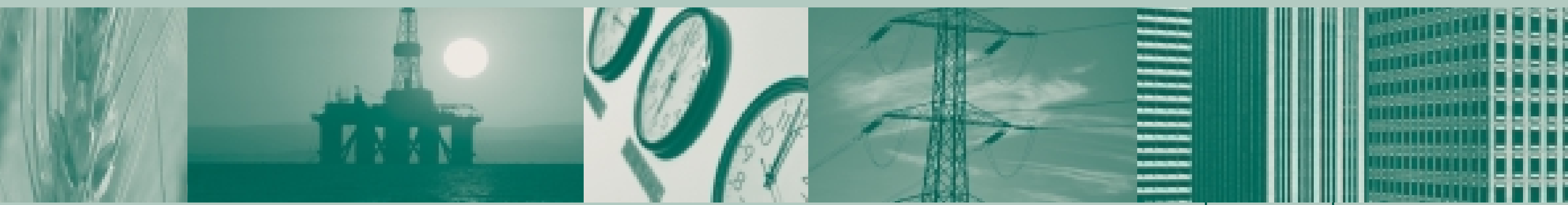
NORGES BANK

Reports from the Central Bank of Norway No. 3/2000



Inflation Report

2
00

June

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. As the executive authority, Norges Bank shall orient monetary policy instruments with a view to maintaining stability in the krone exchange rate against European currencies. There are two fundamental preconditions that must be fulfilled to achieve this. First, price and cost inflation must over time not exceed the level aimed at by the euro area. Second, monetary policy must not in itself contribute to deflationary recessions.

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
Second quarter 2000

The cut-off date for the *Inflation Report* was 15 June 2000

Gradual rise in interest rates

The world economy has recovered surprisingly quickly from the slowdown following the Asian crisis and turbulence in financial markets in the autumn of 1998. Unexpectedly sharp growth rates have contributed to a steep rise in oil prices and a number of other commodity prices. Economic prospects for the euro area and Sweden have improved substantially. The rise in oil prices has contributed to higher price inflation. A moderation of the strong growth momentum in the US economy is probably necessary to avoid a further pick-up in inflation. The prospect of higher inflation has prompted central banks in many countries to raise their key rates.

Economic activity also remains robust in Norway in spite of a sharp contraction in petroleum investment and reduced output in some manufacturing sectors. Growth in private and public consumption remains buoyant. The financial position of the household sector is solid and it appears that household income will continue to increase in the years ahead. The public sector is still facing a number of challenges. At the same time, employment is high and available resources are limited, representing a constraint in terms of how fast the economy can expand. Developments so far this year point to a faster increase in labour costs and stronger labour market pressures than anticipated earlier. Consumer price inflation has also picked up.

Norges Bank conducts monetary policy with a view to maintaining stability in the krone exchange rate against the euro. In order to achieve stability in the krone exchange rate, the Bank sets the interest rate level so that it can contribute over time to reducing price and cost inflation to the level aimed at by the euro area. On the other hand, interest rates must be set with a view to avoiding deflationary recessions. The outlook for the Norwegian economy, as presented in the Inflation Report, is an important basis for interest rate setting.

This spring Norges Bank has raised interest rates in two steps by a total of 0.75 percentage point. Market participants expect a further increase in interest rates over the next year. These expectations are also supported by the analyses in this Report. In the light of recent trends in the economy and the current 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 3% in 2000 and 2½% next year. Given the underlying assumptions in this Report, price inflation is estimated to remain at about 2½% in 2002. 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 2¾% this year. In the following years, the underlying rise in prices is expected to be the same as the overall rise in consumer prices. Compared with the March report, inflation projections have been revised upwards by ¼ percentage point in 2000, ½ percentage point next year and ¼ percentage point in 2002. The upward revision primarily reflects higher wage growth and a weaker krone exchange rate, but a slightly stronger external inflationary impetus is also a contributing factor.

As a result of the introduction of a fifth vacation week, labour costs for enterprises and the public sector will be higher than growth in disbursed wages. All in all, the increase in labour costs is estimated at close to 5% in 2000 and 4½% in 2001. In isolation, the additional vacation days will contribute to a tighter labour market than previously projected. An increase in labour costs will, however, gradually lead to reduced capacity to pay and slower employment growth in the business sector. This will in isolation contribute to lower wage growth at a later stage. For 2002, wage growth is estimated at 4¼%, which is somewhat lower than in the March report.

The Norwegian economy is marked by a high level of activity and pressures in large parts of the labour market. Higher labour costs and the reduction in the effective supply of labour as a result of additional vacation days will have a dampening effect on production growth in 2001 and 2002. Somewhat higher interest rates than previously anticipated and the contraction in petroleum investment may curb demand growth. On balance, mainland production is now estimated to expand at a slightly slower pace than the increase in production capacity. Mainland GDP growth is estimated at 1¾% in 2000 and 1½% in both 2001 and 2002. The estimates for 2001 and 2002 have been revised downwards compared with the March report.

Unemployment seems to be stabilising around the current level. Manufacturing employment continues to fall, particularly in oil-related and shipbuilding industries. Employment remains robust in service industries, partly reflecting continued growth in private and public consumption.

The risk of a pronounced downturn over the next two years is limited, but has increased because business sector costs are now higher than expected. The risk of higher price and cost inflation has also increased.

Money market rates are, as a technical assumption, assumed to move in line with market expectations as indicated by forward rates on 15 June. The estimates in this report are contingent on interest rates developing in line with these expectations. According to these expectations, money market rates will increase by about a quarter to half a percentage point in the period to end-2000. This implies slightly higher interest rates in 2000 and 2001 compared with the March report. As a technical assumption, the krone exchange rate is assumed to remain stable at the average for the first four months of the year. The exchange rate assumption implies a somewhat weaker krone exchange rate compared with the March report. Oil prices are assumed to fall to around USD 18 per barrel over the next two years.

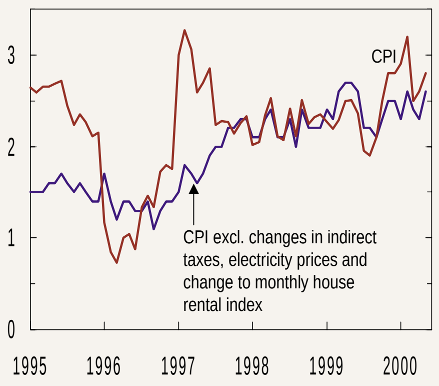
2.1 Price and wage developments

Consumer price inflation on the rise

Over the last six months consumer prices have shown a faster rate of increase. In the first five months of the year consumer prices were on average 2.8% higher than in the same period one year earlier. In May, the CPI rose by a year-on-year rate of 2.8% (see Chart 2.1). The price of crude oil has trebled from the level recorded last spring, and this is now feeding through to consumer prices. In addition, higher excise duties have pushed up price inflation.

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, consumer prices have risen by 2.5% on average so far this year. The underlying rise in prices was 2.6% in May.

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

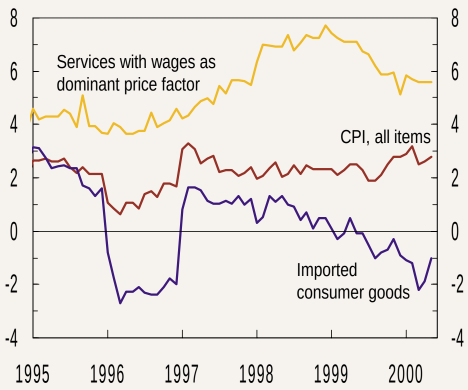


Sources: Statistics Norway and Norges Bank

The surge in oil prices is directly reflected in consumer prices through prices for fuel and lubricants. The rise in prices for these goods has been close to 15%, pushing up the total 12-month rise in consumer prices by about half a percentage point. The wholesale price index for the first quarter of 2000 indicates, however, that it is not only the rise in oil prices that has driven up petrol prices. Profit margins seem to have increased between the first quarter of last year and the first quarter of this year.

The rise in prices for services other than house rent was 4.3% in May and has been moving on a rising trend since September last year when the year-on-year rise was about 3%. The increase in prices for services with wages as a dominant price factor is nearly 6%.

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



Source: Statistics Norway

Import prices fell in the wake of the Asian crisis because a substantial share of imported consumer goods come from Asia or are influenced by competition from Asian countries. Prices for imported consumer goods continue to fall on an annual basis, while the monthly rate of increase has been positive since February (see Chart 2.2).

The harmonised index of consumer prices (HICP) showed a rate of increase of 2.9% in Norway in May, ie 0.2 percentage point higher than one month earlier. The HICP for the euro area rose by 1.9% in April. The HICP was broadened from January 2000 to include about 88% of consumer spending in the total index. The only component that is not included in the HICP in relation to the total index is home owners' housing costs.

Continued high growth in labour costs

For industrial workers covered by the Norwegian Confederation of Trade Unions and the Confederation of Norwegian Business and Industry, this year's collective wage agreement provides for a general increase of NOK 1.50 per hour and an additional pay increase of NOK 2.00 and NOK 1.50 per hour, respectively, for those who earn less than 87% and 92% of manufacturing workers' average wage. In addition, the agreement provides for two extra vacation days in both 2001 and 2002. The extra vacation days will push up costs in the enterprise sector in 2000 and 2001. All in all, the increase in labour costs in enterprises covered by the Confederation of Norwegian Business and Industry is estimated at 4¾% in 2000 and 4¼% in 2001, with the two extra vacation days accounting for about ¾ percentage point this year and next.

The settlement in the retail sector was broadly in line with the above agreement, including the additional vacation days and the same pay increases. As the retail sector has a large component of low-paid workers compared with the above sector, the increase in labour costs has been estimated at 5½% this year and 4¾% next year.

The settlement in the public sector also entails two extra vacation days the next two years, and the agreement implies an increase in labour costs of about 4¾ % in 2000 and 4¼% in 2001. The collective agreement will be voted on by ballot at the end of June.

2.2 International developments

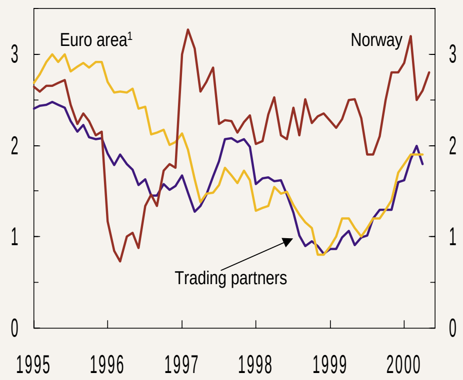
Higher prices and faster growth internationally

Import prices, measured in NOK, are moving up. The quarterly national accounts for the first quarter showed a rise in prices for traditional import goods of 4.7% compared with the same quarter one year earlier, ie the highest year-on-year rise since 1990. Higher oil prices have also pushed up the price of refined petroleum products the last year. Adjusted for this increase, imported price inflation was about 2%.

Prices for industrial commodities, measured in USD, edged down in the period to mid-April. Thereafter, prices moved up, but are still below the level recorded at the beginning of the year. Food prices have largely been stable. The international producer organisations for coffee and cocoa have signalled supply cuts in order to boost prices.

Consumer price inflation among trading partners has risen in recent months, partly reflecting higher oil prices, and stood at 1.8% in April. In the US, price inflation was 3.1% in May. Core inflation, which excludes food and energy prices, was 2.3%. As a result of low petrol taxes, higher oil prices have a greater impact on consumer price inflation in the US than in Europe. Inflation was 1.9% in the euro area in April. In Sweden, price inflation remains subdued at 1.4% in May. Consumer price inflation in the UK was 2.0% the same month.

