

The estimates in Norges Bank's third-quarter Inflation Report show broadly the same development in the mainland economy as in the reports presented earlier this year. The deviations are well within the margin of uncertainty inherent in such projections. However, there has been a shift in the balance of risks.

Last winter the uncertainty associated with economic developments was greater than normal. There was a risk that the weakening of the krone and the high level of wage growth peculiar to Norway could become self-reinforcing and trigger an acceleration in inflation. Nor could we rule out the possibility that the Norwegian economy would move in the opposite direction, into a deflationary recession.

The budget for 1999, as adopted in November of last year, and the wage settlement last spring contributed to reducing the uncertainty. Moreover, the setback in Asia proved to be temporary and the crisis in Latin America had a more limited impact on the global economy than feared. In addition, higher oil prices are contributing to growing optimism in Norway.

We still expect the mainland economy to expand at a slower pace than the growth in output potential both this year and next, with the attendant effect of curbing labour market pressures. This seems to be necessary in order to keep price and cost inflation in line with European rates. However, unemployment appears to have increased at a somewhat slower-than-expected rate.

It now seems that the downturn will be confined to certain sectors of the economy, in particular the construction and engineering industries. However, the construction industry features a high degree of flexibility with a common Nordic labour market. Moreover,

residential construction is gradually expected to show an upswing.

The problems in the engineering industry are partly related to rapid development and an investment level on the Norwegian shelf that cannot be sustained over time. If the engineering industry is competitive internationally and can sell its goods and services abroad, the activity level in the industry can be maintained. Otherwise, the activity level must be adapted accordingly.

As discussed further in this report, there is still uncertainty associated with the economic outlook. However, the projections indicate that mainland growth will be approaching its trend level during 2001. It is important to bear this in mind when formulating economic policy. At the same time, price and cost inflation may be brought into line with the level aimed at by the European Central Bank.

Fiscal policy is crucial to a stable krone exchange rate and developments in Norwegian interest rates. The size of the internationally exposed sector is determined over time by a tug-of-war for economic resources between the public sector and the business sector (between the sheltered sector and industries with enterprises that compete with foreign enterprises). Given the Norwegian economy's dependence on oil, there are risks associated with a further weakening of the basis for mainland business activity. It is thus important that growth in central government expenditure does not over time exceed growth in the mainland economy. This will provide the Norwegian business sector with a sounder basis for growth.

*Svein Gjedrem*

### 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. 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.

## 1 SUMMARY

## 2 RECENT DEVELOPMENTS

- 2.1 Price developments
- 2.2 Interest rates, the exchange rate and monetary conditions
- 2.3 The cyclical situation

*Box:*

*- The Y2K problem and the effect on financial markets*

## 3 NORGES BANK'S INFLATION PROJECTIONS

- 3.1 The inflation outlook the next two years
- 3.2 Inflation expectations
- 3.3 The risks to the inflation outlook

*Boxes:*

*- Competitiveness*

*- Inflation differential between Norway and trading partners*

## 4 ECONOMIC DEVELOPMENTS

- 4.1 Main features
- 4.2 The international environment and the balance of payments
- 4.3 Domestic demand
- 4.4 The labour market

The cut-off date for the Inflation Report was  
10 September 1999

# 1 SUMMARY

Norges Bank expects a gradual reduction in consumer price inflation towards the level aimed at by euro countries. Consumer price inflation is projected at 2¼%, or slightly lower, in 1999. Price inflation is projected at 2% in 2000 and 1¾% in 2001. The main picture is broadly in line with the overview presented in the June Inflation Report. The underlying rise in consumer prices, ie excluding changes in indirect taxes and electricity prices, is put at about 0.1 percentage point higher than the rate of increase of the total consumer price index in 1999. In the following years, underlying price inflation is expected to be the same as the overall rise in consumer prices.

After expanding sharply since 1992, the Norwegian economy is now experiencing a period of weaker growth. Mainland GDP growth is estimated at ½% in 1999 and ¼% in 2000. Thereafter, growth is expected to pick up to 1½% in 2001.

Following several years of strong growth in employment, labour market reserves now appear to be exhausted, and the economy is nearing capacity limits. This has translated into a deterioration in cost competitiveness in the business sector. Over the past two years, wage growth has stood at a good 10 per cent, primarily owing to the income settlement in 1998.

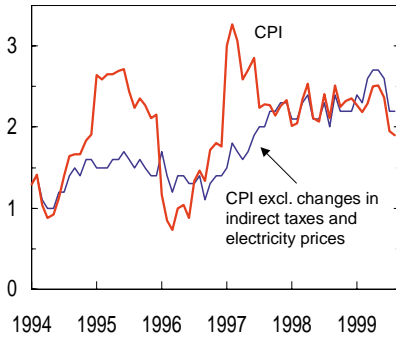
Weaker corporate profits imply a fall in investment in 1999 and 2000. A number of large projects in the petroleum sector will be completed this year, which will be followed by a sharp contraction in investment demand next year.

Lower household spending on consumer goods, in conjunction with the decline in investment, will be reflected in a pronounced downturn in traditional merchandise imports. The estimate for the current account surplus has been adjusted up to NOK 31bn for 1999 against the background of a lower trade deficit for traditional goods and higher oil prices. In the period ahead, the surplus will increase further as a result of strong growth in oil production.

There is considerable uncertainty attached to the amplitude of the turnaround. Growth in domestic demand may be stronger than estimated in the baseline scenario, which would imply continued strong labour market pressures. In recent months, several commodity and energy prices have edged up and some economies are showing stronger-than-expected growth. Unless the US economy suffers a severe setback, a steep rise in commodity and producer prices is more likely than a comparable fall. This implies an increased risk of higher imported inflation in the Norwegian economy.

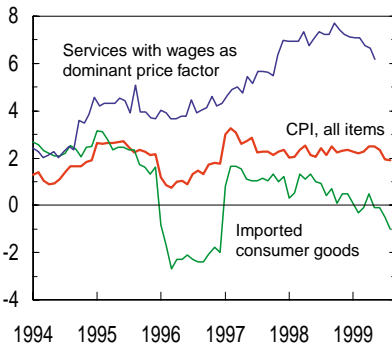
The projections are based on the assumption that interest rates move in line with market expectations as indicated by forward rates. The exchange rate is assumed to remain stable against European currencies.

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



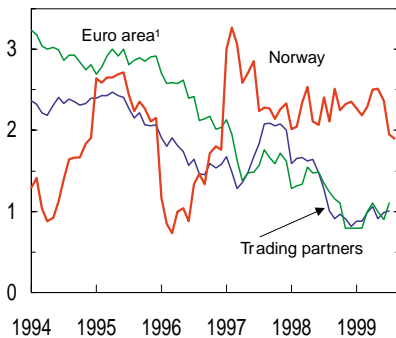
Sources: Statistics Norway and Norges Bank

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



Source: Statistics Norway

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



<sup>1</sup> Price rise in euro countries measured by the harmonised index of consumer prices.

Sources: Statistics Norway, Eurostat and OECD

## 2.1 Price developments

### Lower-than-expected price inflation

In recent months price inflation has been more moderate than expected. In August, the CPI increased by 1.9% on the same month one year earlier (see Chart 2.1). Excluding changes in indirect taxes and electricity prices, the rise in prices was 2.2% in the same period. Falling electricity prices have contributed to the moderate rise in prices. So far this year, electricity prices have declined by more than 5%, which means that the underlying rise in prices has been higher than the rise in the CPI since the beginning of the year.

Food prices rose at markedly slower rate during the summer compared with the same period last year. External trade statistics for the second quarter show that prices for imported food fell by around 4% compared with the same quarter of 1998. This may also have had an influence on prices for food produced in Norway.

After rising by around 0% in previous months, prices for imported consumer goods fell by 1.0% in August. Service prices, with wages as a dominant price factor, are still pushing up price inflation, although the rate of increase is slowing (see Chart 2.2).

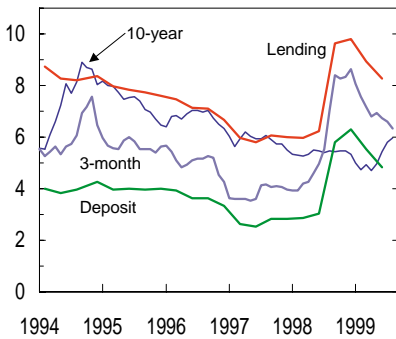
Price inflation among our traditional trading partners was 1.0% in July. Measured in terms of the harmonised index of consumer prices (HICP), price inflation in the euro area was 1.1% in the same month. In spite of markedly higher oil prices, consumer price inflation among trading partners has remained subdued in recent months (see Chart 2.3). In August, the HICP showed a 1.7% rise in Norway. A planned broadening of the basis for the HICP will probably entail an increase in price inflation in Norway measured by this index, bringing it to the level measured by the ordinary CPI. The broadening is not expected to influence the rise in the HICP in euro countries.

