NORGES BANK

Reports from the Central Bank of Norway No 3/2001

Inflation Report

2
01

June

Norges Bank's Inflation Report

In accordance with the Regulation on Monetary Policy of 29 March 2001, Norges Bank's implementation of monetary policy shall be oriented towards low and stable inflation. The inflation target is set at 2½ per cent. Normally, Norges Bank will set the key rate with a view to achieving an inflation rate of 2½ per cent 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 *Inflation Report* presents figures for consumer price inflation excluding the effects of a number of random and temporary factors. The reports are published three times a year.

ISSN 0807-8521

Inflation target

1.

In accordance with the Regulation on Monetary Policy of 29 March 2001, Norges Bank's implementation of monetary policy shall be oriented towards low and stable inflation. The inflation target is set at 2½ per cent.

If evidence suggests that inflation with unchanged interest rates will be higher than 2½ per cent, the interest rate will be increased. If it appears that inflation with unchanged interest rates will be lower than 2½ per cent, the interest rate will be reduced.

A change in interest rates is not expected to have an immediate effect on inflation. Our analyses indicate that a substantial share of the effects of an interest rate change occurs within two years. Two years is thus a reasonable time horizon for achieving the inflation target of 2½ per cent. Hence, the key rate is set with view to achieving an inflation rate of 2½ per cent two years ahead.

To date, Norges Bank has presented its view on interest rate developments ahead after its regular monetary policy meetings. Hereafter, we will instead refer to the prospects for achieving the inflation target if the key rate is kept unchanged. Depending on developments, we will employ one of the following three formulations:

According to Norges Bank's assessment, with an unchanged interest rate ahead

- *the probability that inflation two years ahead will be higher than 2½ per cent is greater than the probability that it will be lower.*
- *the probability that inflation two years ahead will be higher than 2½ per cent is the same as the probability that it will be lower.*
- *the probability that inflation two years ahead will be lower than 2½ per cent is greater than the probability that it will be higher.*

2.

The analyses in this report indicate that there are prospects for achieving the inflation target with the current interest rate level. However, the risk picture is mixed. The slowdown in world economic growth has been substantial and there is a risk of slower growth and a longer downturn. There are still fairly substantial imbalances in the US economy, with negative household saving and high business fixed investment. The slowdown in the US has had a rapid impact on economic developments in many Asian countries, and now growth is also slowing in the EU and other European countries.

However, the Norwegian economy is still in an upturn with growth in public and private services. There is a shortage of labour and labour costs are rising sharply. The manufacturing sector is positive with regard to the short-term outlook, partly due to higher petroleum investment. Credit growth remains high and the financial position of households is solid.

It is our judgement that there is unusually high uncertainty surrounding several factors that will influence inflation in Norway. If there is a new wave of negative developments abroad, the spillover effects on the Norwegian economy may be stronger than observed so far. If, on the other hand, cyclical developments in Norway are more pronounced, higher inflation may easily take root.

Svein Gjedrem

Inflation Report 2/2001

The cut-off date for the Inflation Report was 14 June 2001

1 Summary

Norges Bank projects consumer price inflation at 3¼% this year, 2% in 2002 and 2½% in 2003. These figures are heavily influenced by temporary factors that should be excluded when examining underlying inflation. The sharp rise in electricity prices has pushed up inflation this year. The reduction in VAT on food products as from 1 July this year will in isolation push down the rate of increase in the CPI by about half a percentage point next year. Excluding the direct effects of changes in excise duties and energy prices, price inflation is projected at 2¾% in 2001 and 2½% in 2002 and 2003. The projections are based on the technical assumption of unchanged interest rates at the current level over the next two years. The projections are also based on an increase in the use of petroleum revenues over the central government budget approximately in pace with the expected real return on the Government Petroleum Fund.

The high rate of cost inflation in recent years reflects the shortage of labour resources. Unemployment is expected to remain steady at the current level over the next few years. Labour cost growth is projected at 5½% in 2001, 5% in 2002 and 4¾% in 2003, which implies an upward revision of previous estimates. The projections are based on the social partners using consumer price inflation of 2½% as a reference for wage negotiations, in line with the new inflation target established on 29 March 2001. Furthermore, the labour market is expected to be somewhat tighter than projected earlier as a result of higher growth in aggregate demand. Against this background, the estimate for growth in real wages has also been revised upwards.

The effects of high domestic cost inflation have been curbed by low imported price inflation in recent years. This has contributed to keeping down the overall rise in the CPI. International inflation is projected to remain moderate in the period ahead.

However, the international economy is now characterised by both stagnating growth and rising inflation. The rise in oil prices through last year has contributed to pushing up consumer price inflation via higher fuel prices. The increase in costs associated with the rise in oil prices has spillover effects on prices for other goods and services this year, both internationally and in Norway. These spillover effects will be largely exhausted next year. This will probably push down inflation somewhat in 2002. In addition, slower growth in the world economy is expected to lead to a stagnation or moderate decline in commodity prices and international producer prices, including oil prices, over the next year.

The slowdown in the world economy has been particularly evident in the US. The downturn in the US has influenced developments in Europe and some areas of Asia with greater speed and intensity than many observers anticipated

Table 1.1 Key aggregates for Norway, 2001-2003. Percentage change from previous year unless otherwise stated

	2001	2002	2003
CPI	3¼	2	2½
CPIXE[1]	2¾	2½	2½
Annual wages	4¾	5	4¾
Annual wages + costs of additional vacation days	5½	5	4¾
Mainland GDP	1½	1¾	1¾
LFS unemployment (rate)	3¼	3¼	3¼

1) Consumer price index excluding direct effects of changes in excise duties and energy prices

Source: Norges Bank

only a few months ago. A more stable trend in commodity prices and somewhat lower price inflation could moderate the slowdown. GDP growth among our trading partners is estimated to pick up from 2¼% in 2001 to 2¾% in 2002 and 2003, partly in the light of lower short-term interest rates and tax cuts in many countries.

The sluggish trend in the global economy has so far had little impact on the Norwegian economy. Traditional export industries, such as the metals and fisheries industries, have enjoyed relatively high prices and solid growth. Preliminary figures indicate a moderate upswing in the mainland economy so far this year. However, some internationally exposed industries in Norway are expected to gradually feel the adverse effects of continued high cost inflation and the slowdown in global economic activity. On the other hand, an increase in government use of petroleum revenues and relatively high household income growth will generate impulses to production in the public sector and service industries. Mainland GDP growth is projected at 1½% in 2001 and 1¾% in 2002 and 2003. Private consumption and public demand are expected to be the main driving forces behind economic growth over the next two years. The growth potential of the economy is being restrained by low growth in the labour force, capacity constraints and moderate productivity growth. The increase in the number of vacation days, increased use of the early retirement scheme and the cash allowance for families with small children and the rise in sickness absence have contributed to the stagnation in the number of person-hours worked and a reduction in the average working time per person-year. Our projections are based on the assumption that sickness absence does not continue to increase and that the number of person-hours worked will not be further reduced by new working time reforms.

On the whole, the risks to the inflation outlook are perceived as being balanced. There is still a downside risk associated with the estimates for world economic growth. On the other hand, there is a risk that domestic labour cost growth may be higher than projected. Conditions in the sheltered sector may have a greater influence on the overall impact on wage growth than has been the case earlier. The risks to the outlook are discussed further in Section 3.5.

New Regulation on Monetary Policy

The new Regulation on Monetary Policy was established by Royal Decree of 29 March 2001 pursuant to Section 2, third paragraph, and Section 4, second paragraph, of the Act of 24 May 1985 no. 28 on Norges Bank and the Monetary System. The regulation reads as follows:

§ 1
Monetary policy shall be aimed at stability in the Norwegian krone's national and international value, contributing to stable expectations concerning exchange rate developments. At the same time, monetary policy shall underpin fiscal policy by contributing to stable developments in output and employment.

Norges Bank is responsible for the implementation of monetary policy.

Norges Bank's implementation of monetary policy shall, in accordance with the first paragraph, be oriented towards low and stable inflation. The operational target of monetary policy shall be annual consumer price inflation of approximately 2.5 per cent over time.

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

§ 2
Norges Bank shall regularly publish the assessments that form the basis for the implementation of monetary policy.

§ 3
The international value of the Norwegian krone is determined by the exchange rates in the foreign exchange market.

§ 4
On behalf of the State, Norges Bank communicates the information concerning the exchange rate system ensuing from its participation in the International Monetary Fund, cf. Section 25, first paragraph, of the Act on Norges Bank and the Monetary System.

In a letter to the Ministry of Finance on 27 March 2001, Norges Bank expressed its view on the new mandate and the implications for the conduct of monetary policy.

According to the Regulation on Monetary Policy, Norges Bank's key rate shall be set on the basis of an overall assessment of the inflation outlook. If evidence suggests that inflation will be higher than 2½ per cent with unchanged interest rates, the interest rate will be increased. If it appears that inflation will be lower than 2½ per cent with unchanged interest rates, the interest rate will be reduced.

Norges Bank does not expect a change in interest rates to have an immediate effect on inflation. Different analyses indicate that a substantial share of the effects of an interest rate change occurs within two years. Two years is thus a reasonable time horizon for achieving the inflation target of 2½ per cent. If special circumstances prompt Norges Bank to apply a different time horizon than two years, the Bank will provide an assessment of this.

Consumer price inflation normally varies somewhat from month to month. Substantial changes in inflation may at times occur as a result of extraordinary fluctuations in prices for certain products or changes in direct and indirect taxes. The effects of such random and temporary factors on developments in consumer prices are analysed in the *Inflation Report*.

Norges Bank's analyses and the background for the Bank's interest rate decisions are published regularly. The inflation outlook is presented three times a year in Norges Bank's Inflation Report, and provides the basis for the Bank's interest rate decisions. Further assessments are presented every six weeks in connection with the Executive Board's monetary policy meetings. The Bank reports on the conduct of monetary policy in its annual report.

2 Price developments

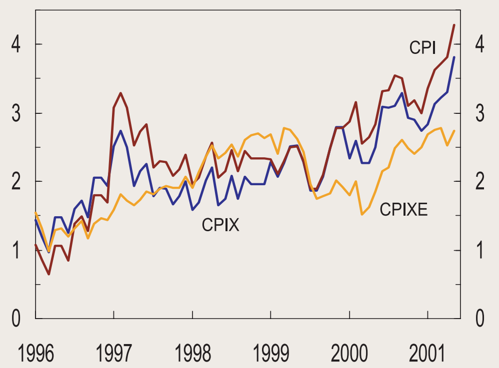
Higher price inflation

So far this year, the consumer price index (CPI) has increased by an average 3.8% compared with the same period one year earlier. The 12-month rise has moved up from 3.0% in December to 4.3% in May (see Chart 2.1). In addition to higher excise duties, the increase in electricity prices has been the main factor behind the higher rate of increase in prices.

VAT was increased by 1 percentage point to 24% as from 1 January 2001. At the same time, electricity taxes were increased and petrol taxes were reduced. So far this year the CPI, excluding the direct effects of changes in excise duties (CPIX), has increased by 3.3% compared with the same period last year. In May, CPIX inflation was 3.8%.

Electricity prices have risen steadily since September and were 36% higher in May than the same month one year earlier. Both record-high electricity consumption and low precipitation levels in Western Norway contributed to the sharp rise in electricity prices. Prices for fuel, lubricants and petrol have been relatively stable so far this year. In 2000, these prices rose by an average 17% on the previous year. The consumer price index, excluding direct effects of changes in excise duties and energy prices (CPIXE), has risen by 2.7% so far this year compared with the same period one year earlier. CPIXE inflation was 2.7% in May. Various indicators of underlying price inflation are discussed in a separate box.

Chart 2.1 Consumer prices (CPI). Total and excluding changes in excise duties and energy prices. 12-month rise. Per cent



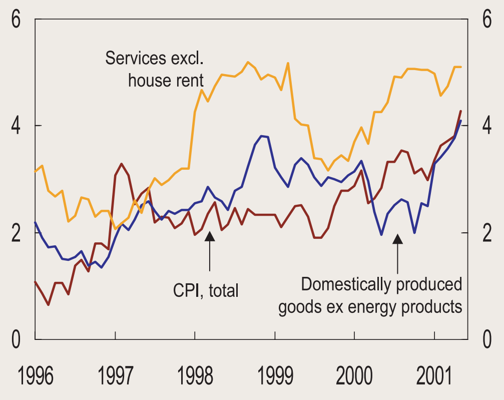
CPIX: CPI excl. direct effects of changes in excise duties
CPIXE: CPI excl. direct effects of changes in excise duties and energy prices
Sources: Statistics Norway and Norges Bank

Higher service sector output prices

Excluding energy prices and direct effects of changes in excise duties, CPIXE inflation has been fairly stable since the March Inflation Report (see Chart 2.1). However, over the last year, the rate of increase has picked up markedly from an average of around 2% in the first four months of last year to around 2.7% so far this year. The increase largely reflects the pick-up in prices for services, excluding house rent, last year (see Chart 2.2). The increase in oil and fuel prices has resulted in a sharp increase in prices for energy-intensive goods and services such as transport services. After declining slightly in the winter, prices for transport services have picked up again, with the 12-month rate of increase reaching 10.5% in May. Weaker competitive pressures in the air industry and the deregulation of the taxi industry may also have contributed to the sharp rise in transport service prices.

