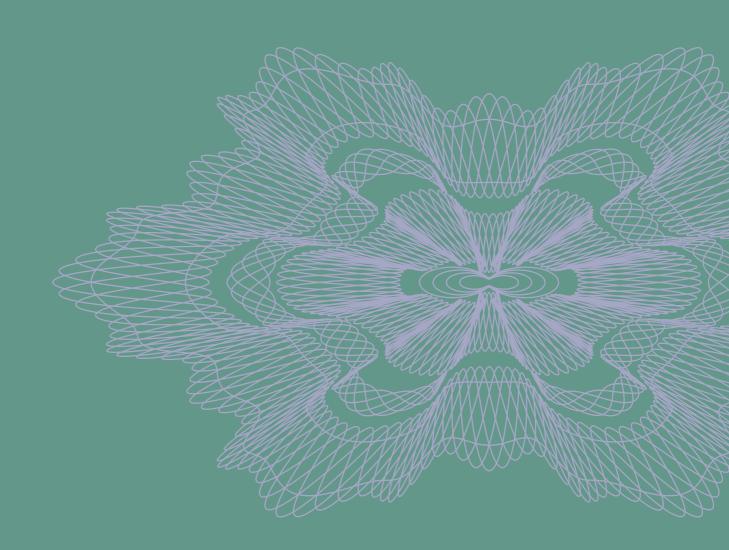
%NB% NORGES BANK

Reports from the Central Bank of Norway No. 1/2000





NORGES BANK'S INFLATION REPORT

Pursuant to the Norges Bank Act, the central bank shall be the executive and advisory body for monetary, credit and exchange rate policy. The projections in the Inflation Report provide a basis for the Bank's conduct of monetary policy. The monetary policy conducted by Norges Bank shall be aimed at maintaining a stable krone exchange rate against European currencies. There are two fundamental conditions that must be fulfilled to achieve this. First, price and cost inflation must over time not exceed the corresponding aim for inflation in the euro area countries. Second, monetary policy must not generate deflation through a recession.

The Inflation Report provides a survey of developments in prices and factors that influence price and cost inflation. It contains an assessment of the outlook for the Norwegian economy and Norges Bank's evaluation of the outlook for price inflation for the next two years. The December Inflation Report includes a longer time horizon and highlights the challenges to the Norwegian economy over a period of 4-5 years. The Governor summarises Norges Bank's assessment in the leader.

Inflation report First quarter 2000

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The cut-off date for the Inflation Report was 17 March 2000

New aspects of economic developments

One year ago we envisaged a 2-3 year period of slower growth in the Norwegian economy. The world economy had experienced a crisis, and prices for Norwegian goods on world markets were low. In Norway, cost inflation increased as a result of high pay increases, particularly in 1998. We also anticipated structural changes in industries supplying equipment and services to the petroleum industry and a contraction in the construction sector. On the other hand, sustained growth in household demand was expected to curb the slowdown in the business sector.

Many of these features still exist. Cost inflation is high, while investment in the petroleum industry and construction sector is falling. Structural changes are thus taking place and production has declined in some manufacturing sectors. Growth in domestic demand has contributed to buoying overall production.

But there are also new features. The world economy has recovered more rapidly than expected, and oil prices have more than doubled compared with the same period last year. Prices for certain international goods have risen sharply and many export companies are prospering. At the same time, demand, particularly household demand, expanded at a surprisingly fast rate towards the end of last year and the beginning of the new year. The financial position of households is robust and household wealth gains may provide room for a sharper decline in household saving than projected earlier.

Both internationally and in Norway, the rise in oil prices is spilling over to prices for goods and services that are dependent on transport and energy. This may set off rising price and cost inflation. Monetary policy or other economic policy components cannot, and should not, counter the first-round effects of higher costs on prices. However, it is important to prevent a transient increase in price inflation from leading to a sustained increase in inflation. Monetary policy must also contribute to preventing excessive demand from translating into rising price and wage inflation.

The estimates in the Inflation Report reflect what Norges Bank considers to be the most probable scenario for economic developments, given certain assumptions concerning interest rates and fiscal policy. Such estimates are uncertain. In addition to this, it is therefore necessary to assess the balance of risks. One year ago we wrote: "In this situation, higher-than-expected growth in private consump-

tion or a relaxation of the fiscal stance would generate uncertainty about the inflation outlook". This is still relevant with regard to the balance of risks. However, there are also new aspects. For example, the most likely scenario is that oil prices will eventually decline from today's high level. Oil prices will in that case only make a temporary contribution to price inflation. Continued high oil prices will in isolation generate stronger inflationary pressures. Furthermore, the tight labour market is associated with a risk of rising wage costs.

On the other hand, there are still some factors pointing to weaker-than-expected trends. Demand, particularly in the US economy, appears to be partly reliant on stock market developments. A substantial correction on world stock markets may put the world economy on a different track. Oil prices and other export prices may decline to low levels again. The share of value-added in the business sector that is absorbed by wages is high after rising sharply in recent years. This may have the effect of restraining investment to a further extent than assumed. Unemployment has edged up in recent months. If the contraction in manufacturing is stronger than expected, the level of unemployment may increase sharply. Intensifying competition in the market for goods and services may contribute to keeping inflation at bay.

Monetary policy must be robust to unexpected events and shocks. This is why, among other things, interest rates were changed gradually using a measured approach. Norges Bank will continue to apply a measured approach to interest-rate setting, based on its assessment of economic developments and the balance of risks.

Norges Bank must weigh the various risks against each other in the light of economic developments and the economic estimates available to us. On balance, it now appears that economic growth and price inflation may be somewhat higher over the next two years than projected earlier. The risk of rising price and cost inflation has increased, while the risk of a downturn in the economy within the next two years has subsided. In the light of recent trends in the economy and the balance of risks, the probability that the next change in interest rates will be an increase is greater than the probability of a reduction.

Svein Gjedrem

1 | Summary

Norges Bank projects consumer price inflation at 23/4% in 2000 and 2% next year, ie an upward revision of ½ percentage point for 2000 and 1/4 percentage point for 2001 compared with the December Inflation Report. Price inflation is estimated at 21/4% in 2002. The upward adjustment for 2000 primarily reflects higher oil prices and an expected rise in import prices. In addition to the above factors, the main reason behind the upward adjustment for 2001 and 2002 is somewhat stronger pressures in the Norwegian economy than projected in the previous report. The underlying rise in consumer prices, ie excluding changes in indirect taxes and electricity prices and adjusted for the revision of the house rent index, is estimated at 2½% in 2000. In the following years, underlying price inflation is expected to be the same as the overall rise in consumer prices. The estimates show a scenario with slower underlying price inflation to the beginning of 2001 followed by a rise.

The projections imply a fall in price inflation from 2000 to 2001, as price inflation is being pushed up by higher indirect taxes this year and oil prices are expected to fall. Furthermore, slightly higher productivity growth in the business sector is expected to curb inflationary impulses both this year and next. In the following years, however, wage and price inflation may quicken, partly reflecting persistent pressures in the economy. As a result, wage growth is projected to rise gradually from 3¾% in 2000 to 4% in 2001 and 4½% in 2002.

The projections for aggregate demand and production in 2000 and 2001 have been revised upwards. House prices continue to drift upwards and credit to households has shown higher growth. In addition, household consumption has picked up. Traditional merchandise exports have also increased in recent months. The growth outlook among trading partners has improved. Mainland investment is contracting at a slower pace than envisaged earlier, which may contribute to curbing the turnaround in manufacturing industry. However, as a result of the fall in both petroleum and mainland investment, annual growth in total output is expected to be lower this year than the average for the 1990s. Mainland GDP growth is estimated at 1½% this year, 2% in 2001 and 2¼% in 2002.

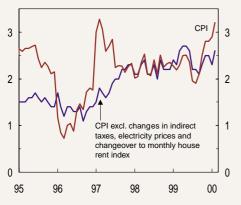
Unemployment has edged up so far this year, but to a lesser extent than previously assumed. Employment in manufacturing has declined, but has risen in service industries and the public sector. In the light of the upward revision of the forecast for output growth for this year and next, the turnaround in the labour market is now expected to be less pronounced than estimated in the December Inflation Report.

There are still strong pressures in the real economy. There now seems to be little risk of a downturn within the next two years.

The estimates in this report are based on the technical assumption that interest rates move in line with market expectations, as indicated by forward rates in mid-March. This implies an increase in market rates of about half a percentage point through 2000, which is slightly higher than in the last report. The krone exchange rate is assumed to remain stable. The oil price is assumed to return to USD 15-17 per barrel at the end of 2001.

2 Recent developments

Chart 2.1 Consumer prices (CPI). Total and excluding indirect taxes and electricity prices. 12-month rise. Per cent



Sources: Statistics Norway and Norges Bank

Chart 2.2 Consumer prices. All items and by supplier sector. 12-month rise. Per cent

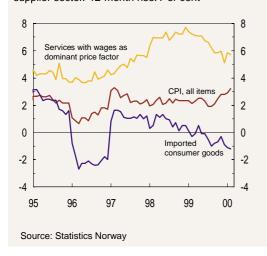


Chart 2.3 Consumer prices in Norway and abroad. 12-month rise. Per cent



¹ Price rise in euro area countries measured by the harmonised index of consumer prices.

Sources: Statistics Norway, Eurostat and OECD

2.1 Price developments

Higher-than-expected price inflation

Price inflation has been higher than expected in recent months. In February, the CPI rose by 3.2% on the same month a year earlier (see Chart 2.1). It appears that the high level of oil prices in recent months is now feeding through to consumer price inflation. In addition, special factors have exerted upward pressure on inflation the last two months.

The increase in indirect taxes from 1 January pushed up the year-on-year rise in consumer prices by about ½ percentage point in January and February. The most important increase was the consumption tax on electricity, which was raised from 5.94 to 8.56 øre/kWh. The revision of the house rent survey from quarterly to monthly surveys contributed to a further increase of 0.25 and 0.30 percentage point in the year-on-year rise in prices in January and February respectively.

