Economic Survey

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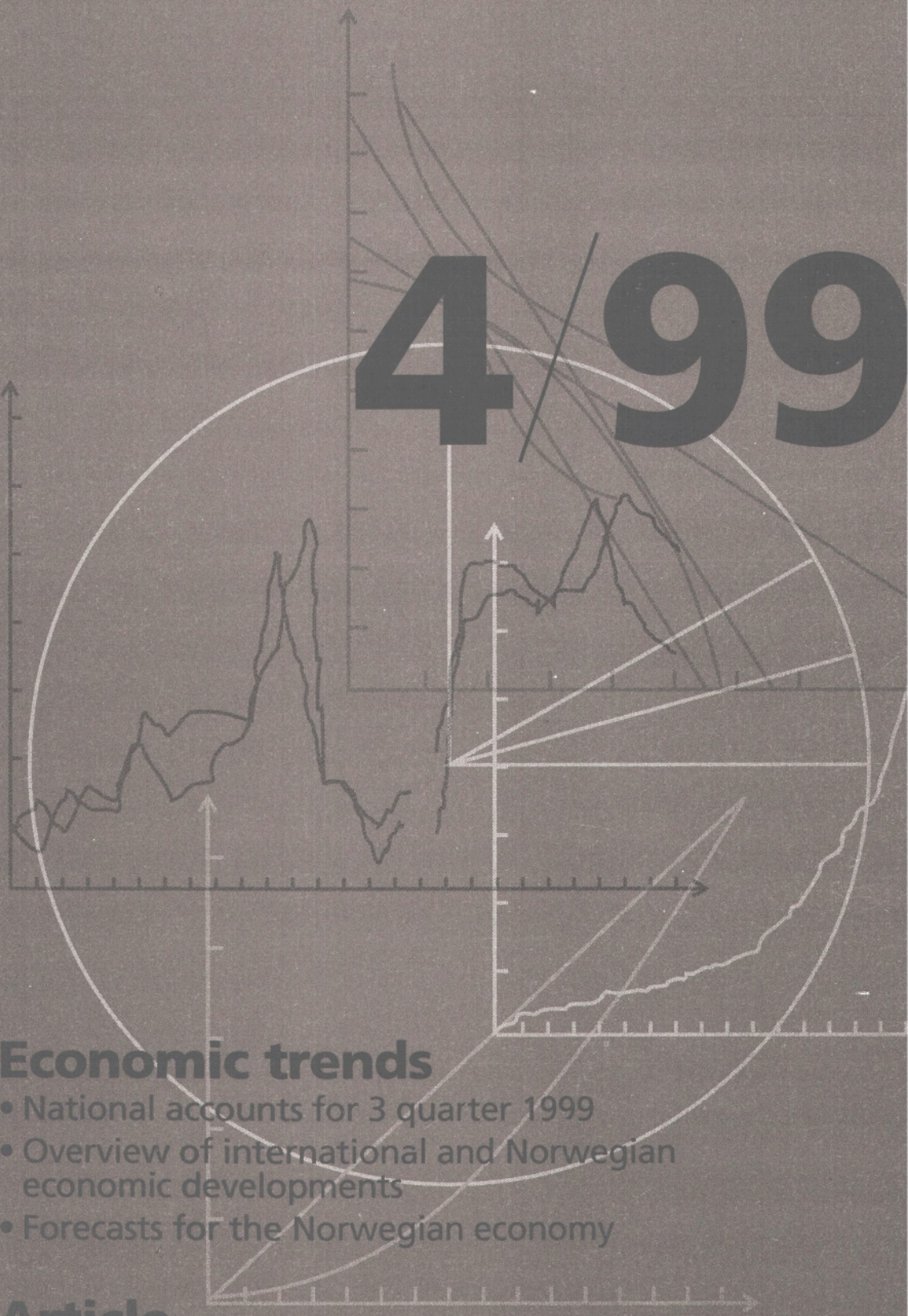

Economic trends

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- What is the benefit of a good environment?

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Economic Survey

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Economic Survey

is published four times a year by the Research Department of Statistics Norway. The Research Department was established in 1950. The Department has about 100 employees (January 1999). The Research Department is today organized in four divisions. Head of Department is *Ådne Cappelen.*

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Symbols in Tables	Symbol
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Economic trends*

Seasonally adjusted figures from the quarterly national accounts (QNA) show a slight expansion in the Norwegian economy in the third quarter. Both production and demand in the mainland economy rose after showing close to zero growth through the previous four quarters. Petroleum investment also edged up, but only negligibly in relation to the sharp decline since the fourth quarter of 1998.

In addition to the assessed rise in mainland demand in the third quarter, the figures for the first and second quarters have been revised upwards. Mainland growth is thereby likely to be a little stronger in 1999 than estimated earlier, but still markedly lower than through the previous five years. Employment has shown little change so far in 1999, and on an annual basis unemployment will be about the same as last year. Consumer price inflation will also be at about the same level as in 1998, while it appears that wage growth will be slightly lower. As a result of a pronounced fall in imports and a sharp rise in oil prices, the current account balance is again showing considerable surpluses, and the Norwegian krone has been strong against the euro through most of the year.

Our projections for the next two years imply that developments in the third quarter cannot be interpreted as a turnaround towards a resumption of vigorous growth in the Norwegian economy. They do, however, point to moderate, albeit slightly faster, growth the next two years, which can best be characterized as a very soft landing. However, due to a continued decline in petroleum investment, the economy is set to show two divergent trends, with a fall in oil-related manufacturing and growth in other manufacturing sectors as well as in services.

As a result of the projected stronger productivity gains in the Norwegian economy in the next two years compared with the level recorded in the previous three years, employment is likely to show a modest rise. Unemployment will edge up, while wage growth, inflation and interest rates are expected to be reduced to the level in the euro area. The balance of risks, however, generally seems to be on the upside.

Our projections show sizeable and growing current account surpluses the next two years. The estimates for the balance of payments are, however, very sensitive to changes in the oil price. Developments over the past year demonstrate that fluctuations in this price can quickly change expectations in foreign exchange and financial markets, which in turn affects developments in the mainland economy.

Main indicators for the Norwegian economy
Growth from previous year. Per cent

	1993	1994	1995	1996	1997	1998	1999	2000	2001
GDP	2.7	5.5	3.8	4.9	4.3	2.1	0.6	3.3	3.2
- mainland Norway	2.8	4.1	2.9	3.8	4.4	3.3	0.8	1.3	2.2
Consumption in households and non-profit organizations	2.2	4.0	3.4	5.3	3.7	3.1	2.0	2.8	3.0
Unemployment rate	6.5	5.9	5.4	4.8	4.1	3.2	3.2	3.5	3.6
Consumer price index	2.3	1.4	2.4	1.3	2.6	2.3	2.3	2.1	1.9
Current balance[1]	3.0	3.0	3.3	6.5	5.2	-1.5	2.8	7.8	8.9

[1] Per cent of GDP.

* Translated from Økonomiske analyser 9/99 by Janet Aagenæs.

International economy

The international economy is now far calmer and the outlook more optimistic than was the case during most of the past year. The situation in Asia, Russia and Latin America appears to have stabilized, growth in the EU is quickening and the US continues to expand, albeit at a slower pace than in recent years. Following an upward revision of the estimates, it appears that GDP growth among our trading partners will be the same in 1999 as in 1998, while it may edge up the next two years. The risk is also more balanced than last winter when threats dominated. The recovery in Japan and the rest of Asia is still uncertain, and there is a clear risk of a hard landing in the US. However, the moderate upturn in Europe seems reasonably secure, and some leading economic indicators published in recent weeks suggest that growth in EU countries may also be slightly higher than expected.

The risk of deflation pointed out by many observers early in the year has diminished considerably. The issue of inflation, albeit in very moderate forms, has regained its position on the agenda. An important reason is that the fall in commodity prices has been reversed to an increase. The rise in prices is moderate for most goods, but very strong for oil.

The oil market

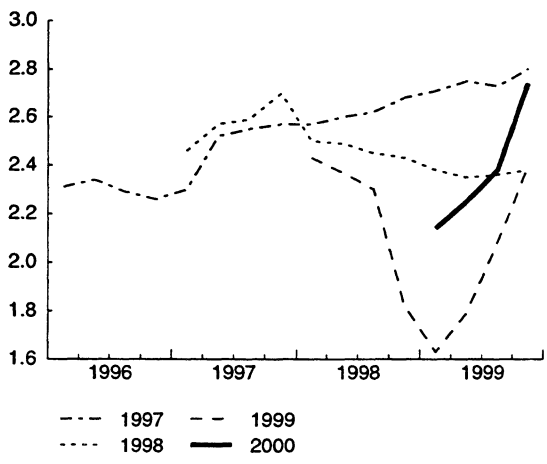
The spot price of Brent Blend fell from a level of about $20 a barrel in October 1997 to less than $10 a barrel towards the end of December 1998. The price has risen sharply since then, to a level above $25 a barrel at the beginning of December this year. As an average for the first eleven months of the year, the price has been a little more than $17 a barrel.

The most important reason for the sharp rise in prices is that in March OPEC decided to reduce production by altogether 1.7 million b/d. In addition, Norway, Mexico, Russia and Oman decided that they would reduce production by altogether 0.4 million b/d. Furthermore, demand in Asia has resumed an upward trend after declining sharply from 1997 to 1998. Supply from non-OPEC countries has not increased to any extent because it takes time before new projects are initiated as a result of higher oil prices. All these factors have resulted in a reduction in oil stocks in the second and third quarters of 1999, a period in which stocks normally increase. It is othewise uncertain whether part of the increase in oil prices reflects higher demand as a result of expectations of oil supply problems in connection with the turn of the millennium.

If we have a normally cold winter in the OECD area this year, the demand for heating oil will pick up the next few months. The International Energy Agency expects the improvement in the economic situation in Asia to continue. It is also assumed that production in non-OPEC countries will only increase marginally and that Iraq will not increase its exports to any extent within the existing oil-for-food agreement with the UN. If OPEC maintains its production cuts through March of next year, this will reduce oil stocks by about 3 million b/d, when the last quarter of 1999 and first quarter of next year are considered as a whole. This may mean that global stocks will be reduced to a lower level than in September 1996 which, according to Petroleum Intelligence Weekly, is considered suitable by OPEC.

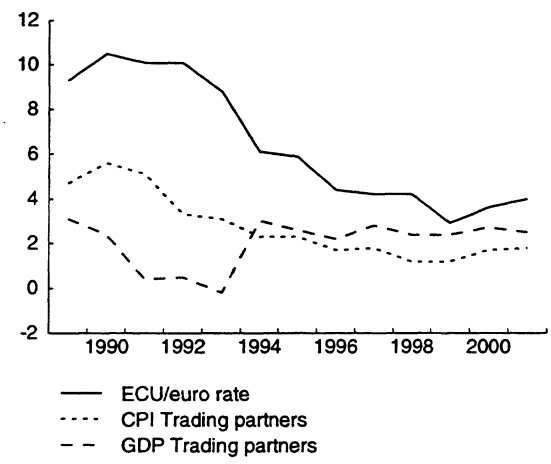
OPEC will hold its next ordinary ministerial meeting on 27 March 2000 in Caracas. Many analysts expect OPEC to increase production to the level prior to the last cuts at this meeting at the latest.

GDP-growth forecasts for Norway's main trading partners for 1997 - 2000 given on different dates



Source: Consensus Forecasts.

GDP and consumer price growth for Norway's main trading partners, and 3 month ECU/euro rate
Per cent



Sources: OECD and Statistics Norway.

On the basis of such assumptions, oil prices can be expected to remain high through the winter, but with some downward pressure on oil prices after the first quarter when demand for heating oil falls and the supply from OPEC possibly increases.

Commodity prices

Movements in other commodity prices have been less dramatic but still appreciable. Measured by *The Economist*'s dollar indices, commodity prices fell from a peak in May 1997 to a low in July this year. Prices have edged up since then, but with considerable differences between commodity groups. Prices for industrial raw materials and metal goods are important to Norwegian exports, and the indices for these groups have been moving up since last spring. The increase has been particularly pronounced for metals and metal goods; these prices are already back to the level recorded at end-1997. One main factor behind the rebound in prices is higher demand in the wake of the improvement in the world economy. The reduction in stocks of the most important commodities has had the same effect. For some metals, production cuts have also contributed to the rise even though they are of far less importance than the production cuts in the oil market.

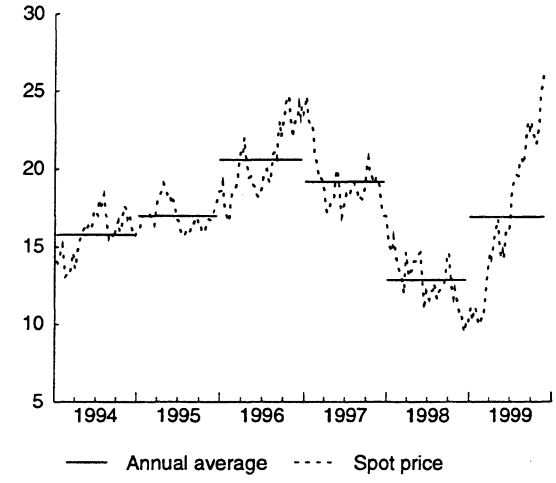
With the prospect of slightly brisker growth in the world economy in 2000 and 2001, important commodity prices are likely to continue to rise the next two years. In particular, projected higher industrial production in the OECD is an important factor. The commodity group in the AIECE expects a general rise in commodity prices of about 12 per cent next year. Energy, especially oil, boosts the average. Food prices are expected to remain low, a development which can also be seen in connection with a long-term falling trend due to productivity improvements. Prices for industrial raw materials, metals and metal goods are estimated to rise between 10 and 15 per cent. In 2001, prices are expected to stabilize at about the same level as in 2000.

Whereas movements in commodity prices contributed to restraining inflation in 1998 and 1999, these prices are likely to push up inflation the next two years. This means that if the US is to succeed in combining high growth and low inflation, the country must keep its own prices in check. Developments in commodity prices can also create tensions in the euro area. The European Central Bank (ECB) shall keep inflation at less than 2 per cent, which is a stringent requirement compared with other countries with an inflation target for monetary policy.

The crisis economies

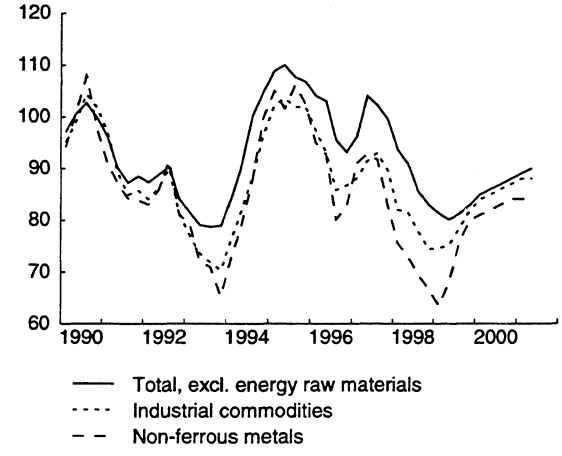
An important reason for higher commodity prices, however, is positive news for the world economy as a whole, notably higher growth in the earlier crisis economies. Following a turbulent 1998, 1999 has to a greater extent been characterized by stabilization. Japan has recovered surprisingly quickly this year following a strong contraction in 1998, and GDP expanded sharply in the first quarter.

Spot price, Brent Blend. 1994-1999
Dollar per barrel



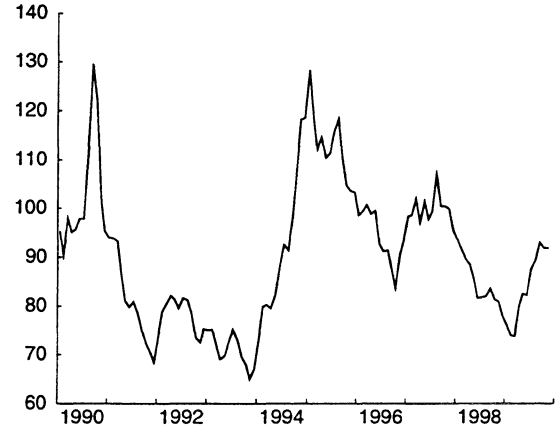
Source: Petroleum Intelligence Weekly and Norges Bank.

Commodity prices on the world market 1990 to 2nd quarter 2001
Dollar based indices. 1990 = 100



Source: HWWA-Institut fur Wirtschaftsforschung.

Aluminium price. 1990 - 1999
Dollar based index. 1979=100



Source: World Metal Statistics.

Economic forecasts for Norway's main trading partners
Annual per cent change

Country (Share of Norwegian exports[1])	1997	1998	1999	2000
USA (7.1)				
GDP	4.5	4.3	3.8	3.1
Consumer price	2.3	1.6	2.2	2.6
Unemployment rate[2] (level)	4.9	4.5	4.3	4.3
Japan (3.5)				
GDP	1.4	-2.8	1.0	0.6
Consumer price	1.8	0.6	-0.3	0.0
Unemployment rate[2] (level)	3.4	4.1	4.8	5.2
Germany (12.4)				
GDP	1.5	2.2	1.5	2.7
Consumer price	1.9	1.0	0.6	1.4
Unemployment rate[2] (level)	11.4	11.1	10.5	10.0
France (6.0)				
GDP	2.0	3.4	2.5	3.0
Consumer price	1.1	0.6	0.6	1.1
Unemployment rate[2] (level)	12.5	11.8	11.2	10.5
United Kingdom (12.5)				
GDP	3.5	2.2	1.7	2.9
Consumer price[3]	2.8	2.6	2.2	2.3
Unemployment rate[2] (level)	5.5	4.7	4.3	4.1
Italy (3.4)				
GDP	1.5	1.3	1.2	2.3
Consumer price	2.0	2.0	1.7	1.8
Unemployment rate[2] (level)	11.7	11.8	11.6	11.3
Sweden (12.7)				
GDP	1.8	2.6	3.7	3.5
Consumer price	0.5	-0.1	0.4	1.4
Unemployment rate[2] (level)	8.0	6.5	5.5	4.5
Denmark (7.7)				
GDP	3.3	2.7	1.6	2.2
Consumer price	2.3	1.8	2.4	2.4
Unemployment rate[2] (level)	7.7	6.4	5.7	5.8
The Netherlands (5.4)				
GDP	3.6	3.8	3.1	2.9
Consumer price	2.2	2.0	2.2	2.1
Unemployment rate[2] (level)	5.5	4.2	3.2	3.2

[1] Exports traditional goods. Figures for 1998 in per cent, according to Monthly Bulletin of External Trade, Statistics Norway.
[2] Per cent of labour force.
[3] Exclusive interest rates.
Sources: Consensus Forecasts. Unemployment rates for Sweden, Denmark and the Netherlands from OECD.

Growth in the following quarters has been slower, but Consensus Forecasts has nevertheless raised its annual projection for 1999 from –1.1 per cent in January to 1.0 per cent in November. There is a risk, however, that economic growth is being maintained by a very expansionary fiscal policy, without triggering an upturn that can be sustained when public sector demand is reduced to normal levels. Critics have maintained that the authorities are artificially propping up the economy instead of implementing necessary restructuring, and that neither private consumption nor investment has picked up to any extent. Unemployment is very high by Japanese standards and is expected to increase further. Along with falling wages, this is hampering private consumption. At the same time, new production figures indicate that positive developments may be taking place in the private sector. A stabilization of the economies in neighbouring countries and a sharp reduction in inventories may have contributed to this. The very expansionary monetary policy is expected to continue. The OECD also emphasizes the household sector's favourable financial situation, and notes that optimism about future prospects is high according to surveys. The OECD therefore sees prospects for growth in private consumption. Others are more sceptical, and according to Consensus Forecasts growth in 2000 is likely to be very low, albeit positive. Growth may edge up in 2001. However, there is considerable uncertainty surrounding this forecast, and in particular a further strengthening of the yen could jeopardize an export-led recovery.

The upswing seems stronger and more stable in the rest of Southeast Asia. In this area an expansionary fiscal policy is also having an impact, but low interest rates and higher exports are other key factors. Moreover, higher employment is expected to contribute to higher consumer demand in the period ahead. As a result of strong trade ties, the countries may bolster growth in the entire area just as they accelerated the collapse last year. Many are of the view, however, that there is still a need for restructuring, legislative changes and deregulation in e.g. the financial sector in order to secure growth in the medium term. The outlook in Latin America and Russia has also improved, and it does not appear that the strong recession feared by many will materialize. In October, the IMF predicted a sharp increase in economic growth from 1999 to 2000 for the four ASEAN countries Indonesia, Malaysia, the Philippines and Thailand, for Latin America and for Russia. However, these countries are also very vulnerable to negative shocks, and the growth forecast, particularly for Russia, is uncertain.

The US

Despite the turbulent situation in Asia, Russia and Latin America, the combination of high economic growth and subdued inflation persisted in the US through 1998 and 1999. The projection for GDP growth this year has also been revised upwards in recent months. We now see signs of a slight reduction in private consumption and housing investment. However, various economic indicators published in recent months show a mixed picture, and there does not appear to be any dramatic decline in total economic growth. Among other things, business investment is expanding sharply. In relation to this vigorous growth, inflation has remained low, and is estimated at 2.2 per cent in 1999. The subdued rise in prices is ascribed to a combination of productivity gains and imported deflation as a result of the fall in international commodity prices up to this summer.

Growth is expected to be higher in the US than in the EU again in 2000, albeit lower than in 1999. The inflation

outlook is shrouded in somewhat greater uncertainty. Unemployment is low, and there is growing concern that the tight labour market will translate into higher wage growth, which will then result in higher inflation. Since the situation in Asia has stabilized and commodity prices are moving up, the prospect of imported deflation is considerably less next year. With a rise in import prices, domestic prices must be restrained to prevent an acceleration in inflation. However, there are still few signs of higher inflation, and as late as October the consumer price index showed only a very moderate rise. It is possible that we will also be surprised by a low rate of inflation in the US in 2000

The main scenario for the US economy next year is therefore a continued soft landing. There are, however, some elements of uncertainty, and the risk is clearly on the downside. One source of concern is high equity prices. Whereas inflation has been subdued for a long time, equity prices have risen considerably. Much of the growth in private consumption is probably based on higher private wealth as a result of advances in the stock market. If this valuation is corrected through a rapid and sharp fall in equity prices, this may have a considerable impact on private consumption and the entire US economy. In mid-October we had a foretaste of how sensitive equity prices are to what investors perceive as bad news. The Dow Jones index then plunged by 6 per cent in one week following the publication of high producer prices for September and warnings from Federal Reserve Chairman Greenspan. Equity prices have since risen to a greater extent than the decline. Another element of uncertainty is the large trade deficit. For a number of years the US has bought far more goods from other countries than it has sold, and the country has therefore accumulated a considerable foreign debt. This is not a problem as long as capital flows to the US are large and willing lenders are queuing up. If this situation is reversed, the result may be substantially higher interest rates and/or a sharp depreciation of the US dollar. A weaker dollar may result in more expensive foreign products in dollar terms, which in turn may entail a sudden rise in inflation and thereby a risk of a considerably more abrupt halt to growth. A rise in interest rates may also result in a sharp slowdown in the economy. One important counter-argument, however, is that the return on investment in the US is noticeably higher than in Europe and Japan, and it is definitely more secure than in emerging economies. This indicates that the pattern of capital flows will be maintained in the period ahead.

The considerable financial leeway of the US authorities is another reason that the risk of a dramatic crisis does not seem to be too great. Several years with very high growth and low unemployment, combined with a tightening in government expenditure, mean that the authorities have the possibility of introducing measures quickly if the situation becomes dramatic. Low unemployment and high employment also imply that household disposable income is helping to provide the basis for buoyant private consumption; equity-based wealth is not the only factor that is boosting consumption.

3 month ECU/euro rate, GDP growth and growth in consumer prices for Norway's trading partners

	1997	1998	1999	2000	2001
GDP trading partners	2.8	2.4	2.4	2.7	2.5
Consumer price trading partners	1.8	1.2	1.2	1.7	1.8
ECU/euro rate	4.2	4.2	2.9	3.6	4.0

Sources: OECD and Statistics Norway.

Europe

For Norway, the most important effects of developments in both Asia and the US are channelled through the oil price and indirectly via Europe. The US is also a main driving force behind developments in our own part of the world. Europe, in turn, is of the greatest direct importance inasmuch as Europe accounts for almost 75 per cent of both our exports and imports and since Norwegian monetary policy aims at stabilising the exchange rate against the euro. GDP growth in the EU appears to be substantially lower in 1999 than in 1998. Developments through the year, however, have been positive, and Consensus Forecasts expects economic growth next year to reach 2.9 per cent, against 2.1 per cent in 1999 and 2.7 per cent last year. For 2001, the forecasts are more uncertain, but the projections point to approximately the same growth as in 2000.

Following a period of considerable divergences in growth rates within the EU, developments in EU countries will be more synchronized in the period ahead. Some of the EU's peripheral countries, such as Finland, Ireland and Spain, are still expanding very rapidly, but the four largest EU countries are all expected to record GDP growth rates of between 2.3 per cent and 3.0 per cent next year. By way of comparison, growth in these countries this year is likely to end up between 1.2 per cent (Italy) and 2.5 per cent (France). In spite of favourable growth projections, the EU still has a long way to go before it can approach the role of the US as the driving force in the world economy. The improvement in European economies should nevertheless be perceptible for Norway, particularly since our most important trading partner, Sweden, is among those that are expected to push up the average.

Several factors help to explain the expectations of higher and more synchronized growth. The stabilization in Asia, Russia and Latin America is important in addition to the continued positive contribution from the US. The export stimulus will boost growth in all EU countries, but particularly in Germany and Italy, which due to their trading patterns were hardest hit by the earlier decline in demand. There is also the prospect of a noticeable improvement in the situation in Central and East European countries seeking to become EU members, a factor which will particularly benefit Germany. Trade between the various parts of

Europe is expanding sharply, and positive trends in Western Europe and Central/Eastern Europe will be mutually reinforcing. The depreciation of the euro over the past year has also generated a positive impetus to exports.

However, the projected growth in the EU is not only export-driven. In several countries domestic factors have made a positive contribution in recent months, and it appears that this trend will continue next year. Unemployment remains high, but there are prospects for a slight decline in 1999 and next year. This may bolster household real disposable income and thereby result in higher private consumer demand. Higher demand both domestically and abroad will contribute to higher business investment, and the construction sector in particular is expanding in several countries. A period with a reduction in inventories also appears to have come to an end. Fiscal policy in most countries is approximately neutral or slightly contractionary. This will therefore not contribute to the projected growth, but neither represent an important obstacle to growth. With relatively considerable trade within the EU, domestic impulses in individual countries will also contribute to pushing up growth in the other countries.

The most important growth impulses vary somewhat between countries. If we look at the four largest EU countries, the situation can be summed up by noting that growth is primarily export-led in Germany, while a combination of internal and external factors is fuelling growth in Italy. Domestic demand is even more important in France where private consumption, investment and the build-up of inventories are making a positive contribution. Following several years with substantially higher growth than the EU average, the UK now appears to have avoided a hard landing. The housing market in particular stands out, with strong activity. There is also some speculation as to whether the UK may have recorded exceptionally high productivity gains on a par with the US, and that the positive effects of this may now make a stronger contribution as the negative effects of a stronger pound sterling gradually wane.

Following the reduction in interest rates in April, the ECB's monetary policy contributed to stimulating the European economies. Later in the summer and autumn, the risk of stagnation seemed to be less imminent, and in November the ECB reversed the interest rate cut. The question has been raised as to whether the increase in interest rates was premature since price inflation is still very moderate. It is true that the money supply, measured by M3, has risen more than the ECB's reference value, but most price forecasts indicate that inflation in the euro area will continue to remain well below the target of 2 per cent the next two years. Even though the increase in interest rates may also contribute to a stronger euro and thereby a deterioration in competitiveness, it does not appear that the effects of the interest rate increase will be strong enough to jeopardize the improvement in the European economy. One important reason for this is that even after rates were increased, real interest rates are relatively low, both historically and compared with the euro area's most important trading partners. Monetary policy may thus still be characterized as slightly expansionary.

Interest rates were also raised in November in our most important European non-EMU trading partner countries, Sweden, Denmark and the UK. This must naturally be seen in connection with the ECB's increase. In addition, price inflation in Denmark and the UK is expected to be above 2 per cent in both 1999 and 2000. In Sweden, economic growth has been robust even though it has so far not translated into higher price inflation.

Norwegian economy

Developments in 1999

According to seasonally adjusted figures from the quarterly national accounts (QNA), production and demand in the mainland economy increased somewhat in the third quarter after showing relatively small variations through the previous four quarters. Employment and unemployment, however, showed little change from the second to third quarter of 1999, and the situation in the labour market has now been stable since the third quarter of last year. The consumer price index rose by 2.0 per cent from the third quarter of 1998 to the third quarter of this year, but developments in October point to higher price inflation towards the end of the year. The current account surplus increased to NOK 13 billion, primarily as a result of a further sharp rise in oil prices.

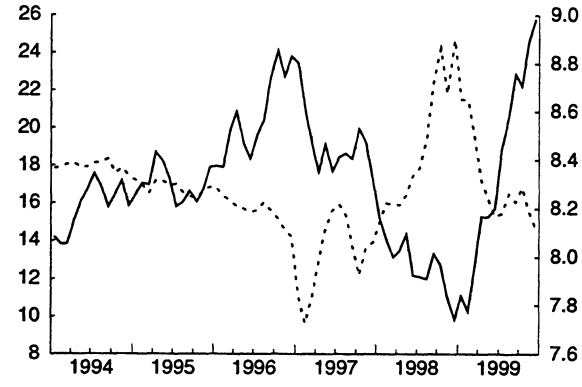
For 1999 as a whole, mainland GDP is now likely to show a rise of a little less than 1 per cent, markedly weaker than in 1998. Developments in goods-producing industries reduce the average, while preliminary estimates indicate that output growth in private services will not be much lower than last year. There is, however, considerable uncertainty

Macroeconomic indicators. 1997-1999
Growth from previous period unless otherwise noted. Per cent

			Seasonally adjusted			
	1997	1998	98.4	99.1	99.2	99.3
Demand and output						
Consumption in households and non-profit organizations	3.7	3.1	-0.8	1.3	0.3	0.8
General government consumption	2.8	3.7	0.5	-0.4	1.9	-0.6
Gross fixed investment	15.1	8.1	4.6	-11.3	-5.4	7.5
- mainland Norway	12.8	2.4	0.6	-4.0	-3.8	2.7
- petroleum activities[1]	15.6	25.7	16.0	-22.5	-8.5	3.8
Final domestic demand from mainland Norway[2]	5.2	3.1	-0.2	-0.2	-0.1	0.8
Exports	5.7	0.5	2.8	-1.4	2.1	-1.2
- crude oil and natural gas	2.1	-3.8	6.5	-2.4	2.0	0.5
- traditional goods	8.0	3.4	-0.3	-0.6	0.8	2.6
Imports	12.0	9.1	5.2	-6.4	-3.0	2.4
- traditional goods	8.1	9.6	0.8	-0.6	-5.8	0.9
Gross domestic product	4.3	2.1	0.0	0.5	-0.6	2.4
- mainland Norway	4.4	3.3	-0.5	0.5	-0.3	1.7
Labour market[3]						
Man-hours worked	2.4	2.2	1.0	-0.5	-0.2	0.3
Employed persons	2.9	2.3	-0.1	-0.1	-0.0	-0.1
Labour force	2.2	1.2	-0.1	-0.0	-0.2	-0.2
Unemployment rate, level[4]	4.1	3.2	3.0	3.1	3.0	2.9
Prices						
Consumer price index[5]	2.6	2.3	2.3	2.3	2.4	2.0
Export prices, traditional goods	0.5	1.0	-0.4	-1.4	1.2	1.4
Import prices, traditional goods	-1.0	1.3	-2.0	-1.7	1.7	-1.9
Balance of payment						
Current balance, bill. NOK	56.1	-16.3	-16.2	-0.1	6.2	13.1
Memorandum items (unadjusted, level)						
Money market rate (3 month NIBOR)	3.6	5.7	7.9	7.1	6.4	6.0
Average borrowing rate[6]	6.1	7.4	9.6	9.3	8.5	8.0
Crude oil price NOK (level)[7]	135.6	96.3	84.1	86.7	120.5	162.9
Importweighted krone exchange rate, 44 countries, 1996=100	99.5	101.7	102.8	101.9	99.5	100.1
NOK per ECU/euro	8.02	8.46	8.82	8.60	8.24	8.22

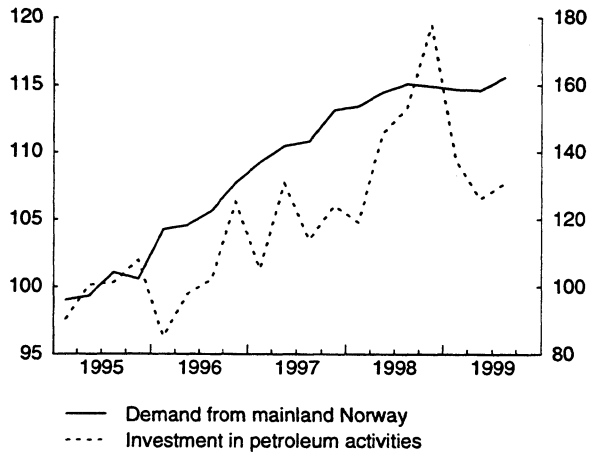
[1] Figures for petroleum activities now covers the sectors oil and gas extraction proper, transport via pipelines and service activities incidental to oil and gas extraction.
[2] Consumption in households and non-profit organizations + general government consumption + gross fixed capital formation in mainland Norway.
[3] Figures for 1997 and 1998 are from the national accounts. The quarterly figures are from Statistics Norway's Labour force survey (LFS) since the new quarterly national account series for employment are too short for seasonal adjustment.
[4] According to Statistics Norway's labour force survey (LFS)
[5] Percentage change from previous year.
[6] Households' borrowing rate in private financial institutions.
[7] Average spot price, Brent Blend.
Sources: Statistics Norway and Norges Bank.