The strong increase in service prices must otherwise be seen in the light of sustained high growth in labour costs. In service sectors where wages are a dominant factor, the average rise in prices has been 6.3% so far this year. This is somewhat higher than the growth in labour costs in recent years. One year ago, the rise in prices for these services hovered around 5¾%.

Chart 2.2 Consumer prices. Total and by selected supplier sector[1]. 12-month rise. Per cent



[1] Services excluding house rent account for 23% of the CPI. Domestically produced goods excluding energy account for 21% of the CPI.

Sources: Statistics Norway and Norges Bank

Underlying inflation

Interest rates influence inflation with variable lags. We expect a substantial share of the effect to occur within two years. Today's inflation rate is partly the result of the interest rate that was set one to two years ago and other factors that have influenced inflation. Current inflation figures do not provide an adequate basis for determining the level at which interest rates should be set today. Monthly figures for the consumer price index (CPI) are also influenced by random and temporary factors that have little impact on developments in inflation over time. Attempts to counteract temporary disturbances to inflation that will nevertheless disappear may be the source of unnecessary fluctuations in the key rate.

Even though monetary policy cannot counteract the direct effects of various temporary disturbances, the central bank must prevent any spillover effects of such shocks on general price and cost inflation and inflation expectations. Adjusting inflation figures for direct effects of one-off factors can also be associated with pitfalls. Higher excise duties and electricity prices can be a source of accelerating inflation via spillover effects on other prices and wages.

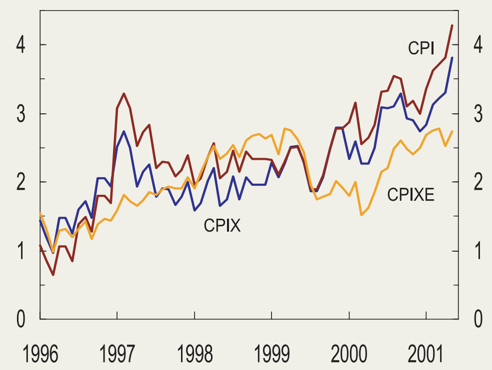
Nevertheless, it is interesting to adjust monthly inflation figures for the effects of temporary conditions to determine whether developments are broadly in line with our projections. Therefore, Norges Bank presents consumer price inflation figures that have been adjusted for the direct effects of some temporary factors. Such indicators may also provide guidance in our assessment of the inflation outlook.

The experience of other countries that use an inflation target shows that indicators for underlying inflation will vary, depending on which factors have caused temporary disturbances in each country.

The inflation target in the UK is the consumer price index adjusted for the direct effect of interest rate changes (RPIX). It has been made clear, however, that other temporary factors may push price inflation off course without necessarily impacting monetary policy. In New Zealand, the inflation target is formulated as consumer price inflation, but the mandate specifies which factors the central bank may exclude. These factors include changes in the price level due to substantial changes in commodity prices, changes in excise duties, considerable changes in economic policy that directly affect prices, and natural disasters. In Sweden and Canada, the inflation target is formulated as consumer price inflation with no explicit exclusions, but the central banks in these countries also use indicators for underlying inflation in implementing and assessing monetary policy. A key indicator in Sweden adjusts for the direct effects of changes in interest rates and excise duties (UND1X). As in the UK, interest rates have a considerable direct impact on the consumer price index in Sweden. In Canada, the indicator is the CPI excluding the eight most volatile components and adjusted for the direct effects of excise duties.

In the *Inflation Report*, Norges Bank has previously published time series for the CPI excluding changes in electricity prices and excise duties. In the last year, we have also excluded petrol prices. On the other hand, the Bank has not made adjustments for the direct effects of interest rate changes because the Norwegian house rent index measures housing costs by means of a survey. In contrast to Sweden and the UK, Norway does not directly include interest costs in the consumer price index. Therefore, it is difficult to identify the direct effects of interest rate changes on consumer prices in the Norwegian consumer price index. Interest expenses are not directly included in other parts of the CPI either, and preliminary analyses indicate that direct effects of interest expenses will be negligible.

Chart 1 Consumer prices (CPI). Total and excluding excise duties and energy prices. 12-month rise. Per cent

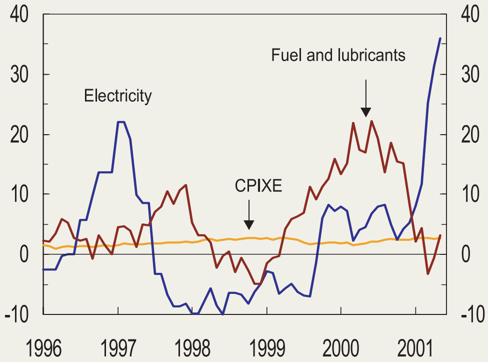


CPIX: CPI excl. direct effects of changes in excise duties
CPIXE: CPI excl. direct effects of changes in excise duties and energy prices
Sources: Statistics Norway and Norges Bank

Chart 1 shows developments since 1995 for the CPI, the CPI adjusted for the direct effects of changes in excise duties (CPIX) and the CPI adjusted for the direct effects of changes in excise duties and energy prices (CPIXE). For these indicators, adjustments are made for concrete one-off factors or shocks that have made it difficult to assess inflation tendencies. Electricity prices have fluctuated considerably in recent years. Fuel prices have risen sharply in the last year. Changes in excise duties have also been a source of temporary fluctuations in price inflation.

As shown in Chart 1, the CPIXE will normally be more stable than the CPI or the CPIX, because historically energy prices have been among the most volatile CPI components (see Chart 2). Energy prices are also a main component of the CPI. Strong fluctuations in these prices will therefore have a temporary impact on the overall CPI. The index does not indicate that price inflation is systematically lower or higher than the CPI either. Norges Bank will focus on developments in the CPIXE when it assesses monetary policy performance in its annual report. Statistics Norway (SSB) has recently started publishing information on the CPI excluding energy-related products. Statistics Norway also mentions the effects on CPI inflation of changes in excise duties in connection with the publication of the CPI figures.

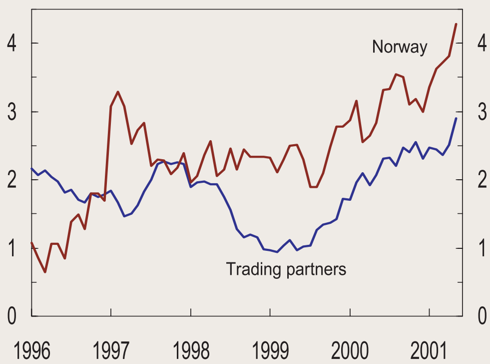
Chart 2 Consumer prices. Total and energy[1]. 12-month rise. Per cent



[1] Electricity accounts for 3.5% of the total CPI. Fuel and lubricants account for 4.1% of the total CPI

Sources: Statistics Norway and Norges Bank

Chart 2.3 Consumer prices in Norway and abroad. 12-month rise. Per cent



Sources: Statistics Norway and the OECD

Higher consumer price inflation internationally

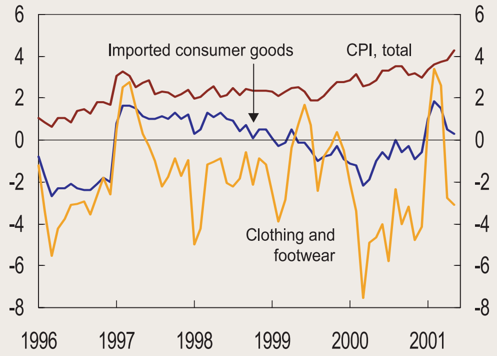
In spite of the slowdown in world economic growth, consumer price inflation is now rising in many countries (see Chart 2.3). This primarily reflects higher energy and food prices. In the euro area the depreciation of the euro also contributed to higher inflation through last year. Preliminary figures indicate that consumer price inflation increased to 3.3% in May, primarily reflecting higher food prices as a result of foot-and-mouth disease and higher energy prices. Core inflation, which excludes food and energy prices, rose to 2.3%. In the US, price inflation has been somewhat higher than expected so far this year, primarily as a result of the power supply problems afflicting California and higher petrol prices. In April, the year-on-year rise in consumer prices was 3.3%, while core inflation was 2.7%. In Sweden, price inflation has shown a substantial rise. Higher energy prices (petrol, electricity and heating fuel), a continued weak krona and higher meat prices contributed to pushing up year-on-year inflation from 1.9% to 3.0% in May. Inflation in the UK has also picked up, but is still below the inflation target. RPIX inflation rose to 2.4% in May.

Low price inflation for imported consumer goods…

The rate of increase in prices for imported consumer goods remains moderate in spite of the pass-through of the indirect effects of high oil prices to a number of internationally traded goods.

In the beginning of 2001, prices for imported consumer goods appeared to be picking up. The year-on-year rise in these prices edged up from -0.6% in December to 1.8% in February (see Chart 2.4). However, these prices have remained stable over the last three months. In May, these prices were only 0.3% higher than one year earlier. Adjusted for the increase in VAT, these prices have declined slightly over the last year. The main downward contribution to the rate of increase in prices for imported consumer goods has come from price developments for clothing and shoes. In May 2001, prices for clothing and footwear were 3.1% lower than in the same month one year earlier. Prices for these goods have fallen more or less steadily since the beginning of 1996, probably reflecting growing imports of these goods from low-price countries in Asia and Eastern Europe and strong competition on the world market.

Chart 2.4 Consumer prices. Total, imported consumer goods and clothing and footwear[1]. 12-month rise. Per cent



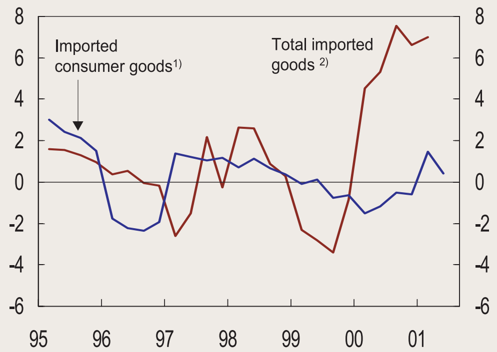
[1] Imported consumer goods account for 27% of the CPI.

Source: Statistics Norway

... but sharp rise in prices for imported inputs

While prices for imported consumer goods have been generally stable, prices for imported inputs have risen sharply (see Chart 2.5). The increase reflects the surge in oil prices through last year. The cost of producing typical inputs and capital goods is influenced relatively rapidly by marked changes in oil prices.

Chart 2.5 Import prices. Rise on same quarter previous year. Per cent



[1] The second quarter of 2001 comprises April and May
[2] Imports excluding ships, oil platforms and crude oil. The aggregate consists of 2/3 intermediate goods and 1/3 consumer goods and other finished goods

Sources: Quarterly National Accounts and CPI, Statistics Norway

3 Inflation projections

3.1 The inflation outlook

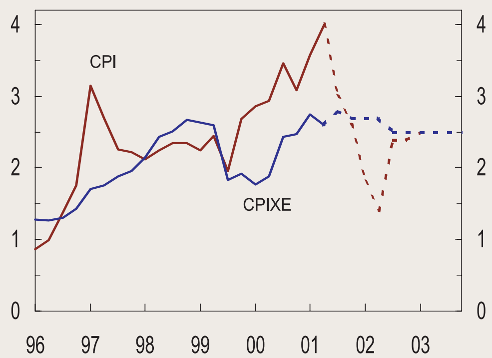
Table 3.1 CPI and factors contributing to CPI inflation. Percentage change on previous year

	2001	2002	2003
Annual wages + costs of additional vacation days	5½	5	4¾
Productivity[1)]	1½	1½	1½
Import prices, traditional goods	3¾	0	1½
CPI	3¼	2	2½
CPIXE	2¾	2½	2½

1) Mainland Norway

Source: Norges Bank

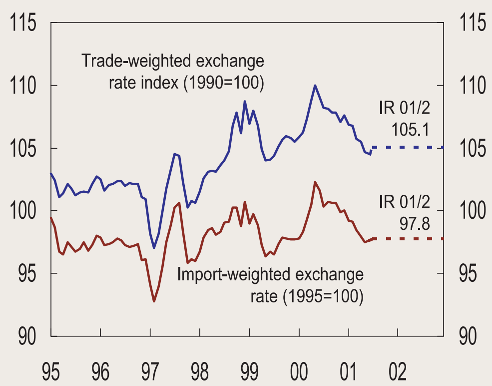
Chart 3.1 Estimated consumer price inflation. Total and excluding excise duties and energy. Rise on same quarter previous year. Per cent



CPIXE: CPI excluding direct effects of changes in excise duties and energy prices

Sources: Statistics Norway and Norges Bank

Chart 3.2 Import-weighted exchange rate and trade-weighted exchange rate index.