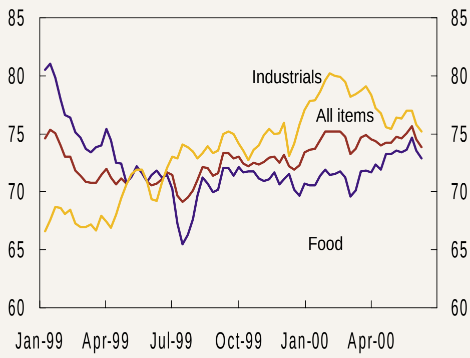
Chart 2.3 Consumer prices in Norway and abroad. 12-month rise. Per cent



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

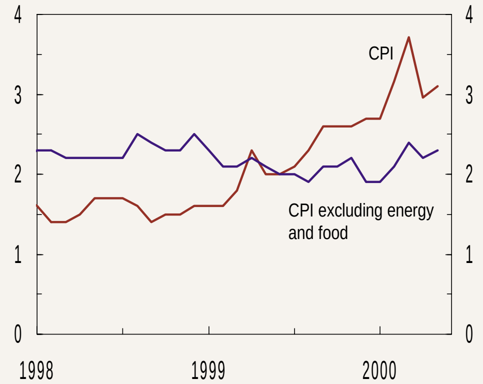
Sources: Statistics Norway, Eurostat and OECD

Chart 2.4 The Economist's commodity price index. USD 1995=100. Weekly figures



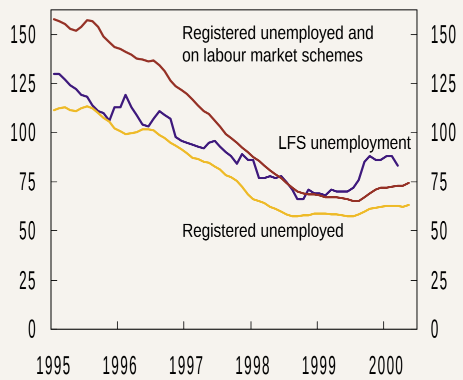
Source: The Economist

Chart 2.5 CPI including and excluding energy and food in the US. 12-month rise.



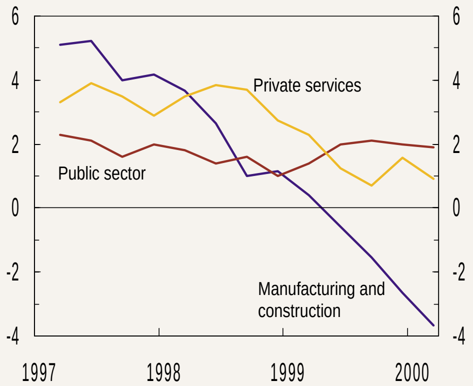
Source: Datastream

Chart 2.6 Numbers unemployed (LFS), numbers of registered unemployed and numbers on labour market schemes. In thousands. Seasonally adjusted



Sources: Statistics Norway and the Directorate of Labour

Chart 2.7 Numbers employed by sector. Percentage rise on same quarter previous year



Sources: National Accounts and Statistics Norway

International money market rates have risen. Since the March Inflation Report, central bank key rates in the euro area, the US, Denmark, Canada, Australia and New Zealand have been raised, reflecting the prospect of stronger growth and the risk of higher inflation.

Growth among our trading partners has picked up. The expansion in the US has continued, with growth being fuelled by domestic consumption and investment. Economic growth in the euro area gathered momentum in the second half of 1999, primarily generated by the recovery in Asia, robust growth in the US and the marked depreciation of the euro. Other demand components are also expanding. Key figures so far this year indicate that growth in the euro area will probably pick up further. Consumer confidence indicators have improved since mid-1999.

2.3 Cyclical developments

Mainland GDP growth picked up from the first to second half of last year. More recent statistics confirm the picture of brisk growth in demand and production in Norway. Employment is rising moderately and labour force participation rates have reached an historical peak. Production growth seems to be remaining close to trend. Spending on goods has risen more than expected and house prices increased sharply in the first quarter. Growth in credit to households has shown a further increase. Mainland business investment also showed growth in the first quarter, while petroleum investment contracted sharply, thereby restraining total growth in demand.

Persistent labour market pressures

Labour market pressures remain strong. Registered unemployment is stable. In mid-June, the number of registered unemployed was 58 400, ie 2.5% of the labour force. This is an increase of 2 800 from one year earlier. LFS unemployment figures depart substantially from the Directorate of Labour's figures for registered unemployment (see Chart 2.6). According to LFS figures, unemployment rose by 21 000 from the first quarter of last year. At the same time, the number of registered unemployed and persons participating in labour market programmes rose by only 6 200. The difference primarily reflects a pronounced increase in the labour force and unemployment among the youngest age groups included in the LFS. This may be because the method for calculating LFS unemployment was changed last autumn.

Demand for labour seems to remain relatively high. The number of job vacancies rose on a seasonally adjusted basis from a good 17 000 in April to 18 500 at the end of May.

Employment growth has slowed somewhat over the last year, but remains positive. In the first quarter employment increased by a little more than 3 000, or about 0.2%, from the first quarter of 1999. Employment is still declining in manufacturing and the construction industry, but is rising in the public sector and private services (see Chart 2.7).

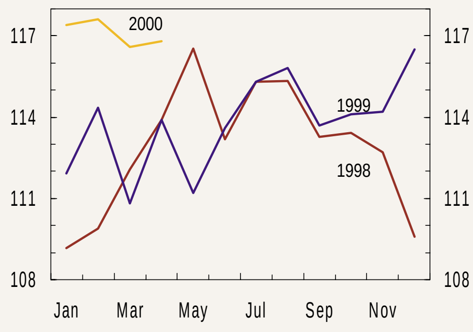
Growth in household consumption remains buoyant

The retail sales index showed sharp growth in household consumption in the first four months of the year. Spending on goods was 4.3% higher than in the same period last year, which was slightly higher than projected (see Chart 2.8). Quarterly national accounts figures indicate that spending on services grew at a slower pace than goods consumption in the first quarter. Imports of typical consumer goods rose sharply in May. New car registrations increased by a seasonally adjusted 3.9% from April.

House prices have continued to rise sharply. Figures from ECON show a rise in the national average for house prices of 15.7% between the first quarter of 1999 and the first quarter of 2000. The rise in prices was particularly high in the Oslo area. Property prices show a more stable trend than house prices.

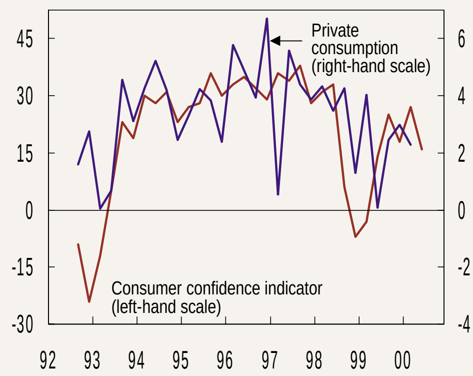
Norsk Gallup's consumer confidence indicator fell sharply between February and May, but a majority of households still expect improved economic prospects (see Chart 2.9). The decline in the indicator reflects reduced optimism among households, which may be due to expectations of higher interest rates ahead. The strike in connection with the collective wage negotiations, which took place at the same time the survey was conducted, may also have contributed to this shift in sentiment. The confidence indicator can provide an indication of developments in private consumption about three months ahead (see separate box). The fall in the confidence indicator may suggest slightly slower growth in consumption later this year.

Chart 2.8 Retail sales index. Seasonally adjusted volume. 1995=100



Source: Statistics Norway

Chart 2.9 Consumer confidence indicator and private consumption (4-quarter growth, per cent)

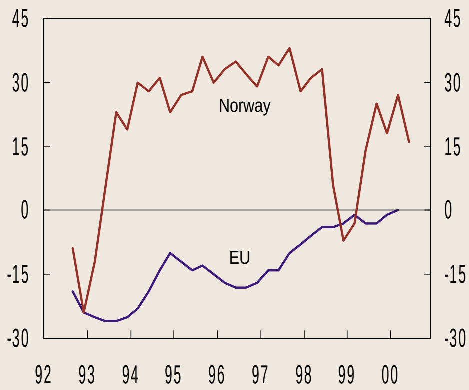


Sources: Statistics Norway and Norsk Gallup Institutt AS

Consumer confidence indicator

The consumer confidence indicator in Norway is a joint project that includes Norsk Gallup Institutt AS, the Savings Banks' Association and the business magazine Økonomisk Rapport. The purpose of the indicator is to measure household confidence in and expectations concerning their personal finances and the country's economy. Similar surveys are also conducted in other countries and the EU (see Chart 1). The survey is published four times a year. Households are asked to reply to five questions. Two questions relate to personal finances and two to the country's economy. Finally, households are asked to indicate whether they intend to make major household purchases in the period ahead. For each of these questions, an index is constructed that is equal to the difference between the percentage who have replied "better" and the percentage who have replied "worse". The

Chart 1 Consumer confidence indicator. Norway and the EU



Source: Norsk Gallup Institutt AS and Datastream share replying "don’t know" is excluded. The consumer confidence indicator is then equal to the average of the five sub-indices.

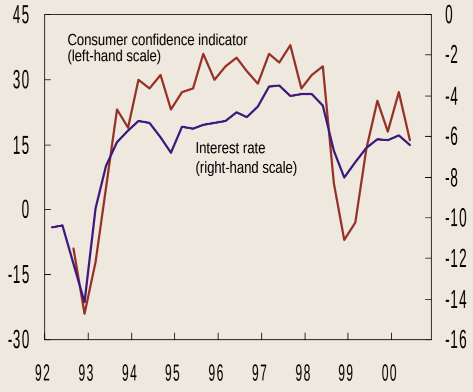
There are many factors that may influence household perceptions and expectations regarding personal finances and the country’s economy. Chart 2 indicates that interest rate levels are an important factor. Recent calculations made by Norges Bank suggest that households respond somewhat more quickly to changes in interest rates than assumed earlier.

Oil prices may influence expectations. The sharp fall in oil prices in 1998 probably contributed to a pronounced fall in the confidence indicator in that period. Income growth, developments in the labour market and the situation in the global economy are other possible explanatory factors. Moreover, it appears that the slope of the yield curve, measured as the spread between long-term bond yields and short-term money market rates, may also influence the confidence indicator (see Chart 3).

The confidence indicator is a leading indicator of private consumption. It is most suitable for providing an indication of consumption the same quarter the indicator is published and the following quarter. When drawing up estimates of private consumption in the very short term, Norges Bank therefore assesses the confidence indicator along with many other indicators of consumption developments. Preliminary results suggest that a rise in the confidence indicator of 10 units implies a ½ percentage point increase in year-on-year growth in private consumption in the following quarter. The results are uncertain and should be interpreted with caution. The indicator is not suitable for predicting changes in consumption over time.

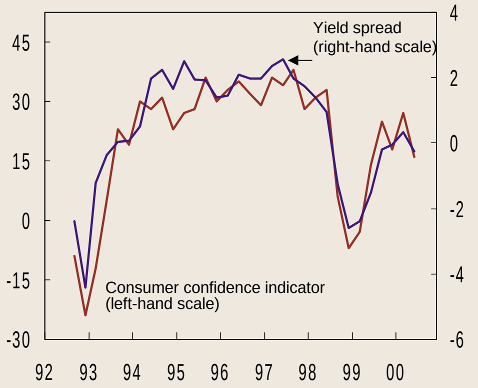
It is reasonable to assume that higher expectations result in greater optimism, which may contribute to higher consumption. Expectations can also influence house and equity prices, which in turn may have an impact on household consumption.