NOK against the ECU/euro and the spot price of Brent Blend
1994 - 1999



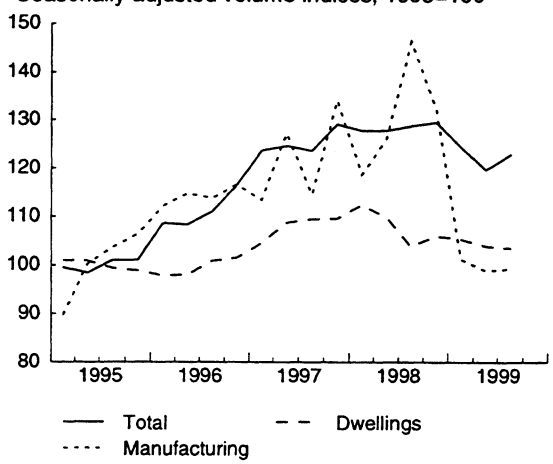
Source: Norges Bank.

Demand from mainland Norway. 1995 - 1999
Seasonally adjusted volume indices, 1995=100



Source: Statistics Norway.

Gross fixed capital formation, mainland Norway. 1995 - 1999
Seasonally adjusted volume indices, 1995=100



Source: Statistics Norway.

attached to these figures. The decline in investment and sluggish growth in traditional merchandise exports are contributing to slower growth in the mainland economy. However, growth in household consumption is also substantially lower compared with 1998. A positive employment carry-over into 1999 means that the average number employed will probably be a little higher in 1999 than last year. As a result of an equivalent increase in the labour force, unemployment will nevertheless show little change in relation to 1998.

Economic policy contributes to curbing growth this year

According to the Ministry of Finance's budget indicator, the fiscal programme for 1999 entails a cautious tightening. Preliminary QNA figures on general government demand support this picture. Monetary policy during the last four-five quarters has also contributed to markedly slower growth in the mainland economy in 1999 compared with last year. Even though Norges Bank has reduced its key rates for banks by 2.5 percentage points so far this year, money market rates are still noticeably higher than in 1997 and the first half of 1998. This is also true for financial institutions' lending rates. At the end of the third quarter of 1999, these interest rates were a good 1.5 percentage points higher than at the end of the second quarter last year, but 1.5 percentage points lower than at the beginning of the year.

Measured against the euro, the Norwegian krone appreciated markedly through the first quarter of 1999 and has since remained close to the "strong" end of the band around which the exchange rate should be stabilized, according to existing guidelines. A considerable – albeit narrowing – interest rate differential between the Norwegian krone and the euro this year may have contributed to to the strengthening of the krone. It is, however, natural to view the appreciation in connection with the rise in oil prices from about $10 a barrel at the beginning of 1999 to as much as $24 a barrel in November this year. This rise in prices has made a substantial contribution to reversing a current account *deficit* of, respectively, NOK 6.9 billion and NOK 16.2 billion in the third and fourth quarter of 1998 to a *surplus* of, respectively, NOK 6.2 billion and NOK 13.1 billion in the second and third quarter of this year.

Levelling off in mainland demand and decline in petroleum investment

Mainland demand picked up in the third quarter of 1999, primarily as a result of a rise in investment. The estimates for investment in the first and second quarter have also been revised upwards by NOK 0.8 billion and NOK 1.3 billion, respectively. This demand component thus shows a considerably smaller decline through the first half of 1999 than indicated in the last quarterly report. It is particularly investment in private services and primary industries that appear to have boosted the figure in the third quarter,

while housing investment and manufacturing investment showed little change. Statistics Norway's investment intentions survey for the fourth quarter of 1999 points to relatively small changes in investment in manufacturing and the power supply sector from the third to fourth quarter. The uncertainty is considerably greater for other key investment components. All in all, mainland investment is projected to decline by about 5 per cent from 1998 to 1999.

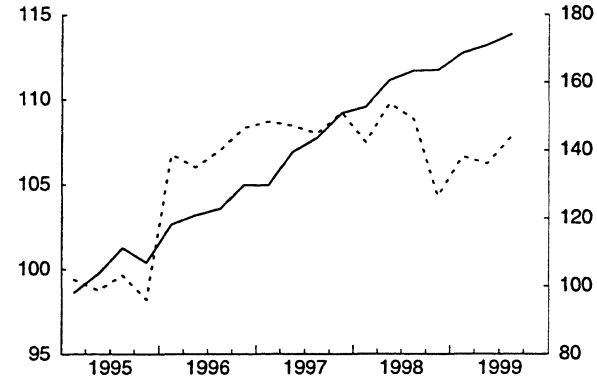
After expanding sharply in 1997 and 1998, petroleum investment has fallen this year. Statistics Norway's investment intentions survey for the fourth quarter indicates a decline of more than 10 per cent in this investment component.

According to preliminary QNA figures, it appears that household consumption has generally expanded at a slower pace after the second quarter of 1998 than in the previous four quarters. This tendency is evident for both purchases of new cars and for consumption excluding purchases of private means of transport, while purchases of second-hand cars from the business sector are now at high levels. The latter must be seen in connection with the national accounting convention which assumes that passenger cars registered for the business sector are sold to households after three years. The counterpart to the rise in this component of household demand is thus a decline in a component of gross investment in the business sector. Movements in the retail sales index in the period to October and the figures on new car registrations to November do not suggest any sizeable change in consumption from the third to fourth quarter of 1999. Growth is therefore likely to reach about 2 per cent on an annual basis.

All in all, it appears that household real disposable income will rise by about 2 per cent from 1998 to 1999. The household saving ratio will thereby increase for the third consecutive year, and net lending will reach a historically high level. This will result in a further rise in households' net financial assets, to about 60 per cent of household disposable income. Debt is increasing at about the same pace as income.

Our projections imply that growth in consumption will be appreciably lower this year than through the previous five years, and lower than the growth in income. It is natural to view this in connection with changes in interest rates the past year. The sharp rise in lending rates in private financial institutions in the third quarter of 1998 contributed to curbing consumption in general and to a marked fall in purchases of new cars, furniture and some other consumer durables. Even though interest rates have been reduced slightly since then, it is still more expensive to debt-finance spending on durables than was the case up to mid-1998. In addition, the rise in deposit and lending rates in private financial institutions is contributing to reducing growth in household disposable income. This is partly because households as a group have more debt than assets at floating rates and partly because other rates of return have not

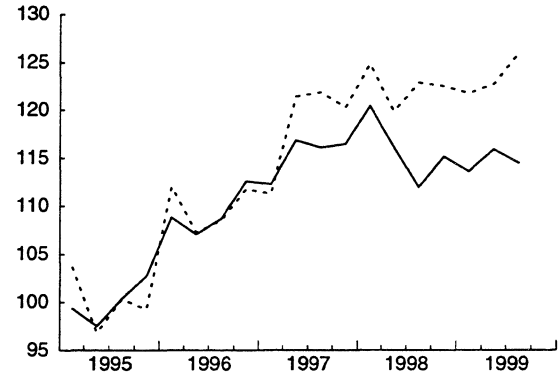
Consumption in households. 1995 - 1999
Seasonally adjusted volume indices, 1995=100



—— Excl. purchase of transport equipment
---- Purchase of transport equipment (right scale)

Source: Statistics Norway.

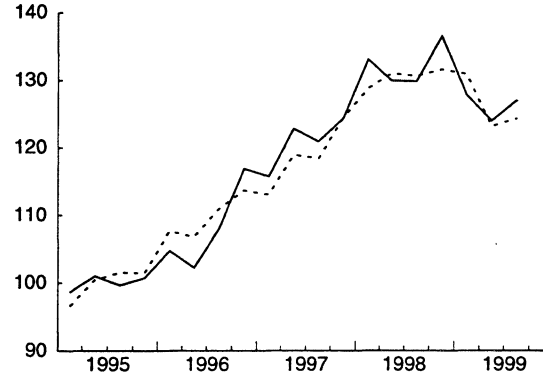
Exports. 1995 - 1999
Seasonally adjusted volume indices, 1995=100



—— Total export
---- Export of traditional goods

Source: Statistics Norway.

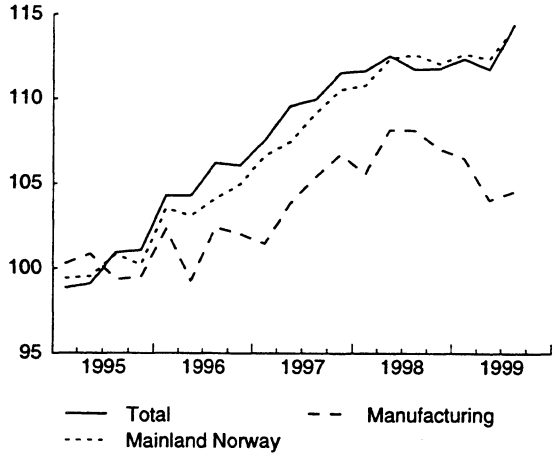
Imports. 1995 - 1999
Seasonally adjusted volume indices, 1995=100



—— Total import
---- Import of traditional goods

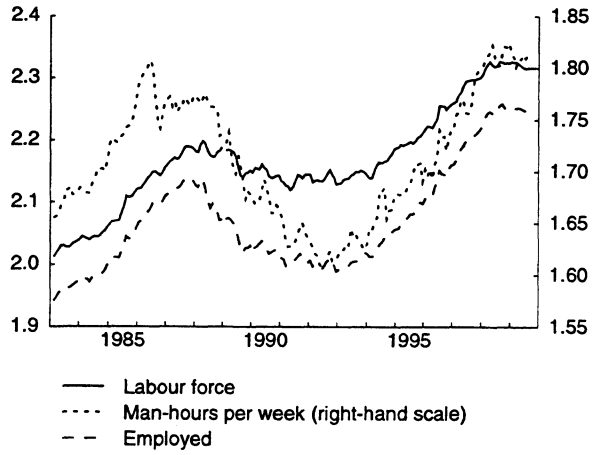
Source: Statistics Norway.

Gross domestic product. 1995 - 1999
Seasonally adjusted volume indices, 1995=100



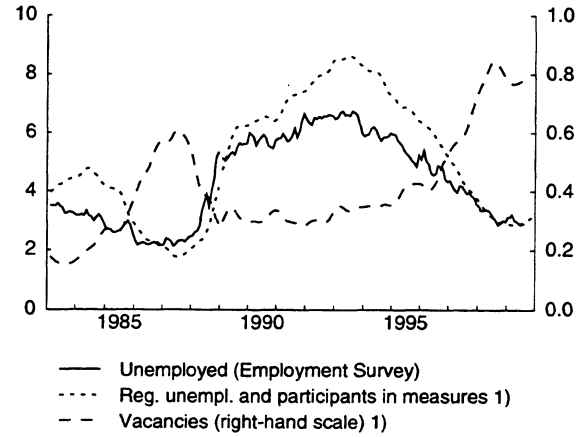
Source: Statistics Norway.

Labour force, employment and number of man-hours worked per week. 1983-1999
Millions. Seasonally adjusted and smoothed indices.



Source: Statistics Norway.

Unemployed and number of vacancies, monthly figures
Per cent of labour force. Seas adj. and smoothed



1) Backwards adjusted for break in the series from january 1999.
Sources:The Directorate of Labour and Statistics Norway.

changed in step with changes in financial institutions' interest rates.

Sluggish growth in traditional exports

Whereas the relatively sharp growth in wages in Norway through 1997 and 1998 was more than offset by a depreciation of the Norwegian krone, movements in the krone exchange rate so far this year have had the opposite effect. Measured in a common currency, it thus appears that over the past five years hourly wage costs in manufacturing have risen by an average of 1/2 to 1 percentage point more quickly in Norway than among our trading partners. This development may have contributed to a loss of market shares for traditional merchandise exports last year, a trend which seems to have continued this year.

Measured at constant prices and adjusted for normal seasonal variations, traditional merchandise exports picked up in the third quarter of 1999. As a result of the relatively sluggish trend over the previous five quarters, however, the level in the third quarter was only moderately higher than in the first quarter of 1998. Value data from external trade statistics so far this year indicate some shift in traditional merchandise exports from EU countries to Japan, South Korea and the US. In particular, fish exports to Japan have increased, at the same time as exports of machinery and transport equipment to both South Korea and the US have shown an appreciable rise. The decline in exports to the UK and Germany is particularly pronounced, especially for machinery and transport equipment. Data from external trade statistics in the period through October this year do not point to a marked turnaround in the fourth quarter of 1999. Growth on an annual basis will therefore be very modest compared with developments through the past five years.

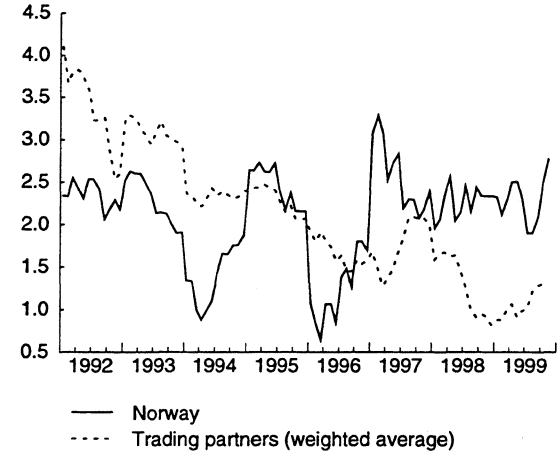
As a whole and measured in Norwegian kroner, prices for traditional merchandise exports have shown relatively little change over the past two to three years. This may be related to the fact that the decline in commodity prices, measured in US dollars, was largely offset by the appreciation of the dollar up to the end of 1997. However, since then and up to the end of the second quarter of 1999 we see traces of the fall in international commodity prices in Norwegian export prices, particularly in metal prices. Metal prices edged up in the third quarter, and movements in spot prices for metals and industrial raw materials up to end-November this year point to further increases in the period ahead.

Decline in manufacturing output contributes to weak mainland GDP growth in 1999

The weak trend in mainland investment and traditional merchandise exports through 1998 and into 1999 is reflected in both a pronounced decline in imports and sluggish trends in some domestic production sectors. The decline in petroleum investment in 1999 has the same effect. Activity in manufacturing industry and the construction sector has

thus exhibited a downward trend during the last four-five quarters. On the other hand, output growth in private service industries remains buoyant, a factor that contributed to a marked rise in mainland GDP in the third quarter. However, there is considerable uncertainty associated with the preliminary figures on movements in production and demand for private services. In the second and third quarter of 1999, there are thus signs of rapidly widening divergences between the estimates for production and demand for these industries. The divergences indicate that the estimated growth in output is too high and/or that the estimated growth in demand (including deliveries of product inputs to other industries) is too low. For the year as a whole, the preliminary figures for the first to third quarters point to mainland GDP growth of a little less than 1 per cent, which is slightly higher than estimated earlier.

Consumer price indices. 1992-1999
Pct. change from the same month the previous year



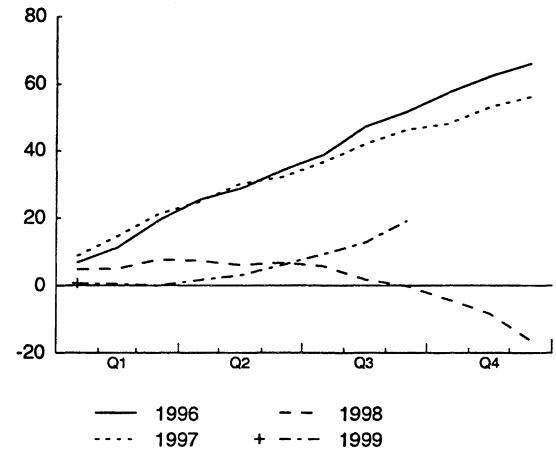
Source: Statistics Norway.

Relatively stable labour market

The brisk growth in employment which began in 1993 came to a halt last year, and the number employed has shown a marginal decline during the last four quarters. As a result of relatively strong growth in employment through the first half of 1998, the level of employment at the end of last year (seasonally adjusted) was higher than the average for the year. With seasonally adjusted stable employment from the third to fourth quarter of 1999, employment is thus likely to show a moderate rise on an annual basis. It appears that employment in manufacturing industry and construction is falling slightly, while employment in private service industries and the general government sector is still rising.

The labour force has also shown little change the past year, and according to Statistics Norway's Labour Force Survey (LFS) unemployment has levelled off at about 3 per cent of the labour force. The number of lay-offs, however, has risen considerably the last four quarters, and in recent months the sum of registered unemployed at employment offices and persons participating in ordinary labour market programmes has increased slightly. In this period, however, the number of vacancies has edged up, a development that may point to increasing mismatch in the labour market. This tendency is not unreasonable in view of the relatively wide differences in productions trends between industries that we now see in the mainland economy. Unemployment is expected to rise slightly in the fourth quarter of 1999 (seasonally adjusted) so that unemployment on an annual basis will be approximately the same as last year.

Current external balance 1996-1999
Cumulative figures in Nkr billion month by month



Source: Statistics Norway.

Stable price inflation

As an average for the first ten months of 1999, the consumer price index was 2.2 per cent higher than in the same period last year. This is on a par with the inflation rate recorded in 1998. Changes in prices for petrol and food have contributed to pushing up price inflation this year, while telecommunication rates and prices for clothing and footwear have had the opposite effect. A pronounced rise in electricity prices in September and October contributed to pushing up year-on-year price inflation from 1.9 per cent in August to 2.5 per cent in October. With a further rise in electricity prices towards the end of the year, price inflation is likely to reach 2.3 per cent from 1998 to 1999.

The harmonized index of consumer prices rose by 2.1 per cent from the first half of 1998 to the first half of this year, a good one percentage point more than in the EU. A decline in price inflation in Norway and a slight quickening of inflation in the EU contributed to reducing the inflation differential in the second half of the year.

The wage carry-over into 1999 was considerable. A moderate wage settlement, in keeping with the recommen-

Man-hours worked in the quarterly national accounts

Statistics Norway is for the first time publishing figures on man-hours worked as part of the quarterly national accounts (QNA). The man-hour figures are preliminary and are published at an aggregated industry level. Man-hours worked is defined as man-hours worked by all employees within effective normal working hours, in addition to overtime worked and a deduction for absence due to vacation, illness, leave of absence and any labour disputes. Manhours worked per quarter is estimated on the basis of figures for employed persons, which Statistics Norway has published on a quarterly basis since 1997, and estimates for changes in average working hours. The estimation method is in principle the same as that applied for the calculations of the annual national accounts.

Average working hours in a quarter are influenced in part by the calendar (number of public holidays, etc.) and in part by absence and overtime. Absence due to vacation is assumed to have a stable quarterly pattern for all industries, with the exception of the timing of Easter which occurs in turns in the first or second quarter. Absence due to vacation is estimated on the basis of the Labour Force Surveys (LFS). Estimates for other types of absence and overtime are based on information from the Norwegian Confederation of Business and Industry, etc. At the moment no quarterly information on absence and overtime is available for many industries.

The calculations of man-hours worked also take account of any changes in the extent of part-time work. Special calculations are carried out for persons with shift or rota employment, and for teachers in the school system.

The underlying source is uncertain for several of the components included in the calculations. The estimated quarterly figures for man-hours worked will thereby also be characterized by fairly substantial uncertainty. Caution must therefore be exercised in comparing the man-hours figures with production figures from the QNA, and changes in production per man-hour worked should not be interpreted as quarterly fluctuations in productivity.

dations of the so called Arntsen Committee on wage settlements, nevertheless indicates that growth in wages per normal man-year will be lower in 1999 than last year, estimated at 5 per cent. Real wage growth will nevertheless be noticeably higher than the average for the last 20 years.

Improvement in the current account

The current account of the balance of payments showed a surplus of a good NOK 19 billion for the first three quarters of the year, compared with a small deficit in the same period last year. The improvement in the external account primarily reflects a decline in imports, both prices and volumes, and a rise in prices for petroleum exports. A higher deficit on the interest and transfers balance had the opposite effect. This may be related to a portfolio shift in Norwegian foreign assets from interest-bearing paper to other securities. Whereas interest and dividends are registered in the interest and transfers balance, any price gains/losses on securities are registered as valuation changes in the capital account. A continued rise in the oil price from the third quarter to end-November points to a further sharp increase in the current account surplus in the fourth quarter. On an annual basis, the surplus is now projected at a good NOK 33 billion.

Outlook for the period ahead[1]

Following more than a year of relatively low growth in the level of activity in the mainland economy, our calculations point to a continued moderate trend. In 2000, the strongest negative demand impetus will probably be generated by business investment, particularly petroleum investment. Household demand, on the other hand, may expand at a faster pace than in 1999. Slightly higher demand growth in Norwegian export markets, lower interest rates, an upswing in mainland investment and a levelling off in the fall in petroleum investment in 2001 indicate that growth in the mainland economy will gradually pick up again. A sharp rise in petroleum production will contribute to a pronounced rise in total GDP in both 2000 and 2001. Unemployment may edge up in coming years, but the level will still be low by international standards. Wage and price inflation are likely to be reduced to the level among our trading partners in 2001, a factor which points to slightly lower interest rates. The euro exchange rate is assumed to remain at NOK 8.25 throughout the projection period.

Demand in Norwegian export markets will edge up

The projections for GDP growth among Norway's most important trading partners for 1999 and 2000 have been steadily revised upwards by both the OECD and other forecasters. It is unlikely, however, that demand in Norwegian export markets will show a substantial rise. Measured by developments in imports for our trading partners, market growth is projected at about 5 per cent this year and around 6 and 6 per cent in 2000 and 2001, respectively, against 8 per cent on average for the years 1994-1998.

Recent developments in wages and exchange rates indicate that Norwegian producers have recorded a deterioration in their relative cost position since 1994. This trend will probably not be reversed the next two years. Therefore, a loss of market shares can be expected in the period ahead. For Norwegian exporters, developments in Sweden, which along with the US and France will help push up market growth in the period ahead, represent a bright spot. The composition of goods in exports to these countries means that exporters of metals, metal goods, machinery and fish will be facing more favourable market trends than the average producer.

1 As usual, the forecasts are drawn up using Statistics Norway's macroeconometric quarterly model KVARTS.

Main economic indicators. 1998-2001. Accounts and forecasts
Percentage change from previous year unless otherwise noted

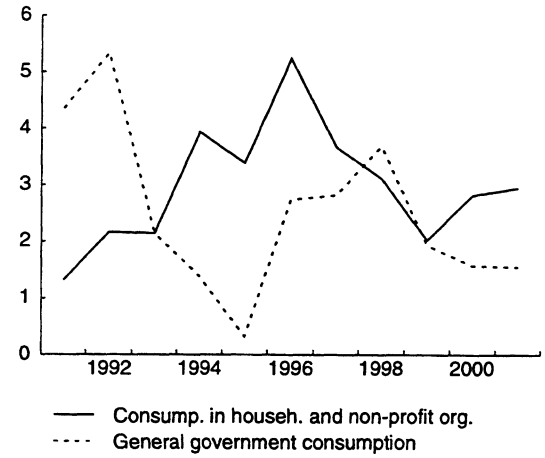
	Accounts	1999			2000			2001	
	1998	SN	MoF	NB	SN	MoF	NB	SN	NB
Demand and output									
Consumption in households and non-profit organizations	3.1	2.0	2.2	2 1/4	2.8	2.0	2	3.0	2 1/4
General government consumption	3.7	1.9	2.0	2 1/4	1.6	1.5	2	1.6	2
Gross fixed investment	8.1	-7.6	-9.0	-8	-6.9	-11.6	-12	1.4	0
- petroleum activities	25.7	-11.4	-9.6	-5	-23.6	-34.1	-30	-4.8	0
- mainland Norway	2.4	-5.4	-7.0	-8 1/4	0.0	-3.0	-4 1/2	3.1	-1/4
- firms	2.8	-6.5	-8.3	-9 3/4	-2.2	-5.0	-8 1/4	0.5	-1 3/4
- housing	-0.6	-3.1	-5.7	-7 3/4	10.1	2.5	1 1/4	13.5	3
- general government	3.4	-4.0	-4.1	-4	-1.6	-1.5	2	2.0	2
Demand from mainland Norway[1]	3.1	0.5	..	1/4	2.0	..	3/4	2.7	1 3/4
Stockbuilding[2]	0.9	0.0	-0.4	..	0.0	0.1	..	0.0	..
Exports	0.5	-0.6	2.4	2 1/4	8.5	9.1	8 3/4	6.0	3 3/4
- crude oil and natural gas	-3.8	-1.5	4.5	4 3/4	15.6	16.9	19	8.8	2
- traditional goods	3.4	1.6	1.5	1 1/4	4.9	4.0	3	4.6	6 1/2
Imports	9.1	-3.4	-3.0	-2 1/4	0.8	-1.1	-2 1/4	4.1	3 3/4
- traditional goods	9.6	-2.5	-2.4	-2	2.8	0.0	-2 1/4	5.3	3 3/4
Gross domestic product	2.1	0.6	0.9	1 1/4	3.3	2.9	3 1/4	3.2	1 1/2
- mainland Norway	3.3	0.8	0.5	1/2	1.3	0.7	1/4	2.2	1 1/2
Labour market									
Employed persons	2.3	0.2	0.3	1/4	0.0	-0.3	-3/4	0.3	0
Unemployment rate (level)	3.2	3.2	3.2	3 1/4	3.5	3.6	3 3/4	3.6	4
Prices and wages									
Wages per standard man-year	6.5	5.0	4 3/4	4 3/4	3.6	3 1/4	3 3/4	3.1	3 3/4
Consumer price index	2.3	2.3	2.2	2 1/4	2.1	2.0	2	1.9	1 3/4
Export prices, traditional goods	1.0	-0.1	-1.4	-1/2	3.3	2.0	3 1/4	1.7	2 1/2
Import prices, traditional goods	1.3	-2.0	-1.1	-1 1/4	1.7	0.0	3/4	0.8	3/4
Real prices, dwellings	6.6	6.6	..	..	6.8	..	..	8.6	..
Balance of payment									
Current balance (bill. NOK)	-16.3	33.5	32.8	31	98.0	87.4	96	116.5	91
Current balance (per cent of GDP)	-1.5	2.8	2.8	2 1/2	7.8	7.1	7 3/4	8.9	7 1/4
Memorandum items									
Household savings ratio	6.6	7.0	6.8	7.3	7.3	6.6	6 1/4	6.9	6 1/2
Money market rate (level)	5.7	6.4	6.4	6.5	5.2	4.7	5.7	4.7	5.6
Average borrowing rate (level)[3]	7.4	8.5	..	..	7.4	..	..	6.9	..
Crude oil price NOK (level)[4]	96.0	140.3	125	131	151.2	125	135	142.5	120
International market growth	7.1	5.4	5.0	..	6.4	5.6	..	6.1	..
Importweighted krone exchange rate (12countries)[5]	4.5	0.6	..	..	-0.5	..	..	-0.4	..

[1] Consumption in households and non-profit organizations + general government + gross fixed capital formation in mainland Norway.
[2] Change in stockbuilding. Per cent of GDP.
[3] Households' borrowing rate in private financial institutions.
[4] Average spot price Brent Blend.
[5] Increasing index implies depreciation.
Sources: Statistics Norway (SN), Ministry of Finance, Revidert nasjonalbudsjett 1999 (MoF), Norges Bank, Penger og kreditt 1999/3 (NB).

Monetary policy and developments in interest and exchange rates

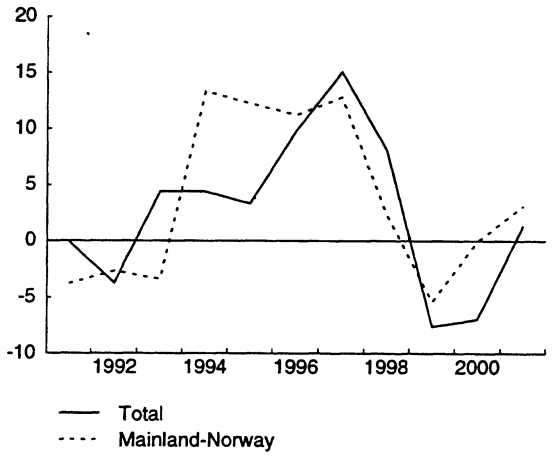
According to the guidelines, monetary policy shall be aimed at maintaining a stable krone exchange rate against European currencies. Our calculations are based on an assumed fulfilment of this objective. Norges Bank has earlier this year explained its interpretation of the guidelines and the factors emphasized by the central bank in its conduct of monetary policy (see, for example, the separate box in *Economic Survey* 3/99). A key element seems to be that price inflation should over time not exceed 2 per cent, which the European Central Bank considers the upper limit for price inflation in the euro area. Norges Bank's macroeconomic projections in *Economic Bulletin* 1999/3 are based on a technical assumption that the money market rate will shadow market expectations, as reflected in forward rates in September. In practice, this means that the central bank assumes an interest rate of 5.7 per cent next year and 5.6 per cent in 2001. Applying *our* assumptions concerning movements in the euro interest rate in the period ahead, Norges bank's estimates entail an interest rate differential against the euro of a good 2 percentage points next year and a good 1.5 percentage points in 2001. This interest rate differential is considerably higher than the

Consumption
Percentage growth



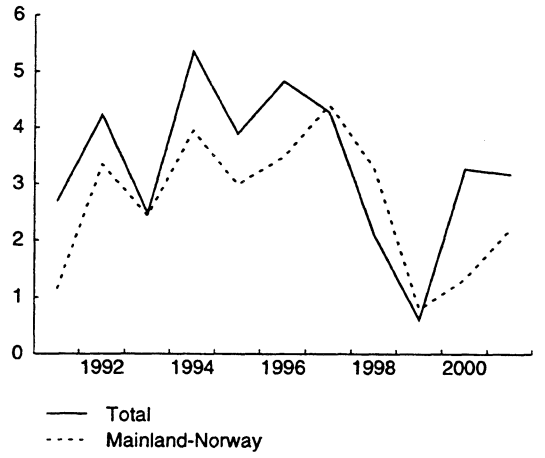
Source: Statistics Norway

Gross fixed capital formation
Percentage growth



Source: Statistics Norway

Gross domestic product
Percentage growth



Source: Statistics Norway

projected inflation differential between Norway and euro countries in the same period. For 2001, it is also about 1 percentage point higher than the level following from the description of interest rate formation in the money market as embodied in KVARTS, given our projections for developments in the current account and price inflation.
We have applied the model's description of interest rates for the calculations in this report. This results in a money market rate of 5.2 per cent in 2000 and 4.7 per cent as an average for 2001. For 2000, our estimates mean that the interest rate differential against the euro will continue to be noticeably greater than the inflation differential, while both the interest rate differential and inflation differential are negligible towards the end of 2001. With an assumed constant rate of exchange between the Norwegian krone and the euro in the period ahead, the krone will appreciate by about 2 per cent against the ECU/euro from 1998 to 1999 and a further 1.1 per cent from 1999 to 2000, after depreciating by around 5.5 per cent from 1997 to 1998.

If the rate of exchange between the euro and other currencies of importance to Norwegian imports also remains constant through the end of the year, the import-weighted krone exchange rate will appreciate moderately from 1998 to 1999. This moderate appreciation is assumed to continue from 1999 to next year due to a projected depreciation of the dollar and pound sterling against the euro.

Cyclically neutral fiscal policy

Our projections for 2000 are based on the budget agreement between the Government coalition parties and the Labour Party. General government consumption and investment are expected to expand by 1 per cent, while transfers to households are estimated to grow by a little less than 6 per cent. Indirect tax increases in excess of an inflation adjustment of unit taxes are, in isolation, expected to push up the consumer price index by 0.2 per cent in 2000.

The agreed budget programme entails a growth in general government expenditure on consumption, investment and transfers approximately on a par with mainland GDP trend growth.

