.5	6.7	6.6	6.7	6.4

1) NIBOR = Norwegian interbank offered rate, average of daily quotations
2) Yield on representative 10-year government bond. Average of daily quotations. The yield is calculated by weighting one or two government bonds with the residual maturity.



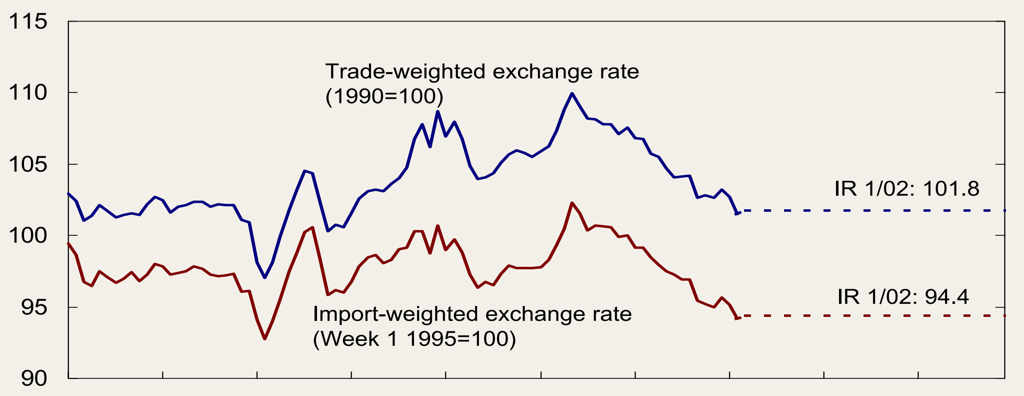
Source: Norges Bank

Table 2 Exchange rates

		Effective exchange rates		Bilateral exchange rates		
		Import-weighted exchange rates[1)]	Trade-weighted exchange rate index[2)]	NOK/EUR	NOK/USD	NOK/SEK
1995		97.4	101.8		6.3	88.9
1996		97.2	102.0		6.5	96.3
1997		96.7	100.9		7.1	92.6
1998		98.9	104.6		7.5	94.9
1999		97.7	105.6	8.3	7.8	94.4
2000		100.2	107.8	8.1	8.8	96.1
2001		97.0	104.4	8.1	9.0	87.0
2000	Jul	100.3	108.2	8.2	8.7	97.3
	Aug	100.7	108.2	8.1	9.0	96.5
	Sep	100.6	107.8	8.0	9.2	95.4
	Oct	100.6	107.8	8.0	9.4	93.9
	Nov	99.9	107.1	8.0	9.3	92.7
	Dec	100.0	107.6	8.1	9.1	93.9
2001	Jan	99.2	106.8	8.2	8.8	92.5
	Feb	99.2	106.8	8.2	8.9	91.5
	Mar	98.2	105.7	8.2	9.0	89.4
	Apr	98.0	105.5	8.1	9.1	89.0
	May	97.4	104.7	8.0	9.1	88.2
	Jun	97.1	104.1	7.9	9.3	86.2
	Jul	97.0	104.2	8.0	9.3	86.1
	Aug	96.8	104.2	8.1	9.0	86.5
	Sep	95.2	102.6	8.0	8.8	82.7
	Oct	95.2	102.8	8.0	8.8	83.5
	Nov	95.1	102.6	7.9	8.9	84.1
	Dec	95.7	103.2	8.0	9.0	84.8
2002	Jan	95.2	102.7	7.9	9.0	85.8
2002	18. Jan	95.2	102.8	7.9	8.9	85.8
	25. Jan	94.8	102.3	7.9	9.0	85.4
	01. Feb	94.8	102.3	7.8	9.1	85.2
	08. Feb	94.5	101.8	7.8	9.0	84.8
	15. Feb	94.1	101.5	7.8	8.9	84.7

1) Weights are calculated on the basis of imports from 44 countries, which cover 97% of total imports. Weights are based primarily on shares for the years 1996 to 1998.

2) Nominal effective krone exchange rate calculated on the basis of exchange rates for NOK against the currencies of Norway's 25 most important trading partners (geometrical average weighted with the OECD's competition weightings).