Norges Bank's indicator of the underlying rise in prices attempts to capture the price effects of more fundamental supply and demand conditions in the economy. As a rule, changes in indirect taxes and electricity prices are excluded. For 2000, adjustments have also been made for the revision of the house rent index, which in itself influences consumer price inflation through the year. Adjusted for these factors, the underlying rise in prices was 2.3% in January and 2.6% in February.

The surge in oil prices over the past year is directly reflected in the CPI sub-index for fuel and lubricants. The 12-month rise in this sub-index was 13.5% in February, pushing up the total 12-month rise in consumer prices by about ½ percentage point that month.

The rise in prices for services with wages as the dominant cost factor is still relatively high and is pushing up the overall rise in prices. This sub-index showed a slower rise last year, but moved up again in January and February (see Chart 2.2). The year-on-year rise in prices for imported consumer goods remains negative, but the rise between January and February was slightly positive. Import prices have moved on a falling trend in the wake of the Asian crisis in 1997-1998, partly because a substantial share of consumer goods is imported from Asia and prices are influenced by competition from Asian countries.

Price inflation among our traditional trading partners has increased in recent months, reaching 1.6% in January (see Chart 2.3). The rise in oil prices is an important factor behind the higher rate of inflation. This is evident in the US, where the 12-month rate of increase in consumer prices, excluding energy and food prices, was lower in December 1999 than in the same month a year earlier. Consumer price inflation in a number of countries, including Germany, France and Sweden, was down to ½% last year.

Measured in terms of the harmonised index of consumer prices (HICP), price inflation in the euro area was 2.0% in January. According to the HICP, the inflation rate in Norway was 2.9% in February, ie 0.3 percentage point higher than a month earlier. The HICP was broadened from January of this year and now includes about 88% of consumer spending in the index. The only component that is not included in the HICP in relation to the total index is homeowners' housing costs.

2.2 Interest rates, the exchange rate and monetary conditions

Fluctuations in the foreign exchange market and higher interest rates

Norges Bank's key rates have remained unchanged since 23 September 1999. Internationally, the improved growth outlook and concern about growing inflationary pressures prompted a number of central banks in the OECD area to raise their key rates since the December report. Since the beginning of the year, the ECB and central banks in the US, the UK, Sweden, Denmark, Switzerland, Canada, Australia and New Zealand have raised interest rates.

Three-month money market rates have shown little change since the previous report and stood at 6% on 15 March. FRA rates indicate that the Norwegian three-month rate is expected to rise through the year to about 6.5% at the end of this year. FRA rates in the euro area and in the US also underline expectations of higher interest rates in the coming year. Interest rate expectations in Norway are discussed further in section 3.2.

Bond yields rose towards the end of 1999 and in the first half of January in the US, the euro area and Norway, but have since edged down. Bond yields in the euro area are now 0.3 percentage point higher than in December while corresponding Norwegian yields have risen less. The yield differential between Norwegian and German bonds has narrowed to 0.7 percentage point. Yields in the US remain virtually unchanged compared with the December report.

Since December, the krone has depreciated against the US dollar and pound sterling, while it has remained approximately unchanged against the euro. Since the December report, the krone has ranged between NOK 8.02 and 8.22 against the euro (see Chart 2.6).

The most relevant measure of price impulses to the Norwegian economy is the import-weighted exchange rate. Measured by the import-weighted exchange rate, the krone has depreciated by about 3/4% since December 1999.

Higher domestic credit growth

The year-on-year growth in credit from domestic and foreign sources (C3) fell in the fourth quarter of 1999, whereas growth in credit from domestic sources (C2) has picked up.

Chart 2.4 Interest rates in Norway. Banks' average deposit and lending rates, 3-month Euro-krone interest rate and 10-year government bond yield

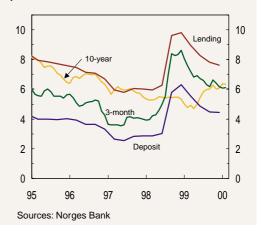


Chart 2.5 Actual 3-month rates and FRA rates since January 1999

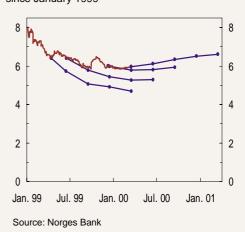


Chart 2.6 NOK/ECU and NOK/EUR exchange rates (weekly figures) and import-weighted krone exchange rate (monthly figures) against 44 currencies. January 1995=100

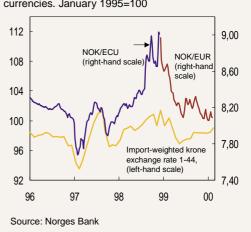


Chart 2.7 Money supply (M2), credit indicator (C2 and total credit to private and local gov't sector (C3). 12-month growth. Per cent

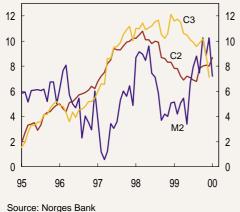
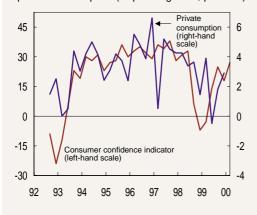
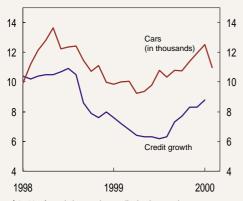


Chart 2.8 Consumer confidence indicator and private consumption (4-quarter growth, per cent)



Sources: Statistics Norway and Norsk Gallup Institutt AS

Chart 2.9 New car registrations (seasonally adjusted). Household credit¹ (12-month rise, per cent)



¹85% of total domestic credit, by borrowing sector Source: Norges Bank

Enterprises account for the bulk of foreign borrowing, and slower growth in credit from foreign sources may partly be the result of lower investment activity. The enterprise sector has also shifted away from foreign funding towards domestic borrowing during this period. This partly explains the growth in domestic credit to enterprises in recent months. The shift from foreign to domestic sources must be seen in connection with exchange rate developments and narrowing interest rate differentials against other countries during 1999.

Domestic credit growth picked up in the last half of 1999 and continued to rise in January of this year, when it stood at 8.7%. With the exception of the period from the spring of 1997 to the summer of 1998 when interest rates were increased, credit growth is now at the highest level seen since 1988. The growth rate is substantially higher than total growth in the economy. It also appears that growth in credit to households has picked up in recent months. This must be seen in connection with the high turnover and sharp rise in prices in the property market, in addition to the increase in car sales.

The 12-month growth in the money supply (M2) slowed in January after rising through the last half of 1999 (see Chart 2.7). This must be seen in the light of the transient rise in liquidity demand in connection with the transition to the year 2000.

2.3 Cyclical developments

Higher demand and production in the last half of 1999

Following a period of slower growth in the Norwegian economy from the summer of 1998 to the summer of 1999, growth strengthened markedly through the second half of last year. Mainland demand expanded on a seasonally adjusted basis by 1.5% between the first and second half of 1999. Mainland GDP increased (seasonally adjusted) by 1.4% in the same period, which is higher than the trend rate of growth of the economy. In particular, growth in service sector investment and public consumption was higher than expected. Exports also showed robust growth, and private consumption exhibited rising growth. The underlying growth in the economy is thereby stronger than assumed in December last year.

Higher growth in household consumption and decline in saving

Several indicators show signs of a clear upturn in household demand in recent months. The retail sales index increased sharply in January. Car sales were particularly high in January, but declined in February. However, this must be seen in the light of the tax increase for some vehicle types from January. Norsk Gallup's consumer confidence indicator continued to increase in February, reaching its highest

level since the summer of 1998 when interest rates were increased. This consumer confidence indicator usually provides a good indication of movements in private consumption in the following quarter. Registration of new and second-hand imported passenger cars has risen sharply over the last four months. House prices have continued to show a pronounced rise. Figures from ECON and Statistics Norway showed a rise in the national average for house prices of 15-17% in the fourth quarter compared with the same quarter a year earlier. The OBOS price index for flats in Oslo showed a year-on-year rise of 41% in January and 26% in February. Normally, the rise in house prices slows over time as a result of lower saving and higher private consumption. Growth in credit to households has also quickened over the last five months. All in all, economic developments since the last report indicate higher growth in household consumption this year than expected earlier.

Household financial saving is estimated at a little more than NOK 30bn in 1999, according to preliminary national accounts figures. Households' financial position is solid from an historical perspective. As a result, there is substantial room for further growth in demand.

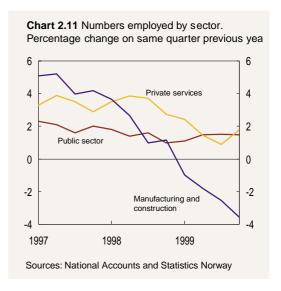
Continued strong pressures in the labour market

Employment rose by about 10 000, or 0.5%, between 1998 and 1999. Employment growth picked up again in the fourth quarter, following weak third-quarter figures. Employment in private services accounted for a large share of the increase last year, while manufacturing employment fell by more than 12 000 in the same period. Labour shedding in the manufacturing sector has resulted in a slight increase in unemployment. According to Statistics Norway's Labour Force Survey (LFS), the unemployment rate was 3.2% in the fourth quarter, representing an increase of 14 000 compared with the fourth quarter of 1998.

Registered unemployment has also increased, but to a lesser extent than expected. In mid-March, the number of registered unemployed at employment offices was 64 800, or 2.8% of the labour force. This represents an increase of 5 200 compared with one year earlier. The overall impression is that the pressures in the labour market are now stronger than assumed earlier.

Wage growth in 1999 was in line with expectations. The Technical Committee on Income Settlements has estimated average annual wage growth at 4.9% from 1998 to 1999. The carry-over into 2000 was put at 1.3%, which is substantially lower than the figure for last year.

Chart 2.10 Retail sales index. Seasonally adjusted volume. 1995=100 January 2000 117 1999 114 114 1998 111 111 108 ian mar mai jul sep nov Source: Statistics Norway



New aspects of economic developments

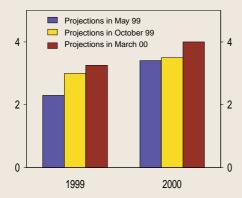
The projections in this report reflect new aspects of economic developments, both internationally and in Norway. A number of economic indicators point to rising growth in demand and production. The projections in this report have been adjusted upwards, partly reflecting signs of an increasingly robust global economy. Evidence also suggests there has been a shift in household behaviour.