Petroleum sector an important factor for developments in the Norwegian economy

The petroleum sector is a key sector for understanding movements in the Norwegian economy. The impact of oil prices on the current account and the effect of petroleum production on GDP are the most obvious factors. In addition, considerable fluctuations in investment demand in the petroleum sector have a spillover effect on the level of activity in supplier industries in mainland Norway. It is also likely that recent fluctuations in the exchange rate and interest rates are strongly related to movements in the oil price.

The fall in investment in the petroleum sector will continue next year. It is assumed that the decline will be far

stronger in 2000 than in 1999, but the decline is expected to be somewhat smaller than projected by us in our last quarterly report and by the Ministry of Finance in the National Budget. Most investment in this sector requires a lengthy planning period, and planned and approved projects are seldom abandoned. The projected decline in 2000 is thus largely a result of decisions taken long in advance. A weak trend in petroleum investment in 1999 and 2000 has been incorporated in our forecasts since September last year, which was the first time we presented forecasts for 2000. Exploration, however, is an investment category where the planning period is shorter. The continued sharp rise in oil prices during the last few months is a factor behind expectations of increased exploration activity, which in turn has contributed to an upward revision of the estimates for petroleum investment in 2000. In 2001, it is assumed that petroleum investment will continue to decline, but only by about 5 per cent, against about 24 per cent in 2000. Even after three years with a pronounced fall, the level of petroleum investment in 2001 will be about 10 per cent higher than the level in 1990.

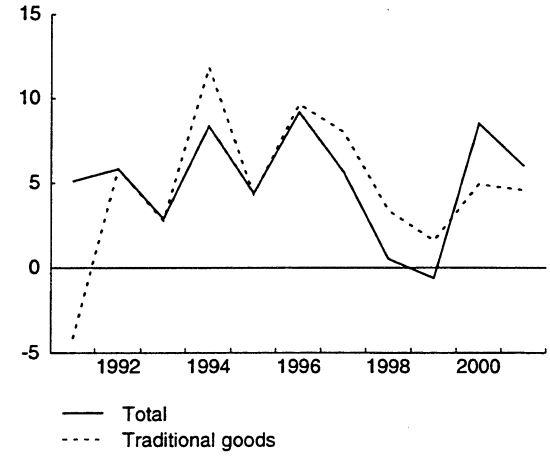
Following a modest decline in petroleum production this year, output is expected to increase markedly the next two years. Gas production is projected to rise by about 20 per cent next year, while oil production is expected to increase by around 14 per cent. Production in the petroleum sector is estimated to expand by about 8 per cent in 2001.

Households

Household real disposable income is estimated to increase at a slightly faster pace next year than in 1999 in spite of lower growth in real wages, man-hours worked and transfers. Developments in net interest income are the main factor behind this. Whereas the average interest rate in financial institutions rose from 1998 to 1999, it will fall again from 1999 to 2000. Since households have more debt than assets at floating rates, and the return on shares and bonds has not moved in step with borrowing and deposit rates, this interest rate path entails a pronounced rise in households' net interest *expenses* from 1998 to 1999, and a decline from 1999 to 2000. In isolation, the change in net interest expenses will therefore contribute to curbing growth in household real disposable income this year, while it will push up income growth next year. Income growth in 2001 is expected to be more on a par with the result for 1999.

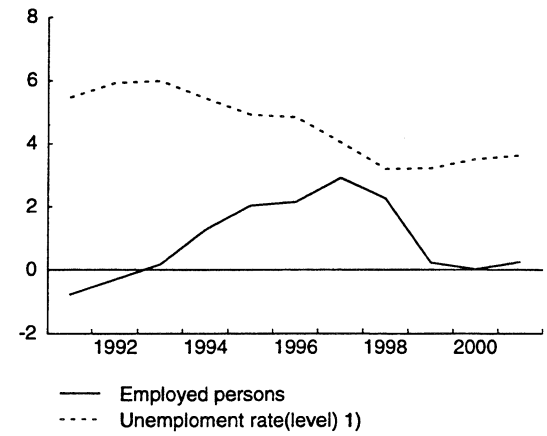
Over time, household consumption generally shadows changes in income, but changes in interest rates and wealth as well as variations in income growth over time also influence changes in consumption from one year to the next. If we look at the period 1999-2001 as a whole, income and consumption show a fairly parallel movement, and the saving ratio in 2001 is at about the same level as in 1998. As a result of fluctuations in both interest rates and income growth, however, changes in consumption deviate slightly from changes in income from one year to the next. With relatively high saving, and housing investment which is

Exports
Percentage growth



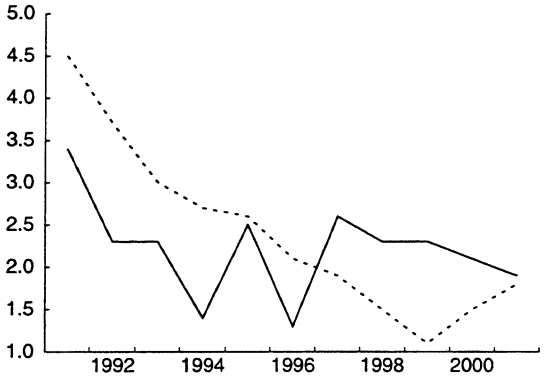
Source: Statistics Norway

Labour market
Percentage change

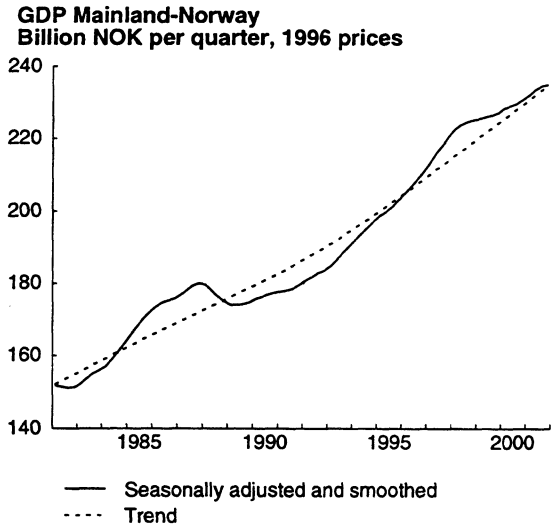


1) Adj. for stat. rev. from 1996.
Source: Statistics Norway

Consumer price indices
Percentage growth



Source: Statistics Norway



Source: Statistics Norway.

still at a low level in a longer historical perspective, households' net financial claims will increase further from the high level at the end of 1999. As a group, households thus still have considerable financial leeway.

Mainland investment

The fall in mainland investment is expected to continue in 2000, but at a noticeably slower pace than in 1999. Manufacturing investment is projected to decline by a little less than 5 per cent in 2000 after plummeting by 25 per cent this year. The decline in investment in service industries is slightly lower. In other goods-producing industries, it appears that the fall in 2000 will be approximately on a par with the result for 1999. Information from Statistics Norway's investment statistics indicates that investment in the power supply sector will contribute to pushing down the average for these industries. All in all, mainland business investment is projected to decline by about 2 per cent from 1999 to 2000, while our calculations for 2001 show a negligible rise. Investment in the general government sector is estimated to edge down in 2000 and edge up in 2001.

Housing investment has exhibited a sluggish trend for some time, but has been accompanied by a steady and sharp rise in prices for existing dwellings. Higher prices in the resale home market, lower interest rates and freed up capacity following the completion of building projects for the business sector and the public sector point to a pick-up in housing investment through 2000 and 2001. According to our calculations, the increase in housing investment will contribute to reversing the trend in mainland investment, from a decline of a good 5 per cent in 1999 to zero growth in 2000 and a rise of 3 per cent in 2001.

Increase in level of activity in mainland Norway

Following a virtual pause in growth in 1999, it appears that the level of activity in mainland Norway will pick up markedly over the next two years and that growth will approach its historical average level in 2001. Faster growth in mainland demand will be an important factor behind this expansion. Household consumption is expected to boost growth, and it appears that mainland investment will no longer generate a negative impetus. In addition, traditional merchandise exports are expected to expand sharply. Developments in petroleum investment, with a marked fall in 2000 and a continued marginal decline in 2001, will have the opposite effect, contributing to an appreciably weaker trend in manufacturing than in other private mainland industries the next two years.

Mainland GDP is projected to expand by 1.3 per cent in 2000 and 2.2 per cent in 2001. Following a decline in petroleum production through 1998 and the first half of 1999, production on the shelf will contribute to a faster rise in total GDP than mainland GDP in both 2000 and 2001.

Slight rise in unemployment

After rising slightly from 1998 to 1999, it appears that employment will show little change in 2000 before edging up again in 2001. Two conflicting factors thus seem to be virtually offsetting each other: rising demand and thus stronger growth in mainland Norway are pushing up employment, while higher productivity is reducing it. The estimates indicate, however, some shift in employment, with a reduction in employment in manufacturing and an equivalent increase in employment in private and public services. In particular, employment in the production of ships and oil platforms is expected to fall markedly, primarily as a result of the sharp decline in petroleum investment both in 1999 and next year.

The labour supply is likely to show a slight rise, on a par with 1999, both in 2000 and 2001. This contrasts with the pronounced rise in recent years. Developments in the next two years thus appear to be in line with the level implied by demographic factors if labour force participation rates for both women and men in the various age groups remain stable. Stable employment and a slight rise in the labour supply will result in a modest increase in unemployment, but it appears that it will remain well below 4 per cent throughout the projection period. The decline in output and employment in some manufacturing sectors will contribute to considerable regional differences in labour market trends, which cannot be automatically captured in our projections for changes in unemployment. This may mean that labour market unbalances are underestimated in the calculations.

Lower price and wage inflation

Wage growth in 2000 and 2001 is expected to be appreciably lower than in 1999. The wage carry-over into 2000 is probably markedly lower than into 1999. On the other hand, the wage settlement next spring is a main settlement, which according to earlier experience may contribute to boosting wage growth. The macroeconomic projections point to a possible increase in unemployment, which in

isolation will push down wage growth. The situation in the labour market, however, will probably still be influenced by considerable regional and sectoral differences. In manufacturing industry, the favourable outlook for prices of industrial raw materials points to high wage growth, while sharply declining demand for investment goods from the petroleum sector will have the opposite effect. Developments in the labour market in other sectors are expected to exert upward pressures on wages. In the so called Arntsen Committee on wage settlements, most of the large labour market organizations agreed that attempts should be made to reduce wage growth in Norway to the level prevailing among our trading partners by 2000. It is conceivable that this consensus will contribute to relatively moderate wage growth. Wages per normal man-year are projected to rise by 3.6 per cent in 2000, a little more than the wage growth expected among our trading partners. Wage growth is expected to edge down, to a little more than 3 per cent, in 2001.

The price index for traditional merchandise imports is expected to increase by 1.7 per cent in 2000 following a decline of 2 per cent this year. Low world market prices for industrial raw materials particularly in the first half of 1999, which are reversed to a pronounced rise into 2000, are an important factor behind this increase. Import prices for more consumption-related goods are expected to rise at a noticeably slower pace. Lower wage growth and an improvement in productivity gains will contribute to reducing the rise in the consumer price index from 2.3 per cent in 1999 to 2.1 per cent in 2000 and 1.9 per cent in 2001. Rising energy prices are an important factor behind the rising rate of inflation towards the end of 1999 and will probably also mean that the rate of price inflation in 2000 will be highest at the beginning of the year.

Large current account surpluses the next few years

The current account balance is now likely to show an improvement of about NOK 50 billion from 1998 to1999. Given the estimates incorporated in this report, the increase in the surplus may be of approximately the same magnitude next year. Even though the oil price is expected to decline next year from the current high level, the average price for the year may be slightly higher in 2000 than in 1999. The average price in 2001 is assumed to be the same as in 1999. With a projected expansion in oil and gas exports in both 2000 and 2001, these price assumptions imply a considerable increase in the value of exports next year and an approximately unchanged level in 2001. Particularly next year, but also in 2001, developments in petroleum investment will curb import growth. As a share of GDP, the current account surplus may reach nearly 8 per cent in 2000 and more than 8 per cent in 2001. The corollary to the large surpluses is an increase in net financial assets for Norway, particularly for the central government. This will contribute to a marked decline in the deficit on the interest and transfers balance over the next few years. As a result of the high level of petroleum exports, the estimates for the current account are very sensitive to changes in the oil price, which has earlier proved to be an unstable variable.

Uncertainty

The picture described in this report implies that the Norwegian economy as a whole will record a very soft landing following a strong expansion through most of the 1990s. As in 1999, output growth in the mainland economy in 2000 will be noticeably lower than the estimated trend growth, but growth will pick up and approach the trend rate in 2001.

In the projections, the unemployment rate edges up from the low level in previous years, and stands at a good 3.5 per cent at the end of the period. At the same time, wage and price inflation are reduced to the level prevailing among our trading partners. Finally, money market rates – at the end of the period – are slightly higher than interest rates in the euro area.

As usual, the projections contain many uncertain elements. It is assumed that international market growth remains buoyant, without any substantial changes in interest rates or exchange rates. However, if the sustained period of vigorous growth in the US should suddenly come to an end, this could have a strong impact on both international market growth and interest rates. It is unlikely that growth among our important European trading partners could be maintained in this situation.

Petroleum investment is expected to show a continued sharp decline in 2000. This means that the Norwegian economy will still be marked by divergent growth rates in various parts of the business sector: some manufacturing sectors will record a considerable decline, while other manufacturing sectors and service industries will record appreciable growth. This will also be reflected in regional and occupational imbalances in the labour market. A continued moderate level of unemployment presupposes that the economy can, in a flexible manner, transfer resources from oil-related occupations and geographical areas to other parts of the Norwegian economy. Through the large gross flows that take place in the labour market during a year, this is not an impossible task, but KVARTS is not a suitable tool for commenting on the possibilities for such occupational and geographical adjustments. It is thus not inconceivable that the macroeconomic picture described above can be accompanied by higher unemployment than indicated by the calculations.

With regard to the projections for wages and prices, the uncertainty appears to be on the upside. In many occupations and sectors of the economy there appear to be expectations of wage growth far exceeding the level called for by e.g. the Artnsen Committee.

The current acount shows very high surpluses. This is in line with long-term projections for the Norwegian econo-

my in which oil wealth is transferred from the North Sea to financial investments abroad. KVARTS' description of interest rate formation implies that these surpluses can be compatible with a path whereby inflation and interest rates are approximately on a par with the euro level, while the exchange rate remains stable. We have little experience, however, in how large, *cumulative* surpluses, i.e. substantial foreign assets, may influence the relationship between the interest rate and the exchange rate in Norway.

The current acount surplus is based on an oil price estimate which many today would maintain is low, but which one year ago was considered unrealistically high. An oil price estimate of a little less than $20 a barrel appears, however, to be a level that OPEC will consider satisfactory in the longer term. This means that with a different oil price the cartel will probably adopt measures that will push prices to this level. This also means that price effects in relation to this level will probably be short-lived, but naturally still be of sufficient duration to allow deviations to create considerable disturbances in other markets. We nevertheless are of the view that the most interesting uncertainty in the oil price is on the downside. A sharp drop in oil prices will have a substantial influence on the current account surplus, and probably change expectations in foreign exchange and financial markets, as we witnessed one year ago. The effects of a correspondingly higher oil price will hardly be as great.

The last two elements of uncertainty point to higher interest rates compared with our assumptions. The opposite is the case, however, with the forecast's overall picture of an economy which, following a period of strong expansion, succeeds in achieving balanced economic growth, with an unemployment rate that is substantially lower than the level in most European countries, and government finances and a current account position with which no other European country can compare.

National accounts: Final expenditure and gross domestic product. 1997-1999
Seasonally adjusted. At fixed 1996 prices. Million kroner

	97.3	97.4	98.1	98.2	98.3	98.4	99.1	99.2	99.3
Final consumption exp. of housholds and NPISHs	127289	129234	129239	131491	131910	130916	132594	133027	134133
Household final consumption expenditure	121025	122966	122997	125272	125737	124778	126402	126786	127891
Goods	68791	70135	69992	71969	72278	70606	71630	71700	72654
Services	50546	51179	51273	51781	51824	52411	52747	53046	53330
Direct purchases abroad by resident households	5429	5474	5573	5349	5668	5660	5941	6154	5897
-Direct purchases by non-residents	-3741	-3822	-3841	-3827	-4033	-3900	-3916	-4115	-3989
Final consumption exp. of NPISHs	6263	6268	6242	6219	6173	6138	6192	6241	6242
Final consump. exp. of general government	53070	53862	54879	54721	55272	55567	55333	56410	56099
Final consump. exp. of central government	21009	21325	21911	21635	21849	21965	21964	21974	22068
Central government, civilian	15312	15528	16038	15843	16021	16089	16125	16083	16199
Central government, defence	5697	5797	5873	5792	5828	5876	5840	5891	5869
Final consump. exp. of local government	32060	32538	32968	33086	33424	33602	33369	34437	34031
Gross fixed capital formation	61206	63617	64855	65324	67786	70923	62892	59480	63963
Petroleum activities	14267	15534	14911	18236	19187	22256	17252	15788	16382
Ocean transport	2778	1978	4340	1485	2634	2442	1253	976	3717
Mainland Norway	44161	46106	45604	45603	45965	46225	44387	42715	43863
Mainland Norway ex.general government	35457	37288	36512	34992	36838	36396	34900	33768	34612
Manufacturing and mining	4470	5233	4629	4910	5709	5155	3949	3857	3873
Production of other goods	4142	3760	4309	3949	4024	3688	3682	3413	3875
Dwellings	7462	7466	7653	7491	7080	7221	7176	7073	7053
Other services	19384	20829	19921	18642	20025	20332	20093	19425	19812
General government	8704	8817	9091	10611	9127	9828	9487	8947	9251
Changes in stocks and stat. discrepancies	5346	6160	6954	8274	6839	6563	9447	4719	9501
Gross capital formation	66552	69777	71808	73598	74625	77486	72339	64199	73464
Final domestic use of goods and services	246911	252874	255926	259810	261808	263969	260266	253637	263696
Final demand from mainland Norway	224520	229202	229721	231816	233147	232708	232315	232153	234096
Final demand from general government	61774	62680	63970	65332	64400	65395	64820	65358	65350
Total exports	110162	110475	114258	110192	106234	109257	107754	109975	108623
Traditional goods	43234	42695	44282	42536	43603	43470	43189	43547	44700
Crude oil and natural gas	39203	40563	40971	38988	35794	38109	37189	37934	38109
Ships and platforms	2300	2133	3519	3340	1826	2033	2332	4019	567
Services	25425	25083	25486	25328	25011	25646	25044	24475	25247
Total use of goods and services	357073	363349	370184	370002	368042	373225	368020	363612	372319
Total imports	91449	93974	100567	98175	98089	103195	96629	93742	96018
Traditional goods	60017	63072	65267	66394	66188	66713	66320	62442	63026
Crude oil	437	348	634	422	490	437	429	601	586
Ships and oil platforms	5770	4587	8501	5081	5237	9568	2896	3374	5821
Services	25225	25967	26164	26278	26174	26478	26984	27324	26584
Gross domestic product	265624	269375	269617	271827	269952	270030	271391	269870	276302
Mainland Norway (market prices)	218637	221388	221951	225102	225562	224535	225681	225052	228978
Petroleum activities and ocean transport	46987	47987	47666	46724	44391	45495	45710	44818	47324
Mainland Norway (basic prices)	189496	191560	193236	195249	194899	196127	197199	197662	199820
Mainland Norway ex. general government	149368	150964	152304	154493	153688	154653	155988	155322	157917
Manufacturing and mining	29519	29886	29568	30302	30288	29978	29824	29136	29276
Production of other goods	21191	21145	21133	21354	21448	21351	21260	21396	22126
Service industries	98659	99934	101603	102837	101952	103325	104904	104790	106515
General government	40127	40596	40932	40756	41211	41473	41211	42340	41903
Correction items	29142	29828	28715	29853	30663	28409	28482	27390	29158

National accounts: Final expenditure and gross domestic product. 1997-1999
Seasonally adjusted. At fixed 1996 prices. Percentage volume change from previous period

	97.3	97.4	98.1	98.2	98.3	98.4	99.1	99.2	99.3
Final consumption exp. of housholds and NPISHs	0.7	1.5	0.0	1.7	0.3	-0.8	1.3	0.3	0.8
Household final consumption expenditure	0.7	1.6	0.0	1.8	0.4	-0.8	1.3	0.3	0.9
Goods	1.2	2.0	-0.2	2.8	0.4	-2.3	1.4	0.1	1.3
Services	-0.1	1.3	0.2	1.0	0.1	1.1	0.6	0.6	0.5
Direct purchases abroad by resident households	-0.6	0.8	1.8	-4.0	6.0	-0.1	5.0	3.6	-4.2
-Direct purchases by non-resident	-1.7	2.2	0.5	-0.4	5.4	-3.3	0.4	5.1	-3.1
Final consumption exp. of NPISHs	0.3	0.1	-0.4	-0.4	-0.7	-0.6	0.9	0.8	0.0
Final consump. exp. of general government	0.4	1.5	1.9	-0.3	1.0	0.5	-0.4	1.9	-0.6
Final consump. exp. of central government	0.4	1.5	2.7	-1.3	1.0	0.5	-0.0	0.0	0.4
Central government, civilian	0.5	1.4	3.3	-1.2	1.1	0.4	0.2	-0.3	0.7
Central government, defence	0.2	1.7	1.3	-1.4	0.6	0.8	-0.6	0.9	-0.4
Final consump. exp. of local government	0.3	1.5	1.3	0.4	1.0	0.5	-0.7	3.2	-1.2
Gross fixed capital formation	-3.2	3.9	1.9	0.7	3.8	4.6	-11.3	-5.4	7.5
Petroleum activities	-12.9	8.9	-4.0	22.3	5.2	16.0	-22.5	-8.5	3.8
Ocean transport	16.2	-28.8	119.4	-65.8	77.4	-7.3	-48.7	-22.1	280.7
Mainland Norway	-0.7	4.4	-1.1	-0.0	0.8	0.6	-4.0	-3.8	2.7
Mainland Norway ex.general government	2.5	5.2	-2.1	-4.2	5.3	-1.2	-4.1	-3.2	2.5
Manufacturing and mining	-10.0	17.1	-11.5	6.1	16.3	-9.7	-23.4	-2.3	0.4
Production of other goods	5.5	-9.2	14.6	-8.3	1.9	-8.4	-0.2	-7.3	13.5
Dwellings	0.7	0.1	2.5	-2.1	-5.5	2.0	-0.6	-1.4	-0.3
Other services	5.9	7.5	-4.4	-6.4	7.4	1.5	-1.2	-3.3	2.0
General government	-11.8	1.3	3.1	16.7	-14.0	7.7	-3.5	-5.7	3.4
Changes in stocks and stat. discrepancies	31.7	15.2	12.9	19.0	-17.3	-4.0	43.9	-50.0	101.3
Gross capital formation	-1.1	4.8	2.9	2.5	1.4	3.8	-6.6	-11.3	14.4
Final domestic use of goods and services	0.1	2.4	1.2	1.5	0.8	0.8	-1.4	-2.5	4.0
Final demand from mainland Norway	0.3	2.1	0.2	0.9	0.6	-0.2	-0.2	-0.1	0.8
Final demand from general government	-1.5	1.5	2.1	2.1	-1.4	1.5	-0.9	0.8	-0.0
Total exports	-0.6	0.3	3.4	-3.6	-3.6	2.8	-1.4	2.1	-1.2
Traditional goods	0.3	-1.2	3.7	-3.9	2.5	-0.3	-0.6	0.8	2.6
Crude oil and natural gas	-3.4	3.5	1.0	-4.8	-8.2	6.5	-2.4	2.0	0.5
Ships and platforms	-12.7	-7.2	65.0	-5.1	-45.3	11.3	14.7	72.4	-85.9
Services	3.7	-1.3	1.6	-0.6	-1.2	2.5	-2.3	-2.3	3.2
Total use of goods and services	-0.1	1.8	1.9	-0.0	-0.5	1.4	-1.4	-1.2	2.4
Total imports	-1.5	2.8	7.0	-2.4	-0.1	5.2	-6.4	-3.0	2.4
Traditional goods	-0.5	5.1	3.5	1.7	-0.3	0.8	-0.6	-5.8	0.9
Crude oil	16.8	-20.4	82.3	-33.5	16.1	-10.9	-1.8	40.1	-2.5
Ships and oil platforms	-13.6	-20.5	85.3	-40.2	3.1	82.7	-69.7	16.5	72.5
Services	-1.0	2.9	0.8	0.4	-0.4	1.2	1.9	1.3	-2.7
Gross domestic product	0.4	1.4	0.1	0.8	-0.7	0.0	0.5	-0.6	2.4
Mainland Norway (market prices)	1.6	1.3	0.3	1.4	0.2	-0.5	0.5	-0.3	1.7
Petroleum activities and ocean transport	-4.7	2.1	-0.7	-2.0	-5.0	2.5	0.5	-2.0	5.6
Mainland Norway (basic prices)	1.6	1.1	0.9	1.0	-0.2	0.6	0.5	0.2	1.1
Mainland Norway ex. general government	1.9	1.1	0.9	1.4	-0.5	0.6	0.9	-0.4	1.7
Manufacturing and mining	1.5	1.2	-1.1	2.5	-0.0	-1.0	-0.5	-2.3	0.5
Production of other goods	1.5	-0.2	-0.1	1.0	0.4	-0.5	-0.4	0.6	3.4
Service industries	2.1	1.3	1.7	1.2	-0.9	1.3	1.5	-0.1	1.6
General government	0.7	1.2	0.8	-0.4	1.1	0.6	-0.6	2.7	-1.0
Correction items	1.1	2.4	-3.7	4.0	2.7	-7.4	0.3	-3.8	6.5

National accounts: Final expenditure and gross domestic product. 1997-1999
Seasonally adjusted. Price indices. 1996 = 100

	97.3	97.4	98.1	98.2	98.3	98.4	99.1	99.2	99.3
Final consumption exp. of households and NPISHs	102.7	103.1	103.6	105.0	105.5	106.1	106.6	106.7	107.3
Final consumption exp. of general government	103.5	103.5	104.1	106.7	109.3	110.9	110.4	110.4	111.4
Gross fixed capital formation	103.2	103.2	105.5	106.4	107.3	106.7	107.3	108.9	108.6
Mainland Norway	101.5	101.8	103.5	104.9	105.8	106.4	106.6	108.0	108.1
Final domestic use of goods and services	102.7	103.0	104.2	106.1	106.5	107.1	106.9	109.2	108.2
Final demand from mainland Norway	102.6	102.9	103.7	105.4	106.5	107.3	107.5	107.8	108.4
Total exports	104.6	103.4	96.5	94.7	94.3	90.5	90.8	98.8	109.8
Traditional goods	101.8	102.8	101.4	102.4	101.3	100.9	99.5	100.7	102.1
Total use of goods and services	103.3	103.1	101.8	102.7	103.0	102.3	102.2	106.1	108.6
Total imports	103.8	102.2	102.9	103.5	103.3	101.7	101.0	102.1	102.0
Traditional goods	101.1	99.6	100.3	100.3	101.1	99.2	97.5	99.1	97.2
Gross domestic product	103.1	103.5	101.4	102.5	102.9	102.5	102.6	107.5	110.9
Mainland Norway (market prices)	103.0	104.2	104.3	106.7	108.1	109.2	108.3	109.9	110.5

National accounts: Final expenditure and gross domestic product. 1997-1999
Seasonally adjusted. Price indices. Percentage volume change from previous period.

	97.3	97.4	98.1	98.2	98.3	98.4	99.1	99.2	99.3
Final consumption exp. of households and NPISHs	0.2	0.4	0.5	1.3	0.5	0.6	0.5	0.0	0.5
Final consumption exp. of general government	1.2	-0.0	0.7	2.5	2.4	1.5	-0.5	-0.0	0.9
Gross fixed capital formation	1.4	-0.0	2.2	0.8	0.8	-0.5	0.6	1.4	-0.3
Mainland Norway	1.1	0.3	1.7	1.3	0.9	0.5	0.2	1.3	0.1
Final domestic use of goods and services	0.2	0.4	1.1	1.9	0.4	0.6	-0.3	2.2	-1.0
Final demand from mainland Norway	0.6	0.3	0.8	1.6	1.0	0.8	0.2	0.3	0.5
Total exports	4.7	-1.2	-6.6	-1.9	-0.4	-4.1	0.4	8.8	11.1
Traditional goods	4.4	1.0	-1.4	1.0	-1.1	-0.4	-1.4	1.2	1.4
Total use of goods and services	1.6	-0.1	-1.3	0.9	0.3	-0.7	-0.1	3.8	2.4
Total imports	3.4	-1.6	0.7	0.6	-0.2	-1.6	-0.7	1.1	-0.1
Traditional goods	3.2	-1.5	0.7	0.0	0.8	-2.0	-1.7	1.7	-1.9
Gross domestic product	1.0	0.4	-2.0	1.0	0.4	-0.4	0.1	4.8	3.2
Mainland Norway (market prices)	-0.0	1.2	0.0	2.4	1.2	1.0	-0.8	1.5	0.5

Technical comments on the quarterly figures

Quarterly calculations: The calculations are made on a less detailed level than the calculations for the annual national accounts, and are based on more simplified procedures.

Base year and chain linking of the data: In the quarterly national accounts (QNA) all volume measures are currently calculated at constant 1996 prices using weights from that year. The choice of base year influences the constant-price figures and thus the annual rates of change in volume (growth rates). For the sake of comparison, all tables present growth rates with 1996 as the base year (common year of recalculation). The recalculation of prices is carried out at the sectoral level of the quarterly national accounts.

Seasonal adjustment: Beginning with ES 3/99, seasonal adjustment of QNA figures is based on X12 ARIMA. In implementing the method, the sum of a seasonally adjusted series over the four quarters of a year is not constrained to equal the corresponding unadjusted annual figure.

What is the benefit of a good environment?

Some empirical examples

Hege Medin and Karine Nyborg

Cost-benefit analysis is a method whereby the advantages and disadvantages of public projects are compared by measuring all effects in money terms. It turns out, however, that the interests of some groups are given greater emphasis in the analysis when individual utility changes are measured in monetary units and then aggregated than would have been the case if another numéraire had been chosen for aggregation. On the basis of the data from seven contingent valuation studies, we have estimated the value of social benefits of some environmental projects, and studied whether these values change if we measure individual utility changes in units of the environmental good instead of money. The result is some considerable changes in social benefit estimates .

Public projects and conflicts of interest

Public projects in order to improve the environment will normally entail economic costs, which in some way or another must be distributed. In general, it is virtually impossible to ensure that the costs are distributed in such a way that those who derive the greatest benefit from an environmental measure are also those who pay the most for it. There will therefore often be conflicts of interest associated with public projects of this type. A rich, asthmatic environmentalist can, for example, derive considerable benefit from a measure to improve air quality even after having paid her share of the costs, while a healthy, poor person who is not particularly interested in the environment may find that the costs she has to pay are far from compensated by the environmental improvement.

Cost-benefit analysis is a method used to compare the advantages and disadvantages of public projects (see NOU 1997:27 and NOU 1998:16). In order to be able to compare the different effects, attempts are made to measure the importance of each effect in a common unit, in practice money. These amounts are then used to estimate to what extent the total social benefits of a project are greater than the costs. The principles used in the valuation naturally have a bearing on the conclusions reached. In order to place a value on effects that do not have a market price, for example changes in the environment, a sample of the population is often asked the maximum that they would be willing to pay in order to achieve (or avoid) the change. Willingness to pay is interpreted as a measure of the individual's utility of the environmental change, and the sum of all individuals' willingness to pay is interpreted as a measure of social welfare. If total benefits exceed total costs, it is often said that the project is socially efficient, or socially desirable. For such a project, those who have a net benefit can theoretically provide financial compensation to all those are worse off than previously, and still have a net benefit. In practice, however, it is very difficult to carry out this compensation. As a rule, socially desirable projects will also therefore involve conflicts of interest. Some will have a net benefit when the project is implemented, while others will view it as a disadvantage. In textbooks on cost-benefit analysis it has traditionally been maintained that the choice of money as the numéraire in cost-benefit analysis does not matter; all the effects could just as well have been measured in decibels or in grams of sulphur per cubic metre. The use of money as the numéraire has been based on practical considerations, but it has been thought that other units of measurement would have yielded exactly the same conclusion in terms of social desirability. Research in Statistics Norway, however, has shown that if there are conflicts of interest associated with a project, this is not always true. In an article published in the highly respected Journal of Public Economics in 1997, Kjell Arne Brekke showed that the choice of numéraire does indeed matter in cost-benefit analyses because the numéraire plays a role in determining the interests that are given more emphasis when individual welfare effects are aggregated.[1] The article was primarily theoretical, but also contained an empirical example based on a willingness to pay study for

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1 If financial compensation to those do not benefit from a project is actually carried out, a positive aggregate net willingness to pay will mean that everyone is better off than before. In that case there is no conflict of interest and the problem discussed here will be eliminated. Because such compensation is seldom implemented, we will disregard this possibility in the following.

cleaner air carried out by Strand (1985). In the example, Brekke found that the social value of a 50 per cent improvement in the quality of Oslo air was 22 times higher when money was used as the numéraire than if air quality had been used as the numéraire when aggregating individual utility, but then converting the total welfare effect to monetary units.