## 2.2 Interest rates, the exchange rate and monetary conditions

### Short rates down and stable krone exchange rate

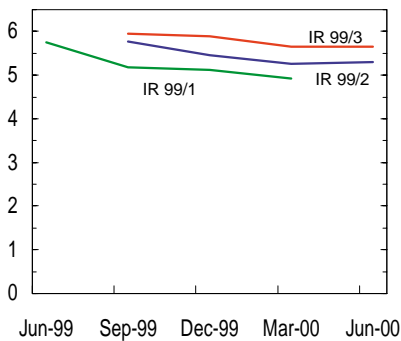
So far this year, Norges Bank has reduced interest rates in four steps by a total of 2 percentage points. Norges Bank has not reduced its key rates since the June Inflation Report. The three-month money market rate has fallen by about 0.5 percentage point since the June report (see Chart 2.4). The nominal three-month rate was 5.9% on 10 September. In the

**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*



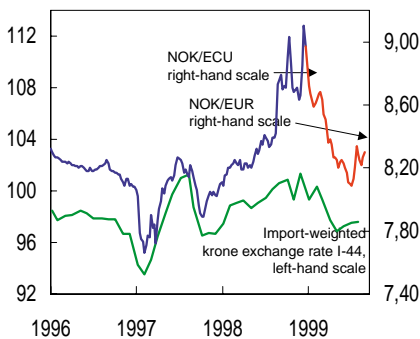
Source: Norges Bank

**Chart 2.5** *3-month forward rates (FRA rates)*



Sources: Reuters and Norges Bank

**Chart 2.6** *NOK/ECU and NOK/EUR exchange rates and import-weighted krone exchange rate against 44 currencies. January 1995=100*



Sources: Norges Bank and Datastream

period to April, three-month rates fell more rapidly than Norges Bank's key rates, and were at times substantially lower than Norges Bank's deposit rate. Since April, money market rates have fallen at a slower pace than Norges Bank's key rates. This is probably due to widespread market expectations of the reductions in key rates in April and June and declining expectations of further cuts thereafter.

The pricing of FRAs may indicate that market participants do not expect much change in three-month rates in the coming year (see Chart 2.5). Special conditions may have contributed to pushing up money market rates and FRA rates beyond the level implied by expectations concerning Norges Bank's key rates. Two such conditions may be developments in the international economy and a higher risk premium in global financial markets in connection with the year 2000. The Y2K effects on the Norwegian financial market are discussed further in a separate box.

The yield on ten-year government bonds is now 6.0%, or 0.6 percentage point higher than in June. Since April, the yield has risen by 1.3 percentage points. The yield differential against corresponding German bonds has hovered around 1 percentage point since June.

The krone has appreciated in the period since June. The exchange rate was strongest at the beginning of July when it reached 8.06 against the euro. Since then, the krone has depreciated against the euro and the exchange rate is now at about the same level as in June (see Chart 2.6). Measured against USD, the krone has firmed by about 1% since the June Inflation Report. Measured in terms of the effective import-weighted exchange rate index, which comprises 44 countries, the krone weakened by 0.8% between May and August.

### *Stable credit growth*

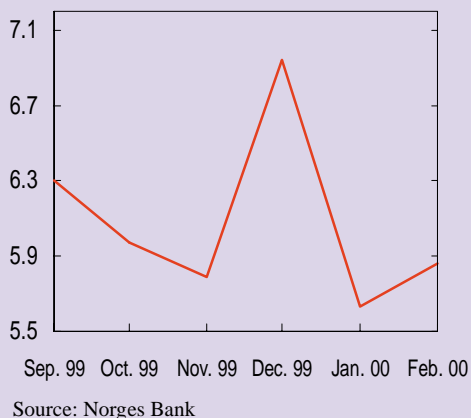
The growth in domestic credit (C2) has been relatively stable in recent months after moving on a downward trend for a year. The reduction in interest rates so far this year may have contributed to sustaining the growth in credit, but may also reflect the sharp rise in house prices in 1999.

The growth in total credit (C3), which includes both domestic and foreign sources, slowed in the first six months of the year. At the end of the second quarter of 1999, total gross debt was 10% higher than one year earlier. Credit growth quickened at the end of last year, and was 12% in the period to end-December 1998. This increase is primarily due to the sharp rise in twelve-month growth in foreign credit, which reached close to 30% at the end of December. State enterprises, a group that includes some of the large oil companies, accounted for a large share of the increase as a result of increased foreign borrowing in this period. The slowdown in total credit growth in the first quarter of 1999 was ascribable

## The Y2K problem and the effect on financial markets

The work to prepare computer systems in the financial sector in connection with the year 2000 seems to be under control in industrial countries. However, there still seems to be some fear in financial markets that a shortage of liquidity may occur around the turn of the year. Some operators are already taking steps to guard themselves against potential problems. So far the result of this has been a global increase in money market rates around the turn of the year.

**Chart 1** *One-month implied forward rate*



The Y2K problem is also reflected in the Norwegian financial market. The chart shows the one-month implied forward rate<sup>1</sup> calculated on the basis of the yield curve in the Norwegian money market on 31 August 1999. For December, the forward rate is 6.94%, a good

percentage point higher than in the preceding and subsequent months. This is higher than normal and is attributable to fears that computer problems will lead to non-fulfilment of contracts. Moreover, operators may prefer to hold more liquidity around the turn of the year as backup in the event of any problems that might arise in the money market.

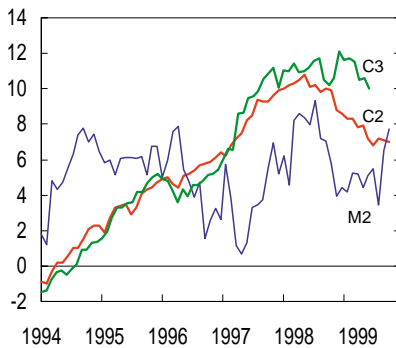
As a natural part of its preparations for the Y2K, Norges Bank has elaborated plans for liquidity policy based on various scenarios. Norges Bank will, in connection with the upcoming turn of the millennium, supply sufficient liquidity to the money market, as it normally does. Norges Bank's liquidity policy instruments allow the Bank to provide large quantities of liquidity rapidly should this prove necessary. At very short notice Norges Bank can supply liquidity through fixed-rate loans, and banks' automatic access to the central bank's overnight lending facility serves as a liquidity safety net for all banks with accounts in Norges Bank. On 1 September 1999, the list of eligible securities that can be furnished as collateral for access to liquidity from Norges Bank was greatly expanded. Pursuant to §7 and §16 of the regulation on banks' access to loans and deposits in Norges Bank, Norges Bank may under special circumstances depart from the collateral requirement. Any relaxation of the collateral requirement will entail a risk premium.

<sup>1</sup> An implied interest rate is an estimated forward rate. If one- and two-month rates are known, the implied one-month rate is calculated in such a way that two revolving one-month contracts provide the same return as the two-month contract

to slower growth in domestic credit (C2). The year-on-year growth in credit from domestic sources fell in both the enterprise and the household sector in this period. Growth in foreign credit remained high, but tapered off during the second quarter. At the end of June, twelve-month growth was about 21%. A further reduction in the period ahead may take place if investment activity in the oil industry falls sharply.

In the first five months of 1999, the year-on-year growth in M2 varied between 3.5% and 5.5% followed by somewhat higher growth in June and July (see Chart 2.7). In July, M2 was 7.7% higher than one year earlier. Part of the increase

**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



Source: Norges Bank

must, however, be seen in connection with tax refunds that were disbursed earlier this year than in 1998 as a result of the simplified tax return.

## 2.3 The cyclical situation

### *Slower economic growth*

There is now clear evidence of a slowdown in growth in the Norwegian economy. According to the quarterly national accounts for the second quarter, mainland GDP growth (market prices) slowed to 0.5% between the first half of 1998 and the first half of 1999. Fixed investment was the main factor behind the slower growth rate. In the first half of the year, fixed investment in the mainland economy contracted by 7.2% compared with the same period one year earlier. GDP at market prices provides an indication of total value added. Adjusted for indirect taxes and correction items, mainland GDP increased by 1.4% in the first half of the year compared with one year earlier. This concept of GDP provides a better indication of the overall level of activity. The rise in employment accounted for 0.8 percentage point of the increase in the first half of the year, whereas the remainder is ascribable to a change in working hours and productivity.

Growth in household consumption has been broadly stable, but slightly lower than expected. General government consumption is still fuelling growth, rising by 2.0% in the first half of the year compared with the same period one year earlier. As expected, the main contributing factor was local government consumption.

Goods consumption seems to have risen less than expected in recent months. According to the quarterly national accounts, private consumption grew by 1.6% in the first half of the year compared with one year earlier. Adjusted for seasonal variations, the retail sales index showed a decline of 0.5% between June and July. Earlier this year Statistics Norway revised the retail sales index, which entails a downward adjustment of a good 1 percentage point in growth between January and May compared with previously published figures. New passenger car sales have also contracted sharply in the first eight months of the year compared with one year earlier, but have shown some recovery in the last three months.

Figures from ECON and the Norwegian Association of Real Estate Agents show a seasonally adjusted rise in resale home prices of 4% between the first and second quarter of 1999. In the first half of the year, prices rose by 8% compared with one year earlier. There are still wide regional differences in the rise in house prices. In urban areas from Trøndelag to the south prices have risen sharply, whereas the trend in house prices is clearly weaker in northern Norway.



The general business tendency survey conducted by Statistics Norway for the second quarter shows that industrial leaders expect a slightly weaker trend in the second quarter than anticipated earlier. The number of respondents reporting falling demand and/or increased competition on the domestic market as a restraining factor for production increased from 35% to 48% compared with the same quarter last year. Production and employment are expected to be lower in the third quarter than in the second quarter, whereas new orders for both domestic and export markets are expected to edge up.