Growth in the world economy recovered relatively quickly after the crisis in the autumn of 1998. Chart 1 shows forecasts for global GDP growth in 2000 at various points in time. Economic developments in the crisis-hit countries in Asia were reversed more quickly than anticipated. At the same time, the long period of expansion in the US has continued, with rising growth rates in Europe. The effects of the Asian crisis and the financial turmoil in the autumn of 1998 proved to be fairly limited. The further expansion of the global economy may also be attributable to higher productivity growth, as some analysts would argue is the case in the US. Developments in the world economy are reflected in this Inflation Report in the upward adjustment of projections for growth in Norwegian exports, a higher rise in prices for Norwegian export goods and somewhat stronger growth in business investment.

Oil prices have continued to move on an upward trend as a result of high demand on the world market, but also as a result of production limits. The rise in oil prices has gradually fed through to consumer price inflation both in Norway and abroad. In Norway, consumer price inflation has increased from 1.9% in August to 3.2% in February. At the same time, prices for some non-oil commodities have exhibited a sharp rise, which has boosted profitability in certain exports sectors. On balance, this provides a more auspicious outlook for profitability in manufacturing in 2000 than previously anticipated.

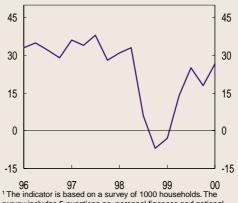
Evidence suggests that there may have been a shift in household behaviour in Norway compared with earlier years. Preliminary national account figures show a historically high saving ratio in 1999. Demographic conditions imply some rise in the saving ratio over time. However, the high saving ratio for 1999 can be seen as a reaction to the interest rate increases and turbulence in the autumn of 1998. This would imply that the saving ratio will fall again, which is confirmed by Norsk Gallup's consumer confidence indicator among other things (see Chart 2). The increases in interest rates and the crisis in financial markets in the autumn of 1998 prompted a pronounced shift in sentiment, which has since been reversed. Household confidence is now back to the level prevailing in the first half of 1998. This is underlined by a continued rise in house prices and further growth in household borrowing. In addition, retail sales and household purchases of new and second-hand cars have increased.

Chart 1 Projections for global GDP growth at different points in time. Per cent



Sources: IMF (projections in May and October 1999), Norges Bank (projections in March 2000)

Chart 2 Consumer confidence indicator¹



¹ The indicator is based on a survey of 1000 households. The survey includes 5 questions on personal finances and national economy. The consum er confidence indicator is an average of the 5 indicators derived from answers to the 5 questions. A positive consumer confidence indicator means that the majority of respondents have an optimistic view of the economic outlook.

Source: Norsk Gallup Institutt AS

3 Norges Bank's inflation projections

3.1 The inflation outlook the next two years

Norges Bank projects price inflation at 23/4% in 2000 and 2% next year, which is an upward revision of half a percentage point for 2000 and a quarter percentage point for 2001 compared with the December report. The rate of increase in consumer prices is estimated at 21/4% in 2002.

So far this year, oil prices have been higher than assumed in December. The surge in oil prices over the last year seems to be influencing consumer price developments to a greater extent than the direct impact via petrol prices and fuel. Over the last six months, the year-on-year underlying rate of increase has averaged 31/4%. The rise in import prices also reflects the high level of oil prices. These are the main factors behind the upward revision of the estimate for consumer price inflation this year. The upward adjustment for 2001 and 2002 primarily reflects the somewhat stronger pressures in the Norwegian economy in relation to the projections presented in the December report.

Consumer price inflation is influenced by some factors that do not fully reflect underlying demand and supply conditions in the Norwegian economy. The underlying rise in prices, which excludes changes in electricity prices and indirect taxes and adjusts for the changeover to a monthly house rent index, is estimated at 21/2% this year, 2% in 2001 and 21/4% in 2002.

Developments in a number of economic indicators towards the end of 1999 and so far this year underline the pick-up in demand growth. The revision of the estimates in this report reflects this information. Although employment is projected to expand at a slightly slower pace than implied by demographic trends this year and next, pressures in the labour market remain strong. Output growth will approach trend growth towards the end of next year. Against this background, it is unlikely that the labour market will contribute to curbing inflationary pressures. The estimate for wage growth has thus been revised up for the next years. The forecasts for price inflation among trading partners and imported inflation have also been adjusted upwards. The reduction in the estimate for the underlying rise in prices to 2% must therefore partly be seen in connection with the assumption concerning oil prices in this report and the projected increase in productivity gains in the business sector this year. Oil prices are assumed to fall gradually from the current level to USD 15-17 per barrel at the end of 2001.

Interest rate and exchange rate assumptions

The projections in this Inflation Report are based on the technical assumption that money market rates will move in line with market expectations, as reflected in forward rates on 14 March. The assumption implies that the money market rate will on average be about 6.2% in 2000 (see Chart 3.3). Key technical assumptions concerning monetary and fiscal policy are shown in Table 3.1. Forward rates indicate that the

Chart 3.1 Current and earlier projections for consumer price inflation Percentage rise on same quarter previous year

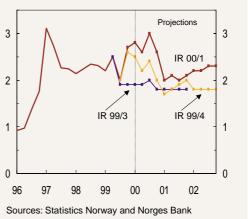


Chart 3.2 Projections for consumer price inflation Total and underlying Percentage rise on same quarter previous year

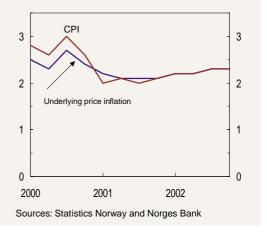


Table 3.1 Technical assumptions

	2000	2001	2002
3-month money market			
interest rate (annual average) ¹	6.2	6.2	6.1
Import-weighted exchange rate ²	0.4	0	0
Exchange rate measured			
against euro 2	-2.5	0	0
Real rise in gov't spending	2	21/4	21/4
Oil price NOK/ barrel 3	203	158	130

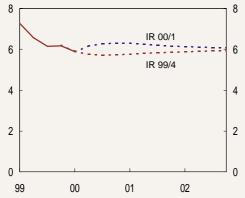
¹ Interest rates are assumed to remain aligned with market expectations as

The oil price is assumed to gradually return to the range USD 15-17 per barrel in the course of 2000 and 2001

reflected in forward rates.

² Annual percentage change. The import-weighted exchange rate covers 44

Chart 3.3 Technical assumptions concerning short-term money market rates¹



¹ Three-month money market rates up to 14 March. Three-month forward rates are estimated using four money market rates and five government bond yields with different maturities as observed on 14 March.

Source: Norges Bank:

Chart 3.4 Oil price (USD/barrel) and producer price index for trading partners. 1995=100

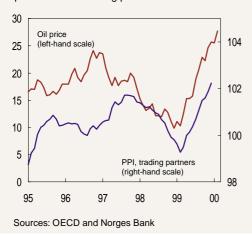


Table 3.2 Consumer prices.
Percentage change from previous year.

	1000	2000	2001	2002
	1999	2000	2001	2002
US	2.1	21/2	21/2	21/4
Japan	-0.3	0	1/4	1/2
Germany	0.6	11/2	11/4	13/4
France	0.6	11/2	11/4	13/4
Italy	1.7	2	13/4	13/4
UK	2.3	2	21/2	21/2
Sweden	0.5	11/2	2	2
Norway's				
trading partners1	1.3	13/4	2	2
Euro area 2	1.1	13/4	11/2	13/4

¹ Trade weights Eurostat weights (country's share of euro area's consumption)

Source: Norges Bank

differential against European money market rates will narrow from the current level of 2 percentage points to around 1 percentage point at the end of 2001. The assumption concerning interest rates implies that short-term rates will be about 0.5 percentage point higher at the end of 2000 than assumed in the previous report.

Since the December report, the krone exchange rate has remained approximately unchanged against the euro but weakened against pound sterling and the US dollar. The import-weighted krone exchange rate has also depreciated somewhat. Our projections are based on the technical assumption that the import-weighted krone exchange rate will remain at the average level recorded so far this year. Measured against a broad import-weighted index (44 countries), the exchange rate assumption implies a 0.4% depreciation of the krone between 1999 and 2000. The exchange rate assumption thus makes only a moderate contribution to the upward revision of the inflation projections. Measured against the euro, the assumption entails an appreciation of 2.5% between 1999 and 2000.

Stronger international inflationary impetus

All in all, prices for imported goods and services are projected to rise by 1¾% in 2000 and by 1¼% in 2001, ie an upward adjustment on the December report, particularly for this year.

Oil prices have continued to rise. At the beginning of March, the price of North Sea oil reached USD 30 per barrel, the highest level recorded since the Gulf War in 1990. A large share of the increase is ascribable to the OPEC production limits adopted in April last year, but increased demand as a result of higher growth in the global economy has also contributed. World oil stocks have shown a considerable decline. OPEC's agreement on production cuts applies to the end of March 2000. Our projections are based on the technical assumption that oil prices, which stood at USD 27 per barrel on 16 March, will gradually return to the USD 15-17 range (see Table 3.1). The estimate for oil prices has been revised upwards by 24% for 2000 and 19% for 2001 compared with the estimates in the December report.

Prices for industrial raw materials have continued to rise since the last report. On the other hand, food prices have been broadly stable. Continued high growth in the world economy ahead indicates a moderate rise in commodity prices, excluding oil, over the next two years.

Higher commodity prices, particularly oil prices, have led to a sharp increase in international producer prices since the summer of last year (see Chart 3.4). A continued rise in commodity prices, in conjunction with improved growth prospects, has resulted in an upward adjustment of the estimates for producer price inflation among trading partners to 3% this year. The rate of increase is projected at 2% next year.