Chart 2 Money market rate (multiplied by -1) and consumer confidence indicaton level)



Sources: Norsk Gallup Institutt AS and Norges Bank

Chart 3 Yield spread [1] and consumer confidence indicator (level)



[1] The yield spread is calculated as the spread between the yields on 10-year government bonds and 3-month money market rates (NIBOR)

Sources: Norsk Gallup Institutt AS and Norges Bank

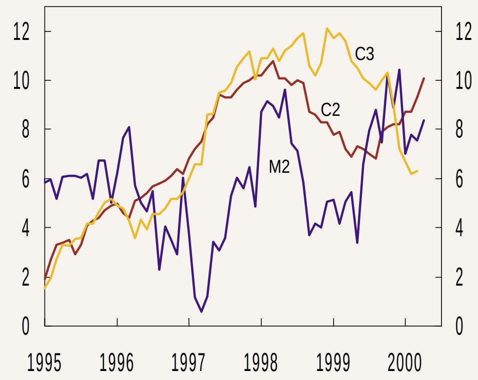
The indicator fell by 9 units, to 16, from February to May. In isolation, this may point to slower consumption growth in the summer months. It is conceivable that turbulence in connection with the wage settlement and the strike lowered expectations in May. The confidence indicator is still positive, pointing to continued growth in consumption, but not at the same rate as in the last six months.

Slower growth in credit to the enterprise sector, but higher growth in credit to households

Growth in credit from domestic and foreign sources (C3) rose by 6.3% in the 12 months to end-March, compared with a 12-month growth rate of 7.2% in December (see Chart 2.10). The slower growth in credit is primarily due to the contraction in credit to non-financial enterprises, particularly petroleum activities and shipping. This is partly due to low petroleum investment and high net cash flows in the petroleum sector. Growth in credit from domestic sources (C2) to non-financial enterprises has been high and rising in the period to April of this year. Up to March, this has been more than offset by lower growth in credit from foreign sources.

The growth in credit to households has shown a marked increase over the last year. The 12-month rate of growth in credit from domestic sources to households was as much as 9.9% in April. The strong growth in credit to households must be seen in connection with the sharp rise in house prices and the increase in car sales.

Chart 2.10 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

Contraction in manufacturing investment

According to the quarterly national accounts for the first quarter, manufacturing investment fell by 6.4% from the first quarter of 1999, particularly in sheltered and import-competing sectors. This is consistent with Statistics Norway's investment intentions survey, which indicates a decline in manufacturing investment of about 2½% this year. External trade statistics for the first five months of the year show a drop in the value of imports of typical capital goods such as industrial machinery and metal goods.

The contraction in petroleum investment continues. According to the quarterly national accounts, investment in services and the retail sector rose by more than 10% between the first quarter of last year and the first quarter of 2000. The figures are somewhat uncertain, however.

3 Norges Bank´s inflation projections

3.1 The inflation outlook the next two years

Norges Bank projects consumer price inflation at 3% in 2000 and 2½% in 2001, which is an upward revision of ¼ percentage point for 2000 and ½ percentage point for 2001 compared with the March Report. For 2002, the rise in consumer prices is now estimated at 2½%, ie ¼ percentage point higher than in the March Inflation Report.

The estimates imply a decline in price inflation between this year and next, which partly reflects the increase in price inflation this year as a result of higher indirect taxes and the assumption that oil prices will gradually fall to around USD 18 per barrel over the next two years. At the same time, the rise in foreign producer prices is expected to slow.

The increase in labour costs in enterprises and the public sector has been revised upwards for this year and next. Labour costs are now projected to increase by close to 5% this year, 4½% in 2001 and 4¼% in 2002.

The estimates for the rise in producer prices among trading partners have been revised upwards for 2000. In addition, the import-weighted krone exchange rate has depreciated by more than 4% so far this year, which will contribute to an increase in import prices measured in NOK.

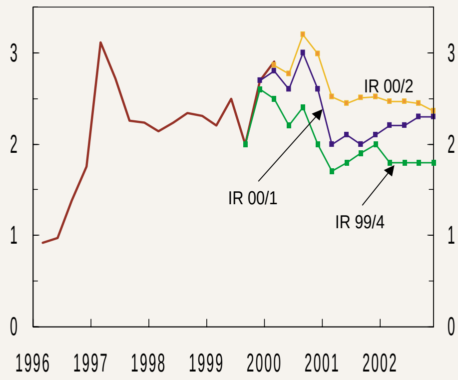
Price developments may be influenced by abrupt or random variations in prices for goods or services. Some of these variations are eliminated when we measure underlying price inflation (see separate box). This year, price developments are heavily influenced by the surge in oil prices.

Over time, more fundamental factors will dominate price developments. The international environment, the formulation of economic policy and the situation in the labour market are among these factors. The estimates in the Inflation Report are based on key assumptions concerning interest rates, exchange rates, fiscal policy, international price developments and growth in the labour force. In Sections 3.2-3.4, we discuss some of the driving forces and risks that we judge to be of particular importance to price inflation over the next 2-3 years.

Interest rates and exchange rate assumptions

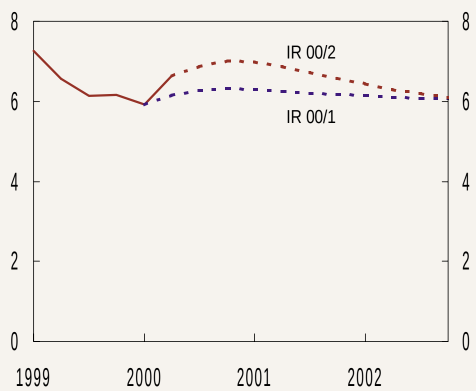
The projections in this Report are based on the technical assumption that money market rates will move in line with implied forward rates calculated using the yield curve in money and bond markets on 15 June. In the short and medium term, forward rates can be interpreted as participants' expectations concerning cyclical developments and the

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



Sources: Statistics Norway and Norges Bank

Chart 3.2 Technical assumptions concerning short-term money market rates[1]. Per cent



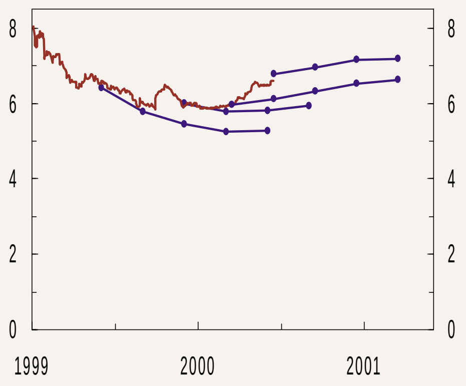
[1] Three-month money market rates up to 15 June. Three-month forward rates are estimated using four money market rates and five government bond yields with different maturities as observed on 15 June.

Source: Norges Bank

orientation of monetary policy. The estimates in the Inflation Report are contingent on interest rates moving in line with these expectations.

Norges Bank raised its key rates by 0.25 percentage point on 13 April and by an additional 0.5 percentage point on 15 June. The deposit rate is now 6.25%. Three-month money market rates stood at 6.7% in mid-June. Forward rates and the pricing of FRAs indicate that the Norwegian three-month rate is expected to rise by about a quarter to half a percentage point in the course of 2000. Norwegian forward rates are somewhat higher than in March. The interest rate assumption implies that short-term interest rates will be about ¾ percentage point higher at the end of 2000 than assumed in the March Report (see Chart 3.2). In the euro area and the US, FRA rates also indicate expectations of higher interest rates in the coming year. The differential against money market rates in the euro area will narrow, according to forward rates, from the current 2 percentage point difference to around 1 percentage point at the end of 2002. Key technical assumptions concerning monetary and fiscal policy are shown in Table 3.1.

Chart 3.3 Actual 3-month rates and FRA rates since January 1999



Source: Norges Bank

Table 3.1 Technical assumptions

	2000	2001	2002
3-month money market interest rate (annual average)[1]	6.6	6.8	6.3
Import-weighted exchange rate [2]	1.7	-0.3	0
Exchange rate measured against euro[2]	-2.3	-0.1	0
Real rise in gov't spending	13/4	13/4	21/4
Oil price NOK/ barrel [3]	220	190	160

[1] Interest rates are assumed to remain aligned with market expectations as reflected in forward rates.
[2] Annual percentage change. The import-weighted exchange rate includes 44 countries.
[3] It is assumed that the oil price will gradually revert to USD 18 per barrel.

Underlying consumer price inflation

Indicators of underlying consumer price inflation adjust for temporary fluctuations in prices in order to measure more permanent impulses to price developments. The most appropriate indicator of underlying inflation is not clear-cut. In particular, one may question how fluctuations in oil prices should be perceived.

The most commonly used methods for estimating underlying price inflation may be divided into three main categories:

- Discretionary adjustments of the consumer price index (CPI) for temporary shocks.
- Permanent exclusion of sub-indices for which prices fluctuate sharply, primarily as a result of variations in random conditions, eg weather conditions.
- Technical adjustments for the strongest price changes, for example through a weighted median or trimmed average.

Internationally, the main methods used are based on the permanent exclusion of sub-indices. The sub-indices excluded vary from one country to another. It is most common to exclude indirect taxes and mortgage interest payments. Some countries also exclude energy and food prices.

In its *Inflation Report*, Norges Bank publishes an indicator of underlying consumer price inflation that excludes electricity prices and indirect taxes.[1] In addition, adjustments have been made this year for a technical revision of the house rent index. The method is simple and largely in accord with international practice. We exclude fewer factors than most other countries in our index for underlying price inflation. Other possible correction factors include:

1. Interest expenses
2. Food prices
3. Energy prices other than electricity prices.

1 For a further discussion of the concept underlying inflation, see the box on this subject in Inflation Report 1997/2.

Many countries exclude interest expenses either because interest is directly included in the CPI or because it influences the CPI in a misleading way. In Norway, interest expenses are not directly included in the total index for consumer prices, but are one of the components in the house rent index. The need for a correction is therefore not as great as in some other countries. Other components that influence the house rent index are house prices, local government charges, prices for caretaker services and repairs and maintenance.

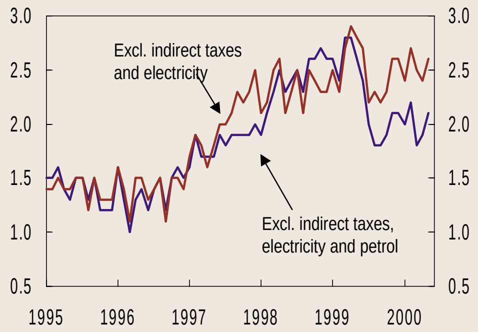
Internationally, food prices are excluded primarily due to considerable seasonal volatility and because it is often random conditions (such as weather) and not demand pressures that influence prices. In Norway, most food prices are relatively stable due to government regulations. World market prices feed through to consumer prices primarily via imported food, for example, coffee and sugar. These food products account for a small share of the consumer price index.

Electricity prices are excluded due to sizeable random fluctuations, partly as a result of weather conditions. By excluding electricity prices, however, we also exclude the effect of structural changes that are taking place in the electricity market where, among other things, efficiency gains derived from intensified competition have contributed to lower prices, thereby curbing price pressures in the economy. With a steadily larger common market for electricity in Europe, there may in the course of a few years be factors other than weather conditions that will dominate developments in electricity prices.

High petrol taxes limit the effects of changes in oil prices on the CPI, thereby weakening the argument for adjusting for oil price shocks. However, the rise in oil prices the past year has been so sharp that this has had a considerable impact on the total index. To the extent high oil prices are a temporary phenomenon, there are sound arguments for excluding oil prices from the CPI. Chart 1 shows consumer price developments with and without adjustments for oil prices.