Source: Norges Bank

Norges Bank projects consumer price inflation (CPI) at 3¼% in 2001. With unchanged interest rates at the current level over the next two years, the rise in the CPI is estimated at 2% in 2002 and 2½% in 2003.

CPI inflation is influenced by random or temporary factors that have little impact on developments in inflation over time. Precipitation levels have an effect on electricity prices, and changes in excise duties have an immediate impact on the consumer price index. The direct effects of these factors on inflation fade out after a year. A reduction in VAT on food from 1 July 2001 will push down the year-on-year rise in consumer prices in the second half of this year and the first half of 2002. The contribution of this factor in isolation will reduce the average rise in the CPI by about ½ percentage point in 2002. In the March *Inflation Report*, the CPI projection for 2002 was to be understood as the projection for price inflation excluding the direct effects of changes in excise duties. In this report, the projection for CPI inflation is based on known changes in excise duties. A more detailed discussion on fiscal policy is provided in Section 4.4. Price inflation excluding the direct effects of changes in excise duties and energy prices (CPIXE) is estimated at 2¾ in 2001. CPIXE inflation is projected at 2½% in both 2002 and 2003.

The projections for price inflation for 2002 and 2003 have been revised upwards compared with the March 2001 *Inflation Report*, reflecting expectations of somewhat higher cost inflation than previously anticipated. The projections are based on the social partners using consumer price inflation of 2½% as a reference for wage negotiations, in line with the new inflation target. This is slightly higher than assumed in the March *Inflation Report*. In addition, higher real wage growth is now expected as a result of a slightly tighter labour market and stronger growth in overall demand.

Low imported price inflation has curbed the effects of high domestic cost inflation, which has contributed to restraining overall consumer price inflation. Price inflation internationally is expected to be moderate in the period ahead.

The rise in oil prices through 2000 contributed to pushing up consumer price inflation by around ½ percentage point via increased fuel prices. In 2001, the rise in costs associated with higher oil prices has fed through to prices for other goods and services, both internationally and in Norway. These spillover effects will be largely exhausted next year, which will probably help to curb price inflation somewhat in 2002.

The krone has appreciated

Measured against the import-weighted exchange rate index (44 countries), the krone has strengthened by 1½% since the March 2001 *Inflation Report* and close to 3% since the beginning of 2001 (see Chart 3.2), after depreciating by 2.5% on average in 2000.

The projections in this report are based on the technical assumption that the exchange rate will remain at the average level (last three months), measured against the import-weighted index, until the end of the projection period. This implies that the krone will appreciate by just over 2% on average from 2000 to 2001. In the previous Inflation Report, the scenario with unchanged interest rates was based an appreciation of the krone of about 2%. The krone has moved approximately in line with this assumption.

Through the 1990s, there has been a shift in monetary policy in Norway away from short-term management of the exchange rate, towards orienting monetary policy with a view to influencing domestic price and cost inflation. Daily fluctuations in the krone exchange rate have increased, particularly since 1997. With a fixed exchange rate, changes in the exchange rate, for example as a result of devaluation, will be permanent. Importers and exporters will then tend to re-price their products to bring them into line with the new exchange rate level, and the social partners will adjust their wage demands. When there are wide daily fluctuations, changes in the exchange rate may be more widely perceived as temporary. Importers and exporters will then probably allow exchange rate fluctuations to be reflected in operating margins to a large extent.

Unchanged money market rates assumed

The calculations in this report are based on the assumption that interest rates remain unchanged at the present level over the next two years. Interest rates are then assumed to fall gradually to the forward rate curve as calculated on the basis of the yield curve in money and bond markets in mid-June (see Chart 3.3). The estimates in this report can thus be compared with the scenario with unchanged interest rates in the March Report. Key technical assumptions are shown in Table 3.2.

Norges Bank's key rates were raised by a total of 1.5 percentage points between April and September 2000. The deposit rate is now 7.0%, while the three-month money market rate was 7.5% in mid-June. The pricing of forward rate agreements, for which we have information up to one year ahead, indicates that short-term interest rates are expected to remain at the current level for the next year. Implied forward rates calculated on the basis of the yield curve in the money and bond market show approximately the same picture in the short term, and may also provide an indication of market expectations regarding interest

Table 3.2 Technical assumptions

	2000	2001	2002	2003
3-month money market interest rate (annual average)[1]	6,8	7,4	7,4	7,3
Import-weighted exchange rate[2]	2,5	-2¼	-¼	0
Real rise in gov't spending	1¾	2¾	2¼	2¼
Oil price USD/barrel[3]	29	26	23	20

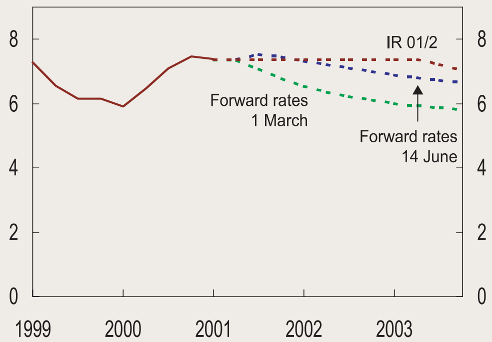
[1] The interest rate is assumed to remain unchanged for eight quarters and then gradually decline to the forward rate estimated 14 June

[2] Annual percentage change. Positive figures denote a depreciation of NOK. The import-weighted exchange rate includes 44 countries

[3] It is assumed that the oil price will gradually decrease to USD 20 per barrel

Source: Norges Bank

Chart 3.3 Technical assumption concerning short-term money market rates.[1] Per cent



[1] Three-month money market rates up to 14 June. The interest rate remains unchanged for eight quarters and is then reduced towards the forward rate path for four quarters. Three-month forward rates are estimated using four money market rates and five government bond yields with different maturities as observed on 14 June.

Source: Norges Bank

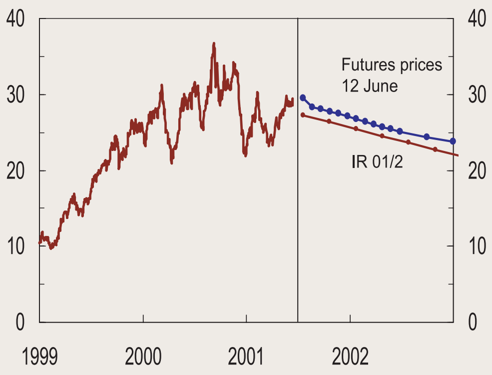
Table 3.3 Consumer prices.
Percentage change from previous year

	2000	2001	2002	2003
US	3.4	3	2¼	2¼
Japan	-0.6	-½	-¼	0
Germany	2.1	2½	1½	1½
France	1.8	1¾	1½	1½
Italy	2.6	2½	1¾	1¾
UK	2.1	2	2¼	2½
Sweden	1.3	2½	2¼	2
Norway's trading partners[1]	2.2	2½	2	2
Euro area[2]	2.4	2½	1¾	1¾

[1] Import weights
[2] Eurostat weights (country's share of euro area's consumption)

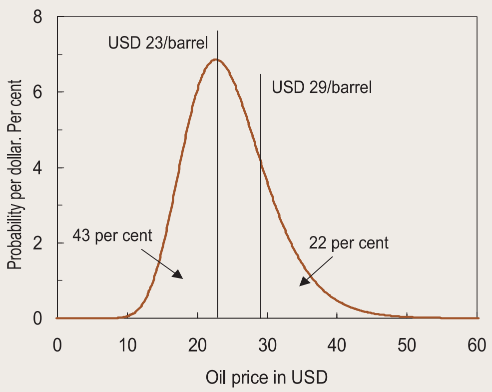
Source: Norges Bank

Chart 3.4 Oil price, Brent Blend. USD per barrel



Sources: International Petroleum Exchange and Norges Bank

Chart 3.5 Probability distribution for the oil price in June 2002 (Brent Blend)[1]



[1] Calculated from option prices for Light Sweet Crude Oil

Sources: New York Mercantile Exchange and Norges Bank

rate movements more than one year ahead. Forward rates indicate that the market expects somewhat lower interest rates in the somewhat longer term (see Chart 3.3). Market participants' interest rate expectations are appreciably higher than in March.

3.2 International inflationary impulses

Declining international inflationary impulses

Among trading partners, consumer price inflation has been somewhat sharper than expected so far this year, despite slower economic growth. The increase can largely be attributed to the sharp rise in food and energy prices. The increase in energy prices has been accompanied by a rise in the prices for some imports to Norway, particularly capital goods and manufacturing inputs. When the effects of the rise in the oil price are exhausted, imported price inflation is expected to decline again.

Prices for imported consumer goods fell in both 1999 and 2000, which has helped to curb consumer price inflation in Norway. Over the next few years, imported consumer goods are expected to show only a moderate price rise.

Prices for imported inputs rose appreciably through 2000. It takes time before the rise in prices for imported inputs and capital goods feeds through to consumer prices, and the effect is difficult to predict. This is partly because some imported inputs go to the export industry. However, the sharp rise in input prices may lead to a gradual increase in prices for domestically produced finished goods. However, evidence suggests that such an effect on price inflation would be temporary, since the oil price is now approximately the same as it was a year ago.

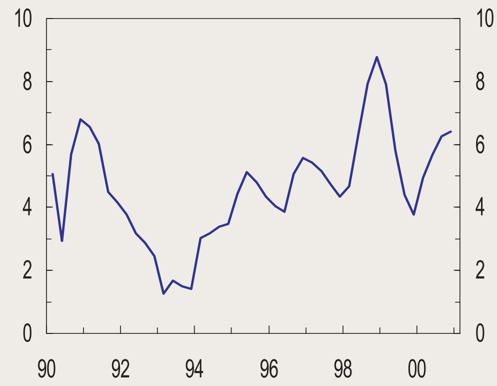
The inflationary impetus from the rise in oil prices is expected to fade fairly rapidly, and lead to a slower rate of increase in prices for imported inputs. Although inflation is currently on the rise in many countries, lower global demand will gradually contribute to pushing down both consumer price inflation among Norway's trading partners and imported price inflation. In the short term, cost pressures in the business sector may nevertheless persist in many countries as a result of weaker economic growth and lower productivity growth. In such a situation demand for oil, and thus the oil price, can be expected to decline. The overall rise in import prices is estimated at 3¾% in 2001. An unchanged first quarter price level to the end of the year would result in a 5.5% rise in import prices in 2001. Our estimate thus implies a slight fall in prices during the year. Import prices are expected to be stable in 2002, before rising to a more normal level of around 1½% towards the end of the projection period.

Declining oil prices

The rise in oil prices through 1999 and 2000 had a direct impact on the consumer price index in 2000 through a sharp rise in prices for petrol and heating oil. Although these prices are now relatively stable, we can still see spillover effects of the oil price rise in the form of increased prices for transport services and imported inputs. Our calculations are based on the technical assumption that the oil price will fall gradually towards USD 20 two years ahead (see Chart 3.4). In isolation this will dampen price inflation over the next few years, but the contribution to the projection figures of such a moderate decline in the oil price will be negligible.

OPEC has previously stated that the oil price should lie within a target range of USD 22-28, measured as an average of various grades of oil. For North Sea oil (Brent Blend), this corresponds to an interval of about USD 23-29. Chart 3.5 illustrates the market's assessment of oil price uncertainty in the period ahead, on the basis of the pricing of options in the oil market. The vertical lines in the chart indicate that at end-May the market priced in a probability of over 40% that the oil price will be less than USD 23 per barrel 12 months ahead, and a probability of slightly more than 20% that it will be higher than USD 29 per barrel. Our oil price assumption lies in the lower part of the interval.

Chart 3.6 Hourly wage costs, mainland Norway. Rise on same quarter previous year. Per cent



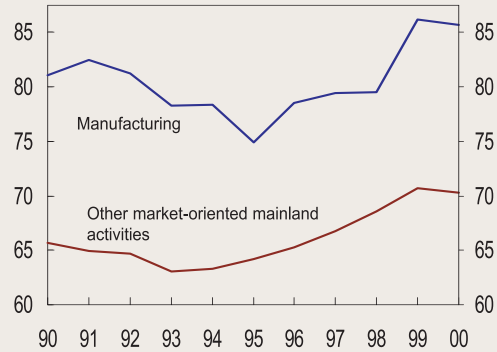
Source: Statistics Norway

Chart 3.7 Growth in real wages[1] and registered unemployment rate. Per cent

[1] Rise in hourly wage costs in mainland Norway deflated by the consumer price index.