The surge in oil prices over the last year has also pushed up consumer price inflation among trading partners. In Europe, however, the impact of higher oil prices has been more moderate as taxes account for a large share of the user price of petrol and heating oil. Moreover, intensified international competition and a monetary policy oriented towards low inflation are expected to limit the rise in consumer prices. In the US, the surprisingly high growth in productivity is having a dampening effect on inflation. However, rising import prices and a continued cyclical upturn among most trading partners will, in isolation, exert upward pressure on inflation over the next few years. On balance, consumer price inflation among trading partners is estimated at 1¾% in 2000 and 2% in 2001 and 2002 (see Table 3.2).

Somewhat higher wage growth the next years

According to the Technical Reporting Committee on Income Settlements, annual wage growth was 4.9% in 1999. The wage carry-over into 2000 is estimated at about 1.3%, which is substantially lower than the figure for 1999. There are both upside and downside risks with regard to the outlook for wage growth this year. Profitability in some manufacturing sectors has deteriorated in recent years, which indicates limited scope for pay increases in this sector. On the other hand, export prices have risen markedly in recent months, which points to improved profitability in the export industry. Wage growth is projected at 33/4% in 2000.

Compared with the December report, pressures in the economy are now projected to be somewhat stronger in the years ahead, with little slack in the labour market. The estimate for unemployment has been revised down for the entire projection period. Persistent pressures point to higher wage growth ahead, particularly in service sectors.

The projections for wage growth are based on the RIMINI model and the assumption that developments in manufacturing will affect overall wage growth in the years ahead. Whereas in the December report wage growth was projected to remain fairly stable in the years ahead, total annual wage growth is now estimated at 4% in 2001 and 4½% in 2002.

The main demands ahead of this year's wage settlement are related to holidays and the financing of the reform on continuing education and training. If these demands are met, employers will face higher costs in the years ahead. For example, four extra vacation days will boost wage inflation by about 13/4 percentage point. Our wage projections may be considered estimates for growth in total wage costs, which include the costs of any additional vacation days. However, an increase in the number of vacation days may also affect productivity and production, which has not been taken into account here. A further assessment of the uncertainty surrounding the estimates is provided in section 3.3.

Sharp increase in electricity tax

The electricity tax was raised from 5.94 to 8.56 øre/kWh on 1 January 2000 and accounted for most of the 7.3% rise in electricity prices between December and January. A mild winter and higher-than-usual reservoir levels, particularly in western and northern Norway, have led to lower spot prices in February and March (see Chart 3.6). Heavy snowfalls in some

Chart 3.5 Average wage costs, mainland Norway (annual percentage growth) and LFS unemployment (percentage of labour force) 12 6 5 10 LFS unemploymen (right-hand scale) 8 2 Wage costs 2 (left-hand scale) 84 86 88 90 92 94 Sources: Statistics Norway and Norges Bank

Chart 3.6 Electricity prices. Sub-index of CPI and spot prices (øre per kWh) 125 40 Electricity price index in CPI 100 30 75 20 50 10 25 Spot price excl. tax and grid charge (right-hand scale Jan. 98 Jul. 98 Jan. 99 Jul. 99 Jan. 00 Sources: Statistics Norway and Norpool

Table 3.3 Various institutions' projections for consumer price inflation in Norway in 1999 and 20001. Percentage change from previous year

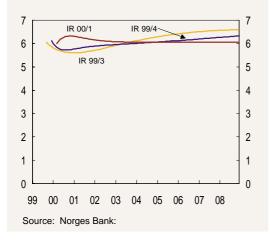
	2000	2001
Norges Bank	23/4	2
Ministry of Finance 2	2.0	13⁄4
Statistics Norway	2.4	2.0
OECD 3	2.1	2.0
IMF2	2.3	2.0
Consensus Forecasts 4		
Highest estimate	2.7	2.2
Average	2.4	2.0
Lowest estimate	2.0	1.8

¹ Latest official projections from the various institutions

Chart 3.7 Price index for first-time sales and producer price index for manufacturing. 12-month-rise. Per cent



Chart 3.8 Norwegian forward rates. Expected short-term rates. Per cent



parts of the country may indicate an appreciable drop in electricity prices towards the summer. Earlier this winter many power producers announced a reduction in household electricity prices from 1 March. On balance, electricity prices are expected to push up the overall rise in consumer prices by about ¼ percentage point this year as a result of the higher electricity tax. In 2001, electricity prices are assumed to rise in pace with the CPI.

House rents push up consumer price inflation

The sub-index for house rents rose by 5.0% in February on the same month a year earlier. As a result of the changeover from a quarterly to a monthly house rent survey in January this year, the year-on-year rise so far this year does not provide a complete picture of house rent developments. As a rule, rents are adjusted at the beginning of the first and third quarter. The changeover from quarterly to monthly surveys therefore particularly influences the year-on-year rise in the CPI in January, February, July and August.

In 2000, both local government fees for dwellings and house prices are projected to rise. Combined with the repeal of the Rent Control Act, the house rent index will push up the CPI in 2000. Given our assumptions of an annual rise in house prices of about 5% in 2001 and 2002, house rents may exert some upward pressure on consumer price inflation in these years as well.

3.2 Inflation expectations

Consensus Forecasts' March projections for the Norwegian economy show that a selection of market observers expect the CPI to rise by 2.4% in 2000 and 2.0% in 2001 (see Table 3.3). On average, the forecast for this year has been raised by 0.4 percentage point since December. The same observers expect the economy to expand at about the same rate this year and next as that projected in our report.

Producer and wholesale price developments can provide information about future consumer price inflation. Price inflation at this stage of the chain has accelerated sharply over the last year. In February, the producer price index rose by 8.1% compared with the same month a year earlier. Producer prices in manufacturing rose by 4.3% in the year to February (see Chart 3.7). The year-on-year rise in the wholesale price index was 2.7% in November, moving up to 4.6% in February.

Producer and wholesale prices have been heavily influenced by oil price developments in recent months. Empirical evidence shows that changes in oil prices do not have a significant impact on the CPI, partly reflecting the high level of taxes on petroleum products (see further details in Inflation Report 1999/2). However, oil prices have risen by as much as 180-200% over the past year. As mentioned in section 2, this has had a considerable effect on various components of the CPI. However, our oil price assumption implies that the contribution from oil prices will have a dampening effect on consumer price inflation next year.

Information on market participants' inflation and interest

² Annual average 2001-2003

³ 'Consumption deflator

⁴ March 2000

rate expectations is provided by the yield curve in the money and bond markets. Using the yield curve, forward rates, which are implied rates between two future points in time, can be calculated. Chart 3.8 shows movements in forward rates, converted to three-month rates, since the September Inflation Report. Under certain assumptions, these forward rate curves can be interpreted as an indication of market expectations of changes in the three-month rate in the years ahead.

In the short and medium term, forward rates reflect market expectations concerning cyclical developments and the monetary policy stance. Within this time horizon, forward rates in Norway are somewhat higher than in December last year. Forward rates indicate expectations of higher interest rates this year and next. Long-term forward rates provide to a greater extent information about confidence in overall economic policy and thereby inflation expectations in the long term, while also reflecting long-term global interest rates.

Chart 3.9 shows the differential between Norwegian and German forward rates now and in the previous two inflation reports. The long-term forward rate differential may be thought of as an indicator of the market's confidence that inflation in Norway will, over time, be on a par with the level of inflation in the euro area. This differential is about 0.3 percentage point, while it was 0.6 percentage point in December.

Chart 3.10 shows a comparison of forward rate differentials between Germany on the one hand and Norway, Sweden, Denmark and Finland on the other. The chart illustrates that short-term rates are currently higher in Norway than in the other countries, but that the spread is expected to narrow in the years ahead. In Sweden, market participants appear to expect a substantial increase in short-term rates the next few years. In the long term, the forward rate differential against Germany is somewhat higher for Finland and Norway than for Sweden and Denmark.

3.3 Risks to the inflation outlook

The projections in the Inflation Report are based on key assumptions concerning interest rates, the exchange rate and fiscal policy. There is uncertainty attached to both the assumptions and the projections. Normally, the risks to the outlook are fairly symmetrical so that the probability of a significantly different outcome is evenly distributed on the upside and downside. In some cases, however, the risks may be asymmetrical. This section takes a closer look at the risks that are considered to be of particular importance to price inflation.

Uncertainty associated with import prices

Import prices in the CPI have continued to fall in spite of the sharp increases in energy prices, other commodity prices and foreign producer prices over the last year. This is a feature common to many OECD countries. Intensified competition has contributed to subdued price inflation for internationally traded goods and services. The Asian crisis and prolonged recession in Japan have also contributed to lower prices. In

Chart 3.9 Differential between expected shortterm rates in Norway and Germany. Perc entage

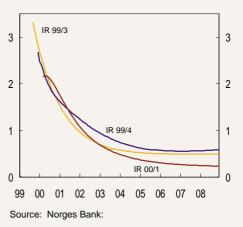


Chart 3.10 Forward rate differentials against Germany 14 March 2000. Percentage points

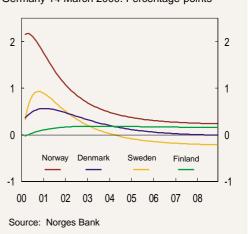


Chart 3.11 Oil price scenarios. USD per barrel 30 30 High oil price 25 25 Baseline scenario 20 20 15 15 10 10 5 5 0 n

2000

1999

Source: Norges Bank

1998

2001

2002

Chart 3.12 Annual consumer price inflation for various oil price scenarios. Per cent

3
High oil price
Baseline scenario
2
Low oil price
1
1
0
1999
2000
2001
2002
Sources: Statistics Norway and Norges Bank

Table 3.4 Projected change in consumer price inflation with an instantanteous increase in the oil price of USD 10 per barrel. Percentage points

	One year after	Two years after
	increase	increase
US	0.4	0.6
Japan	0.5	0.7
EU	0.6	1.1

Source: OECD, Economic Outlook No 66

recent months, however, both producer prices and consumer prices among trading partners have risen at a faster pace, primarily reflecting the trebling of oil prices over the last year. Earlier, a surge in oil prices, for example in 1974 and 1980, had a swift and major impact on consumer price inflation in industrial countries. Today, however, oil is a less important input in production in industrial countries, while monetary policy is expected to counter inflationary impulses to a further extent than earlier.