Compared with the traditional alternative, that of using money as the numéraire, the use of environmental units as the numéraire involves a different weighting of interests. Using money as the numéraire favours environmentalists who value money the least; using environmental units favours those who, in relative terms, value money the most, either because they are materialistic or because they are poor. If everybody is the equale, and are in agreement about most things, the difference is eliminated. The numéraire problem is essentially linked to the fact that when we are different, and have different interests, it is not easy to find a "neutral" basis for evaluating which interests are most important. A seemingly "technical" problem therefore turns out in this case to have politically interesting implications.

Brekke's article spurred a debate in economic circles (see Drèze 1998, Johansson 1998), but the discussion was primarily focused on the interpretation of the analysis. So far the validity of the main theoretical result has not been questioned: Aggregating individual net utility measured in money terms can result in a total sum with a different sign than would have been obtained by aggregating individual utility measured in (e.g.) units of an environmental good, ceteris paribus. Despite this, we are not yet aware of any published articles in which attempts are made to determine the empirical importance of the result: How important is this really? Is Brekke's example typical or will the problem normally be of only marginal importance?

In this article we present empirical calculations which show that in practice the problem can be considerable. The analysis below is based on Medin, Nyborg and Bateman (1998) and Medin (1999). We refer to these publications for a more detailed description of the assumptions and methods. We have used individual willingness to pay data from seven different contingent valuation studies as a basis for our analysis. The social benefit of the environmental change in each project (without deducting costs) is calculated on the basis of two main methods: either by using money or by using units of the environmental good as the numéraire when aggregating individual utility changes, but then converting the total figures to NOK in order to be able to compare the results. For some of the projects we have also calculated their social desirability after costs have been deducted, and in several alternatives a change in the numéraire means that the estimated social desirability of the entire project changes sign.

Comparison of utility: Measurement and measurability

In this section we will briefly explain the main features of the theory concerning the importance of the numéraire. Readers who are interested in a mathematical presentation are referred to the appendix, while more details may be found in Brekke (1997), Medin, Nyborg and Bateman (1998) and Medin (1999).

Individual willingness to pay is depicted in economic literature as a method of measuring individual utility changes. If Hansen is willing to pay NOK 100 for 50 per cent cleaner air, but only NOK 20 for preserving the river of Sauda, it must be because the first is more important to him. However, there is no basis for comparing this utility measure between individuals. Even though Hansen is willing to pay NOK 100 for cleaner air, while Jensen is only willing to pay NOK 50 for the same, it is not certain that Hansen has a greater benefit from cleaner air than Jensen. It may be the case, for example, that Jensen is so poor that he cannot afford more than NOK 50, while Hansen is so rich that money matters very little to him. If, for example, they both have to pay NOK 70 to have the measure implemented, Hansen will have a positive net willingness to pay of NOK 30, while Jensen will have a net loss corresponding to NOK 20. But if money is not as important to both of them, it is still conceivable that Jensen's utility loss is greater than Hansen's utility benefit – if it is to be at all meaningful to compare utility in this way.

If cost-benefit analysis is to be used to weigh someone's loss against another's benefit, however, interpersonal comparison of utility changes is unavoidable. This problem is usually solved by simply assuming that everybody has the same marginal utility of income.[2] Willingness to pay is then a comparable measure of utility changes, and those with the highest willingness to pay also have the highest welfare effect. The net social benefit of an environmental measure, i.e. the social welfare effect of a better environment minus costs, may then be calculated simply by aggregating net willingness to pay (individual willingness to pay for the environmental improvement minus the individual's share of the costs) for all individuals. (We obtain exactly the same result when we instead aggregate individual willingness to pay for the environmental improvement and then deduct total costs.)

In practice, it is extremely difficult to estimate the willingness to pay for environmental goods. The replies given are often largely influenced by details in the formulation of questions, it may be difficult to know how the respondents

2 Strictly speaking, it must be assumed that the social welfare effect is the same when any individual is given an additional unit of income. In this analysis we assume that those making decisions in society place the same emphasis on marginal utility changes for each individual (utilitarianism). Applying this assumption, there is no distinction between equal individual and social utility of income. The assumption concerning utilitarianism simplifies the analysis, but is not necessary for the reasoning.

have interpreted the willingness to pay question, and strategic responses may also appear. In this article we entirely disregard these problems, and assume that both willingness to pay for the environmental improvement and the total costs are known. In the following we will assume, for the sake of simplicity, that costs are shared equally among everyone.[3]

The simple procedure above, where utility changes are measured in money terns, is the one most commonly used in cost-benefit analysis. In order to allow the sum of net willingness to pay to be interpreted as a measure of the change in total social benefits, however, everyone must have the same marginal utility of income. But what if this does not hold true? If small changes in income actually matter very little to Hansen, but a great deal to Jensen, we will unintentionally place too great an emphasis on Hansen's interests by merely aggregating willingness to pay. An example may explain this: Assume, as in the example above, that a project for improving air quality will result in a higher tax of NOK 70 for both, and that Hansen's and Jensens's willingness to pay for cleaner air is, respectively, NOK 100 and NOK 50, so that their net willingness to pay is, respecively, 30 and minus NOK 20. Assume further that an extra krone will give Hansen and Jensen 1 and 2 utility units, respectively. This implies that the project will yield a net benefit of 30 utility units for Hansen, who is not particularly concerned about money. Money, however, means twice as much to Jensen, so for him a loss of NOK 20 corresponds to a utility loss of 40 utility units. The total net benefit is thus negative. If, however, we (incorrectly) assume that both have the same marginal utility of income, and use the sum of net willingness to pay as a measure of social welfare, we will conclude that the project is socially desirable because the sum of the willingness to pay was positive.

There is no generally accepted method for comparing the utility effect of increases in marginal income empirically, and it is therefore difficult to confirm or reject the assumption of equal marginal utility of income. We can, however, examine how sensitive the estimate for total net benefits is to changes in this assumption. We could, for example, replace this with a seemingly very similar assumption, i.e. that everybody has the same marginal utility of the environmental good. Under this assumption, different willingness to pay will be solely due to the fact that money is valued highly by some, but is of less importance to others. With equal marginal utility of income, on the other hand, all differences in willingness to pay must be ascribed to differing marginal utility of the environmental good. The assumption that everybody has the same marginal utility of the environmental good is as difficult to test as the assumption of equal marginal utility of income, but it might be interesting to see whether this influences the conclusions.

Let us now define a project as socially desirable measured in environmental units if the sum of individual net benefits, measured in environmental units, is positive. Assume that the project from the example above will result in an improvement in air quality of 50 per cent. We could now have asked Hansen and Jensen: "How much cleaner air must you have before you would be willing to pay NOK 70?" Call the answer to this question the individual's public good requirement, in this case an environmental good. Hansen, who recorded a positive benefit from the project, reports a public good requirement of 35 per cent. We can call the difference between the actual environmental improvement (50 per cent) and the public good requirement (35 per cent) his net environmental benefit, and here this will be 15 per cent.[4] This figure can be interpreted as a measure of his net benefit. Jensen, who does not think the improvement in air quality justifies the cost of NOK 70 reports a public good requirement of as much as 70 per cent, and thus records a negative net environmental benefit, i.e. minus 20 per cent. If both actually have the same marginal utility of an environmental good, we can find the total net social benefit simply by aggregating net environmental benefits. This will then be 15+(-20) = -5. When we measure individual utility in environmental units, we then obtain the result that the project is not socially desirable.

If everybody actually has the same marginal utility of income, individual utility changes shall be measured in money terms, and aggregation in monetary units will provide the correct answer. If everybody actually has same marginal utility of an environmental good, the environment good shall be used as the numéraire when measuring individual utility, and aggregation of net environmental benefits will provide the correct answer. However, if we assume that everybody has the same marginal utility of income, but this does not hold true, those with a high willingness to pay for environmental goods will be given too high a weight in the analysis. If we assume that everybody has the same marginal utility of the environmental good, but this is actually not the case, those with a low willingness to pay will be given too high a weight in the analysis. The truth is probably somewhere in between, but where we do not know. It is obvious, however, that the choice of method has implications for which group interests are given the greatest emphasis in the analysis. In general, we will primarily favour the interests of a person when the numéraire is of relatively little value to that person (see Brekke 1997).

The two measures above do not provide directly comparable measures of total utility changes since they are measured in different units. However, we can compare them by examining the maximum per person cost that would make the project socially desirable.[5] The choice of numéraire will in this context correspond to the choice of assumption

3 Other ways of distributing costs may change the results. See Medin (1999) and Brekke (1993).
4 Net environmental benefit can be deducted from individual willingness to pay, so in practice it is not necessayr to ask new questions if such data already exist.
5 See the appendix for a formal presentation.

of marginal utility, i.e. whether we assume that the marginal utility of income or the marginal utility of the environmental good is the same for everybody. If a project is to result in exactly zero net benefits with money as the numéraire (i.e. if everybody has the same marginal utility of income), the per person cost must be equal to average willingness to pay for the environmental improvement. Call this per person cost C*. Let us further denote C** as the per person cost that results in exactly zero net benefits when the environmental good is used as numéraire, i.e. when it is assumed that everybody has the same marginal utility of the environmental good.[6]

In order to compare the importance of this choice in practice, we shall in the next section study the size of C* in relation to C**. Both C* and C** are measured in monetary units, and both can be interpreted as a measure of the aggregate net welfare effect, but under different assumptions of individuals' marginal utility . We will call the ratio C*/C** the MAC ratio (for Maximum Acceptable Cost). If the MAC ratio is equal to 1, the choice of numéraire does not matter. If it is greater than 1, we will be able to accept higher per person costs if we use money as the numéraire than if we had measured utility changes in environmental units. When the MAC ratio is higher than 1, a given project, with given per person costs, will thus emerge as more desirable if we measure in monetary units than if we measure in environmental units.

Generally, the MAC ratio will always be higher or equal to 1 when costs are shared equally between individuals. If costs are distributed in other ways, there may be other groups that are better off or worse off as a result of the project, and we have other conflicts of interest. Because the importance of the numéraire is linked to different weighting of interests, this may result in different MAC ratios. See Brekke (1993) and Medin (1999) for further details concerning this.

Data and method

The studies used

We have used willingness to pay (WTP) data from seven contingent valuation studies with a total of 18 subsamples: Bateman et al. (1995), Bateman and Langford (1997), Bateman et al. (1997), Loomis (1987), Magnussen et al. (1997), Navrud (1993) and Strand and Wahl (1997). [7] In these studies, the social benefits of various environmental projects were estimated by asking a sample of the population about their willingness to pay for the projects and then aggregating individual willingness to pay. We have converted individual willingness to pay to individual public good requirements and then calculated the MAC ratio for each sample.[8]

Bateman et al. (1995) studied annual WTP to prevent flooding of a wetland area in East Anglia in Britain (Norfolk Broads). This is the largest of the studies used, with two subsamples of 846 and 2 051 completed interviews, respectively. Bateman and Langford (1997) studied WTP for conservation of the recreational facilities at Lynford Stag, a woodland site within the Thetford Forest in East Anglia. Bateman et al. (1997) estimated WTP for a beach protecting scheme at Caister, a coastal village in East Anglia.

Loomis (1987) is based on a study carried out in 1985. The study measured WTP for a reduction in the diversion rate of Mono Lake, one of California's largest lakes.

We have also used data from several Norwegian studies. Magnussen et al. (1997) examined annual WTP for increased environmental quality of two polluted watercourses: Gaustadvannet/Ånøyavassdraget in Melhus municipality (subsamples M1 and M2) and Langenvassdraget in Ski municipality (subsamples S1 and S2). Navrud (1993) measured WTP for maintaining the fish stock in the municipalities of Lindesnes and Adnedal in Vest-Agder county, while Strand and Wahl (1997) measured WTP for preventing a reduction in Oslo's municipal parks.

Interpretation of zero-bids

In calculations of aggregate willingness to pay (in money), just a few respondents with an unusually high willingness to pay may have a very considerable influence on the results. It is often assumed that such responses do not reflect the respondent's actual willingness to pay, but is e.g. an indication of strategic behaviour or a protest reaction to the willingness to pay question. A common approach in traditional cost-benefit analysis is therefore to omit them from the data set.

When the MAC ratios and thereby public good requirements are to be calculated, a similar problem arises for those respondents who report zero as their maximum willingness to pay (zero-bid). This respondent is not willing to pay anything for seeing the project implemented. Any minimal cost we force her to pay will therefore mean that she is worse off after the project has been implemented than before. If we interpret the zero-bid literally, i.e. that each environmental unit is worth nothing in money terms to this person, the reverse must also be true, i.e. each krone must be worth an infinite number of environmental units. The social welfare loss measured in environmental units caused by forcing this person to pay part of the costs of a project will therefore be infinite.

The change in net social welfare measured in environmental units will therefore also be an infinite and large negative figure, and no acceptable per person cost will exist. If

6 It can be shown (see appendix) that C** is equal to the inverse of the average of inverse willingness to pay.
7 See Medin, Nyborg and Bateman (1998) for a description of the various subsamples and discussion of possible methodological problems in using data from these studies.
8 See appendix.

Tabele 1. MAC ratios under different assumptions on zero-bids. Costs shared equally

Survey	N	Zero-bids in per cent of N	MAC ratio		
			Version 1	Version 2	Version 3
Bateman et al. (1995)					
Subsample 1	846	15	20 202	1 036	38
Subsample 2	2 051	15	22 434	1 129	11
Bateman og Langford (1997)					
Subsample 1	93	37	8 647	459	70
Subsample 2	90	63	378	20	6,7
Subsample 3	88	6,8	93	9,0	5,2
Subsample 4	80	16	5 894	350	83
Bateman et al. (1997)					
Subsample 1	143	18	11 598	687	169
Subsample 2	126	10	18 003	1 135	307
Loomis (1987)	78	17	82	6,3	3,2
Magnussen et al. (1997)					
Subsample M1	143	60	101	5,9	3,1
Subsample M2	139	59	34	2,4	2,1
Subsample S 1	139	47	97	5,9	2,9
Subsample S2	132	49	87	5,2	2,3
Navrud (1993)	161	32	806	42	4,2
Strand og Wahl (1997)					
Subsample 1	140	14	23	2,5	1,8
Subsample 2	140	13	30	2,8	1,8
Subsample 3	138	28	60	4,0	1,8
Subsample 4	145	21	69	4,9	2,3

N = Number of respondents
MAC ratio = Maximum acceptable per person cost that makes the project socially desirable when individual utility is measured in monetary units divided by maximum acceptable per person cost that makes the project desirable when individual utility is measured in units of the environmental good.
Version 1 = Zero-bids are set equal to 5 per cent of the lowest strictly positive bid in the survey.
Zero-bids are set equal to the lowest strictly positive bid in the survey.
Zero-bids are removed from the data set.

a valuation study contains at least one zero-bid, the project will never be socially desirable when environmental units are used as the numéraire for individual utility (!), given that the project results in a positive cost, and the MAC ratio is then not defined. If at least one respondent's willingness to pay approaches zero, the MAC ratio will go to infinity. The choice of numéraire is therefore extremely important.

However, one possible interpretation is that zero-bidders have a positive but very small willingness to pay. We have therefore calculated the MAC ratio using three different (somewhat arbitrarily selected) assumptions concerning zero-bids. Versions 1 and 2 are calculated on the assumption that zero-bidders actually have a low, but positive WTP, i.e. 5 per cent (version 1) and 100 per cent (version 2), respectively, of the lowest strictly positive bid reported.

In version 3, all zero-bids are omitted from the data set, which is equivalent to assuming that zero-bids actually should have been distributed in the same way as WTP in the rest of the sample. As noted above, the MAC ratio goes to infinity when at least one bid approaches zero. Version 3 is therefore the most conservative one in our study as we have omitted all of the lowest bids from the data.[9]

Empirical results

The empirical results of our study are shown in table 1. The first column shows the number of observations in each study (after removing "don't know" bids, but before zero-bids are eliminated). The second column shows the percentage of zero-bids in the sample. The third to fifth columns show versions 1, 2 and 3, respectively, of the MAC ratio in the various surveys.

9 Those who do not reply to the WTP question or say they don't know are often omitted from the data set in valuation studies or it is assumed that their WTP is equal to zero. The latter method is often used in order to avoid overestimating average WTP (see e.g. Navrud 1993, p. 22). Since WTP close to zero has a considerable effect on the problem that is being studied here, we have removed "don't know" responses from the data set when possible. This is equivalent to assuming that actual WTP for these respondents is distributed in the same way as the rest of the sample.

Tabell 2. Estimated average costs and gross benefit estimates from different valuation studies. All figures in NOK, except for results from Loomis (1987), which are shown in USD

	Costs	Gross benefit estimates (Costs not deducted)			
	C	Average willingness to pay	C** Version 1	C** Version 2	C** Version 3
Loomis (1987)	0.16	4.8	0.06	0.77	1.8
Magnussen m.fl. (1997), subsample S1	341 - 455	870	11	183	668
Magnussen m.fl. (1997), subsample S2	341 - 455	1 030	10	179	759
Navrud (1993), calculation A	116	670	1	17	252
Navrud (1993), calculation B	201	2 186	3	57	824
Strand og Wahl (1997), subsample 1	0.18 - 0,36	0.63	0.03	0.26	0.41
Strand og Wahl (1997), subsample 2	0.18 - 0,36	0.81	0.03	0.31	0.55
Strand og Wahl (1997), subsample 3	0.18 - 0,36	0.44	0.01	0.11	0.33
Strand og Wahl (1997), subsample 4	0.18 - 0,36	0.66	0.01	0.13	0.35

C = monthly (Loomis), annual (Magnussen et al., Strand and Wahl) or present value of (Navrud) per household costs (per person in Navrud's data).
Average willingness to pay = monthly (Loomis), annual (Magnussen et al., Strand and Wahl) or present value (Navrud) of average per household willingness to pay (per person in Navrud's data).
C** versions 1, 2 and 3 = maximum acceptable per household cost (Navrud: per person) calculated on the assumption of equal marginal utility of the environmental good; monthly (Loomis), annual (Magnussen et al., Strand and Wahl) or present value (Navrud). See footnote under table 1.

Version 3 of the MAC ratio, in which all zero-bids are omitted from the data, shows values varying between approximately 2 [all subsamples in Strand and Wahl (1997) and subsample S2 in Magnussen et al. (1997)] and 307 [subsample 2 in Bateman et al. (1997)]. Even the smallest MAC ratios thus indicate that the choice of numéraire is of considerable importance. A MAC ratio of 2 indicates that using environmental units as the numéraire instead of money halves the maximum acceptable cost which leaves the project socially desirable. In the study with the highest MAC ratio, the maximum acceptable per person cost varies with a factor of up to 307 if we assume equal marginal utility of the environmental good or equal marginal utility of income.

Versions 1 and 2 of the MAC ratio show ratios that are considerably higher than version 3. In version 2, the MAC ratio varies between 1 135 [subsample 2 in Batemal et al. (1997)] and 2.5 [subsample 1 in Strand and Wahl (1997)], while in version 2 it varies between 22 434 [subsample 2 in Bateman et al. (1995)] and 23 [subsample 1 in Strand and Wahl (1997)]. The results confirm that the MAC ratio is very sensitive to how we interpret zero-bids.

The second column shows that zero-bids account for a relatively high percentage of the samples. One reason for high MAC ratios may be considerable differences between reported WTP replies. The MAC ratios in Bateman et al. (1995), Bateman et al. (1997) and subsamples 1 and 4 in Bateman and Langford (1997) are considerably higher than those of the other surveys. In all of the three above-mentioned surveys, the lowest strictly positive WTP bid is very low in relation to the highest bid. In subsample 2 in Bateman et al. (1995), for example, the highest bid reported was £2 500, while the lowest strictly positive bid was £0.01 (a pence). With such data the net benefit of the person with the highest WTP is actually weighted 250.000 times more than the net benefit of the person with the lowest WTP when money is used as the numéraire, compared with the procedure of using environmental units as the numéraire. In subsample 1 in Strand and Wahl (1997), which is one of the samples with the lowest MAC ratios, the ratio between the highest and lowest bid is only 50. A considerable difference between the highest and lowest bid is a good indication of high MAC ratios even though the relationship is not clear-cut.

We have also made calculations where all zero-bids are removed, and where we also eliminate one very extreme (high or low) bid. Generally, the MAC ratio changes more if we remove the lowest strictly positive bid than if we omit the highest bid. In subsample 2 in Bateman et al. (1995), the MAC ratio was actually almost halved by removing a very low bid despite a sample size of nearly 2000 observations. One reason that some very low bids can have such a large influence on the results is that discussed in the section above: When a bid approaches zero, C** also approaches zero, and the MAC ratio goes to infinity.

Social desirability

In order to be able to calculate the social desirability of an environmental project, it is also necessary to know the costs in addition to willingness to pay. If we assume that everybody must actually pay the same cost C, the criterion for social desirability will be C* when we measure individual utility in money terms, and C** when individual utility is measured in environmental units.

Four of the studies we have examined contain cost estimates: Loomis (1987), subsamples S1 and S2 in Magnussen et al. (1997), Navrud (1993) and Strand and Wahl (1997). Let us therefore investigate whether the conclusions concerning social desirability change if we change the numéraire. When calculating C**, we need information not only about total costs, but also about the distribution of costs. In order to simplify the calculations we assume that the costs of the project would have been shared equally so that

everybody pays the same amount.[10] In the same way as for the MAC ratio we have calculated three different versions of C**, the maximum per person cost that leaves the project socially desirable when we use environmental units.[11]

When using the traditional method for calculating the change in net social benefits as a result of the project, i.e. by assuming that everybody has the same marginal utility of income, all projects were found to be socially desirable. In most cases the conclusions did not change by using the most conservative version of C** (version 3, i.e. the version where all zero-bids are removed). On the other hand, when the most extreme version is used (version 1), the conclusion changes in all the studies. For version 2, the results vary from sample to sample. Table 2 below shows the estimated per household or per person costs, the estimate for average WTP, and the three versions of the alternative benefit estimate C** from each of the four CV studies.

For the data presented in Loomis (1997), the alternative benefit estimates are greater than per household costs in all cases except when we use version 1 of C**. The conclusion concerning this project's social desirability is thus changed only when we apply our most extreme treatment of zero-bids.

The costs of the project studied by Magnussen et al. (1997) were uncertain, but were estimated at between NOK 341 and 445 per household. When we measure individual utility in environmental units, the project remains desirable when we use version 3 of C**, i.e. when all zero-bids are removed from the data. However, when we use versions 1 and 2 of C**, the conclusion concerning social desirability changes in both subsamples.

In Navrud (1993), the present value of the change in social welfare as a result of the project is calculated using different assumptions concerning social discount rates, the time horizon, and estimates of the increase in the relative value of the environmental good. Altogether 12 cost-benefit calculations were made. All methods of calculation concluded that the project was socially desirable. In the table, we show per person costs, average WTP, and versions 1, 2 and 3 of C** calculated at present values. Calculation A corresponds to the method used by Navrud (1993) which gave the lowest social present value of the project, with a time horizon of 10 years, an annual discount rate of 7 per cent, and no increase in the relative value of the environmental good. Calculation B corresponds to Navrud's alternative that gave the highest net present value, with a discount rate of 5 per cent, a time horizon of 30 years and an annual 2 per cent increase in the relative value of the environmental good. The conclusion concerning the project's social desirability does not change either in A or B when version 3 of C** is used. However, when using versions 1 or 2 of C**, the present value of per person costs is greater than the present value of the welfare estimates in both A and B, and the project can therefore no longer be considered socially desirable.

In Strand and Wahl (1987), the estimate of actual costs (C) depends on whether a discount rate of 7 per cent (C=0.35) or 3.5 per cent (C=0.18) is used. The conclusion concerning the project's social desirability changes for all subsamples and both discount rates when we use version 1 of C**. When using version 2 of C**, the conclusion changes for subsamples 3 and 4, while the conclusion will depend on the discount rate for the other two samples. For version 3 of C**, the project is socially desirable for subsamples 1 and 2. For subsamples 3 and 4, the project is desirable if, when calculating the costs, a discount rate of 3.5 per cent is used, but not if the discount rate is set at 7 per cent.

Conclusions

In order to weight the advantages of public projects against the disadvantages we must be able to compare different individuals' utility changes. Economic theory provides little guidance on this subject. In cost-benefit analysis, however, it is common to assume equal marginal utility of income. If this assumption is correct, we can use the sum of all individuals' net willingness to pay, i.e. the sum of changes in individual utility measured in money terms as a measure of the effect of the environmental change on social welfare.

In this article we have studied the consequences of replacing the assumption above with another, seemingly similar assumption, notably equal marginal utility of an environmental good. Using this assumption we can measure social welfare as the sum of all individuals' utility, measured in units of environmental goods. These two alternative assumptions will entail a systematically different emphasis on the interests of some groups (Brekke, 1997): Those who have a high willingness to pay for the environmental good will be relatively best off with the first assumption, which corresponds to common practice in cost-benefit analysis.

Our analysis shows that the estimates of the net social welfare effect of an environmental project can be very sensitive to the assumption chosen. The results, however, are highly dependent on how one treats respondents who report that they are not willing to pay anything at all to achieve an environmental change. In contingent valuation studies there are as a rule many such respondents, and if these replies are interpreted literally this has an extreme impact on the results when equal marginal utility of the environmental good is assumed.

The assumptions of equal marginal utility of income and equal marginal utility of the environmental good are probably both unreasonable. Nor has the point of this study been to argue that one assumption or the other is the correct one.

10 Distributing costs differently might have resulted in different conclusions concerning the projects' desirability.

11 In C** versions 1 and 2, all zero-bids are assumed to correspond to 5 and 100 per cent, respectively, of the lowest strictly positive bid in the sample, while C** version 3 is estimated by removing all zero-bids from the data set.

Our purpose has rather been to point out that a comparison of interpersonal utility, as this is done in cost-benefit analysis, is far from being a trivial matter. The choice of method may have decisive consequences for which interest groups are given the greatest emphasis, and thereby unintentionally favouring some groups instead of others.

In applied cost-benefit analysis it is individual willingness to pay that is aggregated. Against the background of the analysis above, it is important to be aware that aggregate willingness to pay is not the same as aggregate utility. We simply do not know whether total net willingness to pay is a reasonable measure of total utility or not. At this time economic research is not able to give us a complete answer to this question, and a solid portion of sound judgement will therefore still be necessary in order to be able to interpret the results of a cost-benefit analysis.

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Appendix

Mathematical presentation of the importance of the numéraire in the valuation of environmental goods

Assume a consumer i with the following utility function, where E is an environmental good and Y_i is the consumer's income:

(A1) $U_i = u_i(E, Y_i)$

The increase in E as a result of the project is marginal and equal to dE. (See Medin et al., 1998, for a discussion of the case with non-marginal projects). The cost person i must pay as a result of the project, C, is the same for everybody. The individual's utility change as a result of the project will then yield

(A2) $dU_i = u_{iE}dE - u_{iY}C$

where u_{iE} and u_{iY} are, respectively, the marginal utility of the environmental good and income. We divide by the

marginal utility of income and find that the utility change is proportional to net willingness to pay:

(A3) $dU_i / u_{iY} = (u_{iE} / u_{iY})dE - C$

where the expression in brackets is i's marginal willingness to pay for the environmental good. (A3) can be interpreted as a monetary measure of the consumer's utility change.

Alternatively, we can divide dU_i by the marginal utility of the environmental good, and then find that the utility change is proportional to net environmental benefits, i.e. the environmental improvement actually experienced by the consumer (dE) less the cost she must pay (C) weighted by the consumer's valuation of income in relation to the environment (u_{iY}/u_{iE}), the inverse of the consumer's marginal willingness to pay:

(A4) $dU_i / u_{iE} = dE - (u_{iY} / u_{iE})C$

This can be considered a measure of the individual's net benefit, measured in environmental units. We see that if we know the individual's willingness to pay for a marginal unit of the environmental good (u_{iY}/u_{iE}), as well as dE and C, we can calculate both utility measures.

Assume for the sake of simplicity that we want to give the same weight to everybody's interests, i.e. we have a utilitarian welfare function:

(A5) $$W = \sum_{i=1}^{n} U_i$$

where W is social welfare. We shall now calculate the change in social welfare as a result of the project:

(A6) $$dW = \sum_{i=1}^{n} dU_i = \sum_{i=1}^{n} (u_{iE}dE - u_{iY}C)$$

However, we have no information about u_{iY} or u_{iE}. But if we assume that everybody has the same marginal utility of income, i.e. $u_{iY}=u_Y$, we can divide both sides of the equal sign by this, and then have

(A7) $$\frac{dW}{u_Y} = \sum_{i=1}^{n} [(u_{iE}/u_Y)\, dE - C]$$

This is aggregate net willingness to pay, which traditionally has been used as a welfare measure in cost-benefit analysis, i.e. the measure of changes in social welfare we obtain by aggregating individual willingness to pay measured in money terms. As we see, this welfare measure presupposes that everybody has the same marginal utility of income.

Alternatively, we can assume that everybody has the same marginal utility of the environmental good, i.e. $u_{iE}=u_E$, and divide both sides of (A6) by this. We then have

(A8) $$\frac{dW}{u_E} = \sum_{i=1}^{n} [dE - (u_{iY}/u_E)C]$$

This is the sum of individual net environmental benefits, and corresponds to what we obtain when we aggregate individuals' valuation of the project measured in environmental units. This procedure thus presupposes that everybody has the same marginal utility of the environmental good.

The two welfare measures we have derived are not directly comparable because they are measured in different units. We can, however, compare them indirectly by using for each welfare measure the highest acceptable per person cost, given that the project shall be socially desirable (Brekke 1997; Medin, Nyborg and Bateman 1998). The per person cost (C) that gives exactly $dW/u_Y=0$ we can call C*. From equation (A7) we then have

(A9) $$C^* = \frac{1}{n} \left(\sum_{i=1}^{n} \frac{u_{iE}}{u_{iY}}\right) dE$$

We see that C* is equal to average willingness to pay. If the per person cost is greater than the average willingness to pay, the project will then not be desirable when we measure individual utility in monetary units.

The per person cost that gives exactly $dW/u_E=0$ we will call C**. We then have from equation (A8) that

(A10) $$C^{**} = \frac{n}{\left(\sum_{i=1}^{n} \frac{u_{iY}}{u_{iE}}\right)} dE$$

As we see, C** is equal to the inverse of the average inverse willingness to pay. If the per person cost is higher than this, the project will not be desirable when we measure individual utility in environmental units.

The importance of choice of numéraire can be analyzed with the help of the ratio of C* to C**. Call this ratio the MAC ratio (Maximum Acceptable Cost):

(A11) MAC-brøken = $$\frac{C^*}{C^{**}} = \frac{1}{n^2} \left(\sum_{i=1}^{n} \frac{u_{iE}}{u_{iY}}\right) \cdot \left(\sum_{i=1}^{n} \frac{u_{iY}}{u_{iE}}\right)$$

If C*>C**, the MAC ratio will be greater than 1. Then, we can accept higher per person costs when we measure individual utility in monetary units than when we use environmental units as the aggregation unit.

Research publications in English

New titles

Discussion Papers

Tom Kornstad and Thor O. Thoresen:
Means-testing the Child Benefit
DP no. 262, 1999. 26 pages.

Improving the distributional impact of transfers may be costly if it reduces labour supply. In this paper we show how effects of changes in the design of the child benefit programme can be examined by deriving information from behavioural and non-behavioural simulations on micro data. The direct distributional effects are assessed by tax-benefit model calculations. Female labour supply responses to alternative child benefit schemes are simulated under the assumption that choices are discrete. The discrete choice model is justified with reference to the complicated process of finding a new job, and the existence of peaks in the empirical distribution of hours is interpreted as variation in number of jobs across states. The distribution of income after labour supply responses is also shown. The analysis confirms that enhanced distributional impact is traded against reductions in labour supply.

Brita Bye and Karine Nyborg:
The Welfare Effects of Carbon Policies: Grandfathered Quotas versus Differentiated Taxes
DP no. 261, 1999. 27 pages.

Recently, it has been demonstrated that pre-existing distortionary taxes can substantially increase the costs of market-based instruments which do not raise revenue, such as non-auctioned emissions quotas. Revenue-raising market-based policy tools, such as carbon taxes, encounter other problems: The redistribution of property rights implied by introduction of such instruments is politically controversial, and in practice, tax rates are often differentiated to reduce political resistance. In the latter case, marginal abatement costs are not equalized between polluters. When comparing a policy with differentiated carbon taxes to a policy of free-issued quotas, financed through distortionary taxes, it is thus not obvious which alternative yields the highest social welfare.

In this paper, we use a numerical intertemporal general equilibrium model for the Norwegian economy to compare the welfare effects of a differentiated carbon tax regime, exemplified by the current Norwegian carbon tax structure; a system of grandfathered tradable emission permits; and a uniform carbon tax regime. Grandfathered tradable quotas yield substantially lower welfare than the other two alternatives. However, differentiated taxes produce almost as high welfare as uniform taxes.