Sources: Statistics Norway and the Directorate of Labour

Chart 3.8 Labour shares by industry. Labour costs as a percentage of factor income



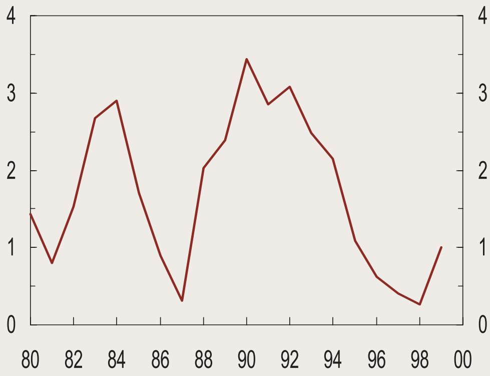
Sources: Statistics Norway and the Technical Reporting Committee on Income Settlements

3.3 Domestic developments

Continued high cost inflation

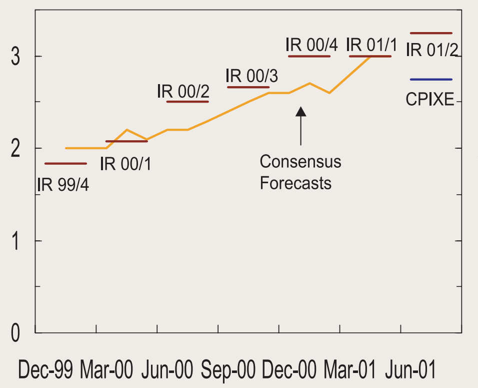
The increase in underlying consumer price inflation in recent years reflects rising cost inflation (see Chart 3.6). The increase in labour costs this year is projected at 5½%. This is an upward revision of ½ percentage point compared with the March *Inflation Report*, primarily reflecting higher wage drift towards the end of 2000 than projected in the March *Inflation Report*. Labour cost growth is projected at 5% and 4¾% in 2002 and 2003 respectively. These figures have also been revised upwards somewhat since the March *Inflation Report*. In the past, our labour cost estimates have been based on the assumption that price inflation would be reduced to the level aimed at by the European Central Bank, i.e. under 2%. The projections are based on the social partners using consumer price inflation of 2½% as a reference for wage negotiations, in line with the new inflation target. In isolation, this contributes to an increase in wage growth of ¼-½ percentage point over the next two years. The estimates for real wage growth have been also been revised upwards somewhat based on expectations of a somewhat tighter labour market than anticipated in the March *Inflation Report*. The Government has announced a new guideline for fiscal policy in the Long-Term Programme. The

Chart 3.9 Productivity growth in the mainland business sector. Per cent. 3-year moving average, centred



Sources: Statistics Norway and Norges Bank

Chart 3.10 CPI projections for 2001 made at different times. Per cent



Sources: Consensus Forecasts and Norges Bank

Table 3.4 Various institutions' projections for consumer price inflation in Norway in 2001 and 2002[1)]. Percentage change from previous year

	2001	2002	2004
Norges Bank	3¼	2	
Ministry of Finance	3	-	
Statistics Norway	3.3	1.8	
OECD[2)]	3.0	1.9	
IMF	2.8	2.5	
Consensus Forecasts[3)]			
Highest estimate	3.4	2.5	
Average	3.0	2.1	2.5
Lowest estimate	2.6	1.4	

1) Latest official projections from the various institutions
2) Private consumption deflator
3) May 2001

Source: Norges Bank

guideline, which implies a phasing in of petroleum revenues approximately in pace with the expected real return on the Petroleum Fund, will lead over time to higher government expenditure or revenue growth than previously assumed. In isolation, this may contribute to a tighter labour market over the next few years.

The situation in the labour market will largely determine the negotiating strength of the social partners. Chart 3.7 shows real growth in hourly labour costs in mainland Norway and registered unemployment as a share of the labour force over the past 15 years. During the past five years, hourly labour costs in mainland Norway have risen by 5½% annually. Adjusted for price inflation, real growth has been a little over 3%, which is substantially higher than in the previous five years. The relatively sharp growth in labour costs reflects in part growing labour shortages. Unemployment is expected to remain virtually unchanged at the current level.

On the other hand, high cost inflation over several years has contributed to weakening the profitability of enterprises that compete in the international market, and to a limited extent can pass on cost increases to prices. Wage projections are based on the assumption that wage growth in manufacturing is the reference for wage settlements in the wider economy, as has been the case in the past. The overall wage projections will therefore to some extent reflect that labour costs in manufacturing are already at a historically high level measured as a share of the industry's income (see Chart 3.8). This is attributable to high cost inflation and low productivity growth in recent years. In the light of the traditional pattern of wage negotiations, wage growth may be expected to slow somewhat over the next two years.

Productivity growth may be underestimated

The rise in overall labour costs will not only depend on wage inflation. The more hourly productivity increases, i.e. the more value added per hour, the higher the wage growth the enterprise sector will be able to sustain without this affecting profitability. Preliminary national accounts figures indicate that productivity growth in the business sector was very low in the latter half of the 1990s, and lower than the historic average (see Chart 3.9). Historical figures for productivity growth are highly uncertain, however. The combination of a sustained high rate of increase in labour costs and low price inflation in recent years may indicate that the preliminary national accounts figures underestimate actual productivity growth. In that case, ownership interests in enterprises are undervalued. Norges Bank's projections are based on a productivity increase in line with the average for the past 20 years.

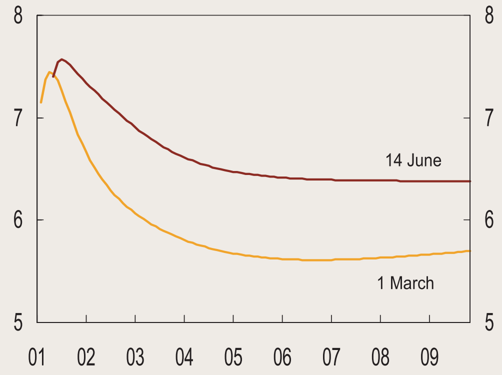
3.4 Inflation expectations

Inflation expectations influence price and wage developments. Inflation expectations cannot be observed directly. However, surveys and long-term interest rates may provide information about market expectations.

The long-term forecasts for the Norwegian economy presented in Consensus Forecasts in April indicate that market observers' inflation expectations for 2004 have risen to 2.5% from 2.1% in October 2000. This indicates that market observers have revised their long-term inflation expectations upwards, in line with the new inflation target. The May survey from Consensus Forecasts shows that a sample of market observers expect the consumer price index to increase by 3.0% this year and 2.1% in 2002 (see Table 3.4), i.e. 0.2 percentage point and 0.1 percentage point higher than the March forecasts. Estimates for consumer price inflation in 2002 vary widely. As a result, there is some uncertainty as to whether the institutions' forecasts for consumer price inflation include or exclude changes in excise duties.

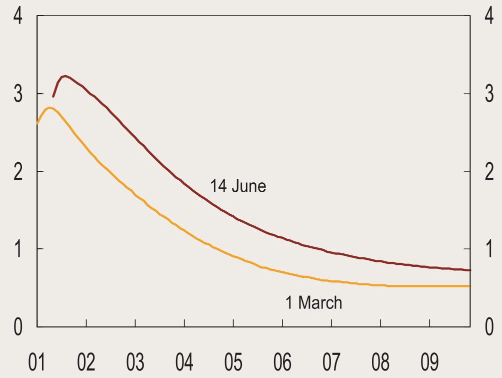
Norwegian 10-year forward rates, which can be interpreted as expected long-term money market rates plus any maturity premiums, have risen by about 0.7 percentage point since the previous *Inflation Report*. If we can assume that the assessment of risk associated with investments in Norway has not changed at the same time, this may be consistent with somewhat higher inflation expectations. On the other hand, long forward rates have also increased internationally. The long-term forward rate differential against Germany, for example, has only increased by about 0.2 percentage point since the March *Inflation Report*. The forward rate differential is now almost ¾ percentage point. This differential may reflect higher inflation expectations in Norway than in Germany. In addition, liquidity and risk premiums may be somewhat higher in Norway.

Chart 3.11 Forward rates. Per cent



Source: Norges Bank

Chart 3.12 Forward rate differentials against Germany. Percentage points



Source: Norges Bank

3.5 Uncertainty surrounding the inflation projection

The inflation projections in this report indicate the trend perceived as being the most probable over the next two years, given technical assumptions for variables such as the interest rate, the exchange rate, public expenditure, wage formation and the oil price. The uncertainty associated with the inflation projections is partly due to the uncertainty concerning key assumptions, both technical assumptions and exogenous variables. Moreover, there is uncertainty with regard to how well our economic models and our use of them capture actual relationships and changes in the economy.

Developments in recent months confirm weaker growth in the global economy, and economic growth forecasts have been revised downwards. There is still a risk that the international turnaround may be sharper and more prolonged than anticipated, and the uncertainty is linked to developments not only in the US, but also in Europe and Asia. If the downturn in the US is more pronounced than envisaged at present, and at the same time triggers a sharp fall in international equity markets, world economic growth may be substantially slower than forecast. Although consumer price inflation has been rising so far, a more pronounced slowdown will probably lead rapidly to lower price inflation or a fall in prices for internationally traded goods, including commodities. If the krone exchange rate remains unchanged, a sharp cyclical downturn in the global economy could push down price inflation in Norway, both directly, through imported goods, and indirectly via the capacity to pay of the internationally exposed industries and household and business expectations.

As a technical assumption, the oil price is expected to fall gradually to towards USD 20 per barrel two years ahead. There is considerable uncertainty surrounding future oil prices. The assumption in this report is that the oil price will be slightly below the OPEC target range of USD 22-28 towards the end of the projection period. This may suggest higher-than-expected oil prices. On the other hand, slower growth in the world economy implies a risk of the oil price being lower than estimated. Expectations in the oil market indicate that the oil price will most probably be higher than in our baseline scenario.

Whereas the international picture on balance suggests lower than projected consumer price inflation in the period ahead, domestic developments suggest the opposite. In Norway, manufacturing sector competitiveness has traditionally been a consideration determining wage growth in other parts of the economy as well, such as services and the public sector. According to preliminary national accounts figures, the capacity to pay in some manufacturing segments is now weak as a result of high cost inflation and low productivity growth in recent years. However, accounts figures do not indicate any particularly poor profitability in the business sector generally. The financial capacity to bear a further rise in labour costs may therefore be perceived differently in different parts of the economy. In recent years there has been a tendency for conditions in the sheltered sector to exert greater influence on wage growth than previously. Our projections indicate intensified labour market pressures in the sheltered sector of the Norwegian economy. At the same time, we project a moderate decline in manufacturing employment. Such a trend may contribute to weakening manufacturing industry’s role as a wage leader.

There is also a risk that the labour market may be tighter than projected. In particular, any working time reductions or a continued increase in sickness absence and disability pensions could have an effect. Our projections are based on the assumption that the labour supply will not be further limited by additional reductions in working hours in the next two years.

However, there is also a risk that wage growth may be lower than our projections, particularly if the global economy approaches recession. This occurred most recently in the spring of 1999, when expectations of weak activity in the global economy, among other things, led to a decline in wage inflation. On balance, the probability of higher-than-projected wage growth is nevertheless estimated as greater than the risk of the opposite.

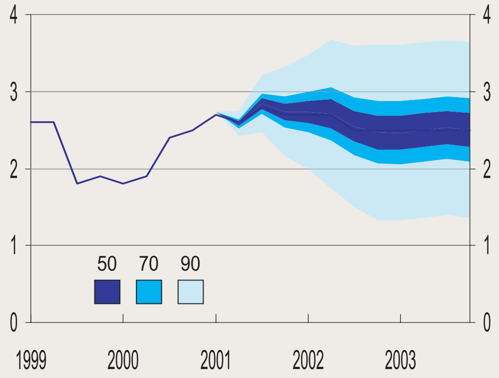
Other uncertainty factors are more balanced, such as developments in private domestic demand. One the one hand, there is a risk of higher consumption and a lower household saving ratio than projected in this report. Overall credit growth remains very high. On the other hand, surveys of households' confidence in their personal finances and Norway's economy show that they now have a wait-and-see attitude to economic developments. Moreover, weaker profit trends and a potential international recession might push the saving ratio up and investment down, in both oil-related activity and mainland Norway.

The risks associated with public demand also appear to be balanced. The Government's long-term strategy for the use of petroleum revenues is based on phasing in petroleum revenues approximately in pace with the expected real return on the Petroleum Fund. The guideline for fiscal policy implies an average annual increase in the use of petroleum revenues over the central government budget of about 0.4% of mainland GDP. This guideline is the starting point for our fiscal policy assumption. The effect of this fiscal policy guideline on the Norwegian economy may be either stronger or weaker than this.

There is also uncertainty associated with the future exchange rate. The import-weighted nominal krone exchange rate is now about 2 percentage points stronger than it was when the March *Inflation Report* was presented. As a technical assumption, the average exchange rate over the past three months is expected to remain unchanged during the projection period. Options prices in the foreign exchange market indicate that the exchange rate is as likely to be weaker as it is to be stronger.

On balance, the risk of higher cost inflation and a higher oil price is considered to offset the risk of weaker external inflationary impulses. On the whole, the risks surrounding the inflation projection are considered to be balanced (see Chart 3.13, and further details in a separate box).