Even if oil prices were to edge down through the year, in line with the technical assumption in this report, the price level would still be relatively high (see Chart 3.11). In the absence of a fairly rapid drop in oil prices, consumer price inflation may remain high, not only as the result of the effect of high oil prices on petrol and heating oil prices, but also on prices for goods and services for which oil is a key input, eg passenger and goods transport. Other commodity prices may also show a fairly rapid and pronounced rise. For example, aluminium prices rose by almost 50% in NOK over the last year. High energy prices and auspicious growth prospects internationally may lead to a stronger rise in international commodity prices and producer prices than projected in this report. On the other hand, oil prices tend to fluctuate widely over time. If global oil production were to rise substantially, the oil price may quickly return to the USD 10-15 per barrel

Chart 3.12 shows the effects of different oil price assumptions on consumer price inflation in Norway. In the high oil price scenario, the oil price is assumed to remain at the level recorded so far in the first quarter (see Chart 3.11). This corresponds to an oil price of USD 27 per barrel to the end of the projection period. In relation to the baseline scenario, this means that the oil price is 8% higher in 2000, 40% higher in 2001 and 70% higher in 2002. In the low oil price scenario, the oil price is assumed to fall to USD 16 per barrel during 2000 and drop further to USD 10 per barrel in 2001 (see Chart 3.11). Our calculations take into account the effects of changes in oil prices on foreign producer prices, and thereby on import prices. A change in oil prices will have a limited effect on consumer price inflation this year, ie roughly 0.1 percentage point. With a high oil price, the effect in each of the next two years will be about 0.5 percentage point, raising consumer price inflation to 21/2% in 2001 and 23/4% in 2002. With a low oil price, consumer price inflation may be about 0.2-0.3 percentage point lower in 2001 and 2002. The estimated effects are of the same order as calculated by the OECD for the EU (see Table 3.4).

The risk of changes in the international growth outlook is primarily associated with developments in the US. Although growth in the US economy has remained robust, considerable imbalances exist, as illustrated by low household saving and a large trade deficit. A turnaround in the US, eg through a correction in equity prices, may have economic and financial consequences internationally, which may also influence the Norwegian economy. Such developments involve a risk of a slackening in the upturn in Europe, leading to a fall in prices for Norwegian export goods.

Uncertainty associated with domestic price impulses

The estimates in this report imply that total employment growth in the years 2000-2002 may on average be on a par with the demographic increase in the labour force. This means that pressures in the labour market will remain at about the current level in these years. The projections for wage and price inflation are based on the assumption that wage growth in manufacturing will serve as a benchmark for the wage settlements in the sheltered sector. On the other hand, strong pressures in the sheltered sector will contribute to somewhat higher wage growth in this part of the economy than in manufacturing. With two clearly divergent trends in the economy, ie labour shedding in manufacturing and high demand for labour in distributive trades, service industries and the public sector, wage determination in Norway will come under pres-

In the December Inflation Report this was illustrated by estimating wage growth in the economy when wage growth is not influenced by a decline in manufacturing employment. This implies that manufacturing is no longer a wage leader. The RIMINI model was used in the calculations where the effect of the decline in manufacturing employment on wage growth was excluded. Charts 3.13 and 3.14 show developments in wage and price inflation through a similar calculation based on the baseline scenario in this report. Wage growth may then be estimated at 4% in 2000, 51/4 % in 2001 and 6% in 2002. Consumer price inflation would then be ³/₄-1 percentage point higher than in the baseline scenario in the years ahead.

Unit wage costs will rise at a slower pace this year and next, while prices for imported goods and services will resume an upward trend. Higher productivity growth in the business sector normally contributes to curbing price inflation at this stage of the business cycle. However, capacity utilisation is now relatively high and the potential for higher productivity growth is uncertain. If price inflation is not restrained by the above factors, the rise in prices may be higher than projected.

On the other hand, low profitability in manufacturing implies that there is little scope for wage growth if productivity remains low in the period ahead. Stable cost competitiveness over time requires that wage growth is not higher than the level among trading partners. This may have a dampening effect on wage growth, and thereby also price inflation. As an illustration, we have calculated the effect of a reduction in wage growth to trading partner levels this year. This implies wage growth of 3-31/4% in 2000 and 31/2% the next two years. In the RIMINI model, this wage growth scenario results in a rate of increase in consumer prices that is 1/4-1/2 percentage point lower than in the baseline scenario the next two years.

Ever stronger competition in important markets may contribute to curbing price inflation and boosting productivity growth. If productivity growth in Norway gradually picks up on a sustained basis, as has been the case in the US, price inflation may turn out to be lower than projected in the years ahead.

Chart 3.13 Scenarios for wage growth¹ 6 Changed wage formation 6 5 5 4 3 2 2 1 1 0 n 1999 2000 2001 2002 ¹ The top scenario illustrates wage growth for changed wage formation. The bottom scenario

illustrates a development where wage growth drops to the level of Norway's trading partners

Sources: Statistics Norway and Norges Bank

Chart 3.14 Consumer price inflation for various wage growth scenarios (see Chart 3.13) 4 Changed wage formation 3 3 Baseline scenario 2 Same wage growth as trading partners 0 n 1999 2000 2001 2002 Sources: Statistics Norway and Norges Bank

4 Economic developments

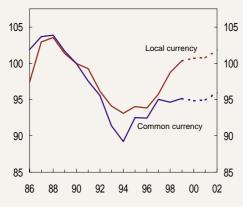
Table 4.1 Key aggregates for Norway, 1999-2002 Percentage change from previous year

	1999	2000	2001	2002
Mainland demand	1.1	13/4	21/2	21/2
Private consumption	2.1	23/4	21/2	23/4
Public consumption	2.5	21/4	2	2
Fixed investment	-3.5	- 1	23/4	21/2
Traditional exports	2.6	6	41/2	41/4
Traditional imports	-2.4	11/4	3¾	41/4
GDP	8.0	23/4	23/4	2
Mainland GDP	0.9	11/2	2	21/4
Employment	0.5	0	1/4	1
Unemployment, LFS	3.2	31/2	3¾	33/4
Consumer prices	2.3	23/4	2	21/4
Annual wages	4.9	3¾	4	41/2

¹ Percentage of labour force

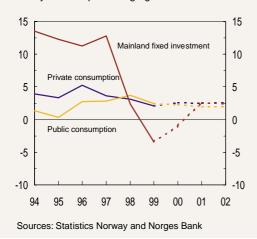
Sources: Statistics Norway, the Technical Reporting Committee on Income Settlements and Norges Bank

Chart 4.1 Wage costs in Norwegian manufacturing compared with trading partners'. Index: 1990=1000



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

Chart 4.2 Demand components, mainland Norway. Annual percentage growth



4.1 Main features

Slowdown comes to an end

Developments in 1999 indicate that the slowdown in the Norwegian economy came to an end last summer. With the exception of fixed investment in the petroleum sector, all demand components exhibited an upward movement in the second half of last year.

A number of indicators point to higher growth in private consumption in recent months. Retail sales and credit growth are rising, house prices continue to drift up and households are increasingly optimistic about their financial position and economic prospects for Norway. The financial position of households is solid and evidence suggests that the rise in saving through 1999 is now being reversed. Income growth will probably be more moderate this year than in 1999, but is projected to pick up through the projection period as a result of higher employment growth and rising wage growth. As a result, the estimates for private consumption growth have been adjusted upwards in this report.

Exports also expanded sharply towards the end of 1999, reflecting higher growth in the global economy. Estimates for export growth have been revised upwards for 2000.

Business investment is expected to continue to make a negative contribution to growth this year, but the fall in investment is now estimated to be more moderate than projected in the December report. This, combined with improved global economic prospects and expectations of higher consumer demand, has led us to raise the forecast for mainland GDP growth to 1½% in 2000 and 2% in 2001.

The slowdown in demand in the autumn of 1998 and spring of 1999 contributed to curbing the pressures that had built up in the economy, and which led to the sizeable pay increases in 1998. Over several years cost inflation was higher in Norway than among trading partners and profitability in some business sectors deteriorated sharply. In 1999, wage costs in manufacturing accounted for a larger share of total factor income than at the beginning of the 1990s. Over the next few years stronger growth in the international economy is expected to lead to higher export prices. In conjunction with increased productivity growth, this will improve profitability in the internationally exposed sector even though wage growth is expected to remain at a higher level than among trading partners. As a result, the turnaround in manufacturing will be less pronounced.

Pressures in the labour market remain strong. So far, the contraction in manufacturing has been more than offset by continued high employment growth in public and private service sectors. Total employment was previously projected to fall in 2000, whereas employment is now projected to remain approximately unchanged this year. Labour force participation is expected to remain at about today's level.

Output gap in the years ahead

In the analysis of economic developments it may be useful to use overall indicators of output and price developments. The output gap, which measures the difference between actual output and potential output — is such an indicator. Potential output is an estimate of the potential volume of aggregate output with stable inflation.

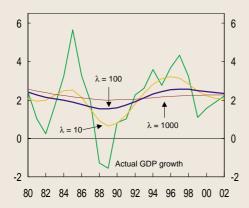
The simplest measure of potential output is the long-term trend rate of growth in GDP. In periods, actual output will deviate from trend output. For example, increased demand may translate into higher output in the short term so that the growth rate of actual output is higher than the growth rate of trend output, resulting in a positive output gap.

Norges Bank has used a simplifying, mechanical method for estimating output gaps. Trend mainland GDP is estimated using a Hodrick Prescott filter (Hodrick and Prescott 1997). Using this method, trend GDP converges with actual output. Trend output is obtained by minimising the following formula:

$$Min \left\{ y_t^* \right\}_{t=1}^T \left[\sum_{t=1}^T (y_t - y_t^*)^2 + \lambda \sum_{t=1}^T \left[(y_t^* - y_{t-1}^*) - (y_{t-1}^* - y_{t-2}^*)^2 \right],$$

where the variables are measured in logarithms. y_t is actual output in period t and y^*_t is trend output in the same period. The degree of smoothing of the trend is determined by the parameter λ , which is

Chart 1 Trend mainland GDP growth for various values of λ . Percent. Hodrick Prescott method



Sources: Statistics Norway and Norges Bank

quantified on a discretionary basis. A high λ value results in trend growth moving toward a linear trend. At the other end, λ =0 means that trend growth is identical to actual output. Chart 1 shows changes in trend growth for different values this parameter. The estimates for output growth in this report are used for the years 2000-2002.