Weaker growth in domestic demand is also reflected in import figures. The value of traditional merchandise imports fell by 5.3% in the first seven months compared with the same period last year. Imports of typical investment goods, such as machinery, have fallen sharply through the year, whereas finished products, which include typical consumer goods, have started to fall only recently. In the last three-month period, the value of imports of finished goods dropped by 0.9% compared with one year earlier.

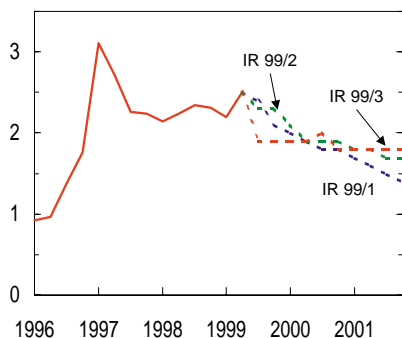
Statistics Norway's labour force survey (LFS) for the second quarter shows a 0.6% increase in employment compared with the second quarter of last year, which is in line with projections. LFS figures show a sharp decline in manufacturing employment, whereas some sheltered industries recorded relatively solid growth. This is confirmed by the quarterly national accounts figures for the second quarter, which show a decline in manufacturing employment of 2.5% compared with the same quarter last year. In the same period, public sector employment rose by 1.8%, while growth in the private service sector was 1.7%.

At the end of August, the number of registered unemployed was 67600. Adjusted for normal seasonal variations, this was equivalent to 2.6% of the labour force. Unemployment has been slightly lower than projected so far this year. One explanation may be that growth in the labour force has stalled, with the result that employment growth has to a larger extent than expected been based on recruits from the unemployed. The LFS labour force participation rate fell from 73.7% in the second quarter of 1998 to 73.5% in the second quarter of 1999.



# 3 NORGES BANK'S INFLATION PROJECTIONS

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



Sources: Statistics Norway and Norges Bank

## 3.1 The inflation outlook the next two years

Consumer price inflation is projected at 2¼%, or slightly lower, in 1999. Inflation is estimated at 2% in 2000 and 1¾% in 2001. In Norway, consumer price inflation is being influenced by two opposing forces. Prices for imported consumer goods are falling, while the high level of cost inflation in the business sector is pushing up prices for Norwegian-produced goods and services. In earlier reports Norges Bank has projected a marked widening of the inflation differential against trading partners as a result of higher domestic cost pressures. The inflation differential has widened in line with expectations, but this has primarily been the result of lower international price inflation. The substantial pressures in the domestic economy over the last few years have translated into higher cost inflation. However, import prices have restrained the rise in consumer prices to around 2¼%.

These two forces are expected to be reversed over the next two years. The moderate pay increases imply lower cost inflation through 1999 and into next year. Wage growth in manufacturing is expected to fall towards the level prevailing in the rest of Europe. At the same time, import prices are expected to show some increase, partly as a result of rising commodity and producer prices. These developments will to a large extent offset each other, with consumer price inflation remaining at around 2% or lower. As a result of the reduction in domestic cost inflation, the rise in prices will gradually move into line with that of our trading partners (see box).

The underlying rise in prices is estimated to be 0.1 percentage point higher than the overall rise in consumer prices this year. This is primarily due to the sharp fall in electricity prices, which has pushed down the CPI. In the following years, indirect taxes and electricity prices are, on average, assumed to rise in pace with the general rise in prices, bringing the underlying rise in prices to the same level as the overall rise in consumer prices.

**Table 3.1** *Technical assumptions*

	1999	2000	2001
3-month money market interest rate (annual average) <sup>1</sup>	6.5	5.7	5.6
Exchange rate measured against euro <sup>2</sup>	8.30	8.30	8.30
Real rise in gov't spending	2½	2	2
Oil price NOK/barrel <sup>3</sup>	131	135	120

<sup>1</sup>Interest rates are assumed to remain aligned with market expectations as reflected in forward rates.

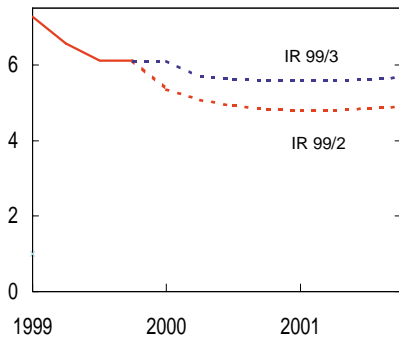
<sup>2</sup>The exchange rate is assumed to be NOK 8.30 per euro from Q4. This corresponds to approx. the average for the past three months

<sup>3</sup>The oil price is assumed to be about USD 20 per barrel in Q4. It is then assumed to gradually return to

### *Interest and exchange rate assumptions*

Table 3.1 shows the key technical assumptions concerning monetary and fiscal policy. Short-term interest rates are assumed to move in line with market expectations, as reflected in forward rates in September (see Chart 3.2). According to market expectations, the differential against European rates will narrow from the current level of a little more than 3

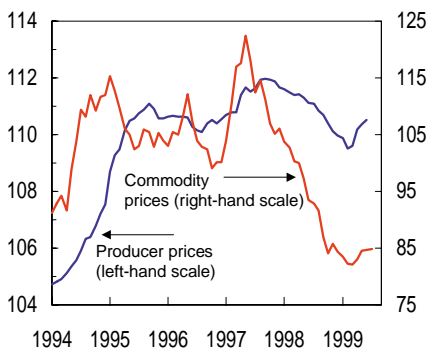
**Chart 3.2** *Technical assumptions concerning short-term money market rates<sup>1</sup>*



<sup>1</sup>Three-month money market rates up to 9 September. The rate is kept unchanged at the level of 9 September through Q3 1999. From Q4 1999: short-term forward rates estimated using four money market rates and five government bond yields with different maturities as observed on 8 September

Source: Norges Bank

**Chart 3.3** *Commodity prices excl.oil, measured in SDRs, and trading partners' producer prices. 1990 = 100*



Sources: OECD, *The Economist* and Norges Bank

percentage points to around 1 percentage point at the end of 2001. The assumption concerning interest rates implies that short rates will be close to  $\frac{3}{4}$  percentage point higher in 2000 and 2001 than assumed in the June report.

The krone exchange rate is assumed to be NOK 8.30 against the euro throughout the projection period, which approximately corresponds to the average exchange rate over the last month. Measured by the effective import-weighted exchange rate, the exchange rate assumption implies an appreciation of  $1\frac{1}{2}\%$  in 1999 and  $\frac{1}{2}\%$  in 2000.

### *International price impulses are curbing the reduction in domestic pressures*

All in all, prices for imported goods are estimated to fall by 1% in 1999, followed by a rise of  $\frac{1}{2}\%$  in 2000 and  $\frac{3}{4}\%$  in 2001.

With the exception of food products, most commodity prices have edged up since the June Inflation Report. Stronger growth in the world economy will probably generate higher demand for commodities in the period ahead. At the same time, production capacity for a number of commodities has shown a substantial increase in recent years, which will curb the price effects of higher demand. Overall, commodity prices are expected to show only a moderate increase in the period ahead.

Oil prices have continued to climb and are now higher than in the autumn of 1997. The rise in oil prices must be seen in the light of OPEC's general compliance with the adopted production limits. The price of oil is assumed to be a little more than NOK 160 per barrel through the remainder of the year, which corresponds to the average for the last month. As a technical assumption, oil prices are expected to gradually return to the USD 15-17 range. This corresponds to about NOK135 and NOK 120 per barrel in 2000 and 2001 respectively.

Following a sharp fall in producer prices among our trading partners in the first quarter, prices rose in the second quarter (see Chart 3.3). The pronounced movements partly reflect developments in oil prices and other commodity prices. Against the background of developments in commodity prices since the June Inflation Report, the estimate for the rise in producer prices among trading partners has been adjusted upwards by a quarter percentage point to  $-\frac{1}{2}\%$  in 1999. The increase is estimated at  $\frac{3}{4}\%$  in 2000. The fall in foreign producer prices is pushing down the rise in prices for imported goods this year.

External trade statistics show that prices for imported food products fell sharply in the second quarter compared with one year earlier. The decline in food prices may explain why prices for traditional merchandise imports fell at a faster rate in the first half of the year than projected in the June report. According to the quarterly national accounts, prices dropped

**Table 3.2** *Consumer prices. Percentage change from previous year*

	1998	1999	2000
US	1.6	2	2¼
Japan	0.6	-¼	0
Germany	0.9	¾	1¼
France	0.7	½	1
UK	2.7	2¼	2½
Sweden	0.4	½	1¼
Finland	1.4	1	1¾
Denmark	1.8	2¼	2¼
Norway's trading partners <sup>1</sup>	1.3	1¼	1½
Euro area <sup>2</sup>	1.2	1	1½

<sup>1</sup> Weighted by competitiveness weights

<sup>2</sup> Eurostat weights (country's share of euro area's consumption)

Sources: OECD and Norges Bank

by 2½% in the first half of the year compared with the same period in 1998.

Developments in the krone exchange rate may also have contributed to the fall in prices. The krone has appreciated since the beginning of the year, and it is possible that the appreciation has fed through faster and with greater force to import prices than expected. On the other hand, the krone depreciated sharply towards the end of last year and this did not result in substantially higher import prices.

In spite of the sharp rise in oil prices, consumer price inflation has remained subdued among our trading partners. Intensified competition in the product market in the euro area and continued high productivity growth in the US have probably contributed to this. Further structural reforms are expected to curb price impulses from the service sector in the period ahead, particularly in the EU. Consumer price inflation among trading partners is therefore estimated to remain below 2% throughout the projection period (see Table 3.2).