Chart 3.13 Uncertainty associated with inflation projections. Various probabilities for developments in CPI inflation excluding the direct effects of changes in excise duties and energy prices (CPIXE)



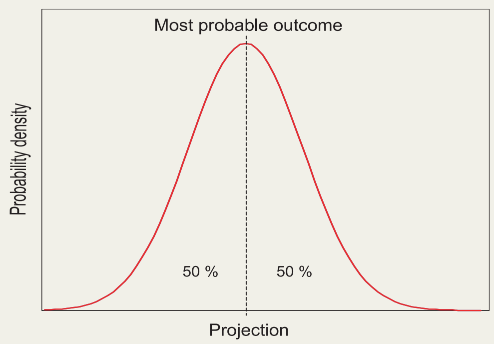
Sources: Statistics Norway and Norges Bank

Assessment of risks to the inflation projection

In this report inflation is projected at 2½% in 2003. Since the December 2000 *Inflation Report*, Norges Bank has illustrated the uncertainty surrounding the projection based on the experience of the Bank's forecast errors from previous years. Normally, the uncertainty in the projection is about +/- 1 percentage point[1]. Sweden's Riksbank and the Bank of England have developed a methodology for assessing the distribution of risks to the inflation projection[2]. A systematic assessment of the uncertainty surrounding the key factors that explain consumer price inflation provides a basis for an overall assessment of the risks to the forecast.

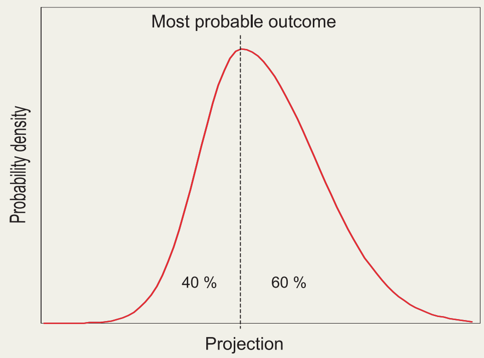
As regards the risks to the inflation outlook, in this report global growth prospects, oil prices and the exchange rate are cited as important factors that determine imported price inflation. Domestic price impulses are largely influenced by fiscal policy, domestic demand and wage formation. All in all, these factors provide a basis for assessing the risks to the inflation forecast two years ahead.

Chart 1 Symmetrical distribution of risk around the projection



The uncertainty in each of the key explanatory factors (see further details in Section 3.5) can be illustrated by a probability distribution where the mode of the distribution is normally the Bank's central projection, or the outturn that is perceived as being the most likely[3]. Chart 1 illustrates such a probability distribution where the risks are perceived as being symmetrical around the central projection. This implies that there is no reason to believe that the uncertainty is more likely to be in one direction than the other. In other situations the risk picture around the projection may be skewed. Chart 2 illustrates such a skewed probability distribution. The risk that the outcome will be higher than projected is here greater than the risk of a lower-than-projected outturn[4].

Chart 2 Asymmetrical distribution of risk around the projection. In this case, the probability of a lower-than-estimated outcome is 40% and the probability of a higher-than estimated outcome is 60%



We assume that the skew[5] of inflation projection (γ_π) can be expressed as a weighted sum of the skews of each of the explanatory factors (γ_i)[6]:

$$\gamma_\pi = \Sigma \beta_i \gamma_i$$

[1] Since 1996 the Inflation Report has presented projections for consumer price inflation eight quarter ahead. The standard deviation of Norges Bank's forecast errors for price inflation, excluding changes in excise duties and energy prices, has been about 0.7 percentage point for forecasts eight quarters ahead. With a greater number of observations, it will also be possible to quanitfy this uncertainty on a firmer basis.

[2] See Blix and Sellin (1998), Britton, Fisher and Whitley (1998)

[3] This is not the case for oil prices where our technical assumption deviates from the forward price in the oil market.

[4] In the literature on aggregating uncertainty, the normal distribution is used when the uncertainty is perceived as being symmetrical. The variance of the distribution is estimated using historical forecast errors. For skewed distributions, such as the one illustrated in Chart 2, a two-piece normal distribution is used where the distribution to the left of the mode is a normal distribution with variance σ_a^2 and the distribution to the right of the peak is a normal distribution with variance σ_b^2. Each distribution is scaled so that the overall distribution is continuously at the mode and the sum of the area is 1. In those cases where $\sigma_a^2 \neq \sigma_b^2$ the distribution will be skewed around the mode.

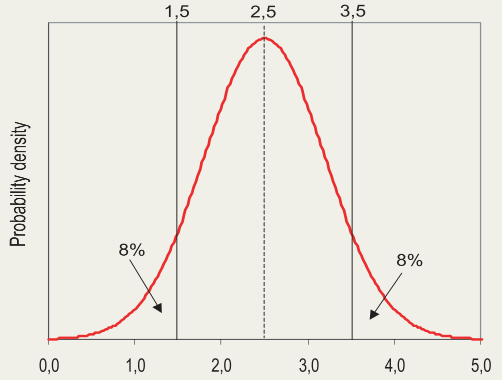
[5] The skew (γ) is one of several statistical measures that describes a probability distribution. If the distribution is symmetrical, $\gamma = 0$. If $\gamma < 0$, it is more probable that the outcome will be higher than the mode. If $\gamma > 0$, the largest share of the probability mass will lie to the right of the mode.

[6] The method assumes that the overall bias in the inflation projection (γ_π) can be estimated as a weighted sum of all the biases in the key explanatory factors: $\gamma_\pi = \beta_1\gamma_1 + \beta_2\gamma_2 + \ldots + \beta_N \gamma_N$. The weights β_i are based on the elasticity of each explanatory factor with regard to inflation 1-2 year ahead.

The weights β_i indicate the significance of each explanatory factor for the inflation projection 1-2 years ahead. The skew γ_i for each factor is partly set on the basis of market observations and partly on our own assessment of the risk outlook. As a starting point, we assume that the risks to the inflation projection can be assessed using six main components:

- For the *oil price*, we have used the uncertainty that can be derived from the prices in the options market for delivery one year ahead.
- *International prospects* are assessed here with particular emphasis on the inflationary impulses to the Norwegian economy. The uncertainty is assessed based on an average analysis of developments this year and next.
- For the *exchange rate*, we have used the uncertainty that can be derived from the prices in the options market 1 month ahead. It is assumed that this uncertainty also provides an indication of the uncertainty somewhat further ahead.
- The uncertainty surrounding *public demand* primarily relates to the fiscal policy programme for the next year, but also any shifts in the fiscal stance this year.
- For *private demand*, uncertainty is linked to household and business saving and investment behaviour.
- The uncertainty surrounding *wage formation* is linked to the outcome of the wage settlement next year, which will probably affect wage growth in both 2002 and 2003. The uncertainty represents the isolated uncertainty in the settlement. The risk of a different wage growth as a result of changes in public or private demand is covered by the other points.

Chart 3 Evaluation of risk around the inflation projection for 2003



The method implies that the skews of the key explanatory variables can either offset each other or reinforce each other. Downside risks to global growth prospects will in isolation generate downside risks to the inflation projection. The risk of stronger wage growth has the opposite effect. On balance, the risks to the inflation projection in this report are considered to be neutral (see Chart 3).

References:

Blix, M. and Sellin, P. (1998): "Uncertainty Bands for Inflation Forecasts", Sweden's Riksbank Working Paper, No. 65.

Britton, E., Fisher, P. and Whitley, J. (1998): "The Inflation Report Projections: Understanding the Fan Chart", Bank of England Quarterly Bulletin, February 1998.

4 Economic developments

4.1 Main features

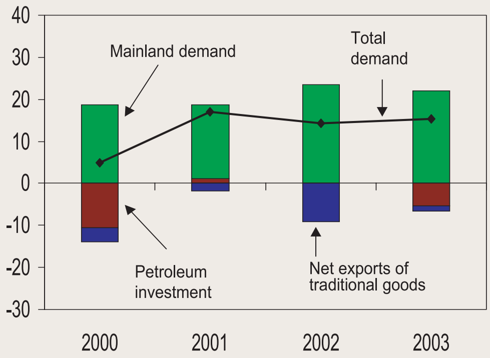
Table 4.1 Key aggregates for Norway 2001-2003. Percentage change from previous year

	2001	2002	2003
Mainland demand	1¾	2¼	2¼
Private consumption	1¾	2½	2¾
Public consumption	3	2¼	2½
Fixed investment	½	1¾	0
Traditional exports	4	3¼	3½
Traditional imports	3	4½	2¼
GDP	2¼	2¼	1½
Mainland GDP	1½	1¾	1¾
Employment	¾	¾	½
LFS unemployment[1]	3¼	3¼	3¼

[1] Percentage of labour force

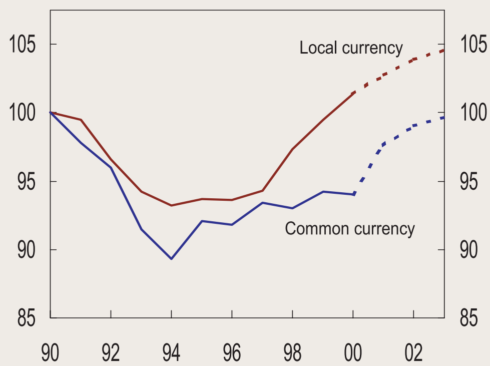
Source: Norges Bank

Chart 4.1 Contributions to overall demand. Changes in billions of NOK from previous year. Constant 1997 prices



Sources: Statistics Norway and Norges Bank

Chart 4.2 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

Following strong growth in mainland GDP from mid-1999 to mid-2000, growth slowed in the second half of last year partly as a result of interest rate increases last year and a decline in petroleum investment. Developments so far this year indicate a moderate upswing in the mainland economy. Mainland GDP growth is estimated at 1½% this year and 1¾% in 2002 and 2003. Public sector demand and private consumption are the main sources of impetus to future growth.

Developments in the global economy over the last months indicate weaker growth than expected. So far, slower demand growth abroad has had little impact on export-oriented activity in Norway. This must be seen in the light of sustained high prices and demand for important commodities such as aluminium. Capacity constraints are still the main factor limiting production in export-oriented industries.

Cost inflation in Norway has been considerably higher than among our trading partners for several years. Many companies have moved parts of their production abroad in order to maintain profitability. Continued high cost inflation may intensify this trend. The situation in oil-related industries has improved however. It appears that petroleum investment may increase somewhat this year after a sharp decline the last two years. This must be viewed in the light of the persistently high oil prices. In the somewhat longer term, petroleum investment is expected to fall again.

In the Long-Term Programme for 2002-2005, the Government proposes to phase petroleum revenues into the Norwegian economy by using the expected annual real return on the Government Petroleum Fund. Depending on the distribution between the increase in public expenditure and the reduction in direct and indirect taxes, such a change in fiscal policy will over time contribute to higher public sector demand and household income than previously estimated. Increased employment in public and private services is expected to more than offset a moderate decline in manufacturing employment. On the whole, employment is estimated to increase by ¾% this year and next and by ½% in 2003, which is in line with demographic trends. Labour force participation is high. Therefore, the potential for growth in the labour force over and above this is probably limited.

4.2 The international environment

Growth in the world economy slows more than expected

The slowdown in the world economy is more pronounced than projected in the March Inflation Report. The period of sluggish growth in the US is now expected to be somewhat longer than expected. Weak growth in the US has had a stronger impact on growth in Europe and Asia than previously expected. GDP growth forecasts for trading partners have been revised downwards by ½ percentage point to 2¼% for 2001.

Growth in world trade has been weak in the first quarter. Imports fell sharply in the US, while growth in imports and exports has dropped off markedly in most countries. International equity prices have increased considerably, however, the last few months and commodity prices, excluding oil, have begun to rise (see Chart 4.3). This may indicate a somewhat brighter outlook among market participants than earlier. At the same time, long-term interest rates have increased, but key rates have been reduced in many countries. A wider gap between long-term and short-term interest rates often indicates expectations of higher growth. On the other hand, the US economy is still marked by considerable imbalances and developments in many European countries and Japan are shrouded with uncertainty. The possible effects of a sharper slowdown in the global economy are discussed in a separate box.

Preliminary annualised GDP growth was 1.3% in the US in the first quarter, primarily fuelled by private consumption. Business investment rose following a modest decline in the previous quarter. Employment has remained high in the first quarter, but productivity growth was weak. Industrial output has declined in the last few months, and consumer and business confidence is low (see Chart 4.4). So far this year, the Federal Reserve has cut the federal funds target rate five times by a total of 2.5 percentage points. Congress has also agreed to a program of tax cuts amounting to USD 1350bn over the next 10 years. USD 100bn of this is earmarked for tax cuts this year and next. On the whole, this represents a tax cut equivalent to around 1% of GDP. Tax cuts in 2001 will be retroactive to the beginning of the year.

GDP growth is projected to be faintly positive the next two quarters and then level off somewhat as production capacity rises in 2002. The forecast is based on the assumption that low interest rates and tax cuts will gradually generate a moderate increase in private consumption growth. Business investment is also expected to be stable this year and pick up moderately next year.