On the basis of an overall evaluation, λ =100 is used in the calculations. This provides a reasonable representation of cyclical developments over the last 20 years and is in line with international practice

Another method for estimating potential output is to quantify the underlying production function. Estimated potential output is then linked to the underlying structure in the economy. The trend levels for labour, capital and available technology are inserted in a further specified production function:

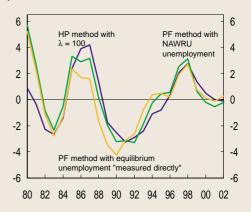
$$y_t = \alpha_0 + \alpha_1 l_t + (1 - \alpha_1) k_t + e_t$$

where y_t is gross output, l_t is person-hours, k_t is capital stock, e_t is total factor productivity and a_0 is a constant (all variables measured in logarithms).

The estimation of labour demand in equilibrium is closely linked to the estimate for equilibrium unemployment. The OECD uses a method that estimates the level of unemployment, which over the short term is associated with stable wage inflation, NAWRU. Experience shows that it is difficult to find such simple relationship between the level of unemployment and wage inflation. An alternative method could be to derive an estimate for equilibrium unemployment from a model that explains changes in the actual unemployment rate.

Chart 2 shows developments in the output gap using the three methods above. As indicted by the chart, all three methods essentially show the same development in the output gap, but in individual years there may be substantial differences. All three methods indicate that the Norwegian economy has

Chart 2 Comparison of output gaps according to different methods. As a percentage of trend production



Sources: Statistics Norway and Norges Bank

experienced a cyclical expansion in recent years.

The production function method with equilibrium unemployment "measured directly" shows - contrary to the Hodrick Prescott method – a positive output gap at the end of the period. The uncertainty of the Hodrick Prescott method is particularly high at end points. None of the methods will capture a permanent change in underlying productivity growth.

The various methods for estimating output gaps feature certain differences. The uncertainty inherent in the methods warrant caution with regard to drawing conclusions based on figures for individual years. Such indicators are not a substitute for more complex methods such as macroeconomic models, but may serve as a supplement to the models used.

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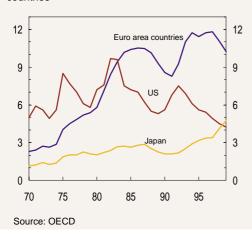
Hodrick, R.J. and Prescott, E.J. (1997). "Postwar U.S. business cycles: An empirical investigation", Journal of Money, Credit and Banking, Vol. 29, No. 1, 1-16.

Table 4.2 GDP estimates. Percentage change from previous year

	1999	2000	2001	2002
US	4.1	4	3	31/4
Japan	0.3	3/4	11/2	11/2
Germany	1.4	23/4	3	21/4
France	2.7	31/4	3	21/4
Italy	1.4	21/2	23/4	3
UK	1.9	3	21/2	21/2
Sweden	3.8	3¾	31/4	21/2
Norway's trading				
partners1	2.6	3	23/4	21/2
Euro area ²	2.3	3	3	21/2

Source: Norges Bank

Chart 4.3 Unemployment as a percentage of the labour force in the US, Japan and the euro area countries



Fiscal policy is assumed to remain neutral through the projection period. This implies that growth in general government spending will be on a par with the trend rate of growth in the mainland economy.

The risk of a downturn within the next two years is considered to be limited. There is now little slack in the labour market, particularly in services and distributive trades. Balanced growth is contingent on an increase in production largely based on higher productivity. This may also contribute to curbing inflationary impulses.

4.2 The international environment

Improved growth outlook

The outlook for the global economy and our trading partners is auspicious. Growth in the world economy reached about 31/4% last year and is expected to increase further to 4% in 2000 and 2001. Growth also picked up among Norway's trading partners through 1999 and is expected to improve further in several European countries this year. The projection for GDP growth among trading partners has been revised up by a quarter percentage point since the December report.

The US is experiencing the longest period of expansion in its history, recording its eighth consecutive year of positive growth in 1999. In the last three years, growth rates have exceeded 4%. The expansion is being driven by private domestic demand. Employment growth, high growth in real wages and rising asset values have fuelled the strong growth in demand for several years. Furthermore, the long-term growth potential of the US economy has probably increased as a result of high productivity growth. Since June 1999, the Federal Reserve has raised its key rate by one percentage point. Part of this increase, however, must be seen in connection with the interest rate reductions in the autumn of 1998 in the wake of the crisis in Asia and Russia. We expect somewhat slower growth in the US economy ahead as a

Weighted by export weights
 Weighted by the IMF's GDP weights corrected for purchasing power

result of further rate increases and a more moderate rise in asset prices.

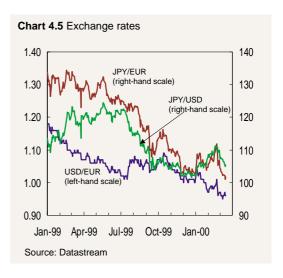
Among our traditional trading partners, the pick-up in growth has been particularly pronounced in the largest countries in Europe. German exports have expanded as a result of the improvement in economic performance in Eastern Europe and Asia and the depreciation of the euro. Although market participants expect higher interest rates, growth in private domestic demand is expected to rise, partly as a result of higher employment. On balance, this will result in stronger GDP growth in Germany. Italy was also severely affected by the crisis in Russia and Asia. However, the expansion in exports is also improving growth prospects in this country. On the whole, growth in the euro area is expected to be higher this year.

Sweden, our most important trading partner, has recorded a sharp upswing in economic growth. The central bank has expressed concerns about a possible increase in inflation and has raised its key rate by 0.85 percentage point since November 1999. Market participants expect higher interest rates in the period ahead. Growth is expected to remain strong in the years ahead thanks to buoyant employment growth, rising asset prices and an expansionary fiscal policy. In the UK, economic growth was higher than expected last year. Pound sterling appreciated through 1999, but the effects on some UK export industries were largely offset by higher global demand. A series of interest rate cuts in the autumn of 1998 and spring of 1999 contributed to bolstering economic growth. Interest rates have since been increased to some extent. High employment, stronger wage growth and rising asset prices will in the short term contribute to continued robust growth in spite of the rate increases.

Japan is experiencing a period of economic stagnation, with weak GDP growth of 0.3% in 1999 compared with 1998. The unexpected strong performance in the first half of last year was followed by a contraction in GDP in the second half of the year, reflecting developments in public investment. Exports picked up last year as a result of more favourable trends in other Asian countries. However, there are no signs of a sustained recovery in private domestic demand. High unemployment and sluggish wage growth are restraining growth in private consumption. The Japanese central bank has kept the nominal interest rate at close to zero over a long period, but the real interest rate has remained positive as a result of the fall in prices. Fiscal measures are expected to contribute to GDP growth of 34% this year.

The East Asian economies have shown a surprisingly strong recovery. Production in many countries is now back to the level prevailing prior to the output contraction in 1997 and 1998. The positive trends in this region are expected to continue. Furthermore, Russia's economic performance has been more favourable than expected. Official figures show GDP growth of 3.2% last year, which is the sharpest increase since the Soviet Union was dissolved in 1992. The economies in transition recorded a total growth of about

Chart 4.4 Annual GDP growth in some Asian countries. Per cent 15 15 South Korea 10 10 5 5 Thailand 0 0 -5 -5 -10 -10 -15 -15 94 95 96 97 98 99 00 Sources: IMF and Norges Bank



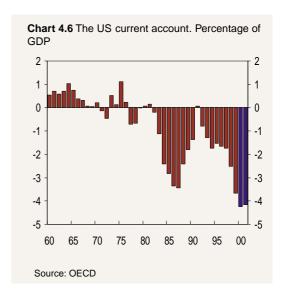


Chart 4.7 CPI including and excluding energy and food in the US. 12-month rise. Per cent

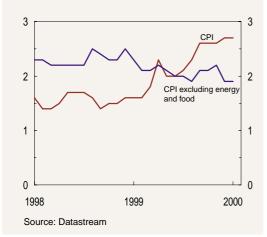
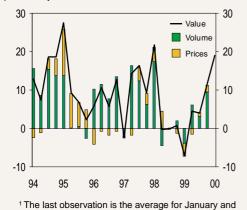


Chart 4.8 Tradit ional merchandise exports including to External Trade Statistics. Volume, price and value ¹. Percentage rise on same quarter previous year



Source: Statistics Norway

Chart 4.9 Prices for aluminium and salmon 20 40 Salmon (left-hand scale, NOK/kilo) 15 30 20 10 Aluminium (right-hand scale OK 1000/tonne) 5 10 94 95 96 98 99 00 Sources: Statistics Norway and Financial Times

2½% in 1999. Growth is expected to be slightly higher this year and next.

The currency crisis in Brazil in January 1999 led to less favourable funding terms and weaker exports for a number of Latin American countries. The exception was Mexico with growth of 3.4%, fuelled by exports to the US. The economic situation in the area improved towards the end of 1999, and the positive trend is expected to continue as a result of higher global growth and lower interest rates.

Risks to the international outlook

Consumer price inflation among trading partners has increased over the last year, partly reflecting the surge in oil prices. Continued high oil prices, or further increases, may contribute to higher-than-projected inflation. See section 3.3 for a further discussion of the risks to the inflation outlook.

The substantial imbalances in the US economy are associated with certain risks with regard to future economic developments. The current account deficits, measured as a percentage of GDP, are record high (see Chart 4.6). If oil prices remain high or increase further, inflationary pressures in the US economy will increase. Moreover, the labour market is tight and wage growth may turn out to be higher than assumed. Higher inflation may prompt a tighter monetary policy stance and lead to lower growth. The effect of monetary policy tightening may be fairly substantial in today's situation because of high asset prices, a low household saving ratio and record-high debt ratios in US companies.