### *Slower wage growth brings down price inflation*

Annual wage growth is estimated at 4¾% in 1999. It is assumed that wage drift will remain approximately in line with last year's level. However, there is still substantial uncertainty associated with wage drift this year. Developments since the June report indicate that the labour market is somewhat tighter than expected which, in isolation, could contribute to higher wage drift.

Wage growth is projected at 3¾% in 2000 and 2001. The estimate for 2000 has been revised down by a quarter percentage point in relation to the June report. Cyclical fluctuations in manufacturing are expected to be more pronounced than earlier, with a sharper decline in output and profits next year, followed by a slightly more pronounced recovery in 2001. This would suggest lower wage growth. On the other hand, the labour market in sheltered industries is expected to be somewhat tighter than forecast. The estimate for unemployment has been adjusted downwards for every year in the projection period. This points to higher wage growth, particularly in service sectors.

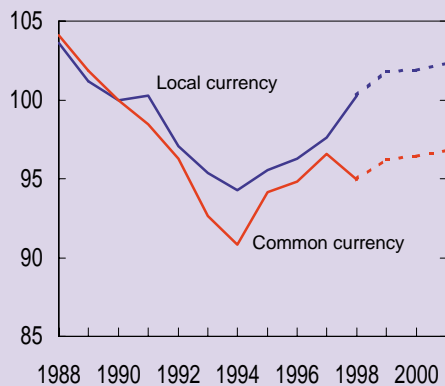
Since 1994, wage growth in the Norwegian manufacturing sector has been 6 percentage points higher than among trading partners (see box). As a result, profitability and fixed investment in the business sector have been declining. Pressures in the labour market in recent years resulted in a sharp rise in real wages last year. The effects of the Asian crisis, including a fall in commodity prices and low international price inflation, are also squeezing profits in some manufacturing sectors. At the same time, petroleum investment will show a sharp contraction next year. This probably contributed to the moderate wage settlement this year, which will bring wage

## Competitiveness

Manufacturing industry achieved substantial competitive gains at the beginning of the 1990s thanks to moderate wage settlements. After several years of brisk growth, labour reserves in the Norwegian economy have been virtually exhausted and the economy has reached capacity limits. A tight labour market has translated into higher wage growth, particularly in 1998.

Relative labour costs compared with trading partners are now back to about the same level recorded in 1992 (see Chart 1). Since 1994, hourly wage costs in Norway have shown an increase that is over 6 % higher than that among its trading partners.

**Chart 1** *Relative labour costs, Norway and trading partners. 1990=100*

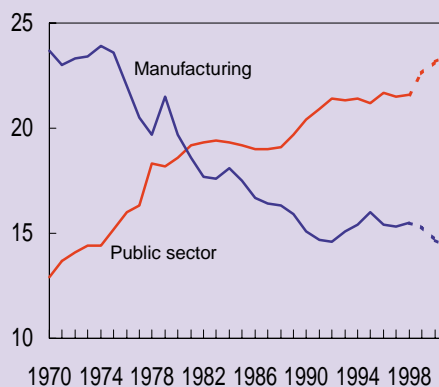


Sources: Statistics Norway and Norges Bank

In the long term, cost competitiveness will probably determine the size of the sector exposed to competition. Chart 2 shows that manufacturing industry's share of mainland GDP has shrunk from about 24% in 1970 to a little more than 15% in 1998. To some extent, this reflects an international trend, partly resulting from the faster growth in the demand for services compared with goods. In Norway the contraction in manufacturing industry was particularly pronounced in the periods 1976-1978, 1980-1982 and the latter part of the 1980s. This partly reflected global cyclical conditions, but after the first two cyclical downturns the manufacturing sector's share continued to fall. The situation in the 1990s has been different. Manufacturing output has picked up despite economic recession in Europe and

other parts of the world. The improvement in competitiveness early in the 1990s must have contributed to this upswing to some extent. However, it would seem that changes in competitiveness have an impact on manufacturing production only after a period.

**Chart 2** *Shares of mainland GDP. Current prices*



Sources: Statistics Norway and Norges Bank

The contraction in the manufacturing sector has occurred in tandem with a trend rise in value added in the public sector, which partly reflects higher household demand for services when incomes rise. The public sector showed a particularly strong expansion in the latter half of the 1970s. During this period, the Norwegian economy experienced resource shortages. The expansion in the public sector may thus have fuelled price and cost inflation, at the expense of manufacturing industry. Around 1990, value added in the public sector as a percentage of mainland GDP also increased markedly. However, there was considerable slack in the economy at that time. As a result, the expansion in the public sector did not have any immediate negative impact on manufacturing output.

The strong expansion of recent years, accompanied by rising cost inflation, has again led to a deterioration in competitiveness. In conjunction with falling petroleum investment, this may lead to lower value added in the manufacturing sector in the years ahead, as indicated by the projections in this report. At the same time, we have assumed that public expenditure will increase in line with the trend rate of growth in the economy.

**Table 3.3** Various institutions' projections for consumer price inflation in Norway in 1999 and 2000.<sup>1</sup>

Percentage change from previous year

	1999	2000
Ministry of Finance	2.4	2.0
Statistics Norway	2.3	2.0
OECD <sup>2</sup>	2.6	2.3
IMF	2.3	2.3
Consensus Forecasts <sup>3</sup>		
Highest estimate	2.5	2.3
Average	2.4	2.1
Lowest estimate	2.3	2.0

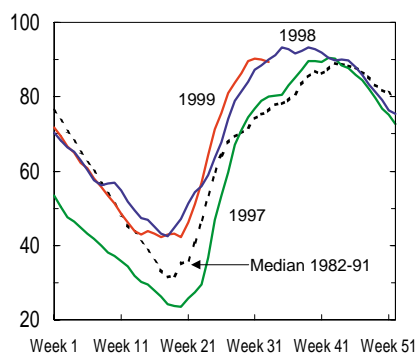
<sup>1</sup> Latest official projections from the various institutions.

<sup>2</sup> Consumption deflator

<sup>3</sup> August 1999

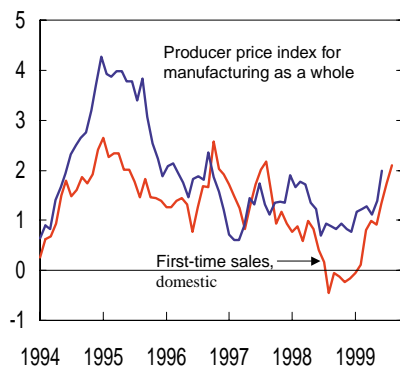
**Chart 3.4** Water reservoir levels.

Weekly figures



Source: Statistics Norway

**Chart 3.5** Price index for first-time sales and producer prices. 12-month rise. Per cent



Source: Statistics Norway

growth in manufacturing down to the European level as early as the end of 1999.

### *Electricity prices curb price inflation this year*

Electricity prices have shown a steeper decline than projected in the June Inflation Report. In addition to the strong competition in the power market, the high reservoir levels this summer have contributed to the fall in electricity prices (see Chart 3.4). However, spot prices have risen so far this autumn and by a greater margin than last autumn. Electricity prices are therefore expected to have a weaker impact on prices in the second half of 1999. On balance, electricity prices are expected to push down the overall rise in consumer prices by roughly 0.1 percentage point this year. Electricity prices are assumed to rise in pace with the CPI in 2000 and 2001.

### *House rents push up price inflation this year*

The sub-index for house rents rose by 2.6% in June compared with the same month one year earlier. The contribution to consumer price inflation has weakened since March this year, when the year-on-year rise was as high as 3.1%. House rents will contribute to pushing up the rise in the CPI this year. Lower interest rates are expected to restrain the rise in house rents in the period ahead, gradually bringing the rate of increase in line with the general rise in prices.

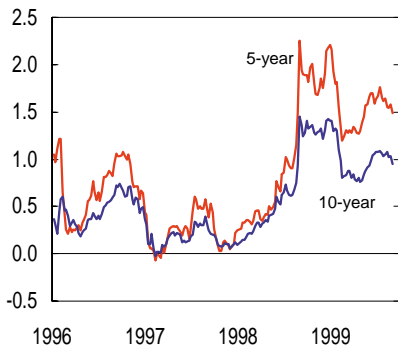
## 3.2 Inflation expectations

Consensus Forecasts' August projections for the Norwegian economy show that a selection of market observers expect the CPI to rise by 2.4% in 1999 and 2.1% in 2000 (see Table 3.3). On average, the forecasts are the same as in June and are still somewhat higher than Norges Bank's projections. The same observers expect a less pronounced turnaround in the economy than implied by our estimates. The average projection for mainland GDP growth in 2000 is 1.1%.

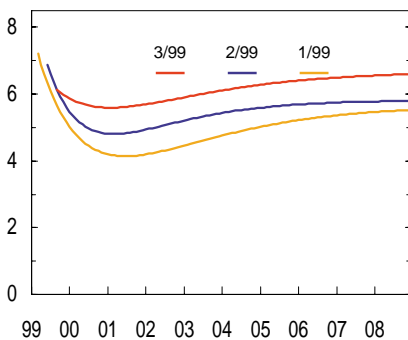
Developments in producer and wholesale prices may provide an indication of the future rise in consumer prices. In recent months, however, these figures have been heavily influenced by changes in oil prices. Experience shows that an increase in oil prices has only a minor impact on the CPI (see box in June Inflation Report). In August, the producer price index rose by 4.0% compared with the same month one year earlier. Producer prices for manufacturing rose by 2.0% in August compared with the same month last year (see Chart 3.5). The twelve-month rise in the wholesale price index moved up from 0.9% in May to 2.1% in August.