Developments in Germany are substantially weaker than expected. The export sector is affected by weak international developments. Industrial output, new orders

Table 4.2 GDP estimates. Percentage change from previous year

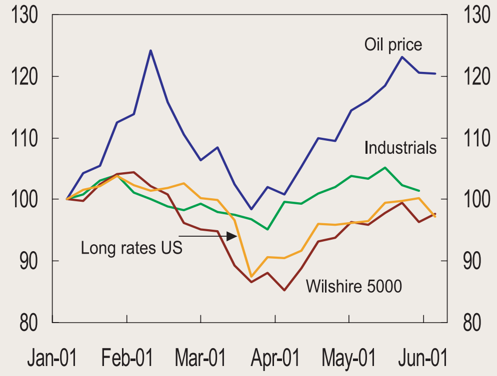
	2000	2001	2002	2003
US	5.0	1½	2½	3¼
Japan	1.5	¼	1¼	2
Germany	3.0	2	2½	2½
France	3.2	2½	2½	2¾
Italy	2.9	2¼	2¾	2¾
UK	3.0	2¼	2½	2¾
Sweden	3.6	2¼	2¾	2¾
Norway's trading partners[1]	3.6	2¼	2¾	2¾
Euro area[2]	3.4	2½	2¾	2¾

[1] Weighted by export weights

[2] Weighted by the IMF's GDP weights adjusted for purchasing power

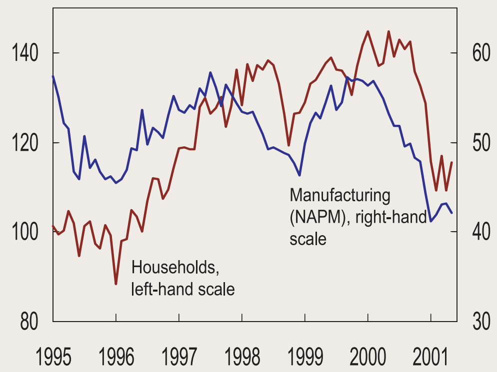
Source: Norges Bank

Chart 4.3 Equity prices and long-term interest rates in the US, commodity prices in industrials and the oil price. Index, Week 1 in 2001 = 100



Sources: Norges Bank and EcoWin

Chart 4.4 Confidence indicators in the US. Index values. Monthly figures



Source: Datastream

Effects of a sharper slowdown in the global economy

GDP growth forecasts for Norway's trading partners in 2001 have been revised downwards several times. In the past six months, growth forecasts have been revised downwards for the US in particular, but the outlook for Europe and Asia is also weaker. This box takes a closer look at developments in the US economy, which have been an important cause of the global economic slowdown. The downturn in the US economy is still expected to be relatively short, and growth is expected to pick up in the course of 2002.

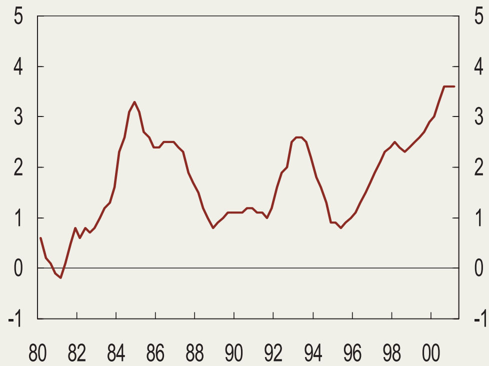


Chart 1 Work productivity in US firms. Rise on same quarter previous year. Moving average. Per cent

Source: EcoWin

Chart 1 shows productivity growth in the US since 1980. Productivity growth was high in the second half of the 1990s, averaging about an annualised 3%. This is considerably higher than the average since 1970, but not substantially higher than during the upturn in the 1980s. Growth has slowed since the second half of 2000, and in the first quarter of 2001 productivity declined by 0.3% against the previous quarter. However, it is not clear whether high productivity growth has been a temporary phenomenon, or whether new technology has contributed to persistently higher growth.[1]

Expectations of higher productivity growth, partly as a result of new technology, have contributed to pushing up equity prices. The marked rise in equity values has generated capital gains for households, leading to a sharp rise in private consumption and a drop in the saving ratio (see Chart 2). Approximately half the decline in the saving ratio in the US can be explained by the rise in equity values.[2] Although households have increased borrowing in recent years, gross debt – measured as a share of net assets – fell from about 60% at the beginning of the 1990s to about 40% in 2003.[3] Strong growth in productivity and profitability in the business sector has also led to a sharp rise in investment. Extensive borrowing in the US business sector has been financed by means of capital flows from foreign sources, and the dollar has appreciated. A high level of growth has also led to substantial budget surpluses.

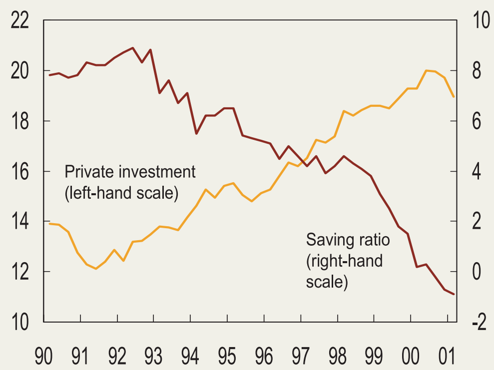


Chart 2 Household saving in the US. Percentage of disposable income. Private investment in the US as a percentage of GDP. Quarterly figures

Source: EcoWin

If productivity growth should prove to be lower than in the past few years, saving and investment behaviour may change. With a lower expected return on capital, fewer investments would be profitable. The downturn in the US might then be sharper and more prolonged than we expect at present. The possible effects of such a downturn are illustrated below by means of a stylised shift estimation where we have attempted to take into account the contagion effects on the rest of the world

[1] See for example R. Gordon: "Does the "new economy" measure up to the great inventions of the past?", Journal of Economic Perspectives, Vol. 14, no. 4, Fall 2000, pp. 49-74, and S.D. Oliner and D.E. Sichel: "The Resurgence of Growth in the Late 1990s: Is Information Technology the Story?", Journal of Economic Perspectives, Vol. 14, no. 4, Fall 2000, pp. 3-22.

[2] See Lusardi, A., J. Skinner and S. Venti (2001): "Saving puzzles and saving policies in the United States", Working Paper 8237, NBER.

[3] See OECD (2001). Economic Outlook, nr 69.

economy. The calculations are intended to illustrate the uncertainty surrounding our projections. We consider a shift in which equity rates fall by 20% in the US, triggered, for example, by weak earnings in the business sector. We assume that the fall in equity prices in the US leads to a 10% drop in European equity prices.[4] The NIGEM model is used in the simulation.[5]

Table 1. The effects of equity price falls of 20% in the US and 10% in Europe from the third quarter of 2001

US	2001	2002	2003
GDP-growth[1)]	-0.7	-0.1	0
Growth in private consumption[1)]	-1.5	-1.0	-0.5
Saving ratio[2)]	0.8	1.5	2.0
Growth in private investments	-3.0	-1.2	-0.6

1) Deviation from baseline scenario in percentage points
2) As a percentage of disposable income. Level

Sources: National Institute of Economic and Social Research og Norges Bank

Table 1 shows that in such a scenario, GDP growth in the US may be about ¾ percentage point lower in 2001 than we are now expecting. Growth in private consumption will be even more strongly affected by negative wealth effects. The household saving ratio may increase from about 0% at end-2000 to about 2% in 2003. The decline in equity prices also leads to substantially slower growth in private investment. In the simulation, the effective dollar exchange rate is assumed to drop by 6% immediately, curbing the contractionary effects of the equity price fall in the US, particularly at the end of the projection period. A development of this nature in the US could reduce the pressures in the Norwegian economy and price inflation through several channels:

- Lower demand among trading partners may contribute to reduced Norwegian exports.
- Lower global demand may dampen the rise in international consumer and producer prices, for example through a slower rise in prices for international commodities, thereby leading to weaker imported price impulses to Norway.
- For Norway, the oil price has a special role. Lower global demand could lead to a fall in oil prices, initially to the lower end of OPEC's target range. With a sharp downturn, the oil price could fall markedly, giving rise to expectations of a weaker trend in the Norwegian economy.
- The prices Norwegian export firms can achieve abroad may fall, and earnings be reduced.
- Lower overall capacity utilisation abroad than in Norway may lead to a widening spread between Norwegian and foreign interest rates and an appreciation of the Norwegian krone.
- A loss of confidence in global financial markets could also lead to a change in expectations regarding developments in asset values in Norway. This effect may be sharp and sudden.

The risk of a more pronounced downturn in the US than expected must be weighed against the risk factors that might have the opposite effect on prices in Norway. See the discussion of "Risks to the inflation projection" in Section 3.5.

4 See the box: "What are the effects on Europe of a cyclical downturn in the US?" in Inflation Report 1/2001, pp. 16-17

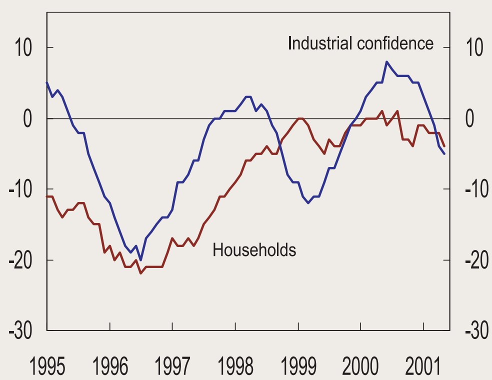
5 NIGEM is a model for the entire global economy, with special emphasis on industrial economies. See NIESR (2000): National Institute Economic Review, No. 175, January 2001, pp. 36-38, for a more in-depth discussion of a similar model simulation

and business confidence indicators have declined this year and the reduction in unemployment has stalled. The sharp rise in consumer prices has contributed to reducing household disposable income, but wage growth has picked up somewhat this year. On the whole, private demand is expected to remain fairly high. Exports are expected to increase gradually due to strong competitiveness.

Growth in the French economy also appears to be slowing somewhat. Consumer and business confidence declined sharply in May and the reduction in unemployment has come to a halt. Growth remains strong in several of the small euro area countries. Growth forecasts for 2001 have been revised downwards by ¼ percentage point for the euro area.

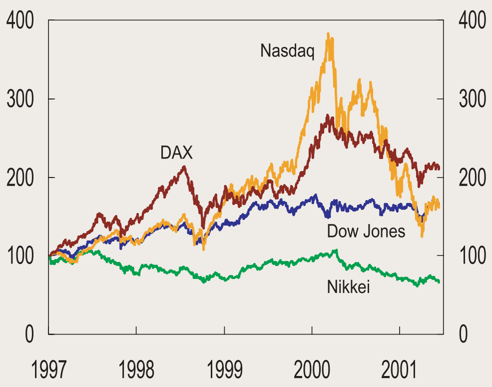
Developments in Sweden have been considerably

Chart 4.5 Confidence indicators in the euro area. Monthly figures.



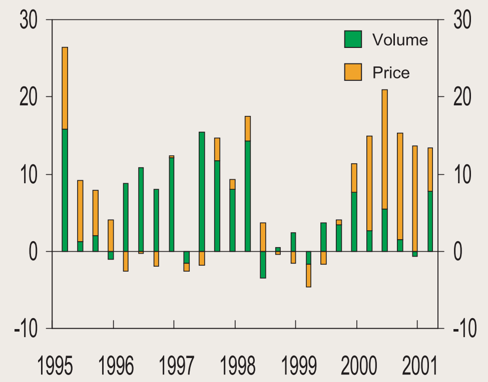
Source: EU Commission

Chart 4.6 Equity prices. Index: January 1997=100



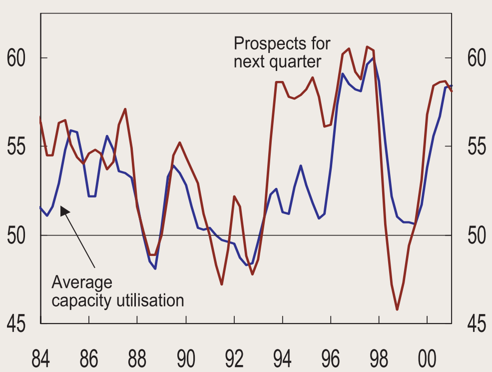
Source: EcoWin

Chart 4.7 Export of traditional goods. Volume and price. Percentage rise on same quarter previous year



Source: Quarterly National Accounts, Statistics Norway

Chart 4.8 Expected developments in capacity utilisation in manufacturing and industrial leaders' expectations for next quarter. Business tendency survey. Diffusion indices[1]. Smoothed



[1] An index of over 50 implies that in general industrial leaders expect higher capacity utilisation, or an improved outlook in the next quarter.

Source: Statistics Norway

weaker than previously expected and the Swedish krona has depreciated substantially. Weak developments in the US and in the information and communications technology sector (ICT) have contributed to a pronounced decline in equity prices and consumer and business confidence indicators. This is expected to contribute to slower growth in private consumption and business investment, especially this year. Foot-and-mouth disease has contributed to curbing growth in the UK. The mixed economic picture has also been exacerbated by the slowdown in the world economy and the strong pound sterling. Growth is expected to pick up somewhat as a result of higher public demand. In addition, household income growth is strong and house prices are still on the rise.