Most East Asian countries recorded brisk growth last year. However, growth is fragile and contingent on continued confidence on the part of international investors, solid growth in the world economy and growth in domestic demand. Developments in Japan are shrouded in uncertainty. The yen is strong, which may create problems for the Japanese export sector. Fiscal leeway is limited by the country's substantial government deficits and debt, which may exacerbate problems if growth does not pick up.

4.3 The balance of payments

Rising current account surpluses

Higher growth in the world economy is reflected in the sharp expansion of Norway's traditional merchandise exports in the last half of 1999. Exports to the high-growth economies in Asia and the US have shown particularly strong growth. Towards the end of last year, exports to important trading partners such as Denmark and the UK also increased. Exports to our main trading partners, Germany and Sweden, showed only modest growth on the same period last year.

Export growth will pick up further this year, fuelled by higher growth internationally. Reserves of unfilled export orders fell at a slower pace towards the end of last year. According to Statistics Norway's general business tendency survey for the fourth quarter, new orders are expected to improve further in the period ahead. Available capacity in the petroleum supplier sector may also indicate that enterprises will be able to satisfy growing foreign demand through an increase in production.

However, growth in exports is also contingent on avoiding any further deterioration in cost competitiveness. After several years of higher wage growth than among trading partners, the cost competitiveness of Norwegian manufacturing is relatively weak. Higher commodity and producer prices will nevertheless contribute to strengthening the profitability of export industries this year and next. The favourable trend for exports that started towards the end of 1999 is expected to continue, with increased Norwegian exports at the early stage of the upturn in Europe and Asia. Growth in traditional merchandise exports for this year has been adjusted upwards to 6%, while growth is estimated at 4½% next year and 4¼ % in 2002.

Prices for traditional export goods exhibited a brisk rise towards the end of last year. This price level is expected to be maintained through 2000. In addition, the rise in spot prices for aluminium last year will lead to a further increase in export prices this year. Prices for traditional export goods are projected to rise by $3\frac{1}{2}\%$ this year and $1\frac{3}{4}\%$ in 2001, which is an upward adjustment on the last report.

The projection for traditional merchandise imports has also been revised up for this year as a result of upward revisions in the estimates for traditional merchandise exports, private consumption and corporate investment. However, the fall in petroleum investment will contribute to curbing import growth in 2000. Traditional merchandise imports are projected to increase in volume by 1¼% in 2000 and 3¾% in 2001.

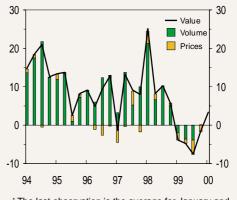
The current account surplus in 2000 is estimated at NOK 148bn, equivalent to 11% of GDP, representing an increase of about NOK 100bn on 1999. The increase in traditional merchandise exports, combined with sluggish import growth, will contribute to a marked improvement in the traditional merchandise balance between 1999 and 2000. However, oil exports and the oil price are the main factors behind the substantial surplus. Oil production and oil exports are estimated to increase by 10% this year and 6¾% in 2001. The current account surplus is estimated at NOK 129bn next year. It is assumed that the additional petroleum revenues accruing to the state will be offset by higher allocations to the Government Petroleum Fund.

4.4 Domestic demand

Resumption of growth in consumer spending

Private demand is now picking up after a year marked by cautious household behaviour. After monetary policy was tightened in the summer of 1998, household saving increased in 1999, with a pronounced decline in purchases of expensive consumer goods, such as cars. As the risk of a pronounced downturn in the economy subsided and interest rates were reduced, household demand rebounded. The con-

Chart 4.10 Traditional merchandise imports including to External Trade Statistics. Volume, price and value ¹. Percentage rise on same quarter previous year



¹ The last observation is the average for January and February Source: Statistics Norway

Chart 4.11 Private consumption of goods and services. Percentage rise on same quarter previous year

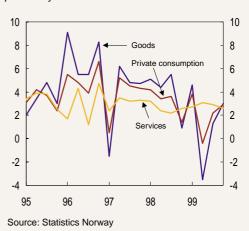
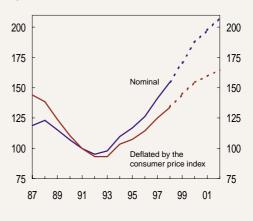


Chart 4.12 Resale home prices. Nominal and adjusted for inflation. Index 1991=100



Sources: Statistics Norway, ECON and Norges Bank

Chart 4.13 The consumer confidence indicator and the major purchases indicator

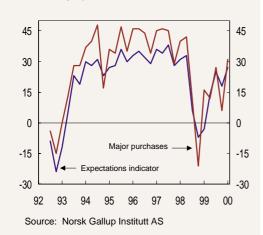


Chart 4.14 Household net lending (total for last four quarters, in billions of NOK) and net financial wealth/income ratio. 1994 to Q3 1999

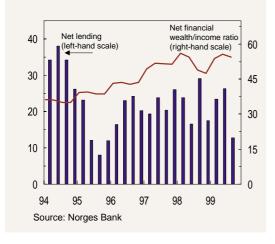
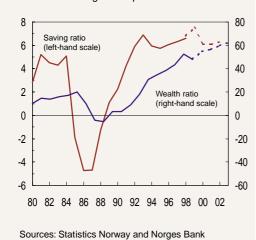


Chart 4.15 Household saving and net financial wealth. Percentage of disposable income



sumption of services rose in 1999 and for the first time since 1992 increased at a faster pace than spending on goods (see Chart 4.11). Excluding dwelling services, spending on services grew by 3.9%. Car sales also picked up towards the end of the year. So far in 2000, growth in demand has been higher than expected, with the retail sales index showing a sharp rise in volume in January.

Figures from ECON showed that the national average for house prices rose by 10.6% last year. House prices rose at a fairly fast pace towards the end of last year and price developments for cooperative dwellings in Oslo in January and February may point to a continued rise. House prices are expected to rise at a somewhat faster pace than projected in the last report, ie at 91/2% this year, and at a somewhat slower pace in the following years as residential construction picks up. The upswing in housing investment and a continued rise in house prices will result in substantial growth in household housing wealth in the years to 2002. Gains in housing wealth tend to result in higher consumption as this reduces the need for financial saving and increases the scope for mortgage-backed household borrowing. In addition, Norsk Gallup's consumer confidence indicator rose in February, reaching the highest level recorded since autumn 1998 (see Chart 4.13). This reflects growing household optimism about the economic situation. Empirically, there is a close correlation between this indicator and higher spending growth the following quarter.

The household sector's financial position also provides room for higher growth in demand. Figures from Statistics Norway show that households set aside a net amount of NOK 32bn in bank deposits, equities and bonds last year. Combined with the marked advances in equity prices through the year, this resulted in considerable growth in household financial wealth. Measured as a share of total income, household net financial assets were more than 5 percentage points higher at the end of the third quarter of 1999 than a year earlier (see Chart 4.14). As a sector, households seem to have a very strong financial position in a historical context.

Household real income growth is estimated at 2.9% in 1999. Income growth will probably be lower this year, but will pick up through the projection period as a result of higher employment growth and rising wage growth. The reduction this year primarily reflects lower wage and employment growth than last year. It is assumed that households' capital income will rise somewhat in the years ahead. On the other hand, higher borrowing in step with rising house prices will contribute to increased interest expenditure, thereby curbing the growth in disposable income to some extent.

Growth in overall private consumption is projected at 23/4% this year and 21/2% in 2001, moving up to 23/4% in 2002. These estimates have been revised upwards in relation to the December report. Against this background, the saving ratio will fall to 6% this year followed by a moderate rise.

In the light of the robust financial position of the household sector, there may be a risk of a further fall in the saving ratio. For example, if the saving ratio were to fall to the 1995 level, consumption growth would exceed 4% this year. This illustrates the uncertainties associated with the estimate. However, the interest rate assumption in the baseline scenario, with a slight increase in interest rates through the year, may contribute to sustaining the saving ratio. An estimated saving ratio of about 6% in the years ahead roughly corresponds to the average for the 1990s.

Upswing in housing investment

Housing investment rose substantially towards the end of last year. Housing starts showed a stronger-than-expected increase and new orders and order backlogs in the housebuilding industry exhibited sharp growth. Housing investment is projected to expand by 73/4% in 2000 and 6% next year. The projections for housing investment have been revised upwards since the last report. Higher growth in housing investment in coming years is related to the sharp rise in prices for existing dwellings through the 1990s. Resale home prices have risen at a faster pace than prices for new homes in recent years, making new homes relatively more attractive than resale homes. Chart 4.16 shows that this relationship also existed in previous years. Housing construction has been sluggish in the past two years, partly reflecting higher interest rates. Another reason may be the new Building and Planning Act, which has resulted in a long processing period for municipal building applications after its introduction in 1998. Combined with net in-migration to the larger cities through the 1990s, this has led to pent-up demand for new dwellings. The increase in demand will gradually lead to increased housebuilding activity, particularly in the southeastern part of Norway. A shortage of labour in the construction industry may, however, have a dampening impact on housing construction even though lower demand for non-residential construction is likely to ease pressures in the period ahead. An average of 22 000 dwellings are expected to be built annually from 2000 to 2002, which is slightly higher than the average for the 1990s.

Weaker fall in investment

The decline in business investment was the main explanatory variable behind the low growth in the Norwegian economy in 1999. Although the decline was more moderate than projected in the December report, investment is expected to have a dampening impact on economic growth again in 2000. Mainland business fixed investment is projected to fall by 3% this year.