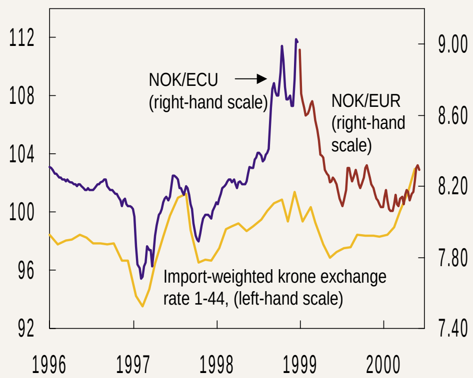
If the oil price remains high over a longer period, however, its exclusion would lead to an underestimation of price pressures in the economy. Norges Bank has therefore chosen to take an explicit position concerning oil prices when the inflation estimates are drawn up. Our estimates are thus based on a clear assumption concerning the oil price.

Chart 1 Twelve-month rise in the CPI excluding indirect taxes, electricity and petrol. Per cent



Sources: Statistics Norway and Norges Bank

Chart 3.4 NOK/ECU and NOK/EUR exchange rates (weekly figures) and import-weighted krone exchange rate (monthly figures) against 44 currencies. January 1995=100



Source: Norges Bank

Since the March Inflation Report, the krone exchange rate measured against the euro has varied between 8.05 and 8.34. On 15 June, the exchange rate against the euro was NOK 8.22. The krone has depreciated against the US dollar and other European currencies, such as pound sterling and the Swedish krona. Measured by the import-weighted exchange rate index (44 countries), the krone has depreciated by nearly 2.5% since the March Report (see Chart 3.4). The projections in this Report are based on the technical assumption that the import-weighted krone exchange rate will remain at the average level over the last four months to the end of the projection period. The exchange rate assumption implies a depreciation of the krone of nearly 2% between 1999 and 2000. In isolation, this will contribute about 0.2 percentage point to price inflation in each of the next two years.

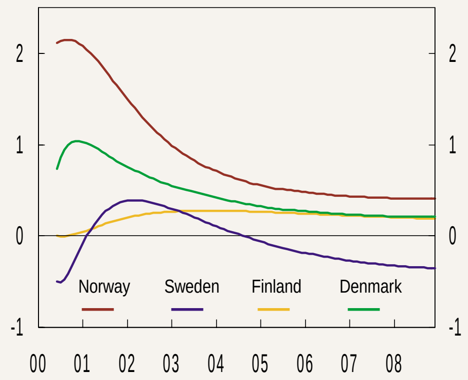
3.2 Inflation expectations

Inflation expectations and the degree of confidence in monetary policy have implications for the use of the instruments necessary to achieve the objective of monetary policy. We have no direct measure of inflation expectations in Norway, and it is uncertain how expectations are influenced by changes in monetary policy.

Long rates can provide information concerning confidence in overall economic policy and inflation expectations in the long term. In addition, they are a reflection of long-term global interest rates. The yield on ten-year government bonds has remained virtually unchanged since March, while US and German yields have edged down. The yield spread between long-term Norwegian and corresponding German bonds is about 0.9 percentage point. Norwegian forward rates have shown little change since the March Report. However, the differential against German long-term forward rates has widened, and is slightly higher for Norway than for the other Nordic countries (see Chart 3.5).

Consensus Forecasts's June projections for the Norwegian economy show that market observers have raised their price expectations this year and next. On average, a selection of market operators expect the consumer price index to increase by 2.7% in 2000 and 2.2% in 2001 (see Table 3.2). This is an upward revision of 0.3 percentage point for 2000 and 0.2 percentage point for 2001 compared with the March estimates.

Chart 3.5 Forward rate differentials against Germany 15 June 2000. Percentage points



Source: Norges Bank

Table 3.2 Various institutions' projections for consumer price inflation in Norway in 2000 and 2001[1]. Percentage change from previous year

	2000	2001
Norges Bank	3	2½
Ministry of Finance	2.6	2¼
Statistics Norway	2.8	1.9
OECD [2]	2.7	2.6
IMF	2.3	2.0
Consensus Forecasts[3]		
Highest estimate	2.8	2.4
Average	2.7	2.2
Lowest estimate	2.5	1.9

[1] Latest official projections from the various institutions.
[2] 'Consumption deflator
[3] June 2000

3.3 International conditions

Stronger international price impulses

Imported price inflation has picked up. All in all, prices for traditional import goods are estimated to rise by 3% in 2000, 1¾% in 2001 and 1½% in 2002. These estimates have been revised upwards on the last report, particularly for this year. The higher estimates primarily reflect the depreciation of the krone in recent months and higher international producer prices. In addition, higher cost inflation in Norway may influence price margins at the import stage to some extent.

The estimates for the rate of increase in international producer prices have been revised upwards to 3¾% this year, with the estimate for 2001 remaining unchanged at 2%. The surge in oil prices and stronger economic growth internationally have also contributed to a sharp rise in international producer prices. So far, high energy prices have had little impact on underlying price inflation. For example, wage growth in both the euro area and the US seem to be unaffected. This may be due to expectations of a fall in energy prices (see more detailed discussion below).

Consumer price inflation among trading partners is estimated at 1¾% in 2000 and 2% in 2001 and 2002. The estimates are the same as in the March Inflation Report (see Table 3.3). The rise in prices for international goods is expected to be moderated by strong international competition and high productivity growth also in areas other than

Table 3.3 Consumer prices. Percentage change from previous year

	1999	2000	2001	2002
US	2.1	3	2½	2½
Japan	-0.3	0	¼	½
Germany	0.6	1½	1½	1¾
France	0.6	1¼	1½	1½
Italy	1.7	2¼	1¾	1¾
UK	2.3	2	2½	2½
Sweden	0.5	1¼	2¼	2
Norway's trading partners[1]	1.3	1¾	2	2
Euro area [2]	1.1	1¾	1¾	1¾

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

Source: Norges Bank.

the US. According to external trade statistics for the first quarter, prices for imports of food and various finished goods fell over the last four quarters. Stronger international competition has increased the scope for importers to change supplier, partly thanks to information technology. This may contribute to slowing the rise in prices for imported consumer goods. The level of prices in Norway is higher than that of most trading partners, which implies that the potential for lower rises in prices for imported goods may be substantial.

Price inflation in Germany and France is now expected to be lower than projected in the March Report, while the estimates for a number of smaller countries in the euro area have been revised upwards. The depreciation of the euro does not seem to have translated into higher consumer prices so far. Norges Bank projects that price inflation in the euro area will remain subdued (see separate box). Inflation expectations are also moderate in countries with tight labour markets, such as the UK and Sweden.

Continued low price and cost inflation in the euro area

Price inflation has picked up in the world economy, including the euro area. Since its introduction, the euro has depreciated by about 23% against the US dollar while the nominal effective exchange rate has depreciated by 13%. This has contributed to pushing up import prices. In addition, economic prospects have improved substantially on a global scale and in the euro area. Although price inflation may be somewhat higher than anticipated in the short run, there are no signs of rising inflation in the euro area over time.

Chart 1 shows that price inflation is now being driven by the sharp rise in energy prices. The oil price measured in USD has almost trebled compared with the level recorded in February 1999. Price developments for goods excluding energy remain moderate. There is divergence between price trends in euro area countries.

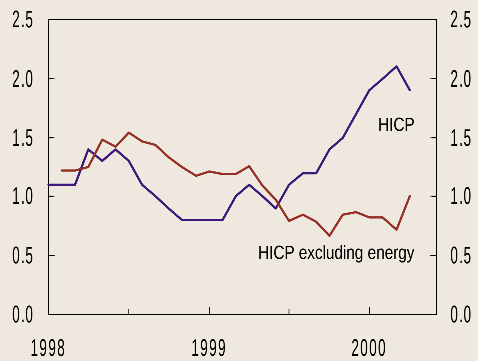
Over time, monetary policy will determine how fast the rate of increase in prices will be. Changes in relative prices and wages influence supply and demand conditions in the economy, but not the overall rise in prices in the longer term.

Intensified global competition may ease the pressure on monetary policy. In recent years, a number of markets have been deregulated in the euro area, particularly telecommunications, energy and financial markets. Stronger competition may have a dampening impact on price inflation.

The Asian crisis led to a weakening of a number of Asian currencies, which has reduced prices for imported consumer goods in Europe, including Norway (see separate box on import-weighted krone exchange rate in the March 1999 Inflation Report). This effect is amplified by the extensive use of information technology, which has made it easier for importers to find the suppliers that offer the lowest prices. In the euro area, the price-moderating effect of intensified competition and globalisation may have been reinforced thanks to the introduction of a common currency.

Over the past three years, hourly wages in manufacturing have increased at an annual rate of about 2½% in the euro area (see Chart 2). Wage growth appears to remain subdued. Wage growth in Germany is expected to be lower than previously

Chart 1 HICP including and excluding the energy component. Twelve-month rise. Per cent



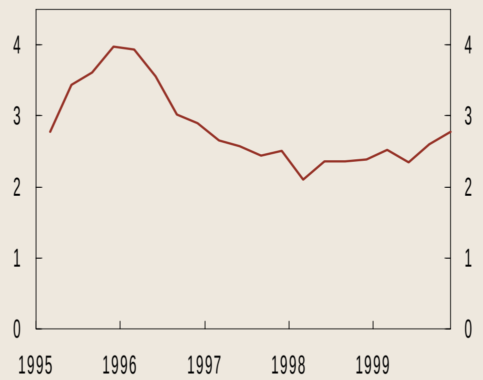
Sources: Eurostat and Norges Bank

assumed. In France, annual wage growth has remained moderate. A reduction in payroll taxes has contributed to pushing down labour costs in several euro area countries. However, evidence suggests that wage pressures are on the rise in Ireland. Wage growth is also moving up in the Netherlands, Portugal and Finland.

In the OECD June 2000 *Economic Outlook*, unit labour costs are projected to fall in Germany this year and rise moderately in France and Italy. The OECD expects inflation in the euro area to remain below 2% up to 2005. According to the OECD, money market rates must rise to about 5.3% towards the end of 2001 for the ECB to attain its price stability objective.

Norges Bank projects that inflation in the euro area will stabilise at a rate of around 1¾% in the years ahead.

Chart 2 Hourly wages in manufacturing in the euro area countries. Percentage change on same quarter previous year

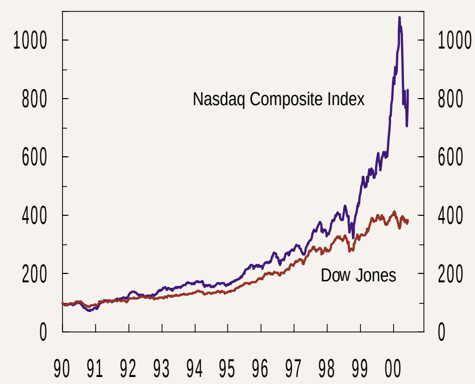


Source: OECD

Our forecast for price inflation in the US has been revised upwards for this year, primarily reflecting higher energy prices. The rise in prices will probably be curbed by lower energy prices in the period ahead. Strong growth in the US economy may, however, result in mounting price pressures.

There have been signs of a correction to US technology stocks (Nasdaq) (see Chart 3.6), although contagion effects still seem to be limited. There is a risk of a further stock market correction. A pronounced turnaround in the US, with an attendant contraction in demand, may push down international price inflation substantially.