Thor O. Thoresen and Karl Ove Aarbu:
Income Responses to Tax Changes – Evidence from the Norwegian Tax Reform
DP no. 260, 1999. 25 pages.

Several studies, conducted on U.S. data, have found rather strong income responses to changes in marginal tax rates, when treating tax reforms as "natural experiments" and applying the differences-of-differences estimator on individual income data. The Norwegian tax reform of 1992 implied substantial increases in the net-of-tax rate (1 minus the change in the marginal tax rate) for high-income earners, and this paper provides measures of the elasticity of taxable income with respect to these tax rate changes. The natural experiment assumption of the differences-of-differences approach is discussed. Since the tax reform implied other tax changes and both demographic variables and shifting macroeconomic conditions might impact on income growth, we include other explanatory variables in addition to the net-of-tax rate changes. When including other explanatory variables, tax elasticity estimates are affected, but only modestly. Our estimates of the elasticity of taxable income due to changes in the marginal net-of-tax rate range from about -0.20 to about 0.14.

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Reprints no. 141, 1999. 22 pages.

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Documents

Li-Chun Zhang and Joseph Sexton:
ABC of Markov chain. Monte Carlo
Documents 1999/18, 1999. 88 pages.

Markov chain Monte Carlo (MCMC) has been one of the most active research and application areas for statistical methods of data analysis in the recent decade. Strongly rooted and influenced by the Bayesian statistical inference approach, the MCMC provides means of dealing with complicated models which are dicult, if not impossible, to handle otherwise. However, sampling/simulation based inference need not be restricted to Bayesian posterior calculations alone (which involve Monte Carlo methods). In some ways, Markov chain sampling can be compared to re-sampling under Bootstrap. Whereas Bootstrap resampling is either directed at the non-parametric empirical distribution of the sample, or the estimated parametric model, Markov chain sampling can in principle be targeted at any functions, including the likelihood and the posterior distribution. In both cases, what we do with the re-samples makes up the statistical inference, whereas how we get the specied/required samples is more of a numerical/technical issue. We therefore consider Markov chain sampling and Monte Carlo approximation two separate matters. In particular, Markov chain sampling provides us with inferential possibilities, Bayesian or not, which liberate the statisticians from numerical poverty, allowing applications to ever more complex situations.

This note has been designed as an introduction to the subject of Markov chain Monte Carlo. The three chapters deal with, respectively, Monte Carlo, Markov chain theory (relevant for Markov chain sampling), and Markov chain Monte Carlo. But we hope that it will be more than just an introduction. The materials have been organized so as to allow quick look-up of the various details. A number of examples, based on real-life data sets including the Norwegian Labour Force survey, have been worked out, and the relevant Splus codes included. In this way, even the skilled user may find it helpful as desk-reference.

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Appendix

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National accounts for Norway

Table A1. Final expenditure and gross domestic product. At current prices. Million kroner

	1997	1998	97:4	98:1	98:2	98:3	98:4	99:1	99:2	99:3
Final consumption exp. of households and NPISHs	520 850	550 826	142 519	126 124	134 661	141 338	148 702	134 107	137 087	146 630
Household of final consumption expenditure	495 175	523 936	135 983	119 612	128 053	134 509	141 762	127 252	130 207	139 592
Goods	282 650	298 334	81 691	66 892	72 307	75 264	83 871	70 922	71 383	76 974
Services	206 825	218 862	52 014	51 729	54 465	57 486	55 182	54 745	57 363	60 770
Direct purchases abroad by resident households	21 367	23 481	5 174	4 218	5 354	8 139	5 771	4 976	6 013	8 396
Direct purchases by non-residents	-15 667	-16 741	-2 896	-3 227	-4 072	-6 380	-3 062	-3 392	-4 552	-6 549
Final consumption exp of NPISHs[1]	25 675	26 889	6 536	6 511	6 608	6 830	6 941	6 855	6 880	7 038
Final consumption exp of general government	218 223	237 644	55 817	57 020	58 256	60 599	61 769	60 777	62 233	62 677
Final consumption exp of central government	86 359	93 416	22 047	22 734	22 975	23 692	24 015	23 871	24 038	24 372
Central government, civilian	62 893	68 545	16 078	16 664	16 837	17 407	17 637	17 583	17 614	17 934
Central government, defence	23 466	24 871	5 969	6 070	6 138	6 285	6 378	6 288	6 424	6 438
Final consumption exp. of local government	131 864	144 228	33 770	34 286	35 281	36 907	37 754	36 906	38 195	38 305
Gross fixed capital formation	254 190	286 467	70 587	64 281	68 446	72 808	80 932	63 281	63 668	69 398
Petroleum activities	62 421	81 992	16 736	16 050	20 459	21 261	24 221	18 489	17 986	18 235
Ocean transport	10 877	11 455	2 125	4 807	1 555	2 686	2 408	1 311	1 028	3 668
Mainland Norway	180 892	193 020	51 725	43 423	46 433	48 861	54 303	43 481	44 653	47 495
Mainland Norway excl. general goverment	142 943	152 276	40 982	34 982	36 379	39 106	41 809	34 156	35 820	37 334
Manufacturing and mining	19 094	21 176	6 348	3 714	5 033	5 940	6 489	3 182	3 950	4 026
Production of other goods	16 054	16 680	3 964	3 525	4 518	4 567	4 070	2 890	4 033	4 403
Dwelling service	30 336	31 629	8 229	7 824	7 817	7 757	8 231	7 986	7 804	7 941
Other services	77 459	82 791	22 441	19 919	19 011	20 843	23 019	20 098	20 033	20 964
General government	37 949	40 744	10 743	8 441	10 054	9 755	12 494	9 325	8 833	10 161
Changes in stocks and stat. discrepancies	18 670	29 664	4 248	12 225	7 458	6 362	3 620	11 541	7 472	9 178
Gross capital formation	272 860	316 131	74 834	76 505	75 904	79 170	84 552	74 822	71 140	78 576
Final domestic use of goods and services	1 011 933	1 104 600	273 171	259 649	268 822	281 107	295 023	269 705	270 460	287 883
Final demand from Mainland Norway[2]	919 965	981 489	250 061	226 567	239 350	250 798	264 774	238 365	243 973	256 803
Final demand from general government[3]	256 172	278 388	66 560	65 461	68 310	70 354	74 263	70 102	71 066	72 838
Total exports	448 631	414 077	114 966	111 926	102 821	99 418	99 911	98 958	107 342	118 188
Traditional goods	169 238	176 763	45 210	46 407	42 443	42 348	45 564	43 878	42 991	43 779
Crude oil and natural gas	163 674	118 304	41 909	35 444	29 947	25 988	26 925	27 916	34 144	43 605
Ships and oil platforms	10 761	10 977	2 337	3 632	3 499	1 887	1 959	2 236	3 978	551
Services	104 958	108 033	25 510	26 443	26 932	29 195	25 463	24 928	26 229	30 253
Total use of goods and services	1 460 564	1 518 677	388 137	371 575	371 643	380 525	394 934	368 664	377 802	406 072
Total imports	371 532	411 595	99 318	100 541	100 102	102 647	108 305	94 181	94 203	99 647
Traditional goods	238 922	265 171	66 368	64 779	65 593	64 951	69 848	63 696	61 086	59 619
Crude oil	1 448	1 313	333	446	288	316	263	255	472	619
Ships and oil platforms	26 043	29 516	5 010	9 334	5 362	5 374	9 446	2 906	3 479	5 827
Services	105 119	115 595	27 607	25 982	28 859	32 006	28 748	27 324	29 166	33 582
Gross domestic product[4]	1 089 032	1 107 082	288 819	271 034	271 541	277 878	286 629	274 483	283 599	306 425
Mainland Norway(market prices)	893 308	961 583	238 430	228 727	234 763	244 473	253 620	240 067	242 872	253 658
Petroleum activities and ocean transport	195 724	145 499	50 389	42 307	36 778	33 405	33 009	34 415	40 728	52 766
Mainland Norway (basic prices)	773 731	836 936	204 966	200 747	202 926	213 685	219 578	212 181	212 766	219 658
Mainland Norway excl. general government	607 604	656 156	162 327	157 678	158 808	167 453	172 216	165 717	164 809	171 490
Manufacturing and mining	120 214	131 538	32 608	32 855	32 566	31 666	34 452	32 670	32 058	30 148
Production of other goods	86 806	94 659	24 456	23 381	19 725	25 975	25 578	25 011	20 750	26 965
Services industries	400 583	429 959	105 263	101 443	106 517	109 812	112 187	108 036	112 001	114 377
General government	166 127	180 780	42 639	43 069	44 117	46 233	47 362	46 465	47 957	48 168
Correction items	119 577	124 647	33 464	27 980	31 837	30 787	34 042	27 886	30 106	34 000

1 NPISH: Non-profit institutions serving households
2 Defined as total final consumption expenditure plus gross fixed capital formation in Mainland Norway
3 Defined as final consumption expenditure plus gross fixed capital formation
4 Gross domestic product is measured at market prices, while value added by industry is measured at basic prices

Table A2. Final expenditure and gross domestic product. At constant 1996-prices. Million kroner

	1997	1998	97:4	98:1	98:2	98:3	98:4	99:1	99:2	99:3
Final consumption exp. of households and NPISHs	508 333	524 158	138 413	121 439	128 189	134 123	140 407	126 256	127 904	136 572
Household of final consumption expenditure	483 336	499 386	132 125	115 185	121 990	127 962	134 249	120 050	121 684	130 343
Goods	274 979	285 468	79 488	64 288	68 987	71 962	80 231	67 492	66 931	72 470
Services	202 106	207 313	50 241	49 757	51 682	54 350	51 524	51 038	53 108	55 869
Direct purchases abroad by resident households	21 438	22 286	5 152	4 190	5 123	7 666	5 307	4 622	5 737	7 960
Direct purchases by non-residents	-15 188	-15 680	-2 755	-3 049	-3 802	-6 016	-2 812	-3 102	-4 092	-5 956
Final consumption exp of NPISHs[1]	24 997	24 772	6 287	6 254	6 199	6 161	6 157	6 206	6 220	6 230
Final consumption exp of general government	212 600	220 437	53 855	54 909	54 795	55 170	55 563	55 351	56 519	55 981
Final consumption exp of central government	84 263	87 361	21 326	21 911	21 642	21 840	21 968	21 961	21 984	22 058
Central government, civilian	61 339	63 992	15 529	16 038	15 849	16 012	16 092	16 122	16 093	16 189
Central government, defence	22 924	23 369	5 797	5 873	5 792	5 828	5 876	5 840	5 891	5 869
Final consumption exp. of local government	128 338	133 076	32 529	32 998	33 153	33 329	33 595	33 389	34 535	33 922
Gross fixed capital formation	248 804	268 965	68 359	61 192	64 031	67 891	75 852	59 039	58 409	63 887
Petroleum activities	59 342	74 581	15 729	14 733	18 376	19 001	22 471	16 831	16 218	16 220
Ocean transport	10 234	10 901	1 978	4 340	1 485	2 634	2 442	1 253	976	3 717
Mainland Norway	179 228	183 483	50 652	42 119	44 169	46 255	50 939	40 955	41 214	43 950
Mainland Norway excl. general goverment	141 890	144 865	40 180	33 931	34 540	37 131	39 263	32 312	33 127	34 714
Manufacturing and mining	19 097	20 544	6 266	3 675	4 876	5 735	6 258	3 084	3 786	3 856
Production of other goods	15 972	15 960	3 928	3 417	4 329	4 349	3 864	2 768	3 799	4 171
Dwelling service	29 483	29 299	7 891	7 460	7 276	7 093	7 470	7 170	6 881	6 895
Other services	77 338	79 062	22 096	19 379	18 059	19 954	21 670	19 292	18 662	19 793
General government	37 339	38 618	10 472	8 188	9 629	9 124	11 677	8 642	8 087	9 236
Changes in stocks and stat. discrepancies	18 808	28 608	4 297	11 547	7 178	5 921	3 962	11 548	6 687	8 521
Gross capital formation	267 612	297 573	72 657	72 739	71 209	73 811	79 815	70 587	65 096	72 408
Final domestic use of goods and services	988 545	1 042 168	264 924	249 087	254 193	263 104	275 784	252 194	249 519	264 961
Final demand from Mainland Norway[2]	900 161	928 078	242 919	218 468	227 153	235 548	246 909	222 562	225 637	236 503
Final demand from general government[3]	249 939	259 055	64 326	63 097	64 424	64 294	67 239	63 993	64 606	65 217
Total exports	437 915	440 221	111 339	115 485	108 704	105 560	110 471	108 723	108 520	107 691
Traditional goods	168 360	174 043	44 059	45 620	41 604	41 636	45 183	44 194	42 681	42 751
Crude oil and natural gas	159 905	153 893	41 217	41 519	38 582	35 033	38 759	37 789	37 504	37 144
Ships and oil platforms	10 205	10 718	2 133	3 519	3 341	1 825	2 032	2 331	4 022	565
Services	99 446	101 566	23 930	24 827	25 177	27 066	24 497	24 409	24 313	27 231
Total use of goods and services	1 426 460	1 482 389	376 263	364 572	362 897	368 664	386 256	360 916	358 040	372 651
Total imports	366 394	399 893	97 044	98 066	97 062	98 720	106 044	93 806	93 157	96 591
Traditional goods	241 256	264 327	66 500	64 854	65 659	63 865	69 949	65 513	62 523	60 552
Crude oil	1 609	1 983	348	634	422	490	437	429	601	586
Ships and oil platforms	24 267	28 387	4 587	8 501	5 081	5 237	9 568	2 896	3 374	5 821
Services	99 263	105 196	25 609	24 077	25 900	29 128	26 091	24 967	26 659	29 631
Gross domestic product[4]	1 060 066	1 082 496	279 219	266 506	265 835	269 944	280 211	267 111	264 883	276 060
Mainland Norway(market prices)	869 717	898 249	229 689	218 162	219 584	227 173	233 329	220 652	220 501	230 597
Petroleum activities and ocean transport	190 349	184 247	49 530	48 344	46 250	42 771	46 882	46 459	44 382	45 464
Mainland Norway (basic prices)	753 342	780 289	197 307	191 482	190 439	196 058	202 310	194 370	193 750	200 864
Mainland Norway excl. general government	592 969	615 921	156 702	150 540	149 619	154 943	160 819	153 155	151 314	159 077
Manufacturing and mining	116 898	120 117	30 819	30 788	29 996	28 408	30 925	30 444	29 371	27 525
Production of other goods	82 896	85 513	22 804	21 087	17 366	23 966	23 093	21 092	17 308	24 561
Services industries	393 176	410 291	103 079	98 664	102 257	102 569	106 801	101 619	104 635	106 990
General government	160 373	164 368	40 605	40 942	40 820	41 115	41 491	41 215	42 437	41 788
Correction items	116 375	117 960	32 383	26 680	29 145	31 115	31 019	26 282	26 751	29 732

1 NPISH: Non-profit institutions serving households
2 Defined as total final consumption expenditure plus gross fixed capital formation in Mainland Norway
3 Defined as final consumption expenditure plus gross fixed capital formation
4 Gross domestic product is measured at market prices, while value added by industry is measured at basic prices

Table A3. Final expenditure and gross domestic product.
Percentage change in volume from the same period in the previous year

	1997	1998	97:4	98:1	98:2	98:3	98:4	99:1	99:2	99:3
Final consumption exp. of households and NPISHs	3.7	3.1	4.3	4.2	3.4	3.6	1.4	4.0	-0.2	1.8
Household of final consumption expenditure	3.8	3.3	4.4	4.5	3.6	3.9	1.6	4.2	-0.3	1.9
Goods	3.6	3.8	4.7	5.1	4.4	5.5	0.9	5.0	-3.0	0.7
Services	3.1	2.6	3.3	3.2	2.4	2.2	2.6	2.6	2.8	2.8
Direct purchases abroad by resident households	8.6	4.0	10.0	6.5	3.0	3.9	3.0	10.3	12.0	3.8
Direct purchases by non-residents	-1.8	3.2	2.5	-1.1	1.2	7.6	2.1	1.7	7.6	-1.0
Final consumption exp of NPISHs[1]	1.4	-0.9	1.8	0.3	-0.4	-1.5	-2.1	-0.8	0.3	1.1
Final consumption exp of general government	2.8	3.7	3.0	3.9	3.6	4.1	3.2	0.8	3.1	1.5
Final consumption exp of central government	2.3	3.7	2.7	4.3	3.4	4.0	3.0	0.2	1.6	1.0
Central government, civilian	1.6	4.3	1.9	5.0	4.0	4.6	3.6	0.5	1.5	1.1
Central government, defence	4.3	1.9	4.9	2.3	1.8	2.3	1.4	-0.6	1.7	0.7
Final consumption exp. of local government	3.2	3.7	3.2	3.7	3.6	4.2	3.3	1.2	4.2	1.8
Gross fixed capital formation	15.1	8.1	7.3	8.4	2.2	10.7	11.0	-3.5	-8.8	-5.9
Petroleum activities	15.6	25.7	-0.6	15.7	10.0	34.1	42.9	14.2	-11.7	-14.6
Ocean transport	71.1	6.5	-10.6	40.6	-37.9	-5.2	23.5	-71.1	-34.2	41.1
Mainland Norway	12.8	2.4	10.9	3.7	1.4	4.2	0.6	-2.8	-6.7	-5.0
Mainland Norway excl. general goverment	11.5	2.1	12.6	8.2	-0.2	3.9	-2.3	-4.8	-4.1	-6.5
Manufacturing and mining	6.8	7.6	14.5	6.2	0.1	27.4	-0.1	-16.1	-22.4	-32.8
Production of other goods	8.2	-0.1	-2.5	7.2	-1.3	-2.7	-1.6	-19.0	-12.3	-4.1
Dwelling service	8.2	-0.6	8.0	7.9	1.5	-5.5	-5.3	-3.9	-5.4	-2.8
Other services	14.7	2.2	17.0	8.9	-0.7	3.7	-1.9	-0.4	3.3	-0.8
General government	18.1	3.4	4.8	-11.5	7.5	5.4	11.5	5.5	-16.0	1.2
Changes in stocks and stat. discrepancies	18.9	52.1	..	122.8	38.3	43.1	-7.8	0.0	-6.8	43.9
Gross capital formation	15.3	11.2	14.5	18.0	4.9	12.7	9.9	-3.0	-8.6	-1.9
Final domestic use of goods and services	6.4	5.4	6.6	7.8	3.8	6.1	4.1	1.2	-1.8	0.7
Final demand from Mainland Norway[2]	5.2	3.1	5.3	4.1	3.0	3.9	1.6	1.9	-0.7	0.4
Final demand from general government[3]	4.9	3.6	3.3	1.6	4.1	4.3	4.5	1.4	0.3	1.4
Total exports	5.7	0.5	3.6	8.0	-1.3	-3.6	-0.8	-5.9	-0.2	2.0
Traditional goods	8.0	3.4	7.9	14.2	-3.3	0.7	2.6	-3.1	2.6	2.7
Crude oil and natural gas	2.1	-3.8	1.6	2.9	-3.4	-8.8	-6.0	-9.0	-2.8	6.0
Ships and oil platforms	11.5	5.0	-28.6	12.2	26.8	-20.6	-4.7	-33.8	20.4	-69.0
Services	7.2	2.1	3.8	5.4	2.7	-1.4	2.4	-1.7	-3.4	0.6
Total use of goods and services	6.2	3.9	5.7	7.9	2.3	3.2	2.7	-1.0	-1.3	1.1
Total imports	12.0	9.1	6.3	17.6	3.8	6.8	9.3	-4.3	-4.0	-2.2
Traditional goods	8.1	9.6	9.3	18.2	6.3	9.9	5.2	1.0	-4.8	-5.2
Crude oil	17.0	23.3	-42.4	41.0	12.9	12.1	25.5	-32.4	42.4	19.6
Ships and oil platforms	37.2	17.0	-41.2	17.6	-24.0	-9.2	108.6	-65.9	-33.6	11.2
Services	17.0	6.0	16.2	15.5	4.7	3.8	1.9	3.7	2.9	1.7
Gross domestic product[4]	4.3	2.1	5.5	4.7	1.7	1.9	0.4	0.2	-0.4	2.3
Mainland Norway(market prices)	4.4	3.3	5.7	5.7	2.6	3.4	1.6	1.1	0.4	1.5
Petroleum activities and ocean transport	3.7	-3.2	4.2	0.4	-2.3	-5.6	-5.3	-3.9	-4.0	6.3
Mainland Norway (basic prices)	4.1	3.6	5.1	6.3	2.7	2.9	2.5	1.5	1.7	2.5
Mainland Norway excl. general government	4.6	3.9	5.8	7.3	2.8	3.0	2.6	1.7	1.1	2.7
Manufacturing and mining	2.8	2.8	4.8	8.3	-0.2	2.9	0.3	-1.1	-2.1	-3.1
Production of other goods	5.6	3.2	10.0	9.1	0.6	2.0	1.3	0.0	-0.3	2.5
Services industries	4.9	4.4	5.3	6.6	4.0	3.3	3.6	3.0	2.3	4.3
General government	2.2	2.5	2.3	2.8	2.3	2.6	2.2	0.7	4.0	1.6
Correction items	6.8	1.4	10.1	1.6	2.3	6.4	-4.2	-1.5	-8.2	-4.4

1 NPISH: Non-profit institutions serving households
2 Defined as total final consumption expenditure plus gross fixed capital formation in Mainland Norway
3 Defined as final consumption expenditure plus gross fixed capital formation
4 Gross domestic product is measured at market prices, while value added by industry is measured at basic prices

Table A4. Final expenditure and gross domestic product. Percentage change in prices from the same period in the previous year

	1997	1998	97:4	98:1	98:2	98:3	98:4	99:1	99:2	99:3
Final consumption exp. of households and NPISHs	2.5	2.6	1.7	1.9	2.6	2.8	2.9	2.3	2.0	1.9
Household of final consumption expenditure	2.4	2.4	1.7	1.9	2.5	2.6	2.6	2.1	1.9	1.9
Goods	2.8	1.7	1.6	1.0	1.9	2.0	1.7	1.0	1.8	1.6
Services	2.3	3.2	2.1	2.8	3.0	3.3	3.4	3.2	2.5	2.8
Direct purchases abroad by resident households	-0.3	5.7	0.9	5.4	5.0	4.6	8.3	6.9	0.3	-0.6
Direct purchases by non-residents	3.2	3.5	3.2	3.8	3.1	3.6	3.6	3.3	3.9	3.7
Final consumption exp of NPISHs[1]	2.7	5.7	2.3	3.1	4.3	6.9	8.4	6.1	3.8	1.9
Final consumption exp of general government	2.6	5.0	2.1	3.0	4.0	5.7	7.3	5.7	3.6	1.9
Final consumption exp of central government	2.5	4.3	2.0	3.0	3.9	4.7	5.7	4.8	3.0	1.9
Central government, civilian	2.5	4.5	2.3	2.9	4.0	5.0	5.9	5.0	3.0	1.9
Central government, defence	2.4	4.0	1.2	3.1	3.7	3.6	5.4	4.2	2.9	1.7
Final consumption exp. of local government	2.7	5.5	2.1	3.0	4.1	6.4	8.2	6.4	3.9	2.0
Gross fixed capital formation	2.2	4.3	2.1	5.3	4.8	3.8	3.3	2.0	2.0	1.3
Petroleum activities	5.2	4.5	5.6	6.8	6.3	4.3	1.3	0.8	-0.4	0.5
Ocean transport	6.3	-1.1	7.2	10.6	-0.4	-10.0	-8.2	-5.6	0.6	-3.2
Mainland Norway	0.9	4.2	0.9	4.1	4.3	4.2	4.4	3.0	3.1	2.3
Mainland Norway excl. general goverment	0.7	4.3	0.6	4.4	4.6	4.1	4.4	2.5	2.7	2.1
Manufacturing and mining	-0.0	3.1	0.4	2.5	3.9	3.7	2.3	2.1	1.1	0.8
Production of other goods	0.5	4.0	-0.2	4.3	4.1	3.4	4.4	1.2	1.7	0.5
Dwelling service	2.9	4.9	3.8	3.8	4.7	5.7	5.7	6.2	5.6	5.3
Other services	0.2	4.6	-0.4	5.1	4.9	3.9	4.6	1.4	2.0	1.4
General government	1.6	3.8	2.0	2.8	3.0	4.6	4.3	4.7	4.6	2.9
Changes in stocks and stat. discrepancies	-0.7	4.5	-84.8	8.6	0.2	11.4	-7.6	-5.6	7.5	0.3
Gross capital formation	2.0	4.2	-0.1	5.6	4.4	4.3	2.9	0.8	2.5	1.2
Final domestic use of goods and services	2.4	3.5	1.3	3.2	3.4	3.8	3.7	2.6	2.5	1.7
Final demand from Mainland Norway[2]	2.2	3.5	1.6	2.6	3.3	3.8	4.2	3.3	2.6	2.0
Final demand from general government[3]	2.5	4.8	2.0	3.0	3.9	5.5	6.7	5.6	3.7	2.1
Total exports	2.4	-8.2	-1.4	-4.9	-5.6	-9.8	-12.4	-6.1	4.6	16.5
Traditional goods	0.5	1.0	1.4	3.3	3.5	-0.6	-1.7	-2.4	-1.3	0.7
Crude oil and natural gas	2.4	-24.9	-9.1	-19.2	-20.4	-29.1	-31.7	-13.5	17.3	58.3
Ships and oil platforms	5.4	-2.9	8.1	1.0	0.9	-4.2	-12.0	-7.0	-5.5	-5.7
Services	5.5	0.8	8.0	5.1	0.1	0.7	-2.5	-4.1	0.8	3.0
Total use of goods and services	2.4	0.1	0.5	0.6	0.8	-0.2	-0.9	0.2	3.0	5.6
Total imports	1.4	1.5	1.1	4.0	2.9	-0.1	-0.2	-2.1	-1.9	-0.8
Traditional goods	-1.0	1.3	-0.9	3.0	2.2	0.2	0.1	-2.7	-2.2	-3.2
Crude oil	-10.0	-26.4	-15.8	-22.7	-17.2	-29.2	-37.1	-15.4	15.1	63.8
Ships and oil platforms	7.3	-3.1	8.6	7.1	-1.4	-8.4	-9.6	-8.6	-2.3	-2.5
Services	5.9	3.8	5.1	6.1	6.2	1.6	2.2	1.4	-1.8	3.1
Gross domestic product[4]	2.7	-0.4	0.3	-0.5	0.0	-0.2	-1.1	1.0	4.8	7.8
Mainland Norway(market prices)	2.7	4.2	1.9	3.3	4.1	4.8	4.7	3.8	3.0	2.2
Petroleum activities and ocean transport	2.8	-23.2	-6.7	-16.9	-19.9	-25.6	-30.8	-15.4	15.4	48.6
Mainland Norway (basic prices)	2.7	4.4	2.9	2.5	3.8	6.9	4.5	4.1	3.1	0.3
Mainland Norway excl. general government	2.5	4.0	2.9	2.3	3.5	6.7	3.4	3.3	2.6	-0.3
Manufacturing and mining	2.8	6.5	7.2	7.2	5.3	8.6	5.3	0.6	0.5	-1.7
Production of other goods	4.7	5.7	2.7	2.0	7.8	10.0	3.3	6.9	5.5	1.3
Services industries	1.9	2.9	1.6	0.8	2.2	5.5	2.9	3.4	2.8	-0.1
General government	3.6	6.2	3.2	3.2	5.0	7.6	8.7	7.2	4.6	2.5
Correction items	2.8	2.8	-4.1	9.7	5.7	-8.3	6.2	1.2	3.0	15.6

1 NPISH: Non-profit institutions serving households
2 Defined as total final consumption expenditure plus gross fixed capital formation in Mainland Norway
3 Defined as final consumption expenditure plus gross fixed capital formation
4 Gross domestic product is measured at market prices, while value added by industry is measured at basic prices

Table A5. Production. At current prices. Million kroner

	1997	1998	97:4	98:1	98:2	98:3	98:4	99:1	99:2	99:3
Total production	1 800 699	1 852 071	472 385	454 745	458 147	462 971	476 208	461 739	471 842	493 243
Agriculture and hunting	25 451	25 925	5 390	4 708	5 204	10 527	5 486	4 597	5 224	9 891
Forestry and logging	3 339	3 153	587	608	1 150	497	898	643	859	762
Fishing and fish farming	17 828	20 208	5 170	4 545	4 977	4 832	5 854	5 060	4 642	4 945
Oil and gas extraction incl. services	200 046	149 128	52 014	43 088	38 190	33 838	34 012	36 008	41 587	54 307
Oil and gas extraction	186 236	135 698	48 197	39 637	34 508	30 294	31 259	32 467	38 523	50 790
Service activities incidental to oil and gas ext.	13 810	13 431	3 818	3 452	3 681	3 544	2 754	3 542	3 064	3 517
Mining and quarrying	5 609	5 726	1 472	1 366	1 523	1 431	1 407	1 327	1 370	1 499
Manufacturing	401 573	418 943	106 551	106 548	104 391	100 214	107 790	104 688	101 244	97 446
Food products, beverages and tobacco	91 510	93 919	23 933	23 584	23 848	22 590	23 897	23 084	21 811	20 979
Textiles,wearing apparel, leather	5 910	5 663	1 491	1 496	1 434	1 242	1 490	1 443	1 309	1 039
Wood and wood products	16 704	16 691	4 790	4 523	4 329	3 995	3 844	3 892	4 028	3 677
Pulp, paper and paper products	18 708	19 783	4 995	4 970	4 844	5 013	4 955	5 001	4 722	4 636
Publishing, printing, reproduction	29 704	30 951	7 988	7 815	7 607	7 375	8 153	7 478	7 575	7 365
Refined petroleum products	19 842	16 355	4 968	4 399	3 764	4 358	3 833	3 762	3 299	5 534
Basic chemicals	20 316	21 166	5 166	5 508	5 501	5 104	5 053	5 336	4 880	5 104
Chemical and mineral products	30 985	30 765	7 665	7 697	7 665	7 468	7 935	7 702	7 850	7 105
Basic metals	36 806	39 308	9 598	10 034	10 008	9 613	9 653	9 483	9 593	9 701
Machinery and other equipment n.e.c.	83 084	90 827	22 986	22 982	22 450	20 947	24 448	23 962	23 044	20 499
Building of ships, oil platforms and moduls	36 294	40 864	9 630	10 147	9 925	9 673	11 120	10 358	10 213	9 257
Furniture and other manufacturing n.e.c.	11 708	12 650	3 341	3 392	3 016	2 835	3 408	3 186	2 920	2 550
Electricity and gas supply	32 846	33 300	9 982	10 147	7 110	6 725	9 318	10 095	7 111	7 026
Construction	123 596	134 209	33 933	32 206	33 212	33 583	35 209	33 580	34 446	34 913
Service industries excl.general government	749 572	800 915	195 701	188 893	198 463	204 938	208 621	198 793	206 890	213 415
Wholesale and retail trade	159 158	168 644	45 253	38 934	40 889	42 547	46 274	40 468	39 928	41 572
Hotels and restaurants	31 507	34 357	8 098	7 318	8 602	9 638	8 800	7 779	9 288	10 176
Transport via pipelines	14 091	14 485	3 807	3 712	3 432	3 285	4 057	3 934	3 683	3 892
Water transport	68 256	68 699	17 051	17 363	17 098	17 519	16 719	15 804	16 508	17 773
Ocean transport	63 019	63 128	15 753	16 091	15 666	15 999	15 372	14 507	14 975	16 196
Inland water and costal transport	5 237	5 571	1 298	1 272	1 432	1 520	1 347	1 297	1 533	1 576
Other transport activities	97 889	102 814	23 777	23 235	26 219	27 866	25 494	24 503	28 740	29 792
Post and telecommunications	34 470	36 420	9 607	8 580	9 014	8 672	10 154	9 718	10 231	9 508
Financial intermediation	54 649	58 250	13 739	13 777	14 591	13 984	15 897	15 322	15 758	15 653
Dwelling services	80 940	83 835	20 557	20 684	20 891	21 077	21 182	21 396	21 773	21 936
Business services etc.	116 855	134 048	30 199	31 017	33 207	35 182	34 642	33 992	35 185	36 789
Personal services	91 757	99 363	23 611	24 272	24 520	25 169	25 401	25 875	25 798	26 323
General government	240 839	260 564	61 584	62 636	63 928	66 386	67 614	66 948	68 469	69 038
Central government	85 121	91 285	21 731	22 212	22 447	23 154	23 472	23 430	23 594	23 918
Civilian central government	61 517	66 773	15 728	16 228	16 394	16 962	17 189	17 260	17 284	17 598
Defence	23 604	24 512	6 003	5 984	6 053	6 192	6 283	6 170	6 310	6 320
Local government	155 718	169 279	39 853	40 424	41 481	43 232	44 142	43 518	44 875	45 120
Mainland Norway	1 523 543	1 625 330	400 810	391 854	400 859	409 849	422 767	407 289	411 598	418 848
Market producers	1 448 307	1 475 418	382 356	363 757	365 475	367 091	379 095	365 459	373 575	393 783
Non-market producers	352 392	376 653	90 029	90 988	92 672	95 880	97 113	96 280	98 268	99 460
Education	56 662	61 121	14 499	14 696	15 113	15 434	15 878	15 616	16 304	15 798
Health and social work	107 656	118 653	27 661	28 345	29 041	30 416	30 850	30 763	31 263	32 052