The gentle upswing in the Japanese economy in the beginning of 2000 was interrupted by the slowdown in the world economy. Exports have decreased since the second half of 2000 and consumer and business confidence indicators are weak, suggesting sluggish growth in domestic demand and GDP growth. GDP fell by 0.2% in the first quarter compared with the preceding quarter. Prices continue to decline despite the depreciation of the yen. Substantial underlying problems in the financial sector contribute to reducing the prospects for growth.

Weak developments in Japan and the US affect exports in the other Asian countries. In addition, there are imbalances in the financial sector in countries like Korea and Taiwan. More positive developments in the world economy are expected to contribute gradually to an export-led upswing. Uncertainty is considerable, however, and is reinforced by political unrest in a number of countries.

4.3 The balance of payments

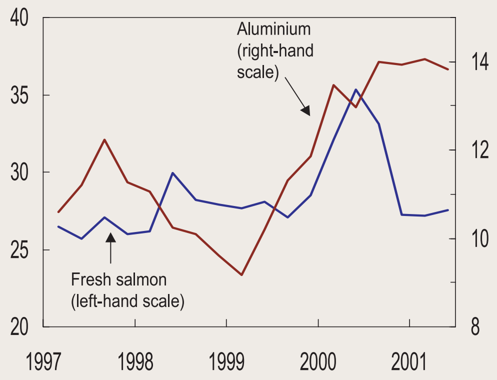
Stronger-than-expected growth in exports

Despite slower growth in the world economy, traditional merchandise exports rose by 7.7% from the first quarter of 2000 to the first quarter of 2001. Fish and metals exports have shown particularly strong growth. This must be viewed against the background of high aluminium prices and increased demand for fish as a result of the diseases afflicting the livestock industry in Europe.

Capacity utilisation is high in traditional export-oriented industries (see Chart 4.8). According to Statistics Norway's business tendency survey, capacity constraints are the main factor limiting production in this sector. Therefore, the potential for export growth is considered to be limited in the immediate future. At the same time, slower demand growth abroad is projected to have little impact on growth in traditional exports, unless it triggers a substantial fall in prices for Norwegian export goods. Growth in traditional merchandise exports is expected to be relatively slow the next few years.

Prices for traditional merchandise exports have been stable so far this year following a sharp rise last year. Because of the power supply crisis on the West Coast of the US, many US aluminium manufacturers have found it to be more profitable to sell power than to manufacture aluminium. This situation has contributed to keeping aluminium prices high (see Chart 4.9). The moderate rise in prices for commodities and lower oil prices will contribute to curbing price inflation on traditional merchandise exports ahead.

Chart 4.9 Prices for fresh salmon (NOK per kilo) and aluminium (1000s of NOK per tonne)

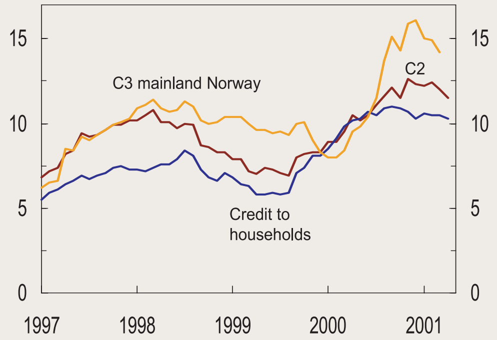


Source: Statistics Norway

Large current account surpluses

In 2000, the surplus on the current account was NOK 204bn or 14% of GDP. The record high surplus is related to high oil prices and the strong US exchange rate. A projected decline in oil prices will contribute to reducing the current account surplus somewhat. Continued growth in petroleum production will have the opposite effect. A surplus of NOK 205bn is expected this year. The surplus is expected to decline somewhat the next few years but may nevertheless be close to 10% of GDP.

Chart 4.10 The credit indicator (C2), credit to households and total credit to the non-financial private sector and municipalities, mainland Norway (C3 mainland Norway). 12-month rise. Per cent



Source: Norges Bank

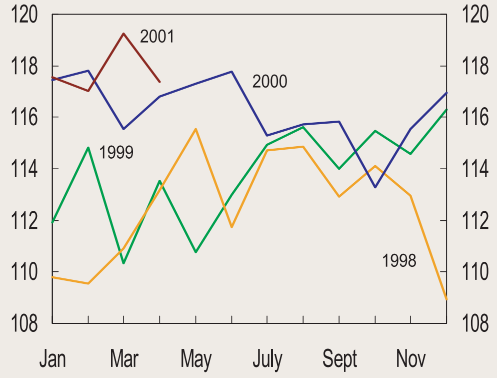
4.4 Domestic demand

Credit growth remains high

Year-on-year growth in credit from domestic sources (C2) rose steadily last year to 12.3% in December (see Chart 4.10). Credit growth slowed to 11.5% in April 2001. Lower credit growth for the enterprise sector contributed to the decline. Total credit to mainland Norway from domestic and foreign sources (C3 mainland Norway) increased sharply last year. Year-on-year growth was 16.1% in December but declined to 14.2% in March 2001. Credit growth remains solid.

Despite moderate growth in consumption the last six months, the increase in household borrowing remains strong. Year-on-year growth in domestic credit to the household sector has hovered above 10% the last year. The strong growth in borrowing reflects a sharp increase in house prices and higher turnover of resale homes. In addition, housing investment rose sharply last year following two years of decline.

Chart 4.11 Retail sales index. 1995 = 100. Seasonally adjusted volume.

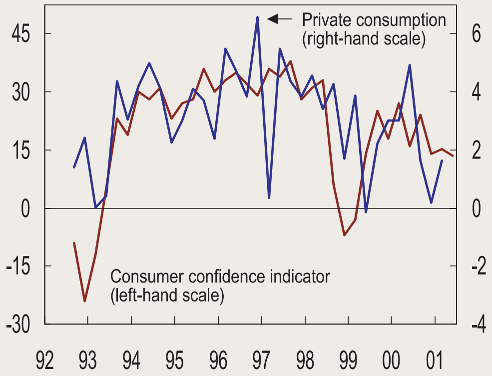


Source: Statistics Norway

Moderate growth in consumption

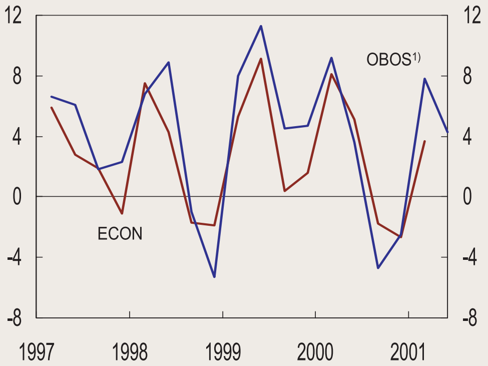
After weak consumption growth last autumn, retail sales have shown a moderate improvement in the first quarter this year. Growth in retail sales has been stronger than implied by developments in retail trade and car sales. This may be seen in the light of the cold winter that entailed high electricity consumption in January and February. The consumer confidence indicator has been stable in the last three quarters (see Chart 4.12), which may indicate a wait-

Chart 4.12 Consumer confidence indicator and private consumption. 4-quarter growth. Per cent



Sources: Statistics Norway and Norsk Gallup Institutt AS

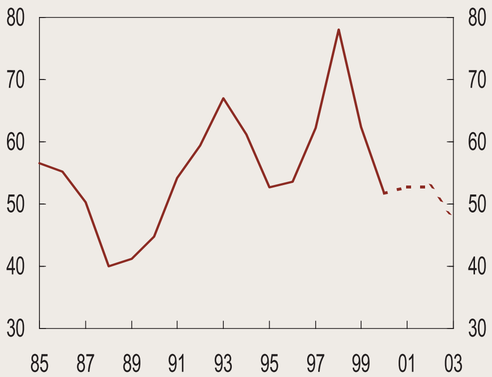
Chart 4.13 Resale home prices. Percentage change from previous quarter



1) The second quarter of 2001 comprises April and May

Sources: OBOS and ECON

Chart 4.14 Gross investment in petroleum activities. In billions of NOK. Constant 1997 prices



Sources: Statistics Norway and Norges Bank

and-see attitude towards the economic outlook.

In some countries, such as the US, there has been a clear connection between public and private saving in recent years. When public sector saving has increased, the household saving ratio has declined, counteracting the overall effect on demand. In Norway, household saving has risen somewhat despite record high public saving. Growth in household real disposable income is still strong, which provides room for some growth without a reduction in saving. Growth in consumption is projected at 1¾% this year. Moderate consumption growth must be seen in the light of the fact that a share of income growth this year and last was used in the form of extra vacation days. Next year's projections will be based on the assumption that income growth only reflects wage payments. This, combined with somewhat lower consumer price inflation, will in isolation contribute to increasing consumption the next few years. The new guideline for fiscal policy may also provide room for somewhat higher growth in transfers to households than previously assumed. The rise in private consumption is estimated at 2½% in 2002 and 2¾% in 2003. The saving ratio is projected to increase from 7.7% last year to more than 8% in 2003.

Building activity in the housing market increased sharply last year. Housing starts came to about 23 500 last year, i.e. 15% higher than the previous year. This contributed to a rise in housing investment of more than 12% from 1999 to 2000. A sharp increase in the number of housing starts in the first quarter indicates continued investment growth this year. Housing investment is projected to increase by 8% in 2001.

Activity in the housing market appears to be picking up again following a decline in house prices in the second half of 2000. According to ECON's statistics, house prices rose nationwide by 3.7% from the fourth quarter of 2000 to the first quarter of 2001 (see Chart 4.13). Price rises have been even sharper in the Oslo area. According to OBOS, house prices rose by 7.8% during this period. Overall house prices are projected to rise somewhat during the next few years, but the rate of increase is projected to be slower than in recent years.

Stable petroleum investment

Petroleum investment expanded during most of the 1990s, reaching a temporary peak in 1998. Following a sharp decline in 1999 and 2000, a moderate upswing in petroleum investment is expected this year (see Chart 4.14). Growth in petroleum investment has thus been somewhat stronger than previously assumed. The sharp rise in oil prices last year has been partly responsible for high cash flows to oil companies. Experience shows that higher oil prices gradually lead to increased investment as a result of improved profitability in investment calculations and the substantial tax deductions provided under the petroleum tax system. However, long-term plans for North Sea development indicate a decline in petroleum investment from 2003.

Unchanged investment in mainland Norway

Statistics Norway's business tendency survey shows continued optimism in the manufacturing industry (see Chart 4.15). Statistics show solid growth in total orders on hand. Nevertheless, the picture is mixed. Prospects for oil-related industries have improved following the rise in oil prices the last two years. In addition, profitability in the processing industry has been positive due to high prices in the global market, for example aluminium prices. The picture may be somewhat different for export-oriented technology companies. As a result of high domestic cost inflation over several years and moderate international price inflation, many companies have moved parts of production to other countries. Cost reduction is clearly the most important reason for this shift, and it is mainly labour-intensive production that has been moved to other countries.

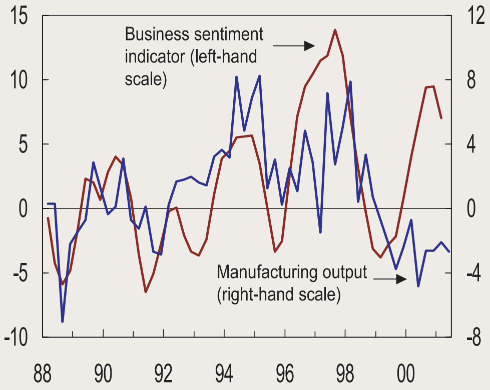
Domestic cost inflation is projected to remain high the next few years, which may amplify this trend. In isolation, this may lead to weaker investment growth at home. However, Statistics Norway's survey for the second quarter of 2001 shows plans of several large investment projects next year, especially in the metals industry. In the light of this, manufacturing investment is expected to pick up this year and next.

Strong investment growth at the end of the 1990s resulted in large capacity increases in the service sector and distributive trades. The need for further expansion is therefore considered to be limited. Investment is estimated to be virtually unchanged through the projection period (see Chart 4.16). Investment is expected to decline this year due to moderate growth in consumption. This development is underpinned by sluggish growth in commercial building starts from 1999 to 2000. In addition, investments may be delayed until next year due to the withdrawal of the investment tax in 2002. Combined with slightly stronger consumption growth next year, this is expected to contribute to somewhat higher growth in investment in 2002.