Chart 3.6 Equity prices. Dow Jones Industrial and Nasdaq Index. Weekly figures. 1990.1=100

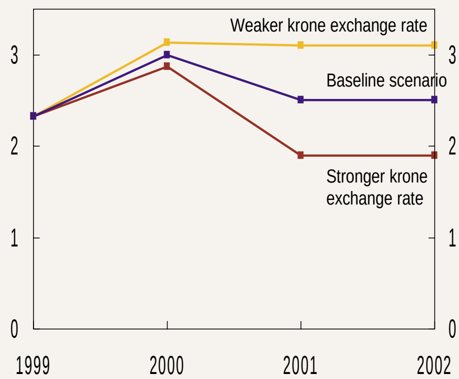


Source: Norges Bank

Effects of a change in the krone exchange rate

Movements in the krone exchange rate influence the rise in prices in Norway. If the krone depreciates further from the current level, prices for imported goods and services will rise at a faster-than-expected pace. If the krone appreciates, consumer price inflation may be lower than envisaged at present. Chart 3.7 shows the isolated effects on consumer price inflation of a change in the import-weighted krone exchange rate of 5% from the third quarter of 2000. According to the RIMINI model, this could contribute to about 0.6 percentage point to price inflation both in 2001 and 2002. The RIMINI model is based on historical relationships. It is possible that the model overpredicts the impact of the exchange rate on import prices. Over the last three years, the krone exchange rate has shown wider fluctuations than early in the 1990s. These fluctuations may in the short term also affect profit markets at the import stage.

Chart 3.7 Annual CPI with a 5 per cent change in the import-weighted exchange rate from the third quarter 2000. Per cent

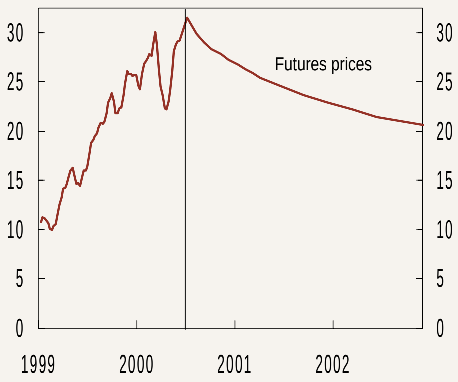


Sources: Statistics Norway and Norges Bank

Effect of higher oil prices

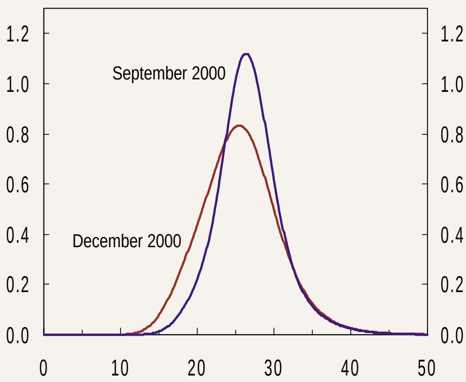
Future developments in oil prices will have a considerable impact on consumer price inflation the next 6 to 18 months. As a technical assumption, the oil price in 2000 is put at about the same as the average so far this year, ie about USD 26 or

Chart 3.8 Oil price, Brent Blend USD



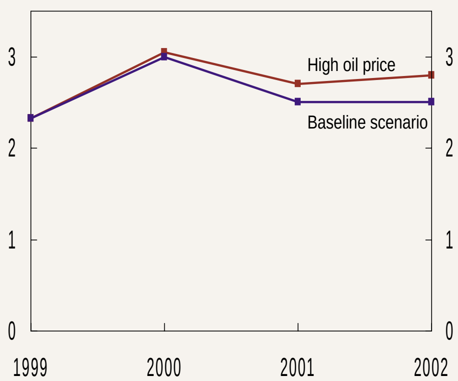
Sources: Norges Bank and IPE

Chart 3.9 Probability distribution[1] for the oil price in September and December 2000 (per US 0.1)



Sources: Bloomberg and Norges Bank
[1] Implicit probability distributions calculated on the base of options prices at 6 June 2000

Chart 3.10 Annual consumer price inflation for various oil price scenarios. Per cent



Sources: Statistics Norway and Norges Bank

NOK 220 per barrel. Oil prices are thereafter assumed to decline gradually to about USD 18, or NOK 160 per barrel in 2002 (see Table 3.1). The estimate for oil prices has been revised slightly upwards since the March Report.

Derivatives prices provide an indication of market expectations concerning future oil prices. Futures prices for oil decline to USD 23 per barrel over the next year and further down to USD 21 at a two-year horizon (see Chart 3.8). Futures and forward prices reflect the market's (risk-neutral) expectations of future price developments, but do not provide information regarding uncertainty. Under given assumptions, probability distributions for future oil prices can be derived from observed option prices (see Chart 3.9). The chart indicates that there is a 50% probability that oil prices will be in the interval USD 22-29 per barrel at the end of the year.

Chart 3.10 shows the isolated effects on consumer price inflation in Norway if oil prices remain at the level recorded so far in the second quarter to the end of the projection period, ie around USD 26 per barrel. In relation to the baseline scenario, this implies an oil price that is about 15% higher in 2001 and 35% higher in 2002. Among other things, the calculations take account of the effects of an increase in oil prices on foreign producer prices and import prices in Norway. An oil price at this level could result in price inflation of an estimated 2¾% in both 2001 and 2002.

These calculations are designed to illustrate the isolated effects of higher oil prices. If oil prices remain at this high level, imported price inflation may be substantially higher in the short run than anticipated. In the longer term, a high oil price and higher price inflation will probably be countered by a tighter monetary policy in the various countries. The assumption concerning oil price developments therefore probably has limited implications for the rate of increase in consumer prices over time.

3.4 Domestic conditions

High domestic cost inflation

Chart 3.11 shows the rise in labour costs, disbursed wages in the 1990s and the estimates for the next years. The additional vacation days provided for in this year's wage settlements imply that growth in disbursed wages will be lower than the growth in labour costs this year and next.[1] Disbursed wages are estimated at about the same level as in the March *Inflation Report*, while the estimates for cost inflation have been revised upwards by a little more than 1 percentage point in 2000 and ½ percentage point in 2001.

Norges Bank has previously presented estimates of the effects of various shifts in the labour market. In the March *Inflation Report* we discussed the possible effects of a change in wage formation, ie that wage growth in manufacturing was no longer a benchmark for wage settlements in the sheltered sector. In this shift, higher wage growth had a relatively strong effect on consumer price inflation. Such a result can be construed to mean that the sheltered sector can more easily pass on cost increases to prices. In the September 1999

[1] In the national accounts, compensation of employees is recorded at book value and not accrued value. Accounting figures for 2000 may therefore deviate from our projections for labour costs. When drawing up our price projections, however, we have deemed it most relevant to take account of accrued expenses for enterprises.

Inflation Report we looked at the effects of a general increase in wage growth. The calculations indicated that a one percentage point change in wage growth in both 2000 and 2001 would result in a change in consumer price inflation of 0.2 and 0.4 percentage point, respectively.

The settlement in the exposed sector was the main basis for this year's wage settlements. We have no basis to maintain that there has been a change in wage formation. The most relevant approach would thus probably be to compare the estimates for wage growth for this year and next with the shift calculations we carried out almost a year ago.

Lower unemployment and a steadily tighter labour market led to an increase in wage shares in the last half of the 1990s (see Chart 3.12). Against the background of continued strong labour market pressures and high capacity utilisation, we projected rising wage inflation through the projection period in the March report. This entailed a gradual increase in wage shares.

Part of the increase in wage shares will now occur at an earlier stage. Over time, wage growth in the economy will have to be adapted to enterprises' capacity to pay. In isolation, this implies lower wage growth towards the end of the projection period.

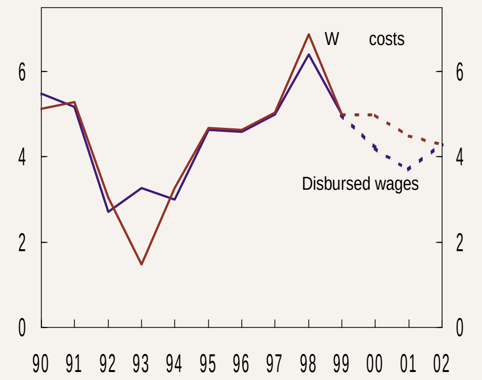
On the other hand, the marked increase in labour costs this year and next may imply a tighter labour market than assumed earlier. The number of vacancies has been stable over the last year despite a small increase in unemployment (see Chart 3.13). This may reflect growing imbalances in the labour market. At the same time, there are signs that pressures in some segments, particularly in public and private services, feeds through to overall wage growth. Given our estimates for developments in the labour market in the period ahead, this suggests in isolation higher real wage growth than projected in the March report.

The estimates for wage growth in this Report are based on the assumption that wage formation in Norway remains unchanged, and that wage growth will gradually moderate as a result of weaker profitability and high wage shares in the business sector. In 2002, nominal wage growth is projected at 4¼ % and real wage growth at 1¾ %, which is a downward revision of ¼ and ½ percentage point compared with the March report. As a result of high cost inflation this year and next, wage shares in the business sector will nevertheless be higher than projected in March. This could be consistent with a somewhat tighter labour market than assumed earlier.

New economy or increased pressures?

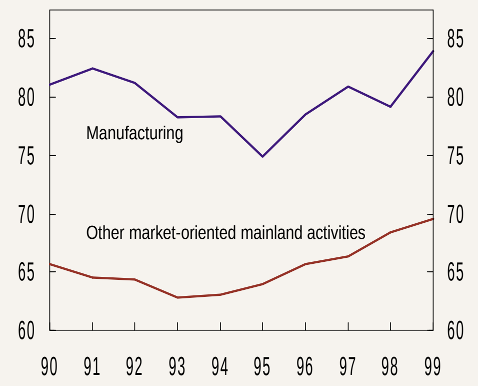
Over time, real wage growth will reflect productivity developments. In the projections, we have assumed that productivity growth in mainland Norway will be approximately the same as the average for the 1990s. It is assumed, however, that productivity gains in manufacturing industry will be slightly higher than this average in 2000 and 2001 because the fall in manufacturing output, which partly reflects lower petroleum investment, is expected to result in the disappearance of the least productive enterprises. Furthermore, we have assumed

Chart 3.11 Average wage costs and disbursed wages in mainland Norway Annual percentage growth



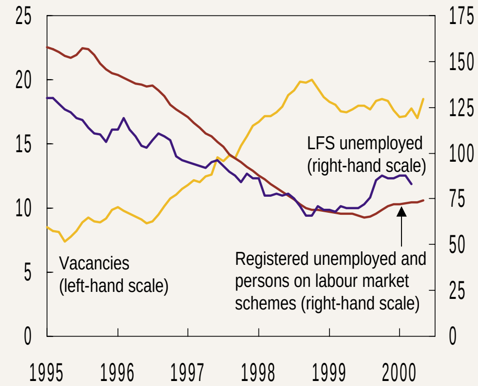
Sources: Statistics Norway and Norges Bank

Chart 3.12 Wage shares by industry. Wage costs as a percentage of factor income



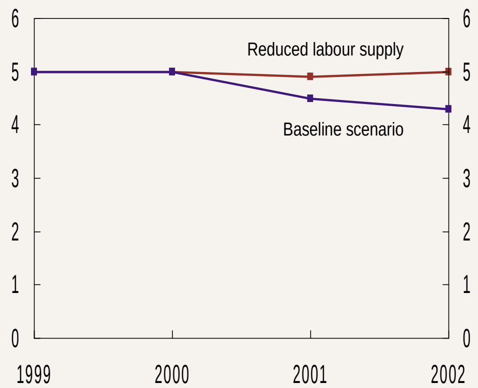
Sources: Statistics Norway and the Technical Reporting Committee on Income Settlements

Chart 3.13 Number of unemployed and vacancies (thousands). Seasonally adjusted



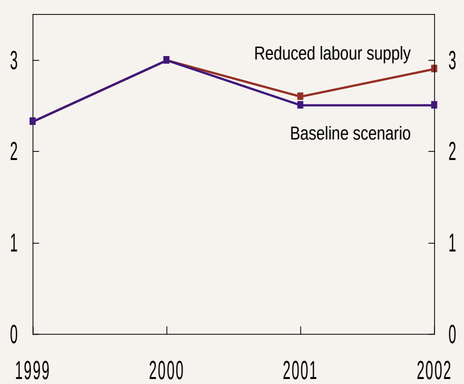
Sources: Statistics Norway and the Directorate of Labour

Chart 3.14 Annual growth in wage costs when labour supply is reduced. Per cent



Sources: Statistics Norway and Norges Bank

Chart 3.15 Annual consumer price inflation with reduction in labour supply. Per cent



Sources: Statistics Norway and Norges Bank

that enterprises can adapt the additional vacation days to seasonal and cyclical production patterns, which may help to boost productivity per person-hour worked.