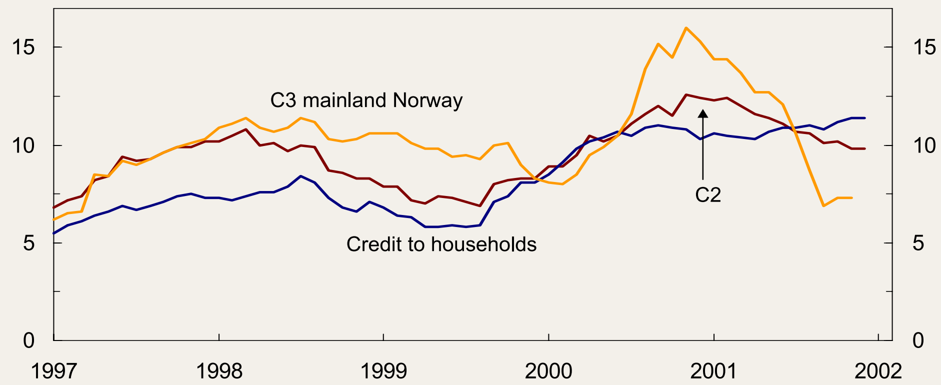


Source: Norges Bank

Table 3 Monetary aggregates

Twelve-month rise Per cent		Money Supply M2	Domestic credit (C2) Total	 To households	 To non-financial enterprises	Total credit (C3) Total	 To mainland Norway
Dec 1995		8.0	4.9			5.2	
Dec 1996		6.4	6.2	5.3	7.6	5.4	5.2
Dec 1997		2.5	10.2	7.3	16.8	10.0	10.3
Dec 1998		4.6	8.3	7.1	11.0	12.2	10.4
Dec 1999		10.7	8.3	8.1	8.8	7.8	8.4
Dec 2000		9.2	12.4	10.3	14.9	10.8	16.0
Dec 2001		8.6	9.8	11.4	7.6		
2000	Jul	9.5	11.1	10.5	13.3	8.6	11.6
	Aug	10.2	11.6	10.9	13.9	10.7	13.9
	Sep	12.7	12.0	11.0	14.5	11.7	15.2
	Oct	8.5	11.5	10.9	13.0	11.2	14.5
	Nov	10.7	12.6	10.8	15.4	11.9	16.0
	Dec	9.2	12.4	10.3	14.9	10.8	15.3
2001	Jan	10.9	12.3	10.6	14.0	10.0	14.4
	Feb	10.7	12.4	10.5	14.2	10.4	14.4
	Mar	10.1	12.0	10.4	13.7	9.6	13.7
	Apr	8.6	11.6	10.3	12.5	10.0	12.7
	May	10.0	11.4	10.7	11.3	10.7	12.7
	Jun	8.6	11.1	10.9	10.2	10.3	12.1
	Jul	8.6	10.7	10.9	9.2	9.2	10.6
	Aug	8.1	10.6	11.0	8.9	6.7	8.7
	Sep	6.5	10.1	10.8	8.3	5.7	6.9
	Oct	8.4	10.2	11.2	8.1	6.2	7.3
	Nov	7.7	9.8	11.4	7.4	7.0	7.3
	Dec	8.6	9.8	11.4	7.6		
Levels last month In billions of NOK		795	1613	903	583	2031	1830