Table A6. Production. At constant 1996-prices. Million kroner

	1997	1998	97:4	98:1	98:2	98:3	98:4	99:1	99:2	99:3
Total production	1 758 855	1 803 521	458 402	446 686	447 251	446 096	463 488	448 810	447 559	453 491
Agriculture and hunting	24 840	25 208	5 422	4 573	4 987	10 146	5 502	4 544	5 080	9 811
Forestry and logging	3 256	3 131	554	603	1 141	493	893	646	863	779
Fishing and fish farming	17 693	17 949	4 856	4 158	4 114	4 469	5 207	4 168	3 870	4 913
Oil and gas extraction incl. services	193 106	184 562	50 384	48 731	46 603	42 773	46 456	46 436	44 423	45 618
Oil and gas extraction	181 102	174 748	47 138	46 078	44 032	40 299	44 339	43 725	42 098	42 965
Service activities incidental to oil and gas ext.	12 004	9 815	3 246	2 653	2 571	2 474	2 117	2 711	2 325	2 653
Mining and quarrying	5 364	5 321	1 376	1 267	1 396	1 351	1 307	1 229	1 293	1 377
Manufacturing	395 539	404 425	103 790	103 864	100 833	96 115	103 613	102 576	97 922	93 283
Food products, beverages and tobacco	89 426	88 335	22 972	22 621	22 391	20 954	22 369	21 945	20 791	20 086
Textiles,wearing apparel, leather	5 937	5 693	1 509	1 507	1 462	1 229	1 496	1 423	1 295	1 031
Wood and wood products	16 008	16 002	4 569	4 340	4 150	3 807	3 704	3 796	3 951	3 580
Pulp, paper and paper products	20 225	20 217	5 327	5 210	4 987	5 043	4 976	5 109	4 838	4 755
Publishing, printing, reproduction	28 802	29 021	7 731	7 447	7 134	6 851	7 588	7 264	7 194	6 854
Refined petroleum products	19 370	18 622	4 818	4 772	4 301	5 037	4 512	4 872	3 656	5 256
Basic chemicals	20 242	21 183	5 176	5 479	5 491	5 102	5 111	5 389	4 960	5 083
Chemical and mineral products	30 848	30 772	7 694	7 751	7 678	7 476	7 867	7 732	7 699	7 083
Basic metals	36 663	38 573	9 369	9 590	9 680	9 451	9 853	9 913	10 010	9 673
Machinery and other equipment n.e.c.	81 243	85 713	22 145	22 098	21 356	19 557	22 702	22 476	21 415	19 123
Building of ships, oil platforms and moduls	35 115	37 857	9 186	9 695	9 243	8 832	10 087	9 510	9 247	8 255
Furniture and other manufacturing n.e.c.	11 659	12 438	3 295	3 353	2 960	2 777	3 348	3 147	2 866	2 503
Electricity and gas supply	31 439	32 929	9 486	9 287	7 100	7 181	9 362	9 473	7 539	7 847
Construction	120 140	124 266	32 533	30 704	30 928	30 691	31 943	30 064	30 278	30 229
Service industries excl.general government	733 280	764 681	190 689	183 369	190 189	192 580	198 543	188 917	194 335	198 230
Wholesale and retail trade	156 156	164 266	44 405	38 004	39 918	40 839	45 505	39 046	38 413	40 255
Hotels and restaurants	30 446	31 741	7 588	6 849	7 922	9 151	7 819	6 942	8 167	9 350
Transport via pipelines	13 862	13 673	3 771	3 608	3 339	3 051	3 675	3 652	3 383	3 442
Water transport	63 247	65 367	15 611	16 103	16 059	16 267	16 938	16 351	15 642	16 135
Ocean transport	58 196	60 104	14 366	14 889	14 712	14 846	15 657	15 128	14 237	14 702
Inland water and costal transport	5 051	5 263	1 246	1 214	1 347	1 422	1 281	1 223	1 404	1 433
Other transport activities	96 099	97 980	23 530	22 365	24 872	26 302	24 442	22 529	26 293	27 328
Post and telecommunications	34 798	37 726	9 701	8 726	9 363	9 014	10 623	10 105	11 093	10 554
Financial intermediation	57 469	59 347	14 676	15 138	15 165	13 341	15 703	16 141	16 448	15 197
Dwelling services	79 018	79 933	19 838	19 901	19 952	20 004	20 077	20 140	20 197	20 257
Business services etc.	113 567	123 629	29 040	29 650	30 877	31 952	31 151	30 894	31 777	32 703
Personal services	88 617	91 019	22 529	23 027	22 723	22 659	22 610	23 116	22 922	23 008
General government	234 198	241 049	59 312	60 130	59 960	60 298	60 661	60 757	61 958	61 405
Central government	83 000	85 194	20 991	21 393	21 100	21 299	21 402	21 521	21 521	21 547
Civilian central government	59 939	62 151	15 159	15 602	15 386	15 554	15 609	15 786	15 732	15 780
Defence	23 061	23 043	5 832	5 791	5 714	5 745	5 793	5 735	5 789	5 767
Local government	151 198	155 855	38 321	38 737	38 860	38 998	39 259	39 236	40 437	39 858
Mainland Norway	1 493 692	1 545 182	389 882	379 458	382 597	385 427	397 700	383 594	385 517	389 729
Market producers	1 415 312	1 452 209	371 551	359 097	359 829	358 049	375 235	360 565	358 022	364 168
Non-market producers	343 544	351 312	86 851	87 589	87 422	88 047	88 253	88 245	89 537	89 323
Education	55 094	56 966	13 948	14 130	14 251	14 174	14 410	14 236	14 840	14 165
Health and social work	104 574	108 714	26 557	27 190	27 169	27 203	27 152	27 627	28 092	28 159

Table A7. Production. Percentage change in volume from the same period in the previous year

	1997	1998	97:4	98:1	98:2	98:3	98:4	99:1	99:2	99:3
Total production	4.2	2.5	4.8	5.6	1.6	2.0	1.1	0.5	0.1	1.7
Agriculture and hunting	1.1	1.5	-1.7	2.2	-3.7	3.9	1.5	-0.6	1.9	-3.3
Forestry and logging	0.9	-3.9	-33.1	-20.3	-15.9	-16.4	61.1	7.2	-24.4	57.9
Fishing and fish farming	4.5	1.4	6.8	3.1	-1.7	-3.2	7.2	0.3	-5.9	9.9
Oil and gas extraction incl. services	3.0	-4.4	3.9	-0.5	-3.0	-6.4	-7.8	-4.7	-4.7	6.7
Oil and gas extraction	1.1	-3.5	2.8	0.7	-2.3	-6.6	-5.9	-5.1	-4.4	6.6
Service activities incidental to oil and gas ext.	43.9	-18.2	21.0	-17.2	-13.7	-3.8	-34.8	2.2	-9.6	7.2
Mining and quarrying	2.9	-0.8	-0.4	6.1	-2.7	-0.6	-5.0	-3.1	-7.4	1.9
Manufacturing	2.7	2.2	4.4	7.5	-0.5	2.5	-0.2	-1.2	-2.9	-2.9
Food products, beverages and tobacco	0.7	-1.2	1.4	2.8	-2.5	-2.6	-2.6	-3.0	-7.1	-4.1
Textiles,wearing apparel, leather	-1.4	-4.1	-7.9	2.3	-12.6	-4.2	-0.9	-5.6	-11.4	-16.1
Wood and wood products	7.3	-0.0	13.6	17.7	7.3	-2.0	-18.9	-12.5	-4.8	-6.0
Pulp, paper and paper products	4.4	-0.0	8.2	6.4	-1.9	2.5	-6.6	-1.9	-3.0	-5.7
Publishing, printing, reproduction	-1.7	0.8	0.9	5.4	1.5	-1.8	-1.8	-2.5	0.8	0.0
Refined petroleum products	2.8	-3.9	-1.7	-0.9	-8.7	0.2	-6.4	2.1	-15.0	4.3
Basic chemicals	2.3	4.6	2.5	7.6	6.7	5.6	-1.3	-1.6	-9.7	-0.4
Chemical and mineral products	3.1	-0.2	-0.5	1.6	-10.0	6.8	2.3	-0.2	0.3	-5.3
Basic metals	3.2	5.2	4.9	4.1	2.1	9.8	5.2	3.4	3.4	2.4
Machinery and other equipment n.e.c.	5.5	5.5	7.4	12.9	2.4	4.7	2.5	1.7	0.3	-2.2
Building of ships, oil platforms and moduls	1.3	7.8	11.5	14.5	2.4	4.7	9.8	-1.9	0.0	-6.5
Furniture and other manufacturing n.e.c.	8.2	6.7	8.4	24.4	-2.1	5.0	1.6	-6.2	-3.2	-9.9
Electricity and gas supply	6.5	4.7	27.3	17.7	-0.6	3.7	-1.3	2.0	6.2	9.3
Construction	9.2	3.4	10.5	9.6	5.1	1.7	-1.8	-2.1	-2.1	-1.5
Service industries excl.general government	4.8	4.3	4.2	6.1	3.5	3.5	4.1	3.0	2.2	2.9
Wholesale and retail trade	5.1	5.2	6.0	9.0	3.8	6.3	2.5	2.7	-3.8	-1.4
Hotels and restaurants	7.6	4.3	10.8	7.6	4.3	2.8	3.0	1.4	3.1	2.2
Transport via pipelines	-1.2	-1.4	-1.1	1.1	0.8	-5.0	-2.5	1.2	1.3	12.8
Water transport	2.8	3.4	-1.4	3.8	-1.2	2.6	8.5	1.5	-2.6	-0.8
Ocean transport	2.4	3.3	-2.1	3.3	-1.4	2.5	9.0	1.6	-3.2	-1.0
Inland water and costal transport	7.0	4.2	6.9	10.0	0.9	3.9	2.8	0.8	4.3	0.8
Other transport activities	7.0	2.0	6.7	3.5	-1.8	2.6	3.9	0.7	5.7	3.9
Post and telecommunications	6.2	8.4	7.7	6.3	8.7	8.9	9.5	15.8	18.5	17.1
Financial intermediation	2.1	3.3	-2.7	9.1	5.1	-8.0	7.0	6.6	8.5	13.9
Dwelling services	1.0	1.2	1.1	1.1	1.1	1.2	1.2	1.2	1.2	1.3
Business services etc.	9.2	8.9	7.0	9.2	9.2	9.8	7.3	4.2	2.9	2.4
Personal services	3.1	2.7	3.8	5.0	4.2	1.4	0.4	0.4	0.9	1.5
General government	3.1	2.9	3.3	3.3	2.9	3.2	2.3	1.0	3.3	1.8
Central government	2.7	2.6	3.2	3.2	2.4	3.0	2.0	0.6	2.0	1.2
Civilian central government	2.0	3.7	2.4	4.4	3.4	4.1	3.0	1.2	2.2	1.5
Defence	4.5	-0.1	5.2	0.2	-0.1	0.3	-0.7	-1.0	1.3	0.4
Local government	3.3	3.1	3.3	3.3	3.2	3.4	2.4	1.3	4.1	2.2
Mainland Norway	4.4	3.4	5.2	6.6	2.3	3.1	2.0	1.1	0.8	1.1
Market producers	4.5	2.6	5.2	6.3	1.4	1.9	1.0	0.4	-0.5	1.7
Non-market producers	2.7	2.3	2.9	2.7	2.3	2.4	1.6	0.7	2.4	1.4
Education	3.2	3.4	3.7	3.3	3.1	3.8	3.3	0.7	4.1	-0.1
Health and social work	3.9	4.0	4.4	5.1	5.0	3.5	2.2	1.6	3.4	3.5

Table A8. Production. Percentage change in prices from the same period in the previous year

	1997	1998	97:4	98:1	98:2	98:3	98:4	99:1	99:2	99:3
Total production	2.4	0.3	0.9	0.1	0.7	0.8	-0.3	1.1	2.9	4.8
Agriculture and hunting	2.5	0.4	-1.8	-1.2	-0.1	1.4	0.3	-1.8	-1.5	-2.8
Forestry and logging	2.5	-1.8	7.4	0.2	-0.0	-4.7	-5.1	-1.2	-1.2	-3.0
Fishing and fish farming	0.8	11.7	2.4	9.8	22.8	10.5	5.6	11.0	-0.8	-6.9
Oil and gas extraction incl. services	3.6	-22.0	-7.3	-16.8	-17.2	-25.3	-29.1	-12.3	14.2	50.5
Oil and gas extraction	2.8	-24.5	-8.8	-19.1	-19.9	-28.4	-31.0	-13.7	16.8	57.3
Service activities incidental to oil and gas ext.	15.0	18.9	17.4	22.1	23.6	17.9	10.6	0.4	-7.9	-7.4
Mining and quarrying	4.6	2.9	7.4	6.7	5.0	0.1	0.6	0.2	-2.8	2.7
Manufacturing	1.5	2.0	1.9	2.7	2.6	1.6	1.3	-0.5	-0.1	0.2
Food products, beverages and tobacco	2.3	3.9	2.0	3.9	4.9	4.5	2.5	0.9	-1.5	-3.1
Textiles,wearing apparel, leather	-0.5	-0.1	-1.9	-0.4	-1.8	1.4	0.8	2.2	3.0	-0.3
Wood and wood products	4.3	-0.0	3.1	1.9	-0.5	-0.3	-1.0	-1.6	-2.2	-2.1
Pulp, paper and paper products	-7.5	5.8	-3.9	4.0	6.3	6.9	6.2	2.6	0.5	-1.9
Publishing, printing, reproduction	3.1	3.4	2.9	2.1	3.4	4.3	4.0	-1.9	-1.3	-0.2
Refined petroleum products	2.4	-14.3	-5.5	-11.2	-11.2	-16.8	-17.6	-16.3	3.1	21.7
Basic chemicals	0.4	-0.4	-0.0	3.4	-0.5	-3.7	-1.0	-1.5	-1.8	0.4
Chemical and mineral products	0.4	-0.5	-0.2	0.5	-1.2	-2.5	1.2	0.3	2.1	0.4
Basic metals	0.4	1.5	7.4	10.1	3.2	-2.3	-4.4	-8.6	-7.3	-1.4
Machinery and other equipment n.e.c.	2.3	3.6	3.1	2.1	3.7	5.1	3.7	2.5	2.4	0.1
Building of ships, oil platforms and moduls	3.4	4.4	3.0	3.2	4.7	4.7	5.2	4.1	2.9	2.4
Furniture and other manufacturing n.e.c.	0.4	1.3	1.6	2.5	1.8	0.8	0.4	0.1	0.0	-0.2
Electricity and gas supply	4.5	-3.2	-5.0	-6.7	-4.6	5.8	-5.4	-2.5	-5.8	-4.4
Construction	2.9	5.0	3.9	3.9	4.7	5.8	5.7	6.5	5.9	5.6
Service industries excl.general government	2.2	2.5	2.1	1.8	2.0	3.6	2.4	2.2	2.0	1.2
Wholesale and retail trade	1.9	0.7	1.9	-0.3	1.0	2.4	-0.2	1.2	1.5	-0.9
Hotels and restaurants	3.5	4.6	2.8	4.7	3.5	4.8	5.5	4.9	4.7	3.3
Transport via pipelines	1.6	4.2	6.9	0.7	0.2	6.7	9.3	4.7	5.9	5.0
Water transport	7.9	-2.6	11.1	6.7	-2.7	-3.6	-9.6	-10.4	-0.9	2.3
Ocean transport	8.3	-3.0	11.7	6.9	-3.2	-4.1	-10.5	-11.3	-1.2	2.2
Inland water and costal transport	3.7	2.1	4.3	3.2	2.2	2.2	0.9	1.2	2.6	2.9
Other transport activities	1.9	3.0	1.7	1.8	2.9	3.9	3.2	4.7	3.7	2.9
Post and telecommunications	-0.9	-2.5	-2.2	-0.8	-2.8	-2.8	-3.5	-2.2	-4.2	-6.4
Financial intermediation	-4.9	3.2	-8.4	-5.0	0.5	10.0	8.1	4.3	-0.4	-1.7
Dwelling services	2.4	2.4	3.1	2.9	2.6	2.2	1.8	2.2	3.0	2.8
Business services etc.	2.9	5.4	2.2	3.4	4.8	6.2	6.9	5.2	3.0	2.2
Personal services	3.5	5.4	3.2	3.5	4.7	6.4	7.2	6.2	4.3	3.0
General government	2.8	5.1	2.2	3.1	4.1	5.8	7.3	5.8	3.6	2.1
Central government	2.6	4.5	2.0	3.1	4.1	4.7	5.9	4.9	3.1	2.1
Civilian central government	2.6	4.7	2.3	3.1	4.2	5.2	6.1	5.1	3.1	2.3
Defence	2.4	3.9	1.2	3.1	3.7	3.5	5.4	4.1	2.9	1.7
Local government	3.0	5.5	2.4	3.1	4.2	6.3	8.1	6.3	4.0	2.1
Mainland Norway	2.0	3.1	1.6	2.1	3.0	4.0	3.4	2.8	1.9	1.1
Market producers	2.3	-0.7	0.6	-0.7	-0.0	-0.3	-1.8	0.1	2.7	5.5
Non-market producers	2.6	4.5	2.3	3.0	3.8	5.0	6.2	5.0	3.5	2.3
Education	2.8	4.3	2.2	3.2	3.7	4.3	6.0	5.5	3.6	2.4
Health and social work	2.9	6.0	2.4	3.1	4.5	7.3	9.1	6.8	4.1	1.8

Table A9. Intermediate consumption. At current prices. Million kroner

	1997	1998	97:4	98:1	98:2	98:3	98:4	99:1	99:2	99:3
Total intermediate consumption	859 904	902 059	223 976	219 144	226 222	223 591	233 103	224 482	228 390	230 205
Agriculture and hunting	13 591	13 659	2 348	2 370	5 382	3 558	2 350	2 334	5 226	3 404
Forestry and logging	590	571	102	108	209	89	165	120	160	151
Fishing and fish farming	10 508	11 187	3 053	2 525	2 596	2 740	3 326	2 639	2 538	3 166
Oil and gas extraction incl. services	33 261	32 386	8 800	8 364	8 207	7 684	8 131	8 317	7 894	8 336
Oil and gas extraction	26 675	26 828	7 000	6 894	6 760	6 262	6 911	6 774	6 568	6 801
Service activities incidental to oil and gas ext.	6 586	5 558	1 800	1 470	1 447	1 422	1 220	1 543	1 326	1 536
Mining and quarrying	3 449	3 500	888	817	916	893	874	821	861	940
Manufacturing	283 518	289 633	74 527	74 251	72 434	69 082	73 867	72 525	69 695	67 857
Food products, beverages and tobacco	73 756	75 970	19 181	19 351	19 463	17 903	19 253	19 327	17 878	16 517
Textiles,wearing apparel, leather	3 741	3 671	962	960	919	811	981	918	813	666
Wood and wood products	11 863	11 901	3 424	3 200	3 087	2 837	2 777	2 815	2 922	2 646
Pulp, paper and paper products	13 958	13 986	3 673	3 575	3 450	3 496	3 466	3 538	3 333	3 296
Publishing, printing, reproduction	16 489	17 029	4 439	4 306	4 176	4 046	4 501	4 227	4 194	4 028
Refined petroleum products	17 487	12 388	4 365	3 476	2 897	3 302	2 713	3 018	2 925	5 531
Basic chemicals	13 731	14 408	3 475	3 698	3 724	3 498	3 489	3 714	3 399	3 515
Chemical and mineral products	19 783	19 995	4 911	4 970	4 969	4 900	5 156	5 044	4 994	4 652
Basic metals	28 517	29 309	7 213	7 439	7 345	7 180	7 344	6 975	7 134	7 099
Machinery and other equipment n.e.c.	51 919	55 536	14 217	14 193	13 825	12 830	14 688	14 183	13 637	12 290
Building of ships, oil platforms and moduls	24 708	27 258	6 514	6 888	6 648	6 440	7 281	6 732	6 621	5 976
Furniture and other manufacturing n.e.c.	7 564	8 184	2 154	2 195	1 932	1 840	2 217	2 031	1 847	1 641
Electricity and gas supply	7 572	7 936	2 248	2 227	1 715	1 726	2 268	2 300	1 814	1 897
Construction	83 994	88 784	22 856	21 605	22 024	22 075	23 079	21 571	21 794	21 954
Service industries excl. general government	320 243	342 742	83 325	79 964	85 173	87 812	89 793	84 033	87 855	92 242
Wholesale and retail trade	60 727	66 331	17 334	14 898	15 963	16 484	18 987	15 716	15 480	16 604
Hotels and restaurants	17 740	19 081	4 485	4 017	4 802	5 502	4 761	4 327	5 188	5 871
Transport via pipelines	1 073	1 100	295	283	267	248	301	295	278	288
Water transport	49 965	50 769	12 813	12 624	12 813	12 586	12 745	12 151	12 172	13 941
Ocean transport	47 097	47 755	12 090	11 941	12 036	11 783	11 996	11 423	11 345	13 005
Inland water and costal transport	2 868	3 014	723	684	778	803	749	728	827	936
Other transport activities	52 960	55 647	13 070	12 429	14 080	14 959	14 179	13 385	15 471	16 744
Post and telecommunications	14 638	16 438	4 104	3 703	4 069	3 958	4 707	4 534	4 994	4 818
Financial intermediation	17 710	18 378	4 225	4 350	4 663	4 655	4 710	4 618	4 914	3 734
Dwelling services	14 951	15 489	3 784	3 801	3 854	3 896	3 937	3 936	3 975	4 022
Business services etc.	53 390	60 475	13 748	14 204	14 978	15 676	15 616	15 205	15 675	16 355
Personal services	37 088	39 034	9 467	9 654	9 683	9 847	9 850	9 867	9 708	9 866
General government	74 712	79 783	18 945	19 567	19 811	20 153	20 252	20 483	20 512	20 870
Central government	36 639	39 238	9 343	9 613	9 712	9 907	10 006	10 081	9 959	10 165
Civilian central government	25 131	27 851	6 408	6 823	6 894	7 032	7 102	7 263	7 113	7 261
Defence	11 508	11 387	2 935	2 790	2 818	2 875	2 904	2 818	2 846	2 904
Local government	38 073	40 545	9 602	9 954	10 099	10 246	10 246	10 402	10 553	10 705
FISIM[1]	28 466	31 876	6 883	7 346	7 754	7 779	8 997	9 340	10 041	9 387
Mainland Norway	750 006	788 941	195 907	191 210	197 958	196 097	203 677	195 108	198 832	199 189
Market producers	726 005	758 764	190 282	184 441	190 779	187 715	195 829	186 788	189 900	191 935
Non-market producers	105 433	111 418	26 810	27 357	27 689	28 096	28 276	28 354	28 448	28 884
Education	12 493	13 009	3 074	3 156	3 287	3 310	3 256	3 306	3 391	3 422
Health and social work	25 239	27 128	6 443	6 759	6 729	6 803	6 838	7 016	6 967	7 064

Table A10. Intermediate consumption. At constant 1996-prices. Million kroner

	1997	1998	97:4	98:1	98:2	98:3	98:4	99:1	99:2	99:3
Total intermediate consumption	844 873	871 072	218 903	214 923	218 594	214 036	223 520	217 235	218 960	215 556
Agriculture and hunting	13 466	13 407	2 337	2 343	5 273	3 485	2 306	2 267	5 119	3 274
Forestry and logging	585	563	100	108	205	89	161	116	155	140
Fishing and fish farming	10 398	10 792	3 006	2 490	2 481	2 640	3 181	2 521	2 451	2 969
Oil and gas extraction incl. services	32 055	29 979	8 409	7 940	7 607	7 027	7 405	7 638	7 201	7 500
Oil and gas extraction	25 592	24 694	6 661	6 511	6 222	5 695	6 266	6 179	5 949	6 072
Service activities incidental to oil and gas ext.	6 463	5 284	1 748	1 428	1 384	1 332	1 140	1 459	1 252	1 428
Mining and quarrying	3 378	3 351	866	798	879	851	823	774	814	867
Manufacturing	280 628	286 278	73 481	73 545	71 354	68 207	73 172	72 588	69 029	66 268
Food products, beverages and tobacco	72 239	71 385	18 568	18 322	18 077	16 909	18 077	17 754	16 787	16 223
Textiles,wearing apparel, leather	3 683	3 532	936	935	907	762	928	883	803	640
Wood and wood products	11 634	11 629	3 320	3 154	3 016	2 767	2 692	2 759	2 871	2 602
Pulp, paper and paper products	14 056	14 050	3 702	3 621	3 466	3 505	3 458	3 551	3 362	3 305
Publishing, printing, reproduction	16 417	16 541	4 406	4 245	4 066	3 905	4 325	4 140	4 101	3 907
Refined petroleum products	17 659	16 977	4 393	4 350	3 921	4 592	4 113	4 442	3 333	4 792
Basic chemicals	13 748	14 386	3 515	3 721	3 729	3 465	3 471	3 660	3 369	3 452
Chemical and mineral products	19 564	19 515	4 879	4 915	4 869	4 741	4 989	4 903	4 882	4 492
Basic metals	27 940	29 396	7 140	7 308	7 377	7 202	7 509	7 555	7 628	7 372
Machinery and other equipment n.e.c.	51 886	54 740	14 143	14 113	13 639	12 490	14 498	14 354	13 677	12 213
Building of ships, oil platforms and moduls	24 337	26 161	6 368	6 714	6 391	6 090	6 967	6 572	6 380	5 670
Furniture and other manufacturing n.e.c.	7 466	7 965	2 110	2 147	1 895	1 778	2 144	2 015	1 835	1 603
Electricity and gas supply	7 457	7 807	2 246	2 194	1 690	1 708	2 215	2 237	1 789	1 859
Construction	82 567	85 402	22 358	21 101	21 255	21 092	21 953	20 662	20 809	20 775
Service industries excl. general government	310 998	325 245	80 117	77 222	80 694	82 938	84 390	79 636	82 541	83 893
Wholesale and retail trade	59 761	63 180	17 000	14 540	15 276	15 630	17 734	14 895	14 653	15 356
Hotels and restaurants	17 341	18 078	4 322	3 901	4 512	5 212	4 453	3 954	4 651	5 325
Transport via pipelines	1 044	1 030	284	272	251	230	277	275	255	259
Water transport	44 548	46 035	10 996	11 353	11 301	11 439	11 942	11 530	10 993	11 342
Ocean transport	41 716	43 084	10 298	10 673	10 546	10 642	11 223	10 844	10 206	10 539
Inland water and costal transport	2 832	2 951	698	681	755	797	718	686	787	803
Other transport activities	51 981	53 255	12 762	12 148	13 466	14 277	13 364	12 509	14 400	14 996
Post and telecommunications	14 515	15 882	4 055	3 646	3 936	3 811	4 487	4 333	4 794	4 576
Financial intermediation	17 725	17 905	4 217	4 341	4 546	4 514	4 503	4 513	4 838	3 613
Dwelling services	14 624	14 793	3 671	3 683	3 692	3 702	3 716	3 727	3 738	3 749
Business services etc.	52 579	57 238	13 445	13 817	14 246	14 674	14 502	14 303	14 712	15 141
Personal services	36 880	37 850	9 364	9 521	9 468	9 449	9 412	9 598	9 507	9 536
General government	73 825	76 680	18 707	19 184	19 139	19 184	19 173	19 542	19 521	19 617
Central government	36 147	37 451	9 187	9 400	9 302	9 357	9 392	9 538	9 344	9 422
Civilian central government	24 709	26 370	6 266	6 618	6 559	6 592	6 601	6 803	6 628	6 663
Defence	11 438	11 081	2 921	2 782	2 744	2 765	2 791	2 736	2 717	2 759
Local government	37 678	39 229	9 520	9 784	9 836	9 828	9 781	10 003	10 177	10 195
FISIM[1]	29 515	31 569	7 276	7 997	8 018	6 815	8 740	9 253	9 532	8 393
Mainland Norway	740 542	765 411	192 637	188 042	192 172	189 323	195 874	189 224	191 767	188 865
Market producers	711 238	732 382	185 228	180 139	183 805	180 454	187 984	180 897	182 307	179 950
Non-market producers	104 120	107 122	26 399	26 787	26 771	26 767	26 796	27 084	27 121	27 213
Education	12 389	12 785	3 099	3 133	3 257	3 231	3 164	3 234	3 325	3 291
Health and social work	25 037	26 324	6 381	6 648	6 579	6 545	6 553	6 802	6 814	6 861

Table A11. Intermediate consumption. Percentage change in volume from the same period in the previous year

	1997	1998	97:4	98:1	98:2	98:3	98:4	99:1	99:2	99:3
Total intermediate consumption	4.1	3.1	4.0	6.5	1.7	2.3	2.1	1.1	0.2	0.7
Agriculture and hunting	6.0	-0.4	9.5	2.7	-1.6	-0.1	-1.3	-3.2	-2.9	-6.1
Forestry and logging	0.9	-3.9	-33.1	-20.3	-15.9	-16.4	61.1	7.2	-24.4	57.9
Fishing and fish farming	5.5	3.8	8.8	8.3	-0.7	1.8	5.8	1.3	-1.2	12.4
Oil and gas extraction incl. services	-2.4	-6.5	-3.0	-3.1	-4.6	-6.1	-11.9	-3.8	-5.3	6.7
Oil and gas extraction	-11.0	-3.5	-9.5	0.7	-2.3	-6.6	-5.9	-5.1	-4.4	6.6
Service activities incidental to oil and gas ext.	58.3	-18.2	33.1	-17.2	-13.7	-3.8	-34.8	2.2	-9.6	7.2
Mining and quarrying	2.9	-0.8	-0.4	6.1	-2.7	-0.6	-5.0	-3.1	-7.4	1.9
Manufacturing	2.7	2.0	4.2	7.2	-0.7	2.3	-0.4	-1.3	-3.3	-2.8
Food products, beverages and tobacco	0.7	-1.2	1.3	2.9	-2.4	-2.5	-2.6	-3.1	-7.1	-4.1
Textiles,wearing apparel, leather	-1.4	-4.1	-7.9	2.3	-12.6	-4.2	-0.9	-5.6	-11.4	-16.1
Wood and wood products	7.3	-0.0	13.6	17.7	7.3	-2.0	-18.9	-12.5	-4.8	-6.0
Pulp, paper and paper products	4.4	-0.0	8.2	6.4	-1.9	2.5	-6.6	-1.9	-3.0	-5.7
Publishing, printing, reproduction	-1.7	0.8	0.9	5.4	1.5	-1.8	-1.8	-2.5	0.8	0.0
Refined petroleum products	2.8	-3.9	-1.7	-0.9	-8.7	0.2	-6.4	2.1	-15.0	4.3
Basic chemicals	2.3	4.6	2.5	7.6	6.7	5.6	-1.3	-1.6	-9.7	-0.4
Chemical and mineral products	3.1	-0.2	-0.5	1.6	-10.0	6.8	2.3	-0.2	0.3	-5.3
Basic metals	3.2	5.2	4.9	4.1	2.1	9.8	5.2	3.4	3.4	2.4
Machinery and other equipment n.e.c.	5.5	5.5	7.4	12.9	2.4	4.7	2.5	1.7	0.3	-2.2
Building of ships, oil platforms and moduls	1.4	7.5	11.1	14.3	2.2	4.3	9.4	-2.1	-0.2	-6.9
Furniture and other manufacturing n.e.c.	8.2	6.7	8.4	24.4	-2.1	5.0	1.6	-6.2	-3.2	-9.9
Electricity and gas supply	6.5	4.7	26.7	17.5	-0.5	3.8	-1.4	2.0	5.9	8.9
Construction	9.2	3.4	10.5	9.6	5.1	1.7	-1.8	-2.1	-2.1	-1.5
Service industries excl. general government	5.3	4.6	3.5	5.9	3.1	4.1	5.3	3.1	2.3	1.2
Wholesale and retail trade	5.5	5.7	6.3	9.0	3.8	6.3	4.3	2.4	-4.1	-1.8
Hotels and restaurants	7.6	4.3	10.8	7.6	4.3	2.8	3.0	1.4	3.1	2.2
Transport via pipelines	-1.2	-1.4	-1.1	1.1	0.8	-5.0	-2.5	1.2	1.3	12.8
Water transport	2.7	3.3	-1.6	3.7	-1.3	2.6	8.6	1.6	-2.7	-0.8
Ocean transport	2.4	3.3	-2.1	3.3	-1.4	2.5	9.0	1.6	-3.2	-1.0
Inland water and costal transport	7.0	4.2	6.9	10.0	0.9	3.9	2.8	0.8	4.3	0.8
Other transport activities	7.1	2.5	7.8	3.5	-1.2	3.1	4.7	3.0	6.9	5.0
Post and telecommunications	7.5	9.4	9.2	7.0	9.8	9.9	10.7	18.8	21.8	20.0
Financial intermediation	-0.6	1.0	-20.4	3.0	0.9	-5.7	6.8	3.9	6.4	-20.0
Dwelling services	1.0	1.2	1.1	1.1	1.1	1.2	1.2	1.2	1.2	1.3
Business services etc.	9.2	8.9	7.0	9.9	8.9	8.9	7.9	3.5	3.3	3.2
Personal services	3.3	2.6	3.8	4.2	4.2	1.7	0.5	0.8	0.4	0.9
General government	4.9	3.9	5.5	4.3	4.1	4.6	2.5	1.9	2.0	2.3
Central government	3.9	3.6	4.8	4.1	4.0	4.1	2.2	1.5	0.4	0.7
Civilian central government	1.6	6.7	2.1	7.4	7.3	6.9	5.4	2.8	1.0	1.1
Defence	9.2	-3.1	11.0	-2.9	-3.0	-2.0	-4.5	-1.7	-1.0	-0.2
Local government	6.0	4.1	6.3	4.5	4.2	5.1	2.7	2.2	3.5	3.7
FISIM[1]	-2.8	7.0	-11.9	11.8	5.8	-9.2	20.1	15.7	18.9	23.2
Mainland Norway	4.9	3.4	5.4	6.9	2.0	3.2	1.7	0.6	-0.2	-0.2
Market producers	4.4	3.0	4.6	6.7	1.3	2.7	1.5	0.4	-0.8	-0.3
Non-market producers	4.2	2.9	4.8	3.6	3.2	3.2	1.5	1.1	1.3	1.7
Education	7.5	3.2	6.6	2.5	3.0	5.2	2.1	3.2	2.1	1.9
Health and social work	4.0	5.1	5.5	6.8	6.3	4.8	2.7	2.3	3.6	4.8