Intensified competition in product markets and the introduction of new technology may result in a gradual pick-up in productivity gains. There are signs of this in other countries, such as the US. The Norwegian economy has also experienced such effects, partly through the fall in prices for some imported goods and telecommunication products. At present, however, we have no basis for assuming that the new economy is feeding through to productivity growth in general. On the contrary, productivity in the business sector has stagnated in recent years, at least as measured in the national accounts.

Higher-than-expected productivity growth may lead to lower price inflation and improved corporate profitability. Real wage growth may then be higher than estimated. The effects on employment and production will depend on wage formation and developments in aggregate demand.

The low level of profitability in some manufacturing sectors may curb wage growth in 2002 to a greater extent than implied by our projections. The sharp increase in costs may give rise to a need for swifter restructuring. If manufacturing industry is scaled back to a greater extent than projected, unemployment may rise and wage growth may slow in the years ahead.

On the other hand, the additional vacation days imply a lower supply of working hours. Measures such as cash grants to families with young children and the contractual early retirement scheme provide wider scope for withdrawing from the labour force. According to an article published by Statistics Norway, the cash grant scheme has in isolation reduced the labour force by 3 500 to 4 500 person-years. The study was carried out only a few months after the reform was fully implemented and it is conceivable that the actual effect will be greater as the reform takes root. An increasing number of labour force participants have opted for contractual early retirement in recent years, and in the course of last year alone 10 000 persons chose to retire early under this scheme. This trend is likely to be amplified in the years ahead, partly due to an increase in the number of persons between the age of 62-66. A sharp rise in the number of disability pensioners has also contributed to reducing the supply of labour. Last year the number of disability pensioners increased by a net 12 000. If this is not offset by higher youth employment, growth in the labour force may be lower than expected.

The estimates are based on the assumption that the labour force will expand in line with the rate implied by demographic conditions. Charts 3.14 and 3.15 provide an illustration of the possible effects of a stagnation in the labour supply at about today's level. Unemployment would then be ½ percentage point lower than in the central path. The calculations indicate that this may push up wage growth by around 0.4 percentage point in 2001 and 0.7 percentage point in 2002. Consumer price inflation may then be 0.4 percentage point higher in 2002 than projected. The calculations may also illustrate the possible effects of a labour market that is actually tighter than assumed in this report.

4 Economic developments

4.1 Main features

Moderate growth prospects

Mainland GDP growth is estimated at 1¾% in 2000 and 1½% in 2001 and 2002. Compared with the March report, the estimates have been revised downwards by ½ percentage point in 2001 and ¾ percentage point in 2002. The growth potential of the economy is reduced in 2001 and 2002 as a result of the additional vacation days. Growth in production and investment will remain moderate, reflecting increased labour costs this year and next and labour supply constraints.

The global economy now appears more robust than for some time. Growth forecasts for our trading partners have been revised up further.

Petroleum investment is expected to show a sharper contraction than anticipated earlier. The turnaround in manufacturing, however, seems on the whole to be relatively moderate, although manufacturing employment is expected to continue to decline this year and next.

Employment growth in the private and public service sectors has so far more than offset the fall in manufacturing employment. Employment in the service sector is projected to show a continued rise. Total employment is estimated to increase at a rate of ¼% in 2000 and ½% in 2001 and 2002, ie more or less in line with demographic developments. Labour force participation rates in Norway are very high and there is probably a limit to the extent to which the labour force can expand beyond the level implied by demographic conditions. At the same time, welfare schemes are providing greater scope for withdrawing from the labour market.

The risk of a downturn appears to be limited in the short run. In the longer term, the risk has increased somewhat as a result of higher cost inflation and slower growth in the labour force.

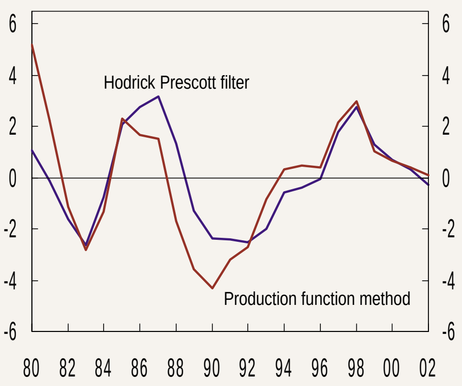
Table 4.1 Key aggregates for Norway, 1999-2002. Percentage change from previous year

	1999	2000	2001	2002
Mainland demand	1.6	2½	1¾	2¼
Private consumption	2.4	3	2	2½
Public consumption	2.7	2¼	2	2
Fixed investment	-2.1	2	1	2
Traditional exports	2.6	4	4¼	3¾
Traditional imports	-2.0	1½	1¼	3¾
GDP	0.9	3	2½	1¾
Mainland GDP	0.8	1¾	1½	1½
Employment	0.7	¼	½	½
Unemployment, LFS	3.2	3½	3½	3½
Consumer prices	2.3	3	2½	2½
Wage costs	5	5	4½	4¼
Annual wages	4.9	4¼	3¾	4¼

1 Percentage of labour force

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

Chart 4.1 The output gap[1]. As a percentage of trend output



[1] With the HP filter, trend growth is reduced on a discretionary basis by about ¼ percentage point in 2001 and 2002 because of increased holiday. The production function method captures changes of this type in the person-hour supply.

Source: Statistics Norway and Norges Bank

4.2 The international environment

Stronger growth in the world economy

Growth among trading partners is stronger than expected. The growth forecast for trading partners has been revised upwards by ½ percentage point this year and ¼ percentage point in 2001, to 3½% and 3%, respectively. International trade may contribute to strengthening the upturn. The OECD projects that world trade will expand by more than 10% this year.

Consumer demand also appears to be picking up in Europe. Increased employment is generating higher household income. The drop in unemployment in Europe has also improved household optimism. Confidence indicators are at record levels. In addition, rising house and equity values are fuelling consumption.

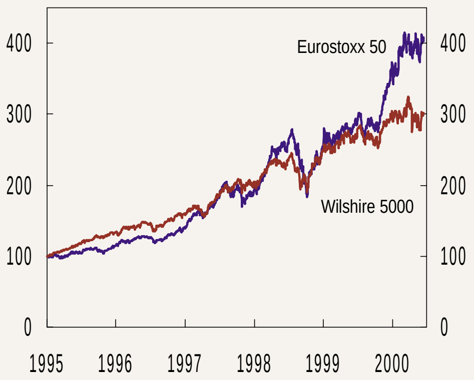
Table 4.2 GDP estimates. Percentage change from previous year

	1999	2000	2001	2002
US	4.1	5	3	3
Japan	0.3	1¼	1¾	1¾
Germany	1.4	3	3	2¼
France	2.7	3½	3	2¼
Italy	1.4	2½	2¾	3
UK	1.9	3	2½	2½
Sweden	3.8	4	3½	2½
Norway's trading partners[1]	2.6	3½	3	2½
Euro area [2]	2.3	3¼	3¼	2½

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

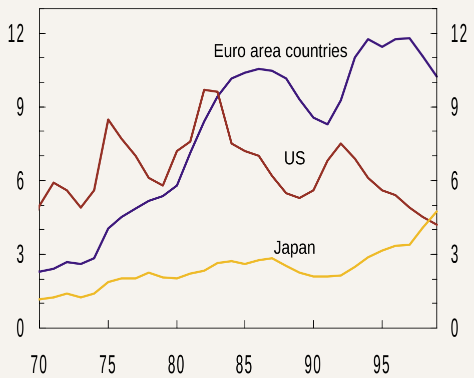
Source: Norges Bank

Chart 4.2 International equity prices. Daily figures. 2 January 1995=100



Source: Datastream

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



Source: OECD

Although the risk is now probably smaller, there is still a risk of an abrupt and sharp fall in US share prices. Such a decline may translate into slower demand growth, a reduction in capital inflows and a weaker US dollar. Since March, the value of US equities has declined, but only with limited effects as the decline has been primarily confined to technology stocks. Overall, the value of US equities is still very high, about 21% above the level in January 1999 measured by the Wilshire 5000 Stock Index. Moreover, foreign investors continue to have strong confidence in the US economy.

Equity prices in a number of other countries fell concomitantly with the decline in the US. The negative effects in these countries also seem to be limited. In Europe, the change in equity prices presumably has little effect on domestic demand. Equity prices in Europe remain high in relation to the levels recorded at the beginning of 1999 (see Chart 4.2).

Stronger-than-expected economic growth has resulted in higher tax revenues in many trading partner countries, which has provided the authorities with greater fiscal leeway. During an upturn, an expansionary shift in fiscal policy tends to increase the risk of overheating. Over time, this may result in higher interest rates, which will restrain growth in the private sector.

Our GDP growth forecast for the US has been revised up to 5% in 2000. Growth is expected to slow towards the end of this year and into 2001. Private consumption will probably show slower growth. Continued high or rising oil prices will amplify inflationary pressures in the US economy. The labour market is tight with record-low unemployment, which may engender higher-than-expected wage growth. Stronger price impulses may compel the monetary authorities to tighten monetary policy further, which may translate into weaker global demand.

In the euro area, strong confidence in improved economic prospects may boost investment and private consumption. Strong global growth will probably continue to fuel export growth. After many years of high unemployment, the upturn in the euro area appears to be making a positive contribution to improving labour market conditions. Unemployment in the euro area is expected to show a substantial fall in the years ahead.

There are wide disparities among euro area countries. Over the last three years, Italy has recorded an average annual growth rate of 1.6%, while the Irish economy has been expanding at a rate of over 9%. The growth rate differentials are expected to narrow in the next few years. For the euro area as a whole, GDP growth is now estimated at 3¼% this year, ie an upward revision of ¼ percentage point compared with the March *Inflation Report.*

The Swedish economy is expanding at a brisk pace. Low interest rates, high real wage growth and tax reductions have led to strong growth in private consumption and investment. GDP growth is expected to reach 4% this year.

The record-strong pound sterling has resulted in two clearly opposing forces in the UK economy. The strong pound is restraining economic growth. There are pressures in the UK economy, with falling unemployment, strong wage growth and high house prices.

4.3 The balance of payments

Moderate growth in traditional exports

Stronger growth in the world economy is generating impulses to Norwegian exports and prices for our traditional export goods. However, it is uncertain whether Norwegian enterprises will manage to reap the benefits of the favourable international environment. Over the last five years, Norwegian manufacturing has seen a deterioration in cost competitiveness (see Chart 4.4). This year's wage settlement in the private sector entails a continuation of this trend. Capacity utilisation now appears to be high in many traditional export industries, and there is little room for substantial production increases. Other industries, such as the fish farming industry, are better poised to benefit from an international upturn.

The strong rate of growth in the world economy and higher prices on world markets will counter the effect of higher wage growth this year and next. Moreover, some oil-related industries may restructure in response to lower demand in the petroleum sector. This may make some contribution to an increase in traditional exports. Against the background of lower-than-expected growth so far this year, our estimate for export growth has been lowered to 4% this year. Growth is projected at 4¼ % in 2001 and 3¾% in 2002.