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



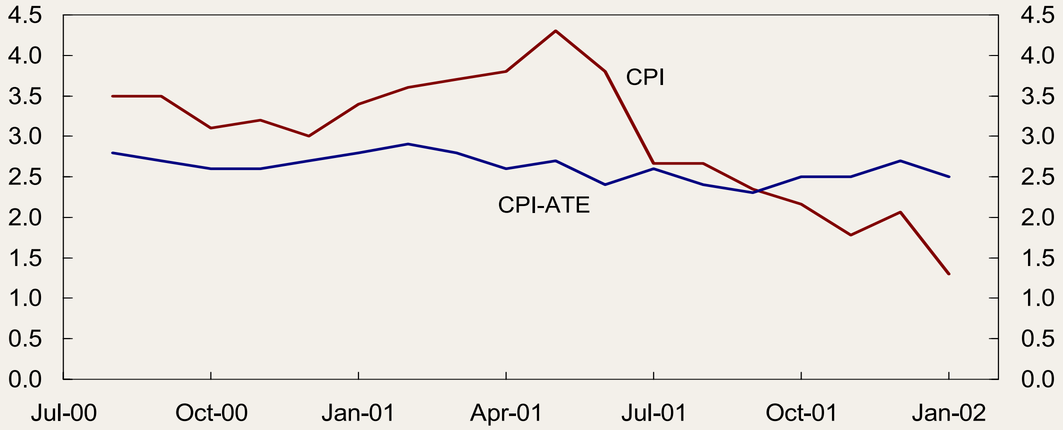
Source: Norges Bank

Table 4 Consumer prices

Twelve-month rise. Per cent		CPI	CPI-ATE[1]	CPI-AT[2]	CPI-AE[3]	HICP[4]
1997		2.6				2.6
1998		2.2				2.0
1999		2.3				2.1
2000		3.1			2.3	3.0
2001		3.0	2.6	3.2	2.4	2.7
2000	Jan	2.9			2.1	2.6
	Feb	3.2			2.3	2.9
	Mar	2.5			1.7	2.6
	Apr	2.6			1.9	2.7
	May	2.8			2.1	2.9
	Jun	3.3			2.2	3.5
	Jul	3.3			2.3	3.3
	Aug	3.5	2.8	3.3	2.8	3.5
	Sep	3.5	2.7	3.3	2.6	3.6
	Oct	3.1	2.6	2.9	2.5	3.1
	Nov	3.2	2.6	3.0	2.6	3.1
	Dec	3.0	2.7	2.9	2.6	2.7
2001	Jan	3.4	2.8	2.9	3.2	3.1
	Feb	3.6	2.9	3.3	3.3	3.5
	Mar	3.7	2.8	3.3	3.2	3.5
	Apr	3.8	2.6	3.5	3.0	3.6
	May	4.3	2.7	3.9	3.1	4.0
	Jun	3.8	2.4	3.3	2.8	3.3
	Jul	2.7	2.6	3.5	1.8	2.2
	Aug	2.7	2.4	3.4	1.6	2.2
	Sep	2.4	2.3	3.0	1.6	1.9
	Oct	2.2	2.5	2.9	1.8	1.8
	Nov	1.8	2.5	2.5	1.7	1.3
	Dec	2.1	2.7	2.7	2.1	1.6
2002	Jan	1.3	2.5	2.7	1.2	0.9