Investment in manufacturing and the construction industry contracted broadly in line with expectations last year. Profitability in manufacturing has deteriorated sharply over the last years. In the short run, this will translate into lower investment. Weak profit trends will probably result in a continued fall in investment this year. The sharp fall in invest-

Chart 4.16 Ratio between prices of resale and new detached houses (1991=100) and seasonally adjusted housing investment (in billions of 1996 NOK)

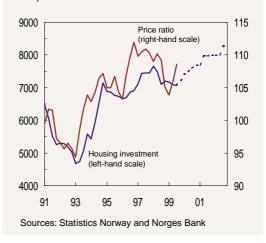
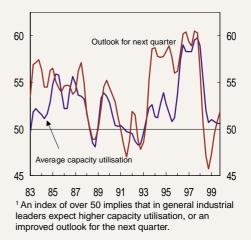


Chart 4.17 Expected changes in capacity utilisation in manufacturing and industrial leaders' assessments for next quarter. General business tendency survey. Diffusion indices¹. Smoothed



Source: Statistics Norway

Chart 4.18 Net fixed investment rate. Investment less capital consumption as a percentage of value added

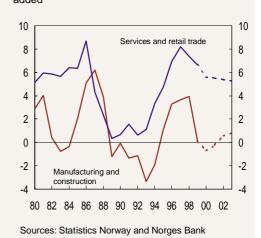
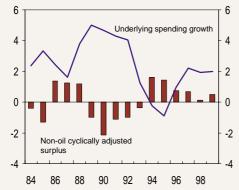


Chart 4.19 Non-oil cyclically adjusted government surplus and real underlying spending growth¹



¹ The surplus is change on previous year, expressed as a percentage of mainland GDP. Spe nding growth is percentage change from previous year.

Source: Ministry of Finance

ment related to petroleum activity will also have an adverse effect on some manufacturing sectors, contributing to sluggish developments in the shipbuilding industry and parts of the engineering industry. On the other hand, higher export prices will boost profitability in the export industry. Industrial leaders' judgement of prospects for the first quarter is positive, according to Statistics Norway's general business tendency survey. For enterprises producing export goods, production is expected to increase in the first quarter. Production among enterprises producing domestic capital goods is expected to continue to fall.

Investment in services and distributive trades was higher than expected towards the end of the year, partly reflecting higher investment in distributive trades and the sharp growth in investment in the power sector. A more moderate decline is expected this year compared with the estimate in the December report.

Profitability in manufacturing is projected to increase next year as a result of higher export prices and improved productivity, although wage growth will remain higher than among trading partners. This will lead to a recovery in investment. Investment in services and distributive trades is expected to show higher growth over the next years, partly reflecting rising growth in private consumption. However, after several years of high growth in fixed investment in the mid-1990s, the capital stock in this sector is relatively large. There is therefore a limited need for additional capacity in the short term. Annual growth in mainland investment is projected at 2% in 2001 and 2¼% in 2002.

Developments in local government activity highly uncertain in the period ahead

In 1999, general government consumption again expanded at a considerably faster pace than estimated when the economic programme was adopted in the autumn of 1998. Preliminary estimates show an increase of 2.5% in general government consumption from 1998 to 1999, measured at constant prices, with local government consumption recording the highest growth. General government gross fixed investment fell by 4.5% in 1999. The high growth in transfers to households from the central government contributed to a real increase in general government expenditure of about $2\frac{1}{2}$ % last year, however.

Our projections for this year are based on the budget adopted for 2000. Growth in general government consumption is estimated at 21/4% this year, while investment is expected to show a moderate decline. A growth in transfers of about 21/2% entails real underlying growth in general government spending of about 2% in 2000. There is substantial uncertainty attached to local government activity. In recent years, high activity levels have contributed to weakening local government finances. In 1999, local government deficits are estimated at NOK12bn, according to the Norwegian Association of Local Authorities. These deficits imply a need for financial consolidation in the local government sector.

Fiscal policy is assumed to remain neutral in 2001 and 2002 with general government expenditure rising at about the same pace as trend GDP growth.

4.5 The labour market

Turnaround less pronounced than envisaged earlier

Unemployment is higher than one year earlier, but there are no signs of a marked increase. Employment growth remains high in some parts of the labour market. In the light of the overall demand picture, labour market pressures may be somewhat stronger than previously assumed. Demand for labour is still expected to slow this year, but the turnaround in the labour market will probably be less pronounced than we projected in the December report.

Employment growth slowed through most of 1999 but picked up again in the fourth quarter. Manufacturing employment is still declining, but so far this has been more than offset by sustained high growth in employment in the public and private service sectors. Preliminary estimates indicate that wage costs, measured as a percentage of factor income in manufacturing, rose markedly in the latter part of the 1990s. In 1999, the wage share was higher than the peak level recorded at the beginning of the 1990s (see Chart 4.21). This implies a substantial deterioration in profitability in this sector over the last few years. In conjunction with markedly lower levels of investment, this is expected to contribute to a continued fall in manufacturing employment this year and next. The wage share for other mainland market-oriented activities is also at a historically high level. This may contribute to curbing employment growth in nonmanufacturing sectors. The seasonally adjusted number of vacancies has declined since September 1999. In recent months, the decline in vacancies has tended to level off and even fall in the private and public service sectors where pressures have been strongest. This indicates slightly lower demand for labour.

On the other hand, the number of vacancies is still at a historically high level. In February, moreover, the number of vacancies in manufacturing showed an increase for the first time in many months. Combined with a flattening out of the number of lay-offs, primarily in manufacturing, this may point to a more auspicious outlook for the sector. In addition, aggregate demand in the economy is now expected to be higher in the next few years than previously estimated. Employment is projected to remain unchanged this year, followed by a growth rate of ¼% next year. In 2002, employment growth is estimated at about 1%.

Since 1998, the average labour force participation rate has remained unchanged at a very high level, with the highest increases for women. Labour force participation among women is now approaching the same rate as for men. This may indicate that the potential for higher labour force participation among women is virtually exhausted. Growth in the labour force slowed through most of last year, but

Chart 4.20 Change in numbers employed from previous year (thousands) and LFS unemployment rate

80
40
40
Unemployment rate (right-hand scale)

80
80
82
84
86
88
90
92
94
96
98
00
02

Sources: Statistics Norway and Norges Bank

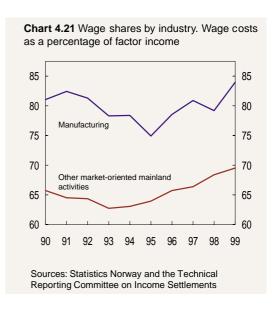


Chart 4.22 Change in labour force from previous year (thousands) and labour force as a percentage of working age population (labour force participation) 60 77 Labour force 75 45 (left-hand scale) 30 73 15 -15 Labour force participation (right-hand scale) -30 65 80 82 84 86 88 90 92 94 96 98 00 02 Sources: Statistics Norway and Norges Bank

Chart 4.23 Number of registered unemployed and vacancies (thousands). Seasonally adjusted



rebounded again in the fourth quarter, according to LFS statistics. However, it is uncertain whether the LFS for the fourth quarter provides an accurate representation of labour market conditions. The Norwegian labour market has proved to be flexible in response to turnarounds in the economy. Against this background, the labour force is expected to expand at a slightly slower pace in coming years. The working-age population (16-74 years) will be rising in these years, which will probably sustain the growth in the labour force. The labour force is projected to expand by ½% this year and next, which is about the same rate implied by demographic trends. Labour force growth is projected at 1% in 2002.

Unemployment was relatively stable in 1999, with some increase in seasonally adjusted unemployment in the second half of the year. Fourth-quarter LFS figures showed for the first time a relatively pronounced increase in unemployment, both seasonally adjusted and compared with the same quarter one year earlier. However, there is substantial uncertainty surrounding the seasonally adjusted figures, which may imply that the fourth-quarter unemployment figures are somewhat overestimated. LFS unemployment has tended to lead registered unemployment, but the marked increase in LFS unemployment in the fourth quarter is so far only partly reflected in registered unemployment. So far this year, the number of registered unemployed at employment offices has been about 5 000 higher than one year earlier. Unemployment is still expected to edge up through the year. Somewhat higher-than-expected growth in employment may, however, suggest that the rise in unemployment will not be as pronounced as estimated in the December report. Against this background, our estimate for LFS unemployment has been lowered to 3½% this year. The labour force is expected to expand at a somewhat faster pace than employment growth next year, with LFS unemployment increasing to about 33/4%.

MAIN MACROECONOMIC AGGREGATES

	NOKbn	Percent	age change f	rom previoi	us year
	(1996 prices)	unless otherwise indicated			d
	1999	1999	2000	2001	2002
Real economy					
Private consumption	535.3	2.1	23/4	21/2	23/4
Public consumption	225.9	2.5	21/4	2	2
Total gross investment	250.2	-7	-53/4	3/4	3
- Petroleum activities	64.2	-14	-20	-5	5
Mainland Norway	177.2	-3.5	-1	23/4	21/2
Enterprises	111.8	-3.3	-3	2	21/4
Dwellings	28.5	-2.8	$7\frac{3}{4}$	6	33/4
Gen. government	36.9	-4.5	-11/2	2	$1\frac{3}{4}$
Mainland demand ¹	938.4	1.1	13/4	21/2	$2\frac{1}{2}$
Exports	443.0	0.6	63/4	5	$2\frac{1}{2}$
- Crude oil and natural gas	153.4	-0.3	10	6¾	$1/_{4}$
- Traditional goods	178.6	2.6	6	$4\frac{1}{2}$	$4\frac{1}{4}$
Imports	385.6	-3.6	1	$3\frac{1}{2}$	4
- Traditional goods	257.9	-2.4	11/4	3¾	$4\frac{1}{4}$
GDP	1091.0	0.8	23/4	2¾	2
- Mainland Norway	905.7	0.8	1½	2	21/4
Labour market					
Employment		0.5	0	1/4	1
Labour force, LFS		0.4	1/2	1/2	1
Unemployment, LFS		3.2	31/2	3¾	3¾
Prices and wages					
Consumer prices		2.3	23/4	2	21/4
Annual wages		4.92	3¾	4	$4\frac{1}{2}$
Import prices, traditional g	oods	-2.2	13/4	11/4	1
Export prices, traditional g	oods	0.0	31/2	13/4	11/4
Crude oil price, NOK		141	203	158	130
Resale home prices ³		10.6	91/2	5	51/4
External account ⁴					
Trade surplus, NOKbn (lev	/el)	69.4	166	144	100
Current account surplus, NOKbn (level)		43.8	148	129	91
Current account surplus, %	o of GDP 3.7	11	93/4	63/4	
Memorandum					
Household saving ratio		7.5	6	6	61/4

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

 $^{^{\}rm 1}$ Private and public consumption and mainland gross fixed investment $^{\rm 2}$ 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 5.1% in 1999.
³ ECON's housing prices index with Norges Bank's weight set