Information about market participants' price and interest rate expectations is provided by the yield curve in the money and

**Chart 3.6** *Effective yield differentials NOK-DEM: 5 and 10-year government bonds. Percentage points. Weekly figures (Week 1 1996 - Week 36 1999)*

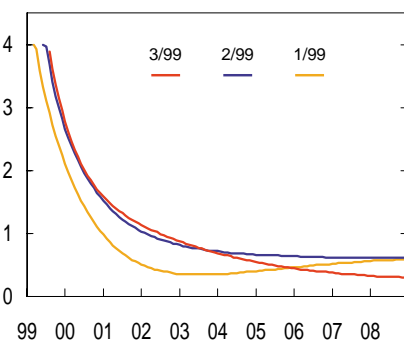


**Chart 3.7** *Norwegian forward rates. Expected short-term rates<sup>1</sup>. Per cent*



<sup>1</sup>Calculations for 3/99 are based on market rates at 8 September  
Source: Norges Bank

**Chart 3.8** *Differential between expected short-term rates in Norway and Germany<sup>1</sup>. Percentage points*



<sup>1</sup>Calculations for 3/99 are based on market rates at 8 September  
Source: Norges Bank

bond markets. Observed interest rates cannot, however, be directly interpreted as expected interest rates because the yield on a ten-year bond depends on expected short rates during the entire ten-year period until the bond matures. The spread between Norwegian and German government bond yields with five to ten years' residual maturity is shown in Chart 3.6. The differential widened sharply last year when Norges Bank raised its key rates by a total of 4.5 percentage points. At the beginning of 1999, the yield differential was almost halved, but some of the reduction was reversed this spring.

Implied short-term rates between two future points in time can be found by calculating forward rates. Under certain assumptions, forward rates can thus be interpreted as an indication of market expectations of developments in short-term rates in the years ahead. Chart 3.7 shows that the market is now expecting money market rates to continue to fall to the end of 2000, and edge up thereafter. However, market operators seem to expect a smaller fall in short-term interest rates compared with June. This is largely related to growing expectations of higher interest rates internationally. The difference between Norwegian and German forward rates has not widened since the June report (see Chart 3.8). The chart shows that the market expects a convergence of Norwegian and German rates in the next few years.

In the long term, the difference between Norwegian and German forward rates is relatively narrow. This may indicate that inflation in Norway is not expected to deviate substantially from expected inflation in euro countries, represented by Germany. In the next few years, the forward rate differential remains virtually unchanged compared with the June Inflation Report. However, compared with the March report the forward rate differential is substantially wider for the years up to 2005. This probably reflects a change in expectations about cyclical developments and thereby real interest rates in coming years.

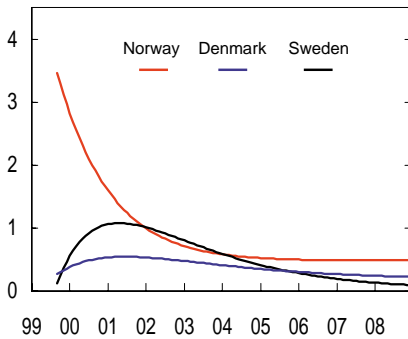
Chart 3.9 shows a comparison of forward rate differentials between Germany and Scandinavian countries. The chart illustrates that short-term rates are currently higher in Norway than in Sweden and Denmark, but that the spread is expected to narrow in the years ahead. In the long term, the forward rate differentials between Scandinavian countries are relatively small.

### 3.3 The risks to the inflation outlook

The projections in this report indicate that price inflation will drop to below 2% next year. The estimates are deemed to represent the most likely path given key assumptions concerning interest rates, the exchange rate and fiscal policy. However, there is considerable uncertainty associated with the estimates. Normally, the risks to the outlook are fairly symmetrical. This implies that the probability of a significantly different outcome is evenly distributed on the upside and

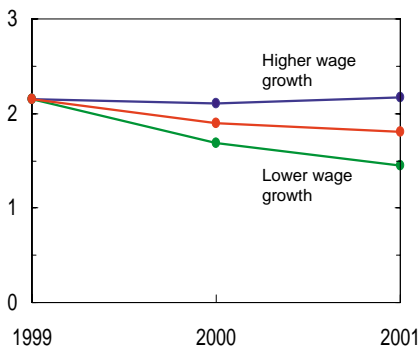


**Chart 3.9** *Forward rate differentials against Germany 8 September 1999. Percentage points*



Source: Norges Bank

**Chart 3.10** *Annual consumer price inflation with 1 percentage point change in wage growth*



Source: Norges Bank

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.

### *Uncertainty associated with domestic price components*

Domestic price components are heavily influenced by labour market developments, as reflected in wage growth. Developments in the second quarter may indicate that the growth in the labour force has stagnated at a somewhat earlier stage than previously estimated. The estimate for wage growth is based on the assumption that the demand for labour declines as described in the baseline scenario, and that the supply of labour falls approximately in line with projections.

Wage formation in Norway may be influenced by two opposing forces in the coming years. The labour market for those employed in the private and public service sector is likely to remain fairly tight, which may imply higher wage growth in these sectors. On the other hand, it appears that employment in some manufacturing sectors will decline, partly as a result of the contraction in investment and weaker cost competitiveness. The squeeze on profits and fall in employment point to low wage growth in this sector of the economy. Traditionally, conditions in the exposed sector have been a reference for wage determination in other sectors of the economy. If this continues to be the case, wage growth may be lower than projected in this report. However, if wage growth is more heavily influenced by market forces in the labour market for service industries, wage growth may be higher than projected.

Chart 3.10 shows the effect of a 1 percentage point change in wage growth in 2000 and 2001. The chart shows that this results in a change in consumer price inflation of 0.2 and 0.4 percentage point respectively. If wage growth is 1 percentage point higher than estimated, consumer price inflation will remain above 2% throughout the projection period. With low wage growth, price inflation may fall to below 1½% in 2001.

Domestic demand influences employment growth and thereby price and wage developments one to two years ahead. Growth in public consumption determines how quickly pressures in the labour market, and thereby wage growth, subside. In the baseline scenario, fiscal policy is assumed to be neutral, which implies among other things that general government real spending rises in pace with the trend rate of growth in mainland GDP. A change in the fiscal stance will primarily influence demand in the service sector, where pressures are already substantial and the potential for an increase in employment is probably limited.

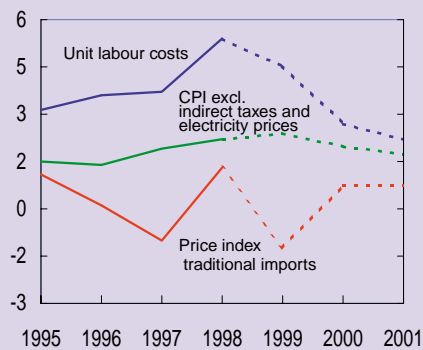
Chart 3.11 shows the effect on consumer price inflation of a change in public expenditure equivalent to ½% of mainland GDP in 2000. The change has been evenly distributed between public consumption and transfers, and it has been assumed that



## Inflation differential between Norway and trading partners

In December 1998, Norges Bank projected that domestic inflation would be substantially higher than among trading partners in 1999 and 2000. Inflation in Norway was then expected to be a little less than 3% in 1999. The inflation differential against trading partners has been consistent with projections, but primarily as a result of a drop in international inflation, which has contributed to restraining price inflation in Norway. Inflation in Norway is now projected to move down towards the level prevailing in trading partner countries over the next two years, bringing the inflation differential to about zero in 2001.

**Chart 1** Unit labour costs, import and consumer prices. 12-month rise. Per cent

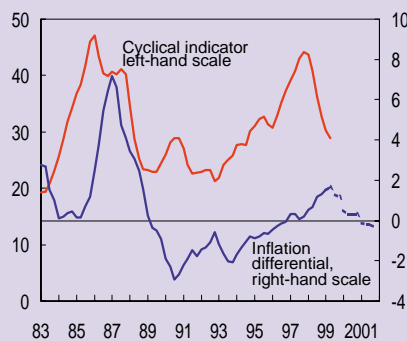


Sources: Statistics Norway and Norges Bank

Consumer price inflation is influenced by two main factors, ie labour costs in Norway and import prices. Chart 1 shows developments in these two factors and the underlying rise in consumer prices, which excludes changes in indirect taxes and electricity prices. The chart illustrates that inflation has been restrained by the subdued rise in import prices over the last years. The jump in labour costs has, however, contributed to higher price inflation, particularly in 1998 and 1999. In the absence of the weak rise in import prices, consumer price inflation in Norway would have been markedly higher. Furthermore, the chart shows that developments in consumer prices are more stable than the two sub-components.

The projections in the Inflation Report imply that the trend of recent years will be reversed and that the inflation differential against trading partners will narrow over the next few years. This trend will be supported by lower wage inflation in Norway and somewhat higher inflation abroad (see Chart 1).