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

Consumer prices (CPI and CPI-ATE). 12-month rise. Per cent



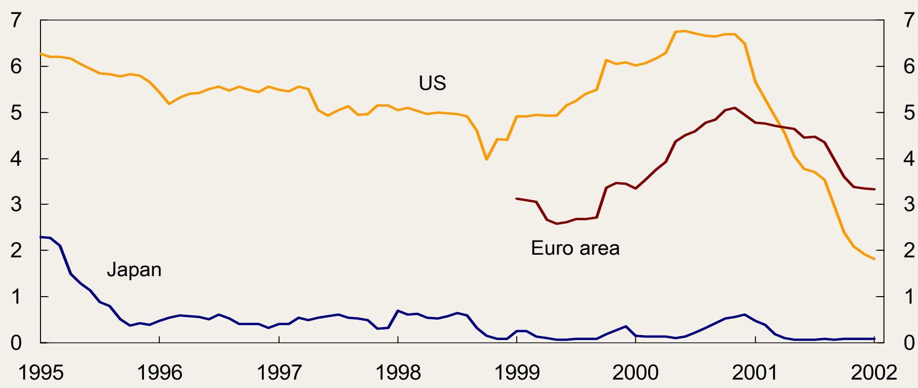
Source: Norges Bank

Table 5 International interest rates

		Short-term interest rates[1] for key currencies in the Euromarket						Interest rate differential[2]	Yields on government bonds[3]	
		USD	JPY	EUR	GBP	SEK	Trading-partners	NOK/trading-partners	US	Germany
1995		6.0	1.2		6.6	8.7	6.1	-0.7	6.6	6.9
1996		5.4	0.5		6.0	5.9	4.5	0.3	6.4	6.2
1997		5.2	0.5		6.8	4.2	4.1	-0.5	6.3	5.7
1998		4.8	0.5		7.3	4.2	4.2	1.6	5.3	4.6
1999		5.4	0.2	3.0	5.5	3.3	3.3	3.1	5.8	4.5
2000		6.5	0.3	4.4	6.1	4.0	4.4	2.2	6.1	5.3
2001		3.7	0.1	4.3	5.0	4.0	4.0	3.2	5.1	4.8
2000	Jul	6.7	0.2	4.6	6.2	4.2	4.6	2.2	6.0	5.3
	Aug	6.7	0.3	4.8	6.2	4.1	4.7	2.3	5.8	5.2
	Sep	6.7	0.4	4.9	6.2	4.1	4.8	2.5	5.8	5.3
	Oct	6.8	0.5	5.0	6.2	4.0	4.8	2.6	5.7	5.2
	Nov	6.8	0.6	5.1	6.1	4.0	4.8	2.5	5.7	5.2
	Dec	6.5	0.6	4.9	6.0	4.1	4.7	2.6	5.2	4.9
2001	Jan	5.7	0.5	4.8	5.8	4.1	4.5	2.8	5.2	4.8
	Feb	5.3	0.4	4.8	5.8	4.1	4.5	2.7	5.1	4.8
	Mar	5.0	0.2	4.7	5.6	4.1	4.4	2.9	4.9	4.7
	Apr	4.6	0.1	4.7	5.4	4.1	4.3	3.1	5.1	4.9
	May	4.1	0.1	4.6	5.3	4.1	4.2	3.1	5.4	5.1
	Jun	3.8	0.1	4.4	5.3	4.4	4.2	3.2	5.3	5.0
	Jul	3.8	0.1	4.5	5.3	4.5	4.2	3.1	5.2	5.0
	Aug	3.6	0.1	4.4	5.0	4.4	4.1	3.2	5.0	4.8
	Sep	3.0	0.1	4.0	4.7	4.2	3.7	3.3	4.7	4.8
	Oct	2.4	0.1	3.6	4.4	3.9	3.4	3.5	4.5	4.6
	Nov	2.1	0.1	3.4	4.0	3.8	3.2	3.6	4.6	4.5
	Dec	1.9	0.1	3.3	4.0	3.9	3.1	3.4	5.0	4.7
2002	Jan	1.8	0.1	3.3	4.0	3.9	3.1	3.1	5.0	4.9
2002	18. Jan	1.7	0.1	3.3	4.0	3.9	3.1	3.0	4.9	4.8
	25. Jan	1.8	0.1	3.4	4.0	3.9	3.1	3.1	5.7	4.9
	01. Feb	1.9	0.1	3.4	4.1	3.9	3.2	3.2	5.0	5.0
	08. Feb	1.9	0.1	3.4	4.1	3.9	3.1	3.3	4.9	4.9
	15. Feb	1.9	0.1	3.4	4.1	3.9	3.2	3.3	5.0	5.0

1) 3-month rates, average of daily quotations.
2) 3-month interest rate differential against Norway's 18 most important trading partners (geometrical average weighted with the OECD's competition weightings).
3) Yields on government bonds with a residual maturity of 10 years. Average of daily quotations.

3-month rates in the US, the euro area and Japan



Sources: EcoWin and Norges Bank

Table 6 GDP growth in other economies

Percentage change from previous year

	US	Japan	Germany	France	UK	Sweden	Trading-partners[1]	Euro-area[2]
1995	2.7	1.6	1.7	1.9	2.9	3.7	2.7	2.3
1996	3.6	3.5	0.8	1.1	2.6	1.1	2.2	1.5
1997	4.4	1.8	1.4	1.9	3.4	2.1	3.0	2.4
1998	4.3	-1.1	2.0	3.5	3.0	3.6	3.2	2.9
1999	4.1	0.8	1.8	3.0	2.1	4.1	3.0	2.6
2000	4.1	1.5	3.0	3.4	2.9	3.6	3.5	3.4
2001	1.1				2.4			
Projections								
2001		-½	¾	2		1¼	1¼	1½
2002	¾	-1	¾	1½	1¾	1½	1¼	1¼
2003	3¼	¾	2¼	2½	2½	2½	2½	2½
2004	3½	1½	2¼	2½	2½	2½	2½	2½

1) Export weights
2) GDP weights from IMF adjusted for purchasing power

Sources: OECD and Norges Bank

Table 7 Consumer prices in other economies

Percentage change from previous year

	US	Japan	Germany	France	UK[1]	Sweden	Trading-partners[2]	Euro-area[3]
1995	2.8	-0.1	1.7	1.8	2.8	2.9	2.2	2.8
1996	3.0	0.1	1.4	2.0	3.0	0.8	1.8	2.4
1997	2.3	1.7	1.9	1.2	2.8	0.9	1.7	1.7
1998	1.6	0.7	0.9	0.8	2.8	0.4	1.3	1.4
1999	2.2	-0.3	0.6	0.5	2.3	0.3	1.3	1.1
2000	3.4	-0.7	1.9	1.7	2.1	1.3	2.2	2.3
2001	2.8	-0.7	2.4	1.8	2.1	2.6	2.4	2.6
Projections								
2002	1	-1	1½	1¼	2	2	1½	1½
2003	2	-¼	1½	1½	2½	2	1¾	1¾
2004	2½	¼	1½	1½	2½	2	2	1¾

1) RPIX
2) Import weights
3) Eurostat weights (country's share of euro area consumption)