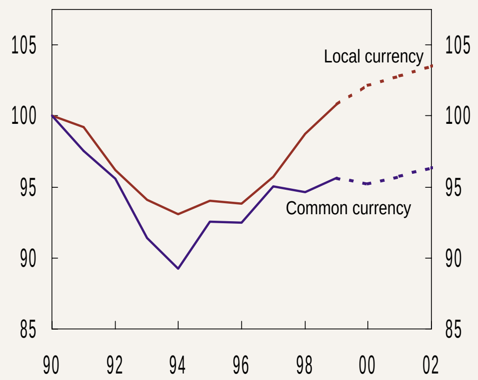
The high rate of increase in prices for traditional export goods observed so far this year primarily reflects a threefold increase in oil prices compared with the same period one year earlier. This has translated into higher prices for refined petroleum products. Aluminium prices have also moved up. Export prices are now projected to rise by 6% this year. The rate of increase in prices for traditional export goods is estimated at 2% in 2001 and 1½% in 2002.

Growth in traditional merchandise imports is to a large extent influenced by developments in private consumption and fixed investment. Growth in private consumption is underpinning growth in imports, while the contraction in petroleum investment is pushing down import growth this year and next. In 2002, petroleum investment is assumed to stabilise, with an attendant increase in import growth.

Rising current account surpluses

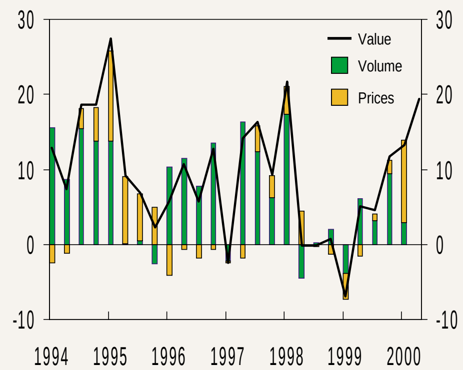
The current account surplus is estimated at NOK 170bn in 2000, or about 13% of GDP. The sizeable surplus primarily reflects high oil prices and strong growth in petroleum exports this year. The traditional merchandise balance will also show some improvement. Petroleum exports are projected to expand by around 7% next year. Combined with a reduction in the deficit on the interest and transfers balance,

Chart 4.4 Wage costs in Norwegian manufacturing compared with trading partners'. Index 1990=1000



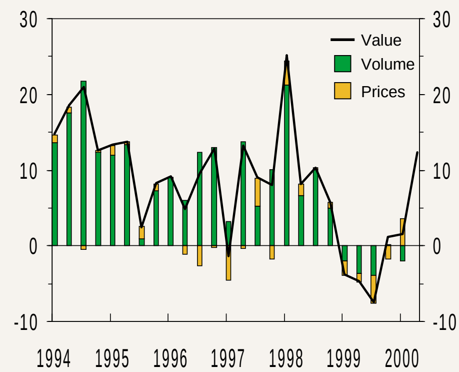
Source: Statistics Norway, the Technical Reporting Committee on Income Settlements and Norges Bank

Chart 4.5 Traditional merchandise exports according to *External Trade Statistics*. Volume, price and value.[1] Percentage rise on same quarter previous year



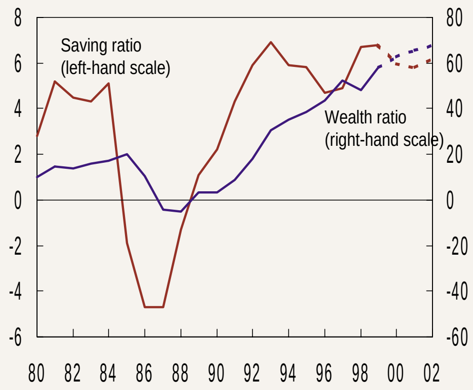
[1] Most recent observation of average for April and May
Source: Statistics Norway

Chart 4.6 Traditional merchandise imports according to *External Trade Statistics*. Volume, price and value[1]. Percentage rise on same quarter previous year



[1] Most recent observation is average for April and May
Source: Statistics Norway

Chart 4.7 Household saving and net financial wealth. Percentage of disposable income



Sources: Statistics Norway and Norges Bank

the current account surplus will remain virtually unchanged between this year and next, in spite of expectations of lower oil prices. The current account surplus is estimated to reach about 10% of GDP also in 2002.

4.4 Domestic demand

Household demand continues to fuel growth

Growth in private consumption has picked up in the last three quarters. Growth in private consumption is projected at 3% this year. In the light of our projections for income growth, this implies a decline in the saving ratio from 6.8% in 1999 to 6% in 2000. Consumption growth is expected to fall to 2% in 2001 before edging up to around 2½% in 2002.

Growth in household real disposable income is projected to fall from almost 3% in 1999 to about 1¾% in 2000 and 2001. In 2002, growth in real disposable income may rise slightly as a result of increased growth in disbursed wages. Higher-than-estimated price inflation is contributing to curbing growth in real income.

Whereas the average household saving ratio was 5.4% in the 1990s, it was a little less than 7% in 1998 and 1999, according to preliminary national accounts figures. However, figures for households' financial accounts from Norges Bank show lower financial saving than that indicated by preliminary figures from Statistics Norway. This may mean that the saving ratio has been slightly overestimated in the last two years (see separate box). A saving ratio of 6% in 2000 marks a return to the level in 1994 (see Chart 4.7). The saving ratio is expected to remain at around 6 per cent over the next few years.

Household net investments in financial assets (net lending)

The national accounts show that the household saving ratio was high in 1998 and 1999 compared with the previous two years. According to these figures, net lending showed the strongest increase, while net fixed investment was more stable. Figures from Norges Bank's financial accounts for households suggest that net lending was substantially lower over the past two years. In the period to 1995, net lending estimates from Norges Bank and Statistics Norway were essentially the same. After 1995, the difference is at times more pronounced. According to preliminary national accounts figures, net lending came to about NOK 30bn in 1999, compared with about NOK 12bn according to the financial accounts (see Chart 1). The difference of NOK 18bn corresponds to a good 3% of private consumption in 1999.

The chart also shows the contribution from financial market statistics[1] to the estimates for household net lending in Norges Bank's financial accounts. These sources provide the best input data in the financial accounts. The differences in the chart between the figures from the financial accounts and financial market statistics are due to estimates for changes in the holdings of unlisted shares and other net financial assets. The estimates for unlisted shares are particularly uncertain.

In both accounts net lending is a residual item and represents a small percentage share of the gross figures in the calculation basis. Norges Bank's figures are based on changes in net financial assets (see Table 1). The estimate for net lending is then obtained by calculating the difference between the change in net assets and the estimate for net valua-

[1] Financial statistics from Norges Bank, Norwegian Central Securities Depository statistics and Banking and Credit Statistics from Statistics Norway.

tion changes (capital gains and losses) over the same period. The national accounts figures for net lending are calculated as the difference between total saving and net fixed investment. Total saving is calculated as the difference between net disposable income and private consumption (excluding pension fund saving).

Net lending in financial accounts (Norges Bank) and national accounts (Statistics Norway)

	1998 NOK bn	1999 NOK bn
Financial accounts (Findatr)		
Fin. assets	1 045	1 193
- Fin. debt	756	811
= Net fin. assets	289	381
Change in net fin. assets from previous year		92
- Valuation changes, net (gains minus losses)		80
= Net lending		12
Income accounts (National accounts)		
Income		1 006
- Expenditure		386
= Disposable income		620
- Consumption expenditure		578
= Saving incl. adjustment for saving in pension funds		42
- Net fixed investment incl. net capital transfers		12
= Net lending		30

Sources: Statistics Norway and Norges Bank

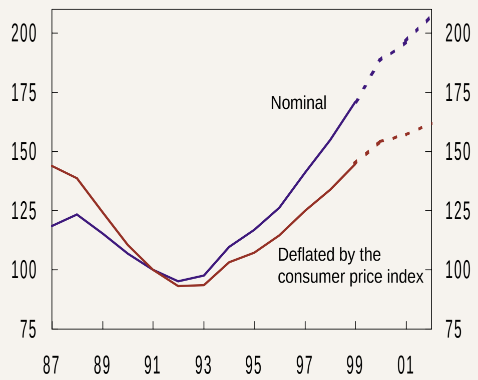
According to Statistics Norway, the main income and expenditure components of household disposable income for 1998 are based on statistics or a calculation method that are revised to only a limited extent when final figures are published. The main picture for disposable income in 1999 is virtually final, but the first preliminary figures from the income accounts will undergo more substantial revisions. The most uncertain estimate is normally household consumer spending.

Preliminary figures for the last two years reflect divergences between the data for developments in household disposable income and developments that can be observed for households in financial market statistics. National accounts figures for consumer spending and net lending and the financial accounts figures for unlisted shares may be revised. It is likely that any revision will bring the figures from the two accounts more closely into line. To the extent that the revision of the figures for 1998 and 1999 are on a par with the revisions earlier in the 1990s, net lending in the national accounts will continue to depart substantially from net lending in the financial accounts.

Resale home prices are estimated to increase by 10% this year, after rising by 10.6% in 1999. Thereafter, house prices are expected to increase at a slightly slower pace than in recent years. The slower rate of increase is due to the assumption of slightly higher interest rates in the period ahead. A more moderate rise in house prices over the next two years may contribute to restraining growth in consumption somewhat.

Estimates for housing investment have been adjusted upwards since the March *Inflation Report*. Housing starts increased sharply towards the end of 1999. Housing starts came to 20 500, an increase of almost 2 000 on 1998. Housing starts were higher than expected, suggesting that housing investment in 2000 will be higher than previously estimated. Housing starts are expected to increase this year as well, partly as a result of the sharp increase in new orders through 1999. The high level of resale home prices makes it financially attractive to build new dwellings. The refurbishing of existing dwellings will also contribute to increased housing investment in the period ahead. However, there is a substantial shortage of labour in the construction sector.

Chart 4.8 Resale home prices. Nominal and adjusted for inflation. Index 1991=100



Source: Statistics Norway, ECON and Norges Bank

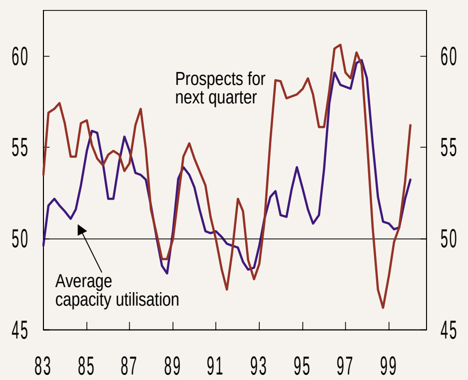
Contraction in petroleum investment

It appears that petroleum investment will show a substantially sharper contraction than previously assumed. The downward revision is due largely to the postponement of the development of some discoveries and lower-than-estimated investment costs associated with some field developments.

Chart 4.9 Gross investment in petroleum activities. In billions of NOK. Constant 1997 prices

Source: Statistics Norway and Norges Bank

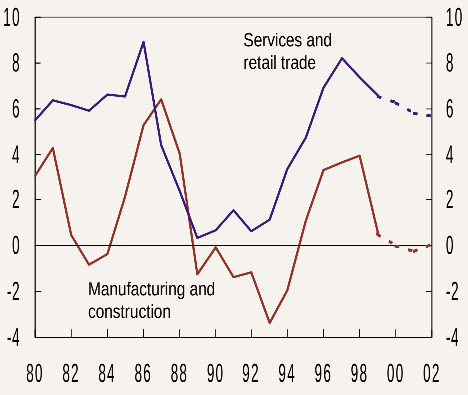
Chart 4.10 Expected developments in capacity utilisation in manufacturing and industrial leaders' expectations of next quarter. General business tendency survey. Diffusion indices[1]. Smoothed



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

Source: Statistics Norway

Chart 4.11 Net fixed investment rate. Investment less capital consumption as a percentage of value added



Source: Statistics Norway and Norges Bank

The sharp decline in petroleum investment this year and in 2001 must be viewed against the backdrop of a record-high level in the previous 2-3 years (see Chart 4.9). Petroleum activities are now entering a harvesting phase, and oil production is approaching an estimated peak. Even assuming a somewhat lower oil price in the period ahead, there is reason to believe that cash flows for oil companies will be substantial during the next few years. Some of the increase in profits may be used to pay off debt. However, it is also conceivable that the high cash flows may lead to higher investment than the level now indicated by the companies. In the relatively short term, the companies can make more marginal investments in existing fields. Should the oil price remain at around the current level, petroleum investment may also be higher than assumed in this report.