**Chart 2** Leading indicator for inflation differential

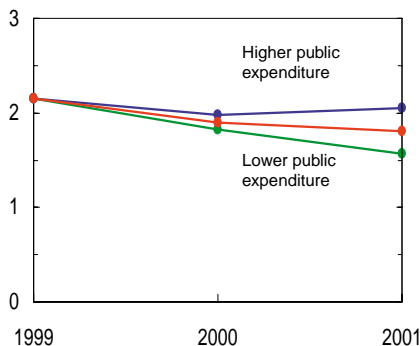


Sources : Statistics Norway and Norges Bank

After several years of brisk growth the inflation differential will normally widen. When the economy starts to contract, the inflation differential tends to narrow. Chart 2 shows the inflation differential between Norway and trading partners in relation to cyclical developments in Norway. The estimate for the inflation differential in the years ahead is also indicated in the chart. Cyclical developments are illustrated using Statistics Norway's indicator of resource shortages in its general business tendency survey. The indicator weights the proportion of manufacturing enterprises reporting that they are using more than 95% of capacity and/or that the supply of labour or shortage of raw materials are limiting production. The indicator therefore reflects a host of factors that normally influence price and cost inflation.

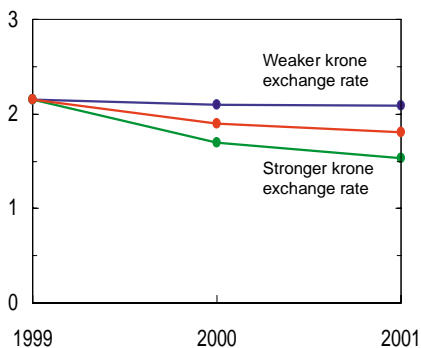
Historically, there seems to be a relationship between the indicator of resource shortages and the inflation differential. Although the indicator can signal the timing of a change in the inflation differential, it provides little indication of the extent of the inflation differential. However, the projected path for price inflation does not seem unreasonable in relation to developments in this cyclical indicator.

**Chart 3.11** Annual consumer price inflation with change in public expenditure equivalent to 0.5% per cent of mainland GDP



Source: Norges Bank

**Chart 3.12** Annual consumer price inflation with 2.5 per cent change in exchange rate from Q1 2000



Source: Norges Bank

half of the increase in employment comes from the unemployment queue. The chart shows that the effect on consumer price inflation will be limited in the same year, whereas the change is 0.2 percentage point in 2001. All other things being equal, this implies that price inflation may remain higher than 2% through much of the projection period.

### *Uncertainty associated with imported price impulses*

In recent years, price inflation has primarily been restrained by the subdued rise in import prices. In this report it is assumed that international commodity and producer prices will edge up in the period ahead. Experience indicates, however, that commodity prices tend to fluctuate, and anticipated changes in supply and demand conditions appear to be of limited importance in the short term.

In the wake of the financial crisis in Asia in the autumn of 1997, with falling demand in these countries, commodity and producer prices plunged. An increase in global supply has probably been an equally important factor. Commodity and energy prices have moved up in recent months, and some countries are experiencing stronger-than-expected economic growth. A considerable element of uncertainty for the world economy over the next few years concerns developments in the US economy. The US economy is still expanding, but there is some risk of a pronounced turnaround in the US, which may have an impact on asset prices and commodity prices. However, we still consider the balance of risks to be asymmetrical. If international developments should prove to deviate substantially from the projected path, it is more likely that commodity and producer prices will show a sharp increase rather than a comparable fall. If the rise in import prices is steeper than expected, price inflation in Norway will be affected through two channels. First, import prices have a direct effect on consumer prices. About 26% of the CPI is directly influenced by import prices. In addition, higher international prices will, over time, feed through via wage formation because profitability will increase in the exposed sector. As a result, a sharper-than-expected increase in import prices may entail that the projected reduction in price inflation will not take place.

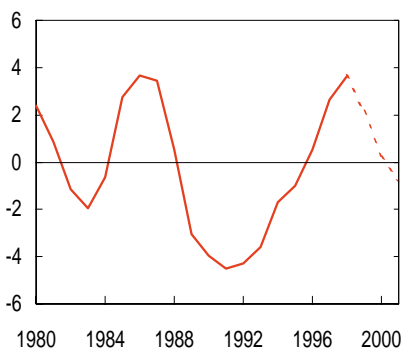
Developments in the krone exchange rate also influence import prices calculated in NOK. The appreciation of the krone has contributed to the decline in import prices in the first half of the year. In recent years the krone has fluctuated more widely than earlier in the 1990s, and contributed to changes in the rate of increase of import prices from one year to the next. Chart 3.12 shows the effect on consumer price inflation of a change in the exchange rate of 2.5% from the first quarter of 2000. This would lead to a change in price inflation of 0.2 percentage point in 2000 and 0.3 percentage point in 2001.

**Table 4.1** Key aggregates for Norway, 1999-2001. Percentage change from previous year unless otherwise indicated

	1999	2000	2001
Mainland demand	¼	¾	1¾
Private consumption	2¼	2	2¼
Public consumption	2¼	2	2
Fixed investment	-8¼	-4½	0
Traditional exports	1¼	3	6½
Traditional imports	-2	-2¼	3¾
GDP	1¼	3¼	1½
Mainland GDP	½	¼	1½
Employment	¼	-¾	0
Unemployment, LFS	3¼	3¾	4
Consumer prices	2¼	2	1¾
Annual wages	4¾	3¾	3¾

Source: Norges Bank

**Chart 4.1** Output gap. Differential between actual and trend mainland GDP. Per cent



Source: Norges Bank

## 4.1 Main features

The overall picture of developments in the real economy is approximately the same as in the June Inflation Report. The sharp upturn recorded since 1992 is now being replaced by a period of slower growth. Mainland GDP growth is now projected at ½% in 1999 and ¼% next year, with growth moving up to 1½% in 2001. Mainland GDP growth has been revised down this year and revised up towards the end of the projection period.

Supply-side conditions in the economy, particularly in the labour market, are important factors behind the turnaround. The latest LFS figures indicate that labour market reserves have been exhausted and that the economy is approaching capacity limits. Earlier during this cyclical upturn about two out of three new employees were new entrants to the labour force, while one out of three came from the unemployment queue. Developments in the second quarter may indicate that the predominant source of employment growth is now the unemployed. Against this background, labour force growth has been revised downwards to ¼% this year. Employment will expand approximately as envisaged. Unemployment, measured by the LFS rate, will increase somewhat more slowly than estimated in the last Inflation Report.

Petroleum investment is projected to fall sharply next year. The decline must be seen in connection with the record-high level of investment in 1998 and the production profile for total petroleum reserves in the North Sea. Because of the decline in demand associated with North Sea field development, the manufacturing industry is facing a period of major adjustments.

Mainland investment is also projected to fall in the period ahead. As a result of the expansion of production capacity in earlier years, reduced profitability and a weak trend in demand, the need for expanding production capacity is limited. The decline in petroleum investment will amplify the contraction in mainland investment.

Growth in aggregate demand is primarily being fuelled by consumption. In spite of a higher-than-expected rise in resale house prices in the first half of the year and the substantial increase in share prices so far in 1999, it appears that household consumption will expand at a slightly slower pace than estimated in the June report. Consumption is expected to grow by 2-2¼% in the period ahead, with the saving ratio stabilising at about 6½%.

Developments in the first half of 1999 indicate that growth in general government consumption remains high, particularly in the local government sector. A neutral fiscal policy has been assumed in the period ahead, which means that general government real spending growth will shadow the trend rate of growth in mainland GDP. Inasmuch as the labour market appears to have reached capacity limits, any further expansion in general government demand would probably be accompanied by slower growth in the business sector.

**Table 4.2** *GDP estimates. Percentage change from previous year*

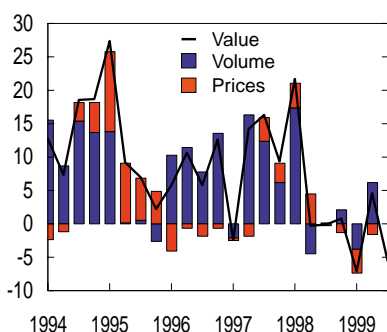
	1998	1999	2000
US	3.9	3¼	2½
Japan	-2.8	¾	½
Germany	2.3	1½	2½
France	3.2	2¼	2½
UK	2.2	1¼	2¼
Sweden	2.6	3½	3¼
Finland	5.6	3¼	3½
Denmark	2.7	1½	1¾
Norway's trading partners <sup>1</sup>	2.7	2¼	2½
Euro area <sup>2</sup>	2.8	2	2¾

<sup>1</sup> Weighted by export weights

<sup>2</sup> Weighted by the IMF's GDP weights corrected for purchasing power

Sources: OECD and Norges Bank

**Chart 4.2** *Traditional merchandise exports according to External Trade Statistics. Volume, price and value. Percentage growth on same quarter previous year*



The last observation for value growth is the 12-month growth in July

Source: Statistics Norway

## 4.2 The international environment and the balance of payments

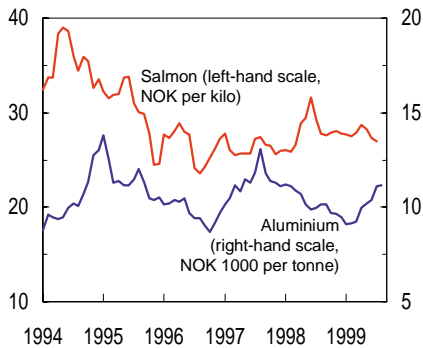
### *Improved outlook for the world economy*

The outlook for the international economy has improved since the June Inflation Report. The situation in Asian crisis countries has continued to improve. Increased confidence, combined with slower price inflation, has paved the way for a more expansionary monetary policy, at the same time that exports have picked up in these countries. The prospects for several of our traditional trading partners are also more favourable than expected earlier. In Sweden, domestic demand is expanding at a brisk rate as a result of low interest rates and high growth in household real income. Exports have also picked up. In the UK, growth will be weaker in 1999 than last year, but domestic demand has also increased faster than assumed earlier, and growth forecasts are now substantially higher. In the US, growth in domestic demand is also high, providing continued impetus to growth. Growth in private consumption is expected to slow, partly reflecting higher interest rates and a weaker trend for asset values. As a result of strong productivity gains, however, growth in 2000 may still be slightly higher than expected earlier, although developments in the US are an important element of uncertainty for global developments the next few years. Against the background of strong GDP figures for the first six months, the projections for Japan have been revised upwards for both 1999 and 2000. However, growth may slow in the second half of 1999 when the Government's temporary fiscal stimulus comes to an end.