Table A12. Intermediate consumption.
Percentage change in prices from the same period in the previous year

	1997	1998	97:4	98:1	98:2	98:3	98:4	99:1	99:2	99:3
Total intermediate consumption	1.8	1.7	0.8	1.7	2.3	1.1	1.9	1.3	0.8	2.2
Agriculture and hunting	0.9	0.9	0.0	1.5	1.2	-0.1	1.4	1.8	0.0	1.8
Forestry and logging	0.8	0.8	0.5	0.0	1.9	-1.4	0.5	3.7	0.9	7.5
Fishing and fish farming	1.1	2.6	1.0	1.3	4.3	1.7	3.0	3.2	-1.0	2.8
Oil and gas extraction incl. services	3.8	4.1	2.8	3.4	4.2	4.1	4.9	3.4	1.6	1.7
Oil and gas extraction	4.2	4.2	3.2	3.6	4.3	4.2	5.0	3.5	1.6	1.9
Service activities incidental to oil and gas ext.	1.9	3.2	1.4	2.2	3.3	3.7	3.9	2.7	1.3	0.8
Mining and quarrying	2.1	2.3	0.8	1.3	2.5	1.9	3.6	3.6	1.5	3.3
Manufacturing	1.0	0.1	-0.2	0.9	1.5	-1.4	-0.5	-1.0	-0.5	1.1
Food products, beverages and tobacco	2.1	4.2	1.3	4.8	5.5	3.6	3.1	3.1	-1.1	-3.8
Textiles,wearing apparel, leather	1.6	2.3	1.5	2.5	1.5	2.5	2.9	1.3	-0.2	-2.1
Wood and wood products	2.0	0.4	2.5	0.9	1.4	-0.4	0.0	0.6	-0.6	-0.8
Pulp, paper and paper products	-0.7	0.2	-0.7	-0.3	0.9	-0.6	1.0	0.9	-0.4	-0.0
Publishing, printing, reproduction	0.4	2.5	0.6	1.6	2.3	2.8	3.3	0.7	-0.4	-0.5
Refined petroleum products	-1.0	-26.3	-11.2	-21.3	-21.1	-29.1	-33.6	-15.0	18.8	60.5
Basic chemicals	-0.1	0.3	-1.5	-0.2	0.2	-0.6	1.7	2.1	1.1	0.9
Chemical and mineral products	1.1	1.3	0.2	0.7	0.8	1.0	2.7	1.7	0.2	0.2
Basic metals	2.1	-2.3	1.0	1.8	-0.2	-7.6	-3.2	-9.3	-6.1	-3.4
Machinery and other equipment n.e.c.	0.1	1.4	-0.2	1.9	2.4	0.6	0.8	-1.8	-1.6	-2.0
Building of ships, oil platforms and moduls	1.5	2.6	1.3	2.7	3.5	2.2	2.2	-0.2	-0.2	-0.3
Furniture and other manufacturing n.e.c.	1.3	1.4	1.2	2.4	1.7	0.3	1.3	-1.4	-1.3	-1.1
Electricity and gas supply	1.5	0.1	-2.1	-0.6	0.4	-2.2	2.3	1.3	-0.1	0.9
Construction	1.7	2.2	1.4	1.9	2.2	1.9	2.8	2.0	1.1	1.0
Service industries excl. general government	3.0	2.3	2.0	2.8	3.0	1.4	2.3	1.9	0.8	3.8
Wholesale and retail trade	1.6	3.3	0.6	2.3	3.0	2.6	5.0	3.0	1.1	2.5
Hotels and restaurants	2.3	3.2	1.6	4.1	3.6	2.4	3.0	6.3	4.8	4.4
Transport via pipelines	2.8	3.9	2.3	3.4	3.7	3.8	4.8	3.1	2.5	2.8
Water transport	12.2	-1.7	10.4	5.4	3.5	-6.0	-8.4	-5.2	-2.3	11.7
Ocean transport	12.9	-1.8	11.1	5.7	3.6	-6.4	-9.0	-5.9	-2.6	11.4
Inland water and costal transport	1.3	0.8	0.5	0.4	2.9	-0.5	0.8	5.7	2.0	15.6
Other transport activities	1.9	2.6	0.9	1.8	2.7	2.1	3.6	4.6	2.8	6.6
Post and telecommunications	0.8	2.6	-0.0	1.9	2.7	2.0	3.6	3.0	0.8	1.4
Financial intermediation	-0.1	2.7	-1.5	1.7	2.3	2.5	4.4	2.1	-1.0	0.2
Dwelling services	2.2	2.4	2.4	2.5	2.3	2.0	2.8	2.3	1.9	1.9
Business services etc.	1.5	4.1	0.8	2.7	3.7	4.4	5.3	3.4	1.3	1.1
Personal services	0.6	2.5	-0.2	2.2	2.4	2.1	3.5	1.4	-0.2	-0.7
General government	1.2	2.8	0.1	3.0	2.3	1.7	4.3	2.8	1.5	1.3
Central government	1.4	3.4	0.5	2.9	3.0	2.9	4.8	3.3	2.1	1.9
Civilian central government	1.7	3.8	1.2	3.2	3.3	3.7	5.2	3.6	2.1	2.1
Defence	0.6	2.1	-1.0	2.0	2.0	1.0	3.6	2.7	2.0	1.2
Local government	1.0	2.3	-0.3	3.0	1.6	0.7	3.9	2.2	1.0	0.7
FISIM[1]	-3.6	4.7	-4.8	-6.1	0.4	17.5	8.8	9.9	8.9	-2.0
Mainland Norway	1.3	1.8	0.3	1.7	2.2	0.9	2.2	1.4	0.7	1.8
Market producers	2.1	1.5	1.0	1.9	2.3	0.4	1.4	0.8	0.4	2.5
Non-market producers	1.3	2.7	0.4	2.8	2.3	1.8	3.9	2.5	1.4	1.1
Education	0.8	0.9	-2.0	3.2	-0.5	-2.5	3.7	1.5	1.1	1.5
Health and social work	0.8	2.2	-0.2	2.9	1.9	0.8	3.4	1.5	-0.0	-0.9

Table A13. Gross domestic product and value added by industry. At current prices. Million kroner

	1997	1998	97:4	98:1	98:2	98:3	98:4	99:1	99:2	99:3
Gross domestic product[1]	1 089 032	1 107 082	288 819	271 034	271 541	277 878	286 629	274 483	283 599	306 425
Agriculture and hunting	11 859	12 265	3 042	2 339	-179	6 969	3 136	2 263	-2	6 487
Forestry and logging	2 750	2 582	486	499	941	408	733	523	699	611
Fishing and fish farming	7 321	9 020	2 117	2 020	2 380	2 092	2 527	2 420	2 104	1 779
Oil and gas extraction incl. services	166 785	116 742	43 214	34 725	29 983	26 153	25 880	27 692	33 693	45 970
Oil and gas extraction	159 561	108 869	41 196	32 743	27 749	24 031	24 347	25 693	31 954	43 989
Service activities incidental to oil and gas ext.	7 224	7 873	2 018	1 982	2 234	2 123	1 534	1 999	1 739	1 981
Mining and quarrying	2 160	2 226	584	549	606	538	532	506	509	559
Manufacturing	118 054	129 311	32 024	32 305	31 959	31 128	33 919	32 164	31 549	29 589
Food products, beverages and tobacco	17 754	17 950	4 752	4 235	4 385	4 687	4 643	3 757	3 933	4 462
Textiles,wearing apparel, leather	2 170	1 993	529	536	515	432	510	526	496	373
Wood and wood products	4 841	4 791	1 365	1 324	1 242	1 159	1 066	1 076	1 106	1 030
Pulp, paper and paper products	4 750	5 797	1 322	1 396	1 395	1 517	1 489	1 464	1 389	1 339
Publishing, printing, reproduction	13 214	13 922	3 549	3 510	3 431	3 329	3 651	3 251	3 381	3 337
Refined petroleum products	2 354	3 967	603	923	867	1 056	1 120	743	374	3
Basic chemicals	6 586	6 758	1 691	1 811	1 778	1 606	1 563	1 622	1 481	1 589
Chemical and mineral products	11 202	10 771	2 755	2 727	2 697	2 568	2 778	2 658	2 856	2 453
Basic metals	8 288	9 999	2 385	2 596	2 663	2 432	2 308	2 508	2 459	2 603
Machinery and other equipment n.e.c.	31 165	35 295	8 769	8 791	8 625	8 117	9 762	9 779	9 407	8 209
Building of ships, oil platforms and moduls	11 586	13 604	3 115	3 260	3 277	3 230	3 837	3 626	3 592	3 281
Furniture and other manufacturing n.e.c.	4 144	4 466	1 187	1 197	1 084	995	1 190	1 155	1 074	909
Electricity and gas supply	25 275	25 365	7 734	7 920	5 395	4 999	7 051	7 795	5 297	5 130
Construction	39 602	45 427	11 077	10 602	11 187	11 507	12 130	12 010	12 652	12 959
Service industries excl. general government	429 523	458 717	112 438	109 024	113 313	117 064	119 316	114 760	119 036	121 173
Wholesale and retail trade	98 626	102 860	27 981	24 084	24 978	26 115	27 682	24 753	24 448	24 968
Hotels and restaurants	13 767	15 276	3 613	3 302	3 800	4 136	4 038	3 453	4 100	4 306
Transport via pipelines	13 018	13 386	3 512	3 429	3 164	3 036	3 756	3 639	3 405	3 604
Water transport	18 291	17 929	4 238	4 741	4 286	4 931	3 971	3 654	4 336	3 832
Ocean transport	15 922	15 372	3 663	4 152	3 631	4 215	3 373	3 085	3 630	3 191
Inland water and costal transport	2 369	2 557	575	589	655	716	597	569	706	641
Other transport industries	44 928	47 165	10 708	10 808	12 140	12 905	11 312	11 119	13 269	13 048
Post and telecommunications	19 832	19 982	5 503	4 877	4 945	4 713	5 446	5 184	5 237	4 690
Financial intermediation	36 939	39 873	9 515	9 427	9 928	9 329	11 187	10 705	10 844	11 919
Dwelling services	65 989	68 346	16 773	16 883	17 037	17 181	17 245	17 461	17 798	17 915
Business services etc.	63 465	73 570	16 450	16 911	18 178	19 375	19 107	18 786	19 510	20 434
Personal services	54 668	60 332	14 145	14 563	14 856	15 341	15 571	16 008	16 090	16 458
General government	166 127	180 780	42 639	43 069	44 117	46 233	47 362	46 465	47 957	48 168
Central government	48 481	52 046	12 388	12 599	12 735	13 247	13 466	13 349	13 635	13 753
Civilian central government	36 386	38 922	9 320	9 405	9 500	9 930	10 087	9 997	10 171	10 337
Defence	12 096	13 125	3 068	3 194	3 235	3 317	3 379	3 352	3 464	3 416
Local government	117 645	128 734	30 251	30 470	31 382	32 986	33 896	33 116	34 322	34 415
FISIM[2]	-28 466	-31 876	-6 883	-7 346	-7 754	-7 779	-8 997	-9 340	-10 041	-9 387
Value added tax and investment levy	104 371	110 492	28 705	25 354	27 173	27 844	30 121	26 737	27 246	28 778
Other taxes on products, net	44 089	44 897	11 623	9 781	12 207	10 243	12 666	11 222	12 633	14 480
Statistical discrepancy	-416	1 133	20	191	210	480	253	-734	267	128
Mainland Norway (basic prices)	773 731	836 936	204 966	200 747	202 926	213 685	219 578	212 181	212 766	219 658
Market producers	722 496	717 201	192 136	179 423	174 721	179 307	183 750	178 671	183 674	201 848
Non-market producers	246 959	265 234	63 219	63 631	64 983	67 783	68 837	67 926	69 819	70 576
Education	44 169	48 113	11 426	11 540	11 826	12 124	12 622	12 310	12 913	12 377
Health and social work	82 417	91 525	21 218	21 587	22 313	23 613	24 012	23 747	24 297	24 987

1 Gross domestic products is valued at market prices, while the industries are valued at basic prices
2 Financial intermediation services indirectly measured

Table A14. Gross domestic product and value added by industry. At constant 1996-prices. Million kroner

	1997	1998	97:4	98:1	98:2	98:3	98:4	99:1	99:2	99:3
Gross domestic product[1]	1 060 066	1 082 496	279 219	266 506	265 835	269 944	280 211	267 111	264 883	276 060
Agriculture and hunting	11 373	11 801	3 085	2 230	-286	6 661	3 196	2 276	-38	6 537
Forestry and logging	2 671	2 568	455	494	936	405	733	530	708	639
Fishing and fish farming	7 295	7 157	1 850	1 668	1 633	1 829	2 027	1 647	1 419	1 944
Oil and gas extraction incl. services	161 051	154 584	41 975	40 791	38 997	35 746	39 050	38 797	37 222	38 118
Oil and gas extraction	155 509	150 053	40 477	39 567	37 810	34 604	38 073	37 546	36 149	36 893
Service activities incidental to oil and gas ext.	5 541	4 531	1 498	1 224	1 187	1 142	977	1 251	1 073	1 224
Mining and quarrying	1 986	1 970	509	469	517	500	484	455	479	510
Manufacturing	114 912	118 147	30 309	30 319	29 479	27 908	30 441	29 989	28 893	27 015
Food products, beverages and tobacco	17 187	16 950	4 404	4 300	4 314	4 044	4 292	4 191	4 004	3 864
Textiles,wearing apparel, leather	2 254	2 161	573	572	555	466	568	540	492	391
Wood and wood products	4 375	4 373	1 248	1 186	1 134	1 040	1 012	1 037	1 080	978
Pulp, paper and paper products	6 169	6 167	1 625	1 589	1 521	1 538	1 518	1 559	1 476	1 451
Publishing, printing, reproduction	12 385	12 479	3 324	3 202	3 068	2 946	3 263	3 124	3 094	2 947
Refined petroleum products	1 711	1 645	426	421	380	445	399	430	323	464
Basic chemicals	6 494	6 796	1 661	1 758	1 762	1 637	1 640	1 729	1 591	1 631
Chemical and mineral products	11 285	11 257	2 815	2 835	2 809	2 735	2 878	2 828	2 816	2 591
Basic metals	8 723	9 177	2 229	2 282	2 303	2 249	2 344	2 359	2 382	2 301
Machinery and other equipment n.e.c.	29 358	30 973	8 002	7 985	7 717	7 067	8 203	8 122	7 738	6 910
Building of ships, oil platforms and moduls	10 778	11 695	2 818	2 982	2 852	2 741	3 120	2 938	2 867	2 585
Furniture and other manufacturing n.e.c.	4 193	4 473	1 185	1 206	1 064	999	1 204	1 132	1 031	900
Electricity and gas supply	23 983	25 123	7 240	7 093	5 410	5 473	7 147	7 236	5 750	5 987
Construction	37 573	38 863	10 174	9 602	9 673	9 598	9 990	9 402	9 469	9 454
Service industries excl. general government	422 474	439 955	110 633	106 217	109 511	109 594	114 633	109 280	111 794	114 337
Wholesale and retail trade	96 587	101 603	27 466	23 507	24 690	25 260	28 146	24 151	23 760	24 899
Hotels and restaurants	13 106	13 663	3 266	2 948	3 410	3 939	3 366	2 988	3 515	4 025
Transport via pipelines	12 818	12 643	3 487	3 336	3 087	2 821	3 398	3 377	3 128	3 183
Water transport	18 699	19 332	4 615	4 749	4 758	4 829	4 997	4 821	4 649	4 793
Ocean transport	16 480	17 020	4 068	4 216	4 166	4 204	4 434	4 284	4 032	4 163
Inland water and costal transport	2 219	2 312	547	533	592	625	563	537	617	629
Other transport industries	44 119	44 725	10 768	10 217	11 406	12 025	11 078	10 020	11 894	12 332
Post and telecommunications	20 283	21 844	5 646	5 080	5 427	5 203	6 135	5 772	6 299	5 979
Financial intermediation	39 744	41 443	10 459	10 792	10 618	8 828	11 205	11 628	11 610	11 584
Dwelling services	64 394	65 140	16 167	16 218	16 259	16 302	16 361	16 413	16 460	16 508
Business services etc.	60 987	66 391	15 595	15 922	16 581	17 159	16 729	16 591	17 065	17 562
Personal services	51 737	53 169	13 165	13 449	13 274	13 229	13 218	13 519	13 415	13 472
General government	160 373	164 368	40 605	40 942	40 820	41 115	41 491	41 215	42 437	41 788
Central government	46 853	47 742	11 804	11 992	11 797	11 943	12 011	11 982	12 177	12 125
Civilian central government	35 229	35 781	8 893	8 982	8 827	8 963	9 009	8 983	9 104	9 117
Defence	11 623	11 961	2 911	3 009	2 970	2 980	3 001	2 999	3 073	3 009
Local government	113 520	116 626	28 800	28 950	29 024	29 172	29 480	29 233	30 260	29 662
FISIM[2]	-29 515	-31 569	-7 276	-7 997	-8 018	-6 815	-8 740	-9 253	-9 532	-8 393
Value added tax and investment levy	102 527	105 980	28 113	24 677	25 998	26 761	28 544	25 413	25 693	26 956
Other taxes on products, net	43 332	43 482	11 538	9 983	11 148	11 153	11 198	10 112	10 578	11 155
Statistical discrepancy	31	66	8	17	17	16	16	10	12	14
Mainland Norway (basic prices)	753 342	780 289	197 307	191 482	190 439	196 058	202 310	194 370	193 750	200 864
Market producers	704 266	720 346	186 384	179 023	176 038	177 549	187 735	179 668	175 716	184 218
Non-market producers	239 424	244 190	60 452	60 802	60 651	61 280	61 457	61 161	62 416	62 110
Education	42 706	44 181	10 849	10 997	10 993	10 944	11 247	11 003	11 516	10 874
Health and social work	79 536	82 389	20 176	20 542	20 589	20 659	20 600	20 825	21 278	21 299

1 Gross domestic products is valued at market prices, while the industries are valued at basic prices
2 Financial intermediation services indirectly measured

Table A15. Gross domestic product and value added by industry. Percentage change in volume from the same period in the previous year

	1997	1998	97:4	98:1	98:2	98:3	98:4	99:1	99:2	99:3
Gross domestic product[1]	4.3	2.1	5.5	4.7	1.7	1.9	0.4	0.2	-0.4	2.3
Agriculture and hunting	-4.3	3.8	-8.7	1.6	..	6.1	3.6	2.1	..	-1.9
Forestry and logging	0.9	-3.9	-33.1	-20.3	-15.9	-16.4	61.1	7.2	-24.4	57.9
Fishing and fish farming	3.1	-1.9	3.8	-3.8	-3.2	-9.7	9.6	-1.2	-13.1	6.3
Oil and gas extraction incl. services	4.2	-4.0	5.4	0.0	-2.7	-6.5	-7.0	-4.9	-4.6	6.6
Oil and gas extraction	3.5	-3.5	5.2	0.7	-2.3	-6.6	-5.9	-5.1	-4.4	6.6
Service activities incidental to oil and gas ext.	30.1	-18.2	9.4	-17.2	-13.7	-3.8	-34.8	2.2	-9.6	7.2
Mining and quarrying	2.9	-0.8	-0.4	6.1	-2.7	-0.6	-5.0	-3.1	-7.4	1.9
Manufacturing	2.8	2.8	4.9	8.4	-0.2	3.0	0.4	-1.1	-2.0	-3.2
Food products, beverages and tobacco	0.6	-1.4	1.9	2.4	-2.6	-2.7	-2.5	-2.5	-7.2	-4.5
Textiles,wearing apparel, leather	-1.4	-4.1	-7.9	2.3	-12.6	-4.2	-0.9	-5.6	-11.4	-16.1
Wood and wood products	7.3	-0.0	13.6	17.7	7.3	-2.0	-18.9	-12.5	-4.8	-6.0
Pulp, paper and paper products	4.4	-0.0	8.2	6.4	-1.9	2.5	-6.6	-1.9	-3.0	-5.7
Publishing, printing, reproduction	-1.7	0.8	0.9	5.4	1.5	-1.8	-1.8	-2.5	0.8	0.0
Refined petroleum products	2.8	-3.9	-1.7	-0.9	-8.7	0.2	-6.4	2.1	-15.0	4.3
Basic chemicals	2.3	4.6	2.5	7.6	6.7	5.6	-1.3	-1.6	-9.7	-0.4
Chemical and mineral products	3.1	-0.2	-0.5	1.6	-10.0	6.8	2.3	-0.2	0.3	-5.3
Basic metals	3.2	5.2	4.9	4.1	2.1	9.8	5.2	3.4	3.4	2.4
Machinery and other equipment n.e.c.	5.5	5.5	7.4	12.9	2.4	4.7	2.5	1.7	0.3	-2.2
Building of ships, oil platforms and moduls	1.2	8.5	12.3	14.9	3.0	5.6	10.7	-1.5	0.5	-5.7
Furniture and other manufacturing n.e.c.	8.2	6.7	8.4	24.4	-2.1	5.0	1.6	-6.2	-3.2	-9.9
Electricity and gas supply	6.6	4.8	27.4	17.8	-0.6	3.7	-1.3	2.0	6.3	9.4
Construction	9.2	3.4	10.5	9.6	5.1	1.7	-1.8	-2.1	-2.1	-1.5
Service industries excl. general government	4.6	4.1	4.8	6.3	3.7	3.0	3.6	2.9	2.1	4.3
Wholesale and retail trade	5.1	5.2	6.0	9.0	3.8	6.3	2.5	2.7	-3.8	-1.4
Hotels and restaurants	7.6	4.3	10.8	7.6	4.3	2.8	3.0	1.4	3.1	2.2
Transport via pipelines	-1.2	-1.4	-1.1	1.1	0.8	-5.0	-2.5	1.2	1.3	12.8
Water transport	2.9	3.4	-1.1	4.0	-1.1	2.6	8.3	1.5	-2.3	-0.7
Ocean transport	2.4	3.3	-2.1	3.3	-1.4	2.5	9.0	1.6	-3.2	-1.0
Inland water and costal transport	7.0	4.2	6.9	10.0	0.9	3.9	2.8	0.8	4.3	0.8
Other transport industries	6.9	1.4	5.3	3.5	-2.5	2.1	2.9	-1.9	4.3	2.6
Post and telecommunications	5.4	7.7	6.7	5.8	8.0	8.1	8.7	13.6	16.1	14.9
Financial intermediation	3.4	4.3	6.9	11.8	7.0	-9.1	7.1	7.8	9.3	31.2
Dwelling services	1.0	1.2	1.1	1.1	1.1	1.2	1.2	1.2	1.2	1.3
Business services etc.	9.2	8.9	7.0	9.2	9.2	9.8	7.3	4.2	2.9	2.4
Personal services	3.0	2.8	3.8	5.1	4.3	1.4	0.4	0.5	1.1	1.8
General government	2.2	2.5	2.3	2.8	2.3	2.6	2.2	0.7	4.0	1.6
Central government	1.8	1.9	1.9	2.5	1.1	2.2	1.7	-0.1	3.2	1.5
Civilian central government	2.3	1.6	2.6	2.3	0.6	2.1	1.3	0.0	3.1	1.7
Defence	0.3	2.9	-0.0	3.4	2.6	2.5	3.1	-0.3	3.5	0.9
Local government	2.4	2.7	2.4	2.9	2.8	2.8	2.4	1.0	4.3	1.7
FISIM[2]	-2.8	7.0	-11.9	11.8	5.8	-9.2	20.1	15.7	18.9	23.2
Value added tax and investment levy	5.7	3.4	5.4	4.5	3.6	4.1	1.5	3.0	-1.2	0.7
Other taxes on products, net	2.5	0.3	4.5	1.9	1.8	1.0	-2.9	1.3	-5.1	0.0
Statistical discrepancy	..	110.5	-97.8	127.5	129.9	86.7	101.8	-37.3	-32.8	-10.8
Mainland Norway (basic prices)	4.1	3.6	5.1	6.3	2.7	2.9	2.5	1.5	1.7	2.5
Market producers	4.6	2.3	5.8	6.0	1.6	1.1	0.7	0.4	-0.2	3.8
Non-market producers	2.0	2.0	2.1	2.4	1.9	2.0	1.7	0.6	2.9	1.4
Education	2.1	3.5	2.9	3.6	3.2	3.4	3.7	0.0	4.7	-0.6
Health and social work	3.9	3.6	4.0	4.6	4.6	3.1	2.1	1.4	3.3	3.1

1 Gross domestic products is valued at market prices, while the industries are valued at basic prices
2 Financial intermediation services indirectly measured

Table A16. Gross domestic product and value added by industry. Percentage change in prices from the same period in the previous year

	1997	1998	97:4	98:1	98:2	98:3	98:4	99:1	99:2	99:3
Gross domestic product[1]	2.7	-0.4	0.3	-0.5	0.0	-0.2	-1.1	1.0	4.8	7.8
Agriculture and hunting	4.3	-0.3	-2.9	-3.8	..	2.2	-0.5	-5.2	-90.9	-5.1
Forestry and logging	2.9	-2.3	9.0	0.2	-0.4	-5.4	-6.3	-2.3	-1.7	-5.3
Fishing and fish farming	0.4	25.6	4.7	22.6	52.1	23.6	8.9	21.3	1.7	-20.0
Oil and gas extraction incl. services	3.6	-27.1	-9.3	-20.6	-21.6	-31.1	-35.6	-16.2	17.7	64.8
Oil and gas extraction	2.6	-29.3	-10.7	-22.6	-24.2	-33.8	-37.2	-17.3	20.4	71.7
Service activities incidental to oil and gas ext.	30.4	33.3	36.2	42.7	41.8	29.7	16.5	-1.3	-13.9	-12.9
Mining and quarrying	8.8	3.9	19.2	15.9	9.0	-2.9	-4.0	-4.9	-9.4	1.8
Manufacturing	2.7	6.5	7.0	7.0	5.3	8.8	5.5	0.7	0.7	-1.8
Food products, beverages and tobacco	3.3	2.5	5.2	-0.1	1.9	8.3	0.3	-9.0	-3.4	-0.3
Textiles,wearing apparel, leather	-3.7	-4.2	-7.4	-5.1	-7.2	-0.6	-2.8	3.8	8.8	3.0
Wood and wood products	10.7	-1.0	4.6	4.4	-4.7	-0.2	-3.7	-7.0	-6.5	-5.4
Pulp, paper and paper products	-23.0	22.1	-11.9	16.8	22.6	29.2	20.6	6.9	2.7	-6.3
Publishing, printing, reproduction	6.7	4.6	6.0	2.6	4.7	6.2	4.8	-5.0	-2.3	0.2
Refined petroleum products	37.6	75.3	74.4	71.9	52.3	80.1	98.3	-21.1	-49.3	-99.7
Basic chemicals	1.4	-1.9	3.0	11.6	-1.9	-9.9	-6.4	-9.0	-7.8	-0.7
Chemical and mineral products	-0.7	-3.6	-1.0	0.2	-4.6	-8.5	-1.4	-2.3	5.6	0.8
Basic metals	-5.0	14.7	32.9	43.9	13.8	17.7	-8.0	-6.5	-10.7	4.5
Machinery and other equipment n.e.c.	6.2	7.3	9.0	2.5	5.9	13.2	8.6	9.4	8.8	3.4
Building of ships, oil platforms and moduls	7.5	8.2	6.6	4.4	7.3	9.8	11.2	12.9	9.0	7.7
Furniture and other manufacturing n.e.c.	-1.2	1.0	2.5	2.5	2.0	1.7	-1.3	2.8	2.3	1.4
Electricity and gas supply	5.4	-4.2	-5.8	-8.3	-6.0	8.8	-7.6	-3.5	-7.6	-6.2
Construction	5.4	10.9	9.4	8.2	10.1	14.1	11.5	15.7	15.5	14.3
Service industries excl. general government	1.7	2.6	2.2	1.1	1.2	5.4	2.4	2.3	2.9	-0.8
Wholesale and retail trade	2.1	-0.9	2.8	-1.9	-0.2	2.3	-3.5	0.0	1.7	-3.0
Hotels and restaurants	5.0	6.4	4.3	5.4	3.5	8.0	8.5	3.2	4.7	1.9
Transport via pipelines	1.6	4.3	7.3	0.5	-0.0	6.9	9.7	4.8	6.2	5.2
Water transport	-2.2	-5.2	13.4	10.2	-17.6	3.2	-13.4	-24.1	3.5	-21.7
Ocean transport	-3.4	-6.5	13.8	10.6	-20.3	2.8	-15.5	-26.9	3.3	-23.6
Inland water and costal transport	6.8	3.6	9.5	6.7	1.5	5.5	1.1	-4.0	3.4	-11.2
Other transport industries	1.8	3.6	2.6	1.9	3.2	6.2	2.7	4.9	4.8	-1.4
Post and telecommunications	-2.2	-6.4	-3.7	-2.8	-7.0	-6.6	-8.9	-6.5	-8.8	-13.4
Financial intermediation	-7.1	3.5	-11.2	-7.6	-0.2	14.0	9.7	5.4	-0.1	-2.6
Dwelling services	2.5	2.4	3.3	3.0	2.7	2.3	1.6	2.2	3.2	3.0
Business services etc.	4.1	6.5	3.4	4.0	5.7	7.7	8.3	6.6	4.3	3.0
Personal services	5.7	7.4	5.6	4.4	6.2	9.3	9.6	9.3	7.2	5.3
General government	3.6	6.2	3.2	3.2	5.0	7.6	8.7	7.2	4.6	2.5
Central government	3.5	5.4	3.1	3.4	5.0	6.2	6.8	6.0	3.7	2.3
Civilian central government	3.3	5.3	3.0	3.1	4.9	6.3	6.8	6.3	3.8	2.3
Defence	4.1	5.4	3.5	4.0	5.1	5.8	6.8	5.3	3.5	2.0
Local government	3.6	6.5	3.3	3.2	5.0	8.2	9.5	7.6	4.9	2.6
FISIM[2]	-3.6	4.7	-4.8	-6.1	0.4	17.5	8.8	9.9	8.9	-2.0
Value added tax and investment levy	1.8	2.4	0.4	3.0	2.8	0.6	3.3	2.4	1.5	2.6
Other taxes on products, net	1.7	1.5	-6.7	9.5	5.9	-18.0	12.3	13.3	9.1	41.3
Statistical discrepancy	..	..	0.1	..	..	..	539.9	..	89.1	-70.1
Mainland Norway (basic prices)	2.7	4.4	2.9	2.5	3.8	6.9	4.5	4.1	3.1	0.3
Market producers	2.6	-2.9	0.1	-3.1	-2.4	-1.0	-5.1	-0.8	5.3	8.5
Non-market producers	3.1	5.3	3.1	3.1	4.4	6.4	7.1	6.1	4.4	2.7
Education	3.4	5.3	3.4	3.2	4.9	6.3	6.6	6.6	4.2	2.7
Health and social work	3.6	7.2	3.2	3.2	5.3	9.4	10.8	8.5	5.4	2.6