Stable business investment

Mainland business investment is expected to remain relatively stable this year and in 2001. Investment is being inhibited by high cost inflation. In addition, the assumption of somewhat higher interest rates over the next year is reducing the estimates. In 2002, investment growth is expected to increase to 1¼%. Estimates for 2001 and 2002 have been revised downwards compared with the previous *Inflation Report.*

Statistics Norway's general business tendency survey shows a slightly improved trend in manufacturing compared with the previous report. Production is growing, capacity utilisation is high and there is optimism in industries such as pulp and paper, industrial chemicals and metals. However, there are signs that some export firms, perhaps particularly in the metals industry, may be somewhat reluctant to undertake new investments. The general business tendency survey also indicates two divergent trends in manufacturing. Segments of the mechanical engineering industry and petroleum-related enterprises report weak output growth and low capacity utilisation.

Investment in private services and retail trade is expected to remain at a high level. Strong figures for commercial building starts in 1999 may point to slightly higher investment this year than previously assumed. On the other hand, the sector now has a high level of capital stock after several years of extensive investment. The assumption of higher interest rates is also having the effect of dampening investment growth in private services and retail trade. All in all, we do not expect a further increase in investment in this sector in the period ahead.

Substantial debt burden in the local government sector

The level of activity in the public sector was high in 1999. General government expenditure – consisting mainly of general government consumption and investment, and transfers to households – increased by about 2.5% at constant prices in 1999. Underlying real spending growth in the central government budget was 1.8% in 1999.

The local government sector is important for overall activity in the general government sector. Measured using an indicator that weighs changes in employment measured in person-hours and product inputs and gross fixed investment at constant prices, local government activity expanded by 3.4%. This is appreciably higher than growth in revenues (see Chart 4.12). One important factor was a sharp rise in investment in connection with schemes benefiting the elderly.

A sharp growth in activity combined with moderate revenue growth led to a deficit of some NOK 11bn in the local government sector as a whole in 1999. Net debt as a percentage of total local government revenues increased to about 36%. In the late 1980s this figure was almost 50%. The municipal sector then had to undergo extensive consolidation in order to achieve balanced budgets. Chart 4.13 shows net debt and deficit before loan transactions in the local government sector.

Estimates for the general government sector in the current year are based primarily on the fiscal policy programme outlined in the Revised National Budget (RNB) for 2000. However, local government consumption is projected to show somewhat higher growth, partly as a result of slightly higher wage growth than the estimate in the RNB. The local government deficit this year may thus be larger than in 1999. As in the March *Inflation Report*, growth in local government consumption in 2000 is estimated at 2¼%. General government gross fixed investment is expected to increase by 1¾% from 1999 to 2000. The overall growth in public spending in 2000 is estimated at 1¾%, which is slightly lower than previously estimated. Higher-than-expected price and wage inflation has the effect of reducing real transfers.

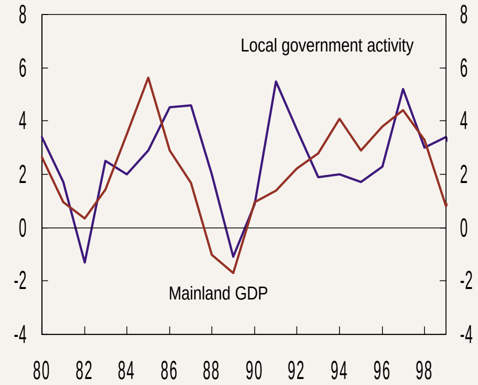
Developments in the local government sector are shrouded in uncertainty. Our estimates imply a continued increase in net debt. A consolidation of local government finances as witnessed at the end of the 1980s may curb overall demand in the economy. Projections for the next few years are based on an increase in general government spending that is approximately in line with trend mainland GDP growth.

4.5 The labour market

Tighter-than-expected labour market

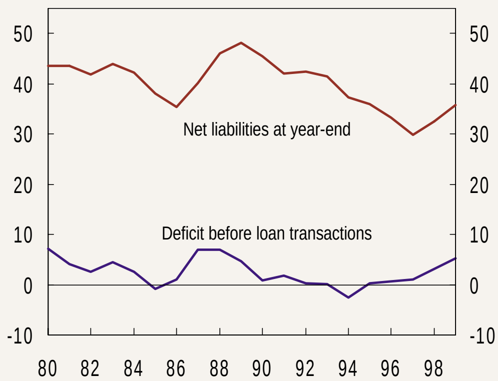
The labour market is expected to remain tight for the next two years. Unemployment appears likely to stabilise at around the current level. Labour force participation is record-high, and there is probably limited potential for growth in the labour force over and above the level implied by demographic factors. In the past few years, demand for labour has been partly satisfied by foreign labour and increased labour force participation among women. It is assumed that the labour force will grow roughly in line with demographic trends in the years ahead.

Chart 4.12 Local government activity and mainland GDP. Annual percentage growth



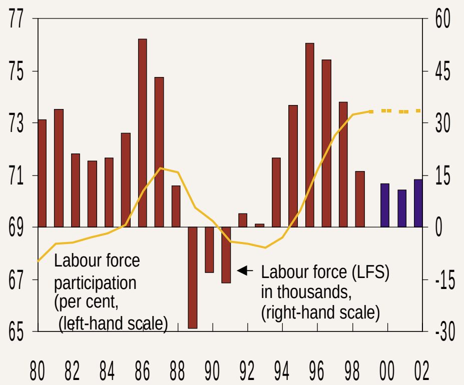
Source: Statistics Norway and the Ministry of Finance

Chart 4.13 Local government net liabilities and deficit before loan transactions Percentage of aggregate income



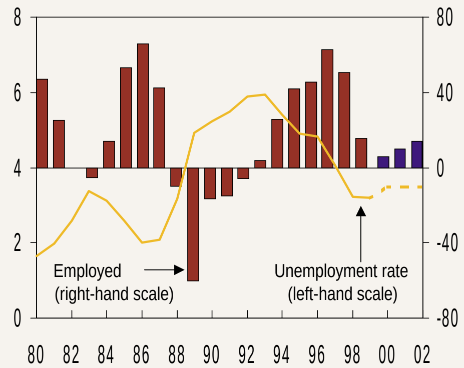
Source: Statistics Norway and the Ministry of Finance

Chart 4.14 Change in labour force from previous year (thousands) and labour force as a percentage of working age population (labour force participation)



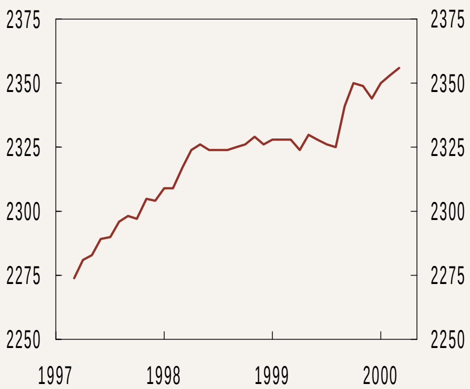
Source: Statistics Norway and Norges Bank

Chart 4.15 Change in numbers employed from previous year, in thousands, and LFS unemployment rate



Source: Statistics Norway and Norges Bank

Chart 4.16 The labour force according to LFS, in thousands. Seasonally adjusted



Source: Statistics Norway

Employment is continuing to rise this year, primarily in the public sector and in private services. The demand for labour in these sectors will probably remain high in the years ahead. Employment growth is nevertheless expected to be somewhat lower than it has been in recent years. Employment in manufacturing continues to decline, but the number registered as unemployed and laid-off does not appear to be increasing further. Vacancies in manufacturing have increased slightly in the past four months. Overall, a moderate increase in employment is expected, at ¼% this year and ½% in each of the next two years.

Evidence suggests that the decline in employment in petroleum-related manufacturing will be greater than previously assumed. On the other hand, prospects for traditional export industries are brighter than envisaged. However, this segment represents a relatively small share of employment.

Registered unemployment has been stable, and slightly lower than expected so far this year. The number of vacancies is very high and demand for labour remains substantial. With continued growth in employment, there are few indications that unemployment will show any significant increase in the period ahead. It is uncertain whether developments in LFS unemployment over the past six months reflect labour market conditions. Other economic and labour market indicators do not support this picture. According to the LFS, growth in the labour force should have picked up sharply from the third quarter last year (see Chart 4.16). The increase coincides with a change in statistical methodology. Norges Bank assumes that this change is the main reason why the LFS shows a considerable increase in unemployment over the past six months. This year, total unemployment, which includes persons registered as unemployed and persons participating in labour market programmes, is estimated at about 3½% of the labour force. This estimate reflects somewhat lower registered unemployment than the estimate in the previous report.

MAIN MACROECONOMIC AGGREGATES

	NOKbn 1997-krone	*Percentage change from previous year unless otherwise stated*			
	1999	**1999**	**2000**	**2001**	**2002**
Real economy					
Private consumption	550.7	2.4	3	2	2½
Public consumption	232.7	2.7	2¼	2	2
Total gross investment	251.7	-5.6	-4½	-2½	1
- Petroleum activities	65.5	-12.6	-23	-15	-3
- Mainland Norway	175.9	-2.1	2	1	2
Enterprises	106.1	-3.3	¼	-¾	1¼
Dwellings	29.5	-2.2	9	5	4½
Gen. government	40.3	1.3	1¾	2	1¾
Mainland demand[1]	959.4	1.6	2½	1¾	2¼
Exports	457.1	1.7	5½	5	3¼
- Crude oil and natural gas	157.6	-0.1	9½	7	2¾
- Traditional goods	179.3	2.6	4	4¼	3¾
Imports	388.1	-3.1	½	1¼	3¾
- Traditional goods	254.6	-2.0	1½	1¼	3¾
GDP	1127.9	0.9	3	2½	1¾
- Mainland Norway	930.3	0.8	1¾	1½	1½
Labour market					
Employment		0.7	¼	½	½
Labour force, LFS		0.7	½	½	½
Unemployment (LFS)		3.2	3½	3½	3½
Prices and wages					
Consumer prices		2.3	3	2½	2½
Annual wages[2]		4.9	4¼	3¾	4¼
Wage costs[3]		5	5	4½	4¼
Import prices, traditional goods		-2.1	3	1¾	1½
Export prices, traditional goods		0.1	6	2	1½
Crude oil price, NOK		141	220	190	160
Resale home prices[4]		10.6	10	4	6
External account[5]					
Trade surplus, NOKbn (level)		71.8	190	180	150
Current account surplus, NOKbn (level)		46.9	170	170	140
Current account surplus, % of GDP		3.9	13	12	10
Memorandum					
Household saving ratio		6.8	6	5¾	6¼

1) Private and public consumption and mainland gross fixed investment
2) Annual wage growth is based on theTechnical Reporting Committee on Income Settlements' definitions and calculations. According to Statistics Norway, wages per normal person-year increased by 5.1% in 1999.
3) Including costs associated with increased holiday, wage cost growth in 2000 and 2001 is estimated to be 0.8 percentage point higher than growth in disbursed wages.
4) ECON's housing prices index with Norges Bank's weight set
5) Current prices

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

Inflation Report No. 2 - June - 2000