Germany and Italy are still exhibiting a sluggish trend. These countries account for nearly half of production in the euro area. Growth is primarily being restrained by weak export trends and low domestic investment demand. Next year, the recovery in exports and growth in domestic demand are expected to boost growth in both countries.

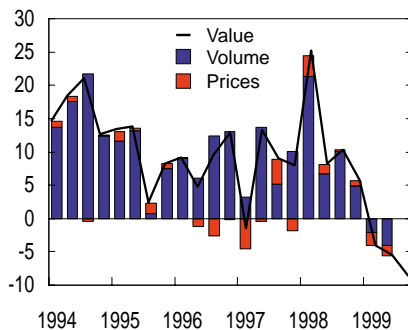
Total growth among our trading partners is still expected to slow from 1998, and then edge up again in 2000. The projections for both 1999 and 2000, however, have been revised upwards compared with the June report.

**Chart 4.3** Prices for aluminium and salmon



Sources: Statistics Norway and *Financial Times*

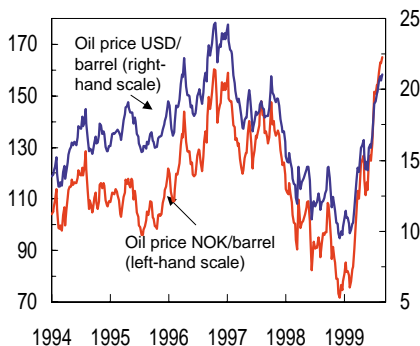
**Chart 4.4** Traditional merchandise imports according to External Trade Statistics. Volume, price and value. Percentage growth on same quarter previous year



The last observation for rise in value is 12-month growth in July.

Source: Statistics Norway

**Chart 4.5** Oil prices in NOK and USD



Source: Norges Bank

### Large current account surpluses

Traditional exports have moved on a weaker-than-expected trend so far this year, primarily reflecting high cost inflation and lower profitability in export industries. Low investment growth among some trading partners is probably another factor behind sluggish export trends. According to the quarterly national accounts, the volume of traditional merchandise exports was approximately unchanged from the first half of last year. Slightly stronger economic growth among traditional trading partners, improved price developments and rising profitability as domestic wage growth tapers off will contribute to a pick-up in exports through the projection period.

Prices for traditional export goods fell by 1.8% in the first half of the year compared with the same period in 1998. The fall in prices partly reflects the decline in commodity prices in the wake of the Asian crisis and partly the lag between changes in spot prices and their effect on export prices. Export prices are expected to pick up the rest of the year. Overall, prices are projected to fall by ½% between 1998 and 1999, which is an upward revision of 2 percentage points compared with the June report. For the following years, sharper growth in the world economy and a slight rise in commodity prices are expected to contribute to a rebound in export prices.

The volume of traditional merchandise imports fell more than expected in the second quarter, dropping by 2.3% in the first half of the year compared with the same period one year earlier. As a result of a steep decline so far in 1999 and expectations of slightly lower growth in private consumption than estimated earlier, the volume of traditional merchandise imports is now expected to fall by 2% this year. A continued contraction in fixed investment, both in the mainland economy and on the continental shelf, will result in a continued fall in imports next year. In 2001, however, a higher growth rate in the mainland economy and a levelling off in petroleum investment will boost imports.

As a result of the rise in oil prices since the June report, the current account surplus will be higher through the projection period than estimated earlier. The prospect of lower imports will also contribute to an improvement in the current account. Even though the oil price is expected to edge down from the beginning of next year, brisk growth in oil exports will contribute to increasing the surplus to an estimated NOK 90bn in 2001.

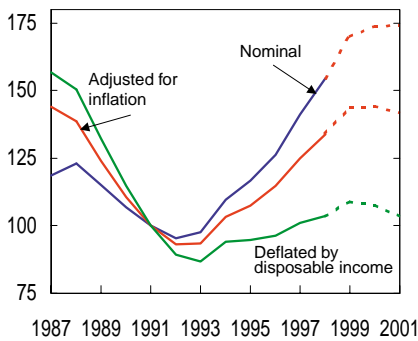
## 4.3 Domestic demand

### Slower growth in consumption

Growth in household real income appears to be substantial compared with 1998, mainly as a result of high wage growth towards the end of last year. Households' financial wealth also seems to have risen markedly this year, following negative valuation changes prompted by the fall in equity prices in the

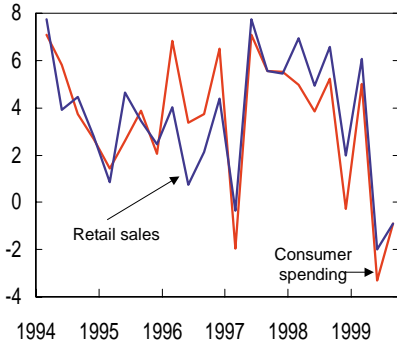


**Chart 4.6** *Resale home prices. Nominal, real and deflated by disposable income. 1991=100*



Sources: Statistics Norway, ECON and Norges Bank

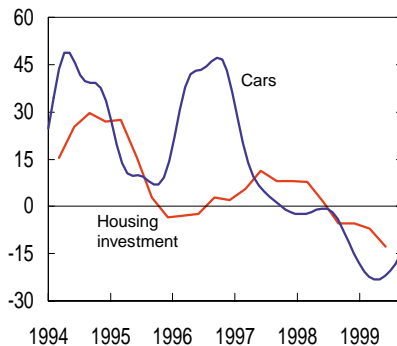
**Chart 4.7** *Consumer spending and retail sales. Percentage rise on same quarter of previous year<sup>1</sup>*



<sup>1</sup>Latest observation is 12-month growth in July

Source: Statistics Norway

**Chart 4.8** *New car registrations. Smoothed 12-month growth. Housing investment. Growth on same quarter of previous year. Per cent*



Source: Statistics Norway

autumn of 1998. Figures from ECON and the Norwegian Association of Real Estate Agents showed a seasonally adjusted rise in house prices of 4% for the country as a whole from the first to second quarter of 1999. In the first half of 1999, prices rose by 8% compared with the same period in 1998, which was slightly higher than expected. Adjusted for inflation, house prices are now nearing the peak level recorded in 1987. Viewed in relation to income growth, however, house prices are still substantially lower than in 1987. In the light of developments so far this year, the estimated rise in house prices has been revised upwards to 10%.

Experience suggests that both income growth and wealth gains will be reflected in high growth in consumption also in 1999. So far this year, however, private consumption is growing more slowly than implied by developments in income and wealth. In particular, sales of new cars have declined since last year (see Chart 4.8). The low car sales in the first half of 1999 are probably due to the rise in interest rates on consumer loans through the second half of 1998. The interest rate increases through 1998 have probably also made households more reluctant to debt-finance consumption, thereby resulting in a decline in new car sales. Imports of typical consumer goods, excluding cars, also show a sluggish trend. However, many factors point to higher growth in some components of household consumption. In the first half of the year, the tourist industry recorded a high turnover, with signs of increased cross-border shopping. Direct purchases abroad by resident households may therefore be higher than previously assumed. New car sales have also increased slightly in recent months, possibly spurred by large tax refunds to households in June.

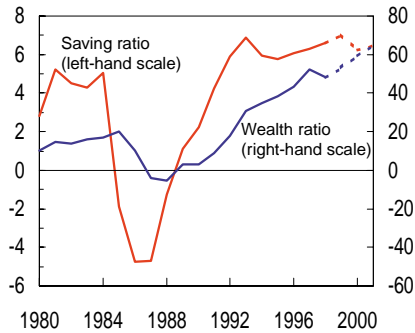
Estimated growth in private consumption has been revised down to 2¼% for 1999, which means that the saving ratio for 1999 will be slightly higher than that for 1998.

Household income growth is expected to be lower in 2000 and 2001 than in the last half of the 1990s. This is primarily due to developments in the labour market as a result of lower wage growth. However, the decline in income growth will be restrained as lower interest rates reduce debt expenses. We assume that house prices will gradually flatten out, and thus not generate any extra impetus to consumption. With the lower level of consumer price inflation projected for 2000 and 2001, real income growth will nevertheless be 1¼-2¼% annually. Household consumption is forecast to grow by 2-2¼% for the next two years, while the saving ratio will remain relatively stable at around 6½%.

### *Falling housing investment in 1999*

Statistics Norway has temporarily suspended publication of statistics on housing starts. According to the quarterly national accounts for the second quarter, housing investment dropped

**Chart 4.9** Household saving and net financial wealth. Percentage of disposable income



Source: Statistics Norway and Norges Bank

by 11% in the first half of the year compared with the same period in 1998. However, construction statistics for the second quarter show a rise in new orders for dwellings, compared with the same quarter in 1998. The increase is due both to a large number of rehabilitation projects and to a rise in orders for new buildings. Order backlogs for new dwellings have increased sharply so far in 1999, and this is expected to translate into a slight increase in starts towards the end of the year. Total housing investment is nevertheless expected to fall by 7¼% this year.