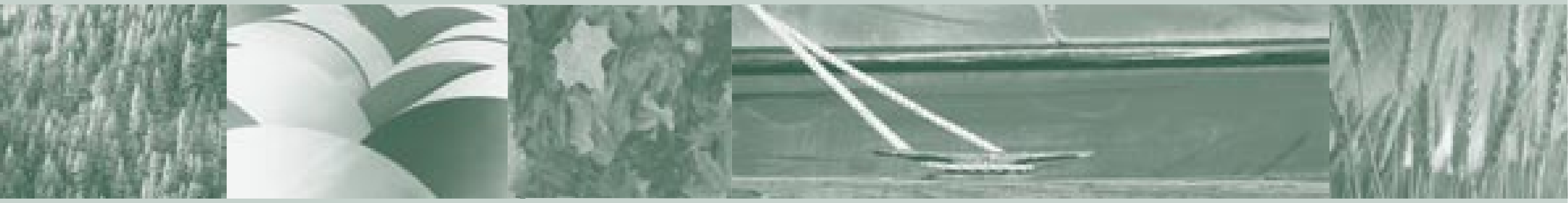
Sources: OECD and Norges Bank

Table 8 Main macroeconomic aggregates

	In billions of NOK	Percentage change from previous year (unless otherwise stated)			
	2001	**2001**	**2002**	**2003**	**2004**
Real economy					
Private consumption	636.5	2.2	3½	3¼	3
Public consumption	294.2	1.5	2	2¼	2¼
Total gross investment	279.6	-5.9	-¼	4¼	¼
- Petroleum activities	60.9	-3.1	0	15	-5
- Mainland Norway	209.6	-2.7	-¼	1¼	1¾
Enterprises	127.4	-4.8	-3	1	1¼
Dwellings	42.3	7.8	4	3¼	2¾
General government	39.9	-5.6	4¾	0	2¼
Mainland demand[1)]	1140.4	1.1	2½	2½	2¾
Total domestic demand[2)]	1201.3	0.9	2¼	3¼	2¼
Exports	680.0	5.3	¼	2¾	2¾
- Crude oil and natural gas	301.0	7.3	0	4	2½
- Traditional goods	214.3	3.0	-½	2	3
Imports	441.9	0.3	2¼	4¾	3
- Traditional goods	285.9	3.1	2¼	4¾	3
GDP	1472.0	1.4	1¼	2½	2
- Mainland Norway	1107.4	1.0	1¾	2¼	2
Labour market					
Employment		0.4	½	½	½
Labour force, LFS		0.5	½	½	½
Registered unemployed (rate)		2.7	3	3	3
LFS unemployment (rate)		3.6	3¾	3¾	3¾
Prices and wages					
CPI		3	1¼	2½	2½
CPI-ATE[3)]		2.6	2¼	2½	2½
Annual wages[4)]		5.0	5	5	5
Annual wages + cost of additional vacation days[5)]		5¾	5	5	5
Import prices, consumer goods[6)]		0.6	-1¼	½	1
Export prices, traditional goods		-1.9	-9	-½	2½
Resale home prices[7)]		4.5	8	6	5
External account[8)]					
Trade surplus, NOKbn (level)		238.1	160	150	150
Current account surplus, NOKbn (level)		217.7	140	130	130
Current account surplus, % of GDP		14.8	10	9	8
Memorandum item					
Household saving ratio		7.4	8	8	8
Technical assumptions					
Norges Bank's sight deposit rate (annual average)[9)]		7.0	6.5	6,5	6,5
Import-weighted exchange rate[10)]		-3.1	-2½	0	0
Oil price in USD/barrel		24.4	20	20	20

1) Private and public consumption and mainland gross fixed investment
2) Private and public consumption, mainland gross fixed investment and petroleum investment
3) CPI-ATE: CPI adjusted for tax changes and excluding energy products
4) Annual wage growth is based on the Technical Reporting Committee on Income Settlements' definitions and calculations. According to Statistics Norway, wages per normal person-year increased by 4.9% in 2001
5) Costs associated with additional vacation days are estimated at 0.8 percentage point in 2001
6) Adjusted for changes in real taxes
7) ECON's house price index with Norges Bank's weighting set
8) Current prices
9) The sight deposit rate is assumed to remain unchanged in the projection period
10) Annual percentage change. Positive figures denote a depreciation of NOK. The import-weighted exchange rate includes 44 countries. Technical assumption: unchanged exchange rate on average for the last month.

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



Inflation Report No 1 - February - 2002