Increased use of petroleum revenues

As a guideline for fiscal policy, the projections in earlier *Inflation Reports* have been based on the assumption that the budget has a virtually neutral effect on the economy. In connection with the Government's Long-Term Programme for 2002-2005, a new guideline for fiscal policy was set out in Storting Report no. 29 (2000-2001). The Government's long-term strategy for the use of petroleum revenues is based on phasing in petroleum revenues approximately in pace with the expected real return on the Petroleum Fund. The Government continues to place considerable emphasis

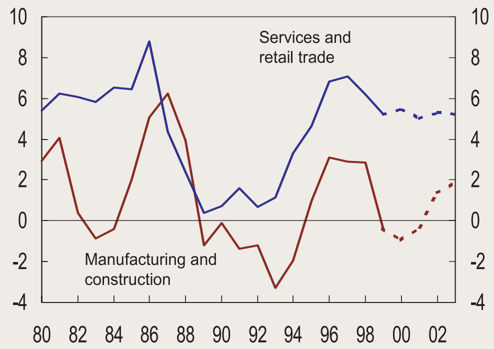
Chart 4.15 The business sentiment indicator for manufacturing[1)] (seasonally adjusted) and manufacturing output (12-month growth)



[1)]The indicator is derived by weighting questions in the business tendency survey concerning output in the next quarter, actual orders on hand in the same quarter and actual inventories of own products (inverted).
[2)] The second quarter comprises April

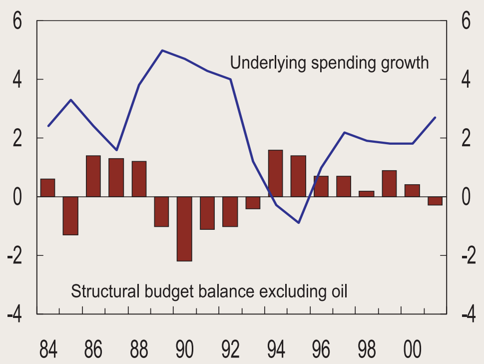
Sources: Statistics Norway and Norges Bank

Chart 4.16 Net fixed investment rate. Investments less capital consumption as a percentage of value added



Sources: Statistics Norway and Norges Bank

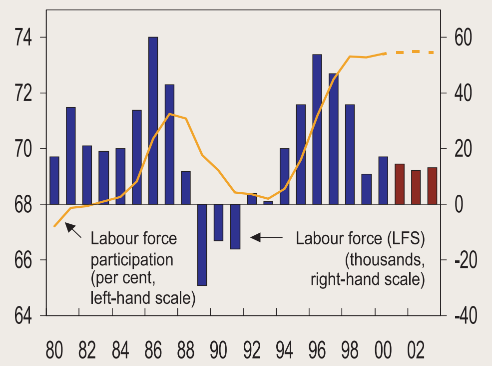
Chart 4.17 Change in structural budget balance excluding oil, and real underlying spending growth in the central government budget [1)]



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

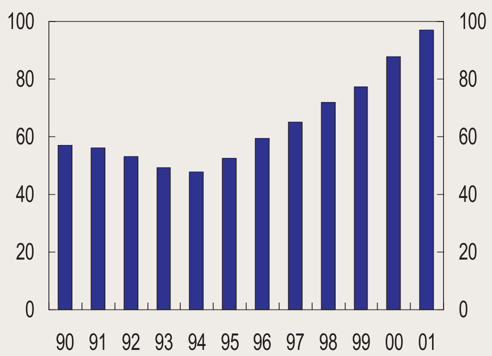
Source: Revised National Budget 2001, Ministry of Finance

Chart 4.18 Change in labour force from previous year, in thousands, and labour force as a percentage of population aged 16-74 (labour force participation rate)



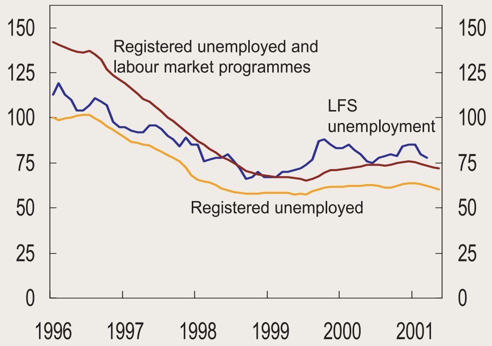
Sources: Statistics Norway and Norges Bank

Chart 4.19 Sick leave (period covered by social security) converted into person-years. In 1000s of person-years



Source: National Budget 2001, Ministry of Finance

Chart 4.20 Number unemployed (LFS), number of registered unemployed and persons participating in labour market programmes. In thousands. Seasonally adjusted



Sources: Statistics Norway and the Directorate of Labour

on stabilising fluctuations in the economy.

Based on the estimates in the Long-Term Programme, the long-term strategy for fiscal policy implies the use of petroleum revenues equivalent to approximately 5½% of mainland GDP, measured by the structural non-oil central government budget deficit in 2010. The guideline for fiscal policy implies an estimated increase in the use of petroleum revenues over the central government budget of about 0.4% of mainland GDP each year up to 2010. Our projections are based on this guideline. Projections are based on the technical assumption that the budget deficit is evenly distributed between public spending on goods and services and transfers or tax cuts to households. In isolation, this will contribute to a somewhat tighter labour market and somewhat higher household income compared with the projections in the March *Inflation Report*. Calculations using the RIMINI model show that after a few years, this fiscal policy guideline would in isolation increase annual consumer price inflation by around ½ percentage point compared with Norges Bank's previous assumptions.

In line with this, projections for 2002 are based on an increase in the structural budget deficit of NOK 4bn. The reduction of VAT on food from 1 July also implies a NOK 6bn loss in government revenues next year. As in the last *Inflation Report*, the real economic projections assume that this loss will be compensated for. As a technical assumption, this is assumed to be matched by a corresponding decline in household real income growth. However, we have not determined how this loss will be covered. If the loss is covered by an increase in excise duties, the rate of increase in the CPI may be higher next year than currently projected. The projection for CPIXE inflation (consumer prices excluding the direct effects of changes in excise duties and energy prices) is not affected however.

4.5 The labour market

The labour market remains tight

The labour supply is expected to be an important factor limiting potential growth in the Norwegian economy in the next few years. Following strong growth in the labour force through the 1990s, labour force participation is now record high. Over the last three years, the labour force participation rate has been stable at around 73% (see Chart 4.18). Statistics Norway's population projections indicate a demographic contribution to the labour force of about ¾ percentage point the next two years, assuming unchanged labour force participation. The potential for growth in the labour force beyond this is probably limited.

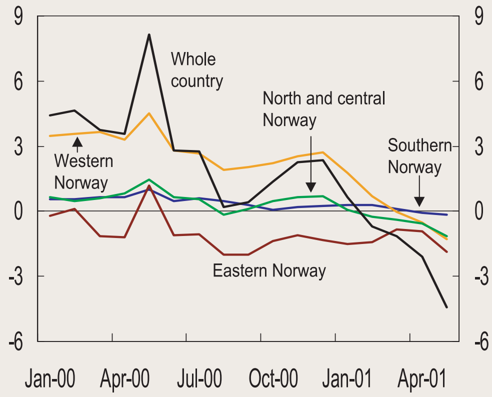
Measures, such as cash grants for families with small children and contractual early retirement schemes, combined with strong growth in the labour force, have provided an incentive to withdraw from the labour force in recent years. An increase in the number of disability pensioners has also contributed to reducing the labour force. Excluding demographic factors, projections are based on the assumption that there will be no future expansion of these benefit schemes.

Even if the labour force measured in terms of number of persons continues to increase, a number of factors may point to sluggish future growth in the effective labour supply measured in person-hours. The introduction of two additional vacation days in 2001 and 2002 contributes in isolation to reducing average working hours and thus the supply of person-hours.

In addition, there has been a trend decline in working hours in recent years. This is reflected in average employment growth, which has been roughly ½ percentage point stronger than growth in person-hours since 1995. A sharp increase in sickness absence since 1994 has contributed to reducing average working hours per employee (see Chart 4.19). In the last few years, the increase in sickness absence has in isolation reduced the annual effective labour supply by close to 10 000 person-years or about ½ percent of the "natural" growth in the effective labour supply.[1] An unchanged level of sickness absence is assumed in the future. It is also assumed that there will be no new extensive working hour reforms that further limit person-hour input.

Given limited growth in the labour force, the labour market is expected to remain tight. Employment continues to rise and according to the quarterly national accounts was 0.6% higher in the first quarter of 2001 than in the same quarter last year. Employment in the construction industry as a whole has risen sharply in the last year. This must be seen in the light of the high number of housing starts in 2000, which was the highest level recorded since 1989. Employment has continued to rise in the public service sector while the decline in manufacturing employment has slowed. Regional information indicates that the situation has improved for the shipbuilding industry in Western Norway. In a situation with near full capacity utilisation in the economy, it is assumed that a gradual phasing in of petroleum revenues approximately in step with the expected real return of the Petroleum Fund may, in isolation, contribute to deteriorating conditions for internationally exposed industries. Strong growth in public sector demand and solid growth in household income continue to fuel growth in employment in the public and private service sectors. On the other hand, continued high cost inflation is expected to contribute to falling manufacturing employment, a trend that will be amplified when petroleum investment again starts to decline from 2003. On the whole, the number of employed is estimated to increase by ¾% this year and next and ½% in 2003.

Chart 4.21 Change in unemployment on same month previous year. In thousands of persons



Source: Directorate of Labour

[1] This only comprises sickness absence in the period covered by social security, or sickness absence of more than 16 days. The first 16 days are covered by the employer. Previous surveys have concluded that the scope of sickness absence can be equally large in the period covered by the employer. However, we do not have information about developments in this sickness absence over time.

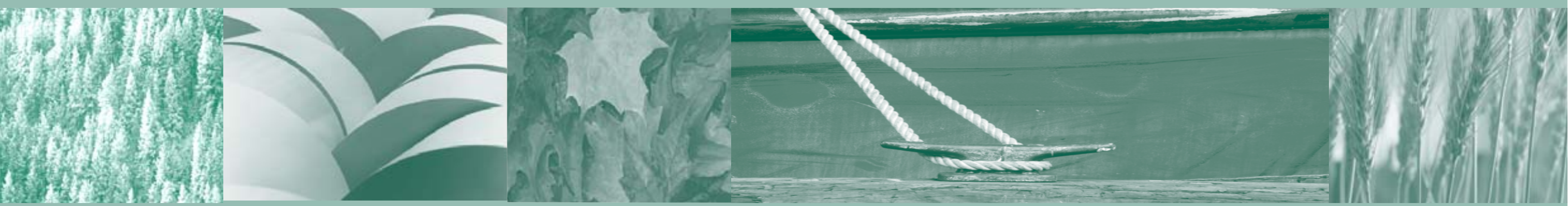
Registered unemployment has exhibited a declining trend since February and now accounts for seasonally adjusted 2.6% of the labour force. Geographical variations have diminished in recent months. Unemployment has fallen in all counties in Western Norway. This must be viewed in connection with the increase in oil-related activity. Unemployment is estimated to remain low in the years ahead. Persons participating in ordinary labour market programmes are expected to account for about ½% of the labour force. LFS unemployment is estimated at 3¼% through the projection period.

MAIN MACROECONOMIC AGGREGATES

	In billions 1997-krone	*Percentage change from previous year unless otherwise stated*			
	2000	**2000**	**2001**	**2002**	**2003**
Real economy					
Private consumption	563.6	2.4	1¾	2½	2¾
Public consumption	237.3	1.4	3	2¼	2½
Total gross investment	253.1	-1.1	½	1½	-2
- Petroleum activities	51.8	-17.1	2	0	-10
- Mainland Norway	185.4	1.4	½	1¾	0
Enterprises	116.4	1.8	-¾	2½	½
Dwellings	32.7	12.2	8	1	0
General government	36.3	-7.9	-2¼	1	-1¾
Mainland demand[1)]	986.3	1.9	1¾	2¼	2¼
Total domestic demand[2)]	1038.1	0.8	1¾	2¼	1½
Exports	474.4	2.7	4½	4¼	2
- Crude oil and natural gas	167.8	6.4	6	6	0
- Traditional goods	184.2	2.1	4	3¼	3½
Imports	399.0	2.5	2½	4	2¼
- Traditional goods	261.0	1.7	3	4½	2¼
GDP	1160.5	2.3	2¼	2¼	1½
- Mainland Norway	951.7	1.8	1½	1¾	1¾
Labour market					
Employment		0.5	¾	¾	½
Labour force, LFS		0.7	½	½	½
Registered unemployed (rate)		2.7	2½	2½	2½
LFS unemployment (rate)		3.4	3¼	3¼	3¼
Prices and wages					
CPI		3.1	3¼	2	2½
CPIXE[3)]		2.4	2¾	2½	2½
Annual wages[4)]		4½	4¾	5	4¾
Annual wages and costs of additional vacation days[5)]		5¼	5½	5	4¾
Import prices, traditional goods		6.0	3¾	0	1½
Export prices, traditional goods		13.8	2	0	0
Crude oil price, USD		29	26	23	20
Resale home prices[6)]		14.4	5½	4	4
External account[7)]					
Trade surplus, NOKbn (level)		230.1	225	200	165
Current account surplus, NOKbn (level)		203.6	205	185	150
Current account surplus, % of GDP		14.3	14	12	9
Memorandum item					
Household saving ratio		7.7	8	8	8¼

1) Private and public consumption and mainland gross fixed investment
2) Private and public consumption, mainland gross fixed investment and petroleum investment
3) Consumer price index excluding direct effects of changes in excise duties and energy prices
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 4.3% in 2000
5) Costs associated with additional vacation days are estimated at 0.8 percentage point in both 2000 and 2001
6) ECON's house prices index with Norges Bank's weight set
7) Current prices

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



Inflation Report No. 2 - June - 2001