A shortage of building sites may have been one reason for the low level of residential construction, particularly in Oslo. In addition, the new Building and Planning Act has sharpened the rules for obtaining a construction permit and caused delays in the processing of applications. An increase in surplus capacity in the construction industry in coming years, partly as a result of the completion of large public development projects, may be reflected in a slower rise in building costs. The sharp rise in resale home prices in recent years has also made it relatively more profitable to build new homes than to buy resale homes. On balance, these factors are expected to contribute to a pick-up in housing investment in the next two years.

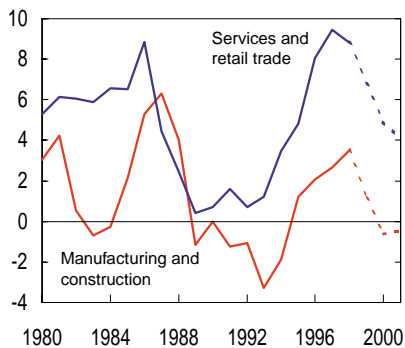
### Sharp drop in mainland investment

Mainland business fixed investment moved on a weak trend in the first half of 1999, falling by 7.2% compared with the same period in 1998. The decline is partly due to the near completion of some large investment projects, but other important factors were poorer earnings in the enterprise sector and lower demand for goods and services produced by Norwegian enterprises. Following several years of strong growth, mainland business fixed investment is expected to drop appreciably both this year and next. Statistics Norway's investment intentions survey for the third quarter indicates a fall in manufacturing investment of over 20% this year, and a further decline in 2000. Statistics Norway's general business tendency survey for the second quarter also points to lower activity as a result of weak demand and intensified competition.

Mainland business fixed investment is expected to decline by 9¼% this year and 8¼% in 2000. The projections, which have not been changed appreciably since the previous Inflation Report, imply a substantial decline in the rate of net fixed investment in the manufacturing, construction and service sectors (see Chart 4.10).

Petroleum investment is projected to decline somewhat less this year than previously assumed, partly due to large cost overruns on some projects. Next year petroleum investment is expected to contract by a full 30%. The investment projection is relatively independent of movements in the oil price, but a

**Chart 4.10** Net fixed investment rate. Investment less capital consumption as a percentage of value added



Sources: Statistics Norway and Norges Bank



significantly lower oil price could amplify the decline in investment in the short term. In isolation, the sharp drop in petroleum investment will account for over 2% of the decline in mainland GDP. However, there is reason to believe that some sectors of the supplier industry will win other contracts, thereby dampening the overall effect. In spite of the contraction, petroleum investment will continue to account for almost 3% of total mainland demand.

### *Higher public consumption this year*

New notifications of vacancies in health and education indicate continued strong local government demand for labour. In addition, the quarterly national accounts for the second quarter showed somewhat stronger-than-expected growth in public consumption, particularly in the local government sector. As a result, the estimate for public consumption in 1999 has been revised up to 2¼%. Public investment is expected to drop by 4%. Total real growth in general government expenditure is estimated at 2½%. Projections for the next two years are based on a technical assumption of a neutral fiscal policy, ie 2% growth in government expenditure, which is in line with the underlying trend rate of growth for mainland GDP.

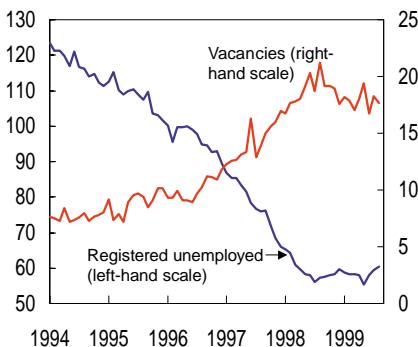
## 4.4 The labour market

### *Labour reserves almost exhausted*

After several years of brisk labour force growth, labour reserves now appear to be almost exhausted. According to Statistics Norway's Labour Force Survey (LFS) for the second quarter, the labour force increased by close to 0.2% on the same quarter in 1998. The labour force is now expected to expand by ¼% in 1999, which is slightly lower than the projection in the previous report, and also lower than implied by demographic factors. A poorer outlook for the labour market may contribute to some exits from the labour force in the period ahead, and labour market conditions are therefore expected to remain roughly unchanged over the next two years.

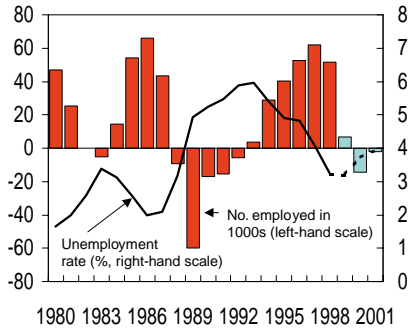
Employment growth remains broadly in line with projections, and was 0.7% higher in the second quarter than one year earlier. This is consistent with our estimate, which is based on slower growth through the year. Developments so far this year indicate that the rise in employment can no longer be met by new entrants to the labour force. The ratio of the change in the labour force to unemployment is now somewhat different than previously assumed. This helps to explain why unemployment has remained lower than expected so far in 1999. On balance, pressures in the labour market therefore remain very high.

**Chart 4.11** *Number of registered unemployed and vacancies, in 1000s. Seasonally adjusted*



Source: Directorate of Labour

**Chart 4.12** *Change in numbers employed from previous year. LFS unemployment rate*



Sources : Statistics Norway and Norges Bank

However, there are major differences between the various labour market segments. Whereas employment in manufacturing is falling, it is still increasing in the public sector and in service industries in the private sector.

Employment growth is estimated at ¼% in 1999. In the period ahead, poorer profitability in the enterprise sector and weaker growth in domestic demand will have a general dampening effect on the demand for labour, especially in manufacturing and construction. The expected sharp fall in petroleum investment will affect employment in the shipyard industry in the western part of Norway in particular. In sum, employment is expected to decline by ¾% next year. In 2001, employment in manufacturing is expected to continue to fall, while total employment will remain roughly unchanged. This means that a labour market upswing is expected to occur slightly sooner than forecast in the previous report.

Registered unemployment has been lower than expected so far in 1999. At end-August, 67 600 persons were registered at unemployment offices. Adjusted for seasonal variations, this corresponds to about 2.6% of the labour force. Seasonally adjusted unemployment has increased over the past months, but the increase was slightly lower than assumed in the June report.

LFS figures for the second quarter confirmed the stable trend in unemployment recorded so far in 1999. Seasonally adjusted LFS unemployment declined between the first and second quarter. Demand for labour in manufacturing and technical occupations remains low, but the total number of vacancies appears to be broadly stable after adjusting for seasonal variations. Consequently, we have revised estimated LFS unemployment down to 3¼% for 1999.

On balance, employment is expected to decline at a faster pace than the labour force over the next two years, with an attendant increase in unemployment from the current level. Unemployment is estimated at 3¾% in 2000 and 4% in 2001.

# MAIN MACROECONOMIC AGGREGATES

	<i>NOKbn</i>	<i>Percentage change from</i>			
	<i>(1996-prises)</i>	<i>previous year, unless</i>			
		<i>otherwise indicated</i>			
	1998	1998	1999	2000	2001
<b>Real economy</b>					
Private consumption	524.2	3.1	2¼	2	2¼
Public consumption	220.4	3.7	2¼	2	2
Total gross investment	269.0	8.1	-8	-12	0
- Petroleum activities	74.6	25.7	-5	-30	0
- Mainland Norway	183.5	2.4	-8¼	-4½	-¼
Enterprises	115.6	2.8	-9¾	-8¼	-1¾
Dwellings	29.3	-0.6	-7¾	1¼	3
Gen. government	38.6	3.4	-4	2	2
Mainland demand <sup>1</sup>	928.1	3.1	¼	¾	1¾
Exports	440.2	0.5	2¼	8¾	3¾
- Crude oil and natural gas	153.9	-3.8	4¾	19	2
- Traditional goods	174.0	3.4	1¼	3	6½
Imports	399.9	9.1	-2¼	-2¼	3¾
- Traditional goods	264.3	9.6	-2	-2¼	3¾
GDP	1082.5	2.1	1¼	3¼	1½
- Mainland Norway	898.2	3.3	½	¼	1½
<b>Labour market</b>					
Employment		2.3	¼	-¾	0
Labour force, LFS		1.4	¼	0	¼
Unemployment, LFS		3.2	3¼	3¾	4
<b>Prices and wages</b>					
Consumer prices		2.3	2¼	2	1¾
Annual wages		6.5	4¾	3¾	3¾
Import prices, traditional goods		1.3	-1¼	¾	¾
Export prices, traditional goods		1.0	-½	3¼	2½
Crude oil price, NOK		96	131	135	120
Resale home prices		9.5	10	2½	¼
<b>External account<sup>2</sup></b>					
Trade surplus, NOKbn (level)		2.5	48	109	99
Current account surplus, NOKbn (level)		-16.3	31	96	91
Current account surplus, % of GDP		-1.5	2½	7¾	7¼
<b>Memorandum</b>					
Household saving ratio		6.6	7	6¼	6½

<sup>1</sup> Weighted by export weights

<sup>2</sup> Weighted by the IMF's GDP weights corrected for purchasing power

Sources: OECD and Norges Bank