1 Gross domestic products is valued at market prices, while the industries are valued at basic prices
2 Financial intermediation services indirectly measured

Table A17. Final consumption expenditure. At current prices. Million kroner

	1997	1998	97:4	98:1	98:2	98:3	98:4	99:1	99:2	99:3
Final consumption expenditure	739 073	788 469	198 336	183 143	192 917	201 937	210 471	194 884	199 320	209 307
Consumption in households and NPISHs	520 850	550 826	142 519	126 124	134 661	141 338	148 702	134 107	137 087	146 630
Final consumption expenditure of households	495 175	523 936	135 983	119 612	128 053	134 509	141 762	127 252	130 207	139 592
Final consumption expenditure of NPISHs	25 675	26 889	6 536	6 511	6 608	6 830	6 941	6 855	6 880	7 038
Final consumption exp. of general government	218 223	237 644	55 817	57 020	58 256	60 599	61 769	60 777	62 233	62 677
Final consumption exp. of central government	86 359	93 416	22 047	22 734	22 975	23 692	24 015	23 871	24 038	24 372
Central government, individual	30 825	33 136	7 870	8 047	8 204	8 399	8 487	8 357	8 475	8 556
Central government, defence	23 466	24 871	5 969	6 070	6 138	6 285	6 378	6 288	6 424	6 438
Central government, collective individual	32 068	35 408	8 208	8 617	8 633	9 009	9 150	9 226	9 139	9 378
Final consumption exp. of local government	131 864	144 228	33 770	34 286	35 281	36 907	37 754	36 906	38 195	38 305
Central government, individual	113 073	124 483	28 957	29 536	30 452	31 885	32 611	31 860	33 029	33 092
Central government, individual	18 792	19 745	4 813	4 750	4 829	5 022	5 143	5 046	5 165	5 213
Actual indiviual consumption	664 747	708 445	179 347	163 706	173 317	181 622	189 800	174 323	178 591	188 279
Actual collective consumption	74 326	80 024	18 990	19 437	19 600	20 315	20 671	20 560	20 729	21 029

Table A18. Final consumption expenditure. At constant 1996-prices. Million kroner

	1997	1998	97:4	98:1	98:2	98:3	98:4	99:1	99:2	99:3
Final consumption expenditure	720 933	744 595	192 267	176 348	182 984	189 293	195 969	181 607	184 424	192 553
Consumption in households and NPISHs	508 333	524 158	138 413	121 439	128 189	134 123	140 407	126 256	127 904	136 572
Final consumption expenditure of households	483 336	499 386	132 125	115 185	121 990	127 962	134 249	120 050	121 684	130 343
Final consumption expenditure of NPISHs	24 997	24 772	6 287	6 254	6 199	6 161	6 157	6 206	6 220	6 230
Final consumption exp. of general government	212 600	220 437	53 855	54 909	54 795	55 170	55 563	55 351	56 519	55 981
Final consumption exp. of central government	84 263	87 361	21 326	21 911	21 642	21 840	21 968	21 961	21 984	22 058
Central government, individual	30 100	31 069	7 627	7 760	7 758	7 760	7 792	7 700	7 799	7 811
Central government, defence	22 924	23 369	5 797	5 873	5 792	5 828	5 876	5 840	5 891	5 869
Central government, collective individual	31 239	32 923	7 903	8 278	8 091	8 253	8 300	8 422	8 294	8 378
Final consumption exp. of local government	128 338	133 076	32 529	32 998	33 153	33 329	33 595	33 389	34 535	33 922
Central government, individual	109 994	114 784	27 879	28 418	28 611	28 763	28 991	28 783	29 837	29 271
Central government, individual	18 344	18 292	4 650	4 580	4 542	4 566	4 603	4 607	4 698	4 652
Actual indiviual consumption	648 426	670 011	173 918	157 617	164 558	170 646	177 190	162 739	165 541	173 654
Actual collective consumption	72 507	74 584	18 349	18 731	18 426	18 647	18 779	18 868	18 883	18 899

Table A19. Final consumption expenditure.
Percentage change in volume from the same period in the previous year

	1997	1998	97:4	98:1	98:2	98:3	98:4	99:1	99:2	99:3
Final consumption expenditure	3.4	3.3	3.9	4.1	3.4	3.8	1.9	3.0	0.8	1.7
Consumption in households and NPISHs	3.7	3.1	4.3	4.2	3.4	3.6	1.4	4.0	-0.2	1.8
Final consumption expenditure of households	3.8	3.3	4.4	4.5	3.6	3.9	1.6	4.2	-0.3	1.9
Final consumption expenditure of NPISHs	1.4	-0.9	1.8	0.3	-0.4	-1.5	-2.1	-0.8	0.3	1.1
Final consumption exp. of general government	2.8	3.7	3.0	3.9	3.6	4.1	3.2	0.8	3.1	1.5
Final consumption exp. of central government	2.3	3.7	2.7	4.3	3.4	4.0	3.0	0.2	1.6	1.0
Central government, individual	2.4	3.2	2.7	4.0	3.6	3.1	2.2	-0.8	0.5	0.7
Central government, defence	4.3	1.9	4.9	2.3	1.8	2.3	1.4	-0.6	1.7	0.7
Central government, collective individual	0.8	5.4	1.1	6.0	4.4	6.0	5.0	1.7	2.5	1.5
Final consumption exp. of local government	3.2	3.7	3.2	3.7	3.6	4.2	3.3	1.2	4.2	1.8
Central government, individual	3.6	4.4	3.5	4.2	4.2	5.0	4.0	1.3	4.3	1.8
Central government, individual	0.6	-0.3	1.0	0.5	0.1	-0.6	-1.0	0.6	3.4	1.9
Actual indiviual consumption	3.6	3.3	4.1	4.2	3.5	3.8	1.9	3.2	0.6	1.8
Actual collective consumption	1.8	2.9	2.2	3.4	2.5	3.2	2.3	0.7	2.5	1.4

Table A20. Final consumption expenditure.
Percentage change in prices from the same period in the previous year

	1997	1998	97:4	98:1	98:2	98:3	98:4	99:1	99:2	99:3
Final consumption expenditure	2.5	3.3	1.8	2.3	3.0	3.7	4.1	3.3	2.5	1.9
Consumption in households and NPISHs	2.5	2.6	1.7	1.9	2.6	2.8	2.9	2.3	2.0	1.9
Final consumption expenditure of households	2.4	2.4	1.7	1.9	2.5	2.6	2.6	2.1	1.9	1.9
Final consumption expenditure of NPISHs	2.7	5.7	2.3	3.1	4.3	6.9	8.4	6.1	3.8	1.9
Final consumption exp. of general government	2.6	5.0	2.1	3.0	4.0	5.7	7.3	5.7	3.6	1.9
Final consumption exp. of central government	2.5	4.3	2.0	3.0	3.9	4.7	5.7	4.8	3.0	1.9
Central government, individual	2.4	4.1	2.1	2.7	3.6	4.7	5.5	4.7	2.8	1.2
Central government, defence	2.4	4.0	1.2	3.1	3.7	3.6	5.4	4.2	2.9	1.7
Central government, collective individual	2.7	4.8	2.4	3.2	4.3	5.4	6.1	5.3	3.3	2.5
Final consumption exp. of local government	2.7	5.5	2.1	3.0	4.1	6.4	8.2	6.4	3.9	2.0
Central government, individual	2.8	5.5	2.1	3.1	4.1	6.4	8.3	6.5	4.0	2.0
Central government, individual	2.4	5.4	2.1	2.9	4.2	6.4	7.9	5.6	3.4	1.9
Actual indiviual consumption	2.5	3.1	1.8	2.2	2.9	3.5	3.9	3.1	2.4	1.9
Actual collective consumption	2.5	4.7	2.0	3.1	4.1	5.1	6.4	5.0	3.2	2.1

Table A21. Final consumption expenditure of households. At current prices. Million kroner

	1997	1998	97:4	98:1	98:2	98:3	98:4	99:1	99:2	99:3
Final consumption expenditure of households	495 175	523 936	135 983	119 612	128 053	134 509	141 762	127 252	130 207	139 592
Food, beverages and tobacco	100 864	106 547	27 983	22 792	26 943	27 482	29 330	24 659	26 646	28 308
Clothing and footwear	29 839	31 633	9 561	6 241	7 604	7 808	9 980	6 751	8 125	8 206
Housing, water, electr, gas and other fuels	109 663	112 570	28 955	29 789	26 968	26 346	29 467	30 741	27 793	27 020
Furnishings, household equipment etc.	31 400	34 056	10 095	7 672	7 422	8 696	10 266	7 860	7 163	8 603
Health	13 631	15 168	3 703	3 577	3 772	3 798	4 021	3 875	4 001	4 071
Transport	82 573	84 838	19 809	19 390	22 395	23 427	19 626	20 221	22 092	24 424
Leisure, entertainment and culture	47 906	53 184	14 273	11 631	12 065	13 891	15 597	12 803	12 591	14 948
Education	2 271	2 435	642	560	518	678	679	590	538	721
Hotels, cafes and restaurants	29 826	32 478	7 406	6 732	8 146	9 584	8 016	7 204	8 708	10 143
Miscellaneous goods and services	41 502	44 288	11 278	10 237	10 939	11 039	12 072	10 964	11 089	11 299
Direct purchases abroad by resident households	21 367	23 481	5 174	4 218	5 354	8 139	5 771	4 976	6 013	8 396
- Direct purchases by non-residents	-15 667	-16 741	-2 896	-3 227	-4 072	-6 380	-3 062	-3 392	-4 552	-6 549
Goods	282 650	298 334	81 691	66 892	72 307	75 264	83 871	70 922	71 383	76 974
Services	206 825	218 862	52 014	51 729	54 465	57 486	55 182	54 745	57 363	60 770
Services, dwellings	87 692	91 130	22 235	22 435	22 695	22 957	23 043	23 308	23 689	23 875
Other services	119 132	127 732	29 779	29 293	31 770	34 529	32 140	31 437	33 674	36 895

Table A22. Final consumption expenditure of households. At constant 1996-prices. Million kroner

	1997	1998	97:4	98:1	98:2	98:3	98:4	99:1	99:2	99:3
Final consumption expenditure of households	483 336	499 386	132 125	115 185	121 990	127 962	134 249	120 050	121 684	130 343
Food, beverages and tobacco	96 713	96 335	26 698	21 024	24 423	24 645	26 243	21 923	23 362	24 842
Clothing and footwear	29 920	32 397	9 485	6 499	7 661	8 181	10 056	7 262	8 138	8 641
Housing, water, electr, gas and other fuels	106 461	108 700	28 181	28 623	26 049	25 384	28 643	29 305	26 362	25 463
Furnishings, household equipment etc.	31 209	33 607	10 022	7 635	7 324	8 583	10 064	7 713	6 950	8 407
Health	13 300	14 091	3 581	3 407	3 533	3 484	3 667	3 503	3 603	3 634
Transport	79 879	80 446	18 943	18 459	21 286	22 156	18 544	18 855	20 418	22 120
Leisure, entertainment and culture	47 014	51 250	13 975	11 302	11 593	13 361	14 994	12 159	11 882	14 009
Education	2 195	2 268	614	528	484	633	624	530	479	641
Hotels, cafes and restaurants	28 844	30 005	6 957	6 296	7 493	9 081	7 136	6 418	7 650	9 295
Miscellaneous goods and services	41 550	43 681	11 272	10 271	10 823	10 803	11 784	10 863	11 195	11 285
Direct purchases abroad by resident households	21 438	22 286	5 152	4 190	5 123	7 666	5 307	4 622	5 737	7 960
- Direct purchases by non-residents	-15 188	-15 680	-2 755	-3 049	-3 802	-6 016	-2 812	-3 102	-4 092	-5 956
Goods	274 979	285 468	79 488	64 288	68 987	71 962	80 231	67 492	66 931	72 470
Services	202 106	207 313	50 241	49 757	51 682	54 350	51 524	51 038	53 108	55 869
Services, dwellings	85 404	86 522	21 428	21 496	21 582	21 699	21 744	21 809	21 881	21 939
Other services	116 702	120 791	28 813	28 261	30 100	32 651	29 780	29 229	31 227	33 930

Table A23. Final consumption expenditure of households. Percentage change in volume from the same period in the previous year

	1997	1998	97:4	98:1	98:2	98:3	98:4	99:1	99:2	99:3
Final consumption expenditure of households	3.8	3.3	4.4	4.5	3.6	3.9	1.6	4.2	-0.3	1.9
Food, beverages and tobacco	1.2	-0.4	2.9	-1.3	3.6	-2.0	-1.7	4.3	-4.3	0.8
Clothing and footwear	4.7	8.3	5.5	9.7	3.9	14.6	6.0	11.7	6.2	5.6
Housing, water, electr, gas and other fuels	0.8	2.1	2.2	2.7	1.4	2.6	1.6	2.4	1.2	0.3
Furnishings, household equipment etc.	7.3	7.7	7.6	13.4	7.8	12.1	0.4	1.0	-5.1	-2.1
Health	6.2	6.0	8.7	11.3	7.6	3.2	2.4	2.8	2.0	4.3
Transport	3.0	0.7	-0.1	2.0	-0.0	2.9	-2.1	2.1	-4.1	-0.2
Leisure, entertainment and culture	6.8	9.0	7.7	10.8	7.0	11.2	7.3	7.6	2.5	4.9
Education	3.0	3.3	4.9	2.9	1.2	7.3	1.6	0.5	-0.9	1.2
Hotels, cafes and restaurants	7.4	4.0	11.3	4.9	6.4	2.7	2.6	1.9	2.1	2.4
Miscellaneous goods and services	5.3	5.1	5.5	5.8	5.9	4.3	4.5	5.8	3.4	4.5
Direct purchases abroad by resident households	8.6	4.0	10.0	6.5	3.0	3.9	3.0	10.3	12.0	3.8
- Direct purchases by non-residents	-1.8	3.2	2.5	-1.1	1.2	7.6	2.1	1.7	7.6	-1.0
Goods	3.6	3.8	4.7	5.1	4.4	5.5	0.9	5.0	-3.0	0.7
Services	3.1	2.6	3.3	3.2	2.4	2.2	2.6	2.6	2.8	2.8
Services, dwellings	0.8	1.3	0.6	1.1	1.1	1.6	1.5	1.5	1.4	1.1
Other services	4.9	3.5	5.4	4.8	3.3	2.7	3.4	3.4	3.7	3.9

Table A24. Final consumption expenditure of households. Percentage change in prices from the same period in the previous year

	1997	1998	97:4	98:1	98:2	98:3	98:4	99:1	99:2	99:3
Final consumption expenditure of households	2.4	2.4	1.7	1.9	2.5	2.6	2.6	2.1	1.9	1.9
Food, beverages and tobacco	4.3	6.0	4.2	5.4	5.8	6.3	6.6	3.8	3.4	2.2
Clothing and footwear	-0.3	-2.1	-1.4	-3.8	-1.5	-1.7	-1.5	-3.2	0.6	-0.5
Housing, water, electr, gas and other fuels	3.0	0.5	0.5	-0.1	1.0	1.2	0.1	0.8	1.8	2.2
Furnishings, household equipment etc.	0.6	0.7	0.2	0.3	0.5	0.7	1.3	1.4	1.7	1.0
Health	2.5	5.0	2.3	3.7	4.7	5.7	6.0	5.4	4.0	2.8
Transport	3.4	2.0	4.3	3.0	2.1	1.8	1.2	2.1	2.8	4.4
Leisure, entertainment and culture	1.9	1.8	1.7	1.5	2.3	1.7	1.9	2.3	1.8	2.6
Education	3.4	3.8	2.5	3.6	4.3	3.2	4.1	4.8	4.8	5.0
Hotels, cafes and restaurants	3.4	4.7	2.7	4.6	3.7	4.8	5.5	5.0	4.7	3.4
Miscellaneous goods and services	-0.1	1.5	-1.7	0.5	1.0	2.0	2.4	1.3	-2.0	-2.0
Direct purchases abroad by resident households	-0.3	5.7	0.9	5.4	5.0	4.6	8.3	6.9	0.3	-0.6
- Direct purchases by non-residents	3.2	3.5	3.2	3.8	3.1	3.6	3.6	3.3	3.9	3.7
Goods	2.8	1.7	1.6	1.0	1.9	2.0	1.7	1.0	1.8	1.6
Services	2.3	3.2	2.1	2.8	3.0	3.3	3.4	3.2	2.5	2.8
Services, dwellings	2.7	2.6	3.2	3.0	2.8	2.4	2.1	2.4	3.0	2.9
Other services	2.1	3.6	1.2	2.7	3.2	3.9	4.4	3.8	2.2	2.8

Table A25. Gross fixed capital formation by type of capital goods and by industry. At current prices. Million kroner

	1997	1998	97:4	98:1	98:2	98:3	98:4	99:1	99:2	99:3
Gross fixed capital formation	254 190	286 467	70 587	64 281	68 446	72 808	80 932	63 281	63 668	69 398
Building and construction	98 470	104 994	28 036	24 500	24 923	26 325	29 247	25 454	25 443	27 069
Oil exploraion, drilling, pipelines	28 046	32 821	8 001	7 537	8 699	8 686	7 899	7 775	7 792	5 320
Oil platforms etc.	32 790	43 478	7 991	7 723	10 426	10 811	14 518	9 203	9 121	11 452
Ships and boats	13 704	13 876	2 593	5 798	2 049	3 197	2 831	1 690	1 327	4 529
Other transport equipment	23 527	23 224	6 675	5 047	6 083	5 786	6 309	4 419	4 526	4 918
Machinery and equipment	57 653	68 073	17 291	13 675	16 267	18 003	20 129	14 740	15 459	16 110
Agriculture and hunting	6 485	6 501	1 519	1 068	1 998	1 915	1 521	1 059	1 981	1 897
Forestry and logging	563	585	142	142	147	147	148	148	151	151
Fishing and fish farming	2 125	2 067	260	864	433	465	304	264	193	756
Oil and gas extraction incl. services	54 253	73 605	14 382	14 042	18 346	18 713	22 503	16 467	16 550	17 171
Oil and gas extraction	53 778	70 277	14 269	14 348	18 136	18 684	19 109	16 425	16 538	13 994
Service activities incidental to oil and gas ext.	475	3 328	113	-306	210	29	3 394	42	12	3 177
Mining and quarrying	273	361	97	44	107	78	133	46	86	99
Manufacturing	18 821	20 815	6 251	3 671	4 926	5 862	6 356	3 136	3 864	3 927
Food products, beverages and tobacco	3 762	3 885	1 191	718	875	1 134	1 157	648	758	848
Textiles,wearing apparel, leather	298	234	96	39	85	48	62	33	36	40
Wood and wood products	562	431	149	90	130	114	97	88	106	93
Pulp, paper and paper products	1 603	2 425	523	351	805	826	443	209	466	390
Publishing, printing, reproduction	1 725	2 173	596	452	424	710	587	482	448	496
Refined petroleum products	531	340	256	106	91	49	95	35	73	29
Basic chemicals	1 800	2 163	518	262	372	661	867	316	401	349
Chemical and mineral products	2 258	2 141	775	508	505	474	654	329	368	529
Basic metals	2 434	1 597	705	346	411	367	474	305	411	332
Machinery and other equipment n.e.c.	2 493	3 678	973	499	819	1 008	1 352	453	558	555
Building of ships, oil platforms and moduls	860	1 100	315	195	238	307	360	146	117	85
Furniture and other manufacturing n.e.c.	493	647	155	106	171	162	208	93	122	181
Electricity and gas supply	4 386	4 862	1 385	800	1 251	1 387	1 425	861	1 161	1 094
Construction	2 495	2 666	659	651	689	654	672	559	547	505
Service industries excl. general government	126 840	134 262	35 149	34 558	30 495	33 833	35 376	31 417	30 301	33 636
Wholesale and retail trade	26 287	28 830	7 616	6 939	7 214	7 126	7 552	6 782	6 442	6 767
Hotels and restaurants	2 554	2 742	790	692	681	665	703	598	568	566
Transport via pipelines	8 168	8 387	2 354	2 008	2 113	2 548	1 718	2 022	1 436	1 064
Water transport	11 917	12 449	2 331	5 175	1 768	2 895	2 611	1 447	1 160	3 940
Ocean transport	10 877	11 455	2 125	4 807	1 555	2 686	2 408	1 311	1 028	3 668
Inland water and costal transport	1 040	994	205	368	214	209	203	136	131	273
Other transport industries	17 991	17 007	5 098	4 129	3 055	4 605	5 219	3 924	4 148	3 651
Post and telecommunications	6 733	7 630	2 655	1 243	1 371	1 961	3 056	1 983	1 962	2 758
Financial intermediation	6 331	6 943	1 723	1 804	1 728	1 651	1 760	1 685	1 688	1 864
Dwelling service	30 336	31 629	8 229	7 824	7 817	7 757	8 231	7 986	7 804	7 941
Business services etc.	9 451	11 028	2 506	2 718	2 835	2 787	2 688	2 849	3 075	3 087
Personal services	7 072	7 617	1 847	2 026	1 914	1 839	1 837	2 140	2 020	1 999
General government	37 949	40 744	10 743	8 441	10 054	9 755	12 494	9 325	8 833	10 161
Central government	15 238	17 278	4 892	3 312	4 652	3 777	5 537	3 991	3 272	4 010
Civilian central government	11 117	13 342	3 441	2 517	3 908	2 886	4 031	3 302	2 639	3 054
Defence	4 121	3 936	1 451	795	744	891	1 506	689	633	956
Local government	22 711	23 466	5 851	5 129	5 402	5 978	6 957	5 334	5 561	6 151
Mainland Norway	180 892	193 020	51 725	43 423	46 433	48 861	54 303	43 481	44 653	47 495
Education	10 473	8 156	1 901	2 084	2 178	1 864	2 029	2 151	2 099	1 779
Health and social work	8 295	10 645	2 501	2 410	2 397	2 627	3 211	3 050	2 906	3 210

Table A26. Gross fixed capital formation by type of capital goods and by industry. At constant 1996-prices. Million kroner

	1997	1998	97:4	98:1	98:2	98:3	98:4	99:1	99:2	99:3
Gross fixed capital formation	248 804	268 965	68 359	61 192	64 031	67 891	75 852	59 039	58 409	63 887
Building and construction	95 671	97 205	26 880	23 354	23 211	24 076	26 564	22 840	22 423	23 505
Oil exploraion, drilling, pipelines	26 162	28 458	7 375	6 683	7 398	7 396	6 981	6 877	6 856	4 506
Oil platforms etc.	31 601	40 584	7 620	7 265	9 677	9 902	13 740	8 487	8 362	10 328
Ships and boats	12 883	13 181	2 414	5 236	1 955	3 136	2 854	1 629	1 285	4 587
Other transport equipment	23 744	21 685	6 619	4 784	5 660	5 613	5 627	4 456	4 051	4 720
Machinery and equipment	58 743	67 853	17 451	13 869	16 128	17 768	20 087	14 750	15 431	16 241
Agriculture and hunting	6 463	6 249	1 506	1 054	1 918	1 811	1 466	1 015	1 861	1 762
Forestry and logging	559	559	139	139	141	139	140	139	140	140
Fishing and fish farming	2 063	1 942	264	806	415	451	271	246	181	750
Oil and gas extraction incl. services	51 460	66 756	13 485	12 817	16 399	16 654	20 886	14 907	14 906	15 244
Oil and gas extraction	51 025	63 630	13 376	13 127	16 203	16 628	17 672	14 869	14 894	12 327
Service activities incidental to oil and gas ext.	435	3 126	108	-309	196	27	3 213	39	12	2 917
Mining and quarrying	274	347	96	43	103	74	127	44	82	95
Manufacturing	18 823	20 197	6 170	3 632	4 772	5 661	6 131	3 039	3 704	3 761
Food products, beverages and tobacco	3 749	3 742	1 171	708	839	1 088	1 107	624	721	804
Textiles,wearing apparel, leather	302	231	96	39	84	47	61	32	35	39
Wood and wood products	561	413	146	88	124	108	92	83	98	88
Pulp, paper and paper products	1 618	2 395	521	352	794	812	437	207	460	380
Publishing, printing, reproduction	1 732	2 119	592	449	411	693	567	473	435	485
Refined petroleum products	517	333	247	103	89	48	93	35	71	28
Basic chemicals	1 814	2 114	518	261	364	644	845	314	396	347
Chemical and mineral products	2 248	2 075	761	499	488	456	633	317	349	496
Basic metals	2 425	1 528	692	341	394	347	446	289	378	306
Machinery and other equipment n.e.c.	2 497	3 546	960	494	789	963	1 300	433	533	538
Building of ships, oil platforms and moduls	863	1 069	312	193	231	298	347	140	112	81
Furniture and other manufacturing n.e.c.	497	632	154	105	167	156	204	91	118	169
Electricity and gas supply	4 374	4 664	1 368	786	1 200	1 319	1 359	818	1 097	1 028
Construction	2 513	2 546	652	632	656	630	628	549	520	491
Service industries excl. general government	124 937	127 087	34 209	33 094	28 797	32 028	33 168	29 638	27 832	31 380
Wholesale and retail trade	26 448	27 645	7 537	6 776	6 896	6 840	7 133	6 559	6 099	6 481
Hotels and restaurants	2 527	2 597	769	669	646	628	654	559	525	529
Transport via pipelines	7 882	7 824	2 244	1 916	1 977	2 346	1 585	1 924	1 313	975
Water transport	11 198	11 854	2 163	4 671	1 688	2 841	2 654	1 394	1 115	3 995
Ocean transport	10 234	10 901	1 978	4 340	1 485	2 634	2 442	1 253	976	3 717
Inland water and costal transport	964	953	185	332	203	206	212	141	138	278
Other transport industries	17 887	16 101	5 012	4 003	2 824	4 442	4 833	3 822	3 745	3 404
Post and telecommunications	6 760	7 417	2 640	1 237	1 333	1 895	2 953	1 931	1 894	2 676
Financial intermediation	6 267	6 583	1 681	1 746	1 640	1 555	1 642	1 580	1 556	1 712
Dwelling service	29 483	29 299	7 891	7 460	7 276	7 093	7 470	7 170	6 881	6 895
Business services etc.	9 451	10 488	2 461	2 639	2 691	2 646	2 512	2 691	2 832	2 861
Personal services	7 032	7 278	1 811	1 976	1 827	1 742	1 732	2 009	1 873	1 852
General government	37 339	38 618	10 472	8 188	9 629	9 124	11 677	8 642	8 087	9 236
Central government	15 036	16 530	4 800	3 227	4 517	3 559	5 228	3 721	3 017	3 693
Civilian central government	10 903	12 627	3 338	2 426	3 786	2 684	3 731	3 038	2 401	2 747
Defence	4 133	3 903	1 462	801	731	875	1 496	683	616	946
Local government	22 303	22 088	5 672	4 961	5 112	5 565	6 449	4 921	5 070	5 544
Mainland Norway	179 228	183 483	50 652	42 119	44 169	46 255	50 939	40 955	41 214	43 950
Education	10 312	7 736	1 845	2 022	2 075	1 744	1 895	1 996	1 938	1 618
Health and social work	8 216	10 135	2 449	2 349	2 285	2 479	3 021	2 841	2 680	2 956

Table A27. Gross fixed capital formation by type of capital goods and by industry. Percentage change in volume from the same period in the previous year

	1997	1998	97:4	98:1	98:2	98:3	98:4	99:1	99:2	99:3
Gross fixed capital formation	15.1	8.1	7.3	8.4	2.2	10.7	11.0	-3.5	-8.8	-5.9
Building and construction	12.3	1.6	12.6	5.3	1.0	1.9	-1.2	-2.2	-3.4	-2.4
Oil exploraion, drilling, pipelines	29.3	8.8	36.4	28.4	11.2	6.8	-5.3	2.9	-7.3	-39.1
Oil platforms etc.	11.5	28.4	-21.3	-0.8	-0.7	43.1	80.3	16.8	-13.6	4.3
Ships and boats	70.5	2.3	-10.8	29.4	-34.1	-9.2	18.2	-68.9	-34.3	46.3
Other transport equipment	3.9	-8.7	6.0	-12.3	-3.9	-2.9	-15.0	-6.9	-28.4	-15.9
Machinery and equipment	13.0	15.5	10.4	13.4	11.7	21.5	15.1	6.3	-4.3	-8.6
Agriculture and hunting	0.2	-3.3	0.4	-1.4	-3.8	-4.4	-2.6	-3.7	-3.0	-2.7
Forestry and logging	0.0	-0.1	-0.7	-0.4	-0.5	-0.2	0.8	0.1	-0.7	0.7
Fishing and fish farming	96.6	-5.8	-17.0	2.5	-9.4	-18.8	2.5	-69.4	-56.2	66.2
Oil and gas extraction incl. services	13.5	29.7	-7.3	10.0	12.2	42.3	54.9	16.3	-9.1	-8.5
Oil and gas extraction	23.9	24.7	20.0	16.4	12.4	39.1	32.1	13.3	-8.1	-25.9
Service activities incidental to oil and gas ext.	-89.5	618.5	-96.8	..	-3.4	..	..	..	-94.1	..
Mining and quarrying	-24.8	26.7	-1.5	26.4	46.9	0.2	32.5	3.9	-20.5	27.3
Manufacturing	7.5	7.3	14.8	6.0	-0.6	27.9	-0.6	-16.3	-22.4	-33.6
Food products, beverages and tobacco	5.8	-0.2	0.5	-5.4	-6.2	16.4	-5.5	-11.9	-14.1	-26.1
Textiles,wearing apparel, leather	37.1	-23.4	35.4	-40.0	8.2	-24.4	-36.8	-19.4	-58.5	-17.7
Wood and wood products	-23.0	-26.5	-16.7	-37.6	-6.8	-23.4	-36.8	-5.5	-21.4	-18.6
Pulp, paper and paper products	21.2	48.0	11.5	14.9	109.8	97.3	-16.2	-41.1	-42.1	-53.2
Publishing, printing, reproduction	21.7	22.4	38.6	57.8	-19.6	100.7	-4.1	5.3	6.0	-30.0
Refined petroleum products	5.4	-35.7	74.6	177.4	-15.6	-62.6	-62.4	-66.0	-19.9	-42.3
Basic chemicals	-33.0	16.6	-21.4	-39.9	-26.6	76.4	63.2	20.0	8.7	-46.2
Chemical and mineral products	23.7	-7.7	31.1	40.4	-14.3	-19.0	-16.8	-36.4	-28.5	8.8
Basic metals	16.6	-37.0	-10.4	-27.5	-47.2	-32.9	-35.5	-15.1	-4.1	-11.8
Machinery and other equipment n.e.c.	28.2	42.0	60.5	29.5	46.2	56.5	35.3	-12.3	-32.5	-44.1
Building of ships, oil platforms and moduls	21.5	23.9	72.9	44.2	5.6	50.1	11.3	-27.3	-51.7	-72.7
Furniture and other manufacturing n.e.c.	-2.5	27.1	13.8	54.6	26.1	9.2	32.4	-13.6	-29.1	8.5
Electricity and gas supply	-3.0	6.6	-9.0	28.2	4.3	6.2	-0.6	4.1	-8.6	-22.0
Construction	14.4	1.3	13.9	9.1	2.3	-1.7	-3.6	-13.3	-20.7	-22.1
Service industries excl. general government	17.2	1.7	15.2	14.5	-3.5	0.1	-3.0	-10.4	-3.4	-2.0
Wholesale and retail trade	17.7	4.5	18.8	12.5	7.3	5.8	-5.4	-3.2	-11.6	-5.2
Hotels and restaurants	26.3	2.8	68.7	33.4	26.2	-15.7	-14.9	-16.4	-18.7	-15.9
Transport via pipelines	31.5	-0.7	74.0	75.9	-5.3	-4.7	-29.4	0.4	-33.6	-58.4
Water transport	68.3	5.9	-10.5	36.9	-35.3	-5.8	22.7	-70.2	-33.9	40.6
Ocean transport	71.1	6.5	-10.6	40.6	-37.9	-5.2	23.5	-71.1	-34.2	41.1
Inland water and costal transport	43.3	-1.2	-8.7	2.4	-7.4	-12.6	14.4	-57.6	-31.8	34.9
Other transport industries	15.2	-10.0	21.3	-6.3	-32.9	1.1	-3.6	-4.5	32.6	-23.4
Post and telecommunications	12.7	9.7	13.5	9.7	7.8	7.9	11.9	56.2	42.1	41.2
Financial intermediation	9.5	5.0	8.5	16.9	8.0	-1.2	-2.3	-9.5	-5.1	10.1
Dwelling service	8.2	-0.6	8.0	7.9	1.5	-5.5	-5.3	-3.9	-5.4	-2.8
Business services etc.	10.6	11.0	10.4	16.6	13.9	11.8	2.1	2.0	5.3	8.1
Personal services	8.5	3.5	9.4	10.0	6.9	1.6	-4.4	1.7	2.5	6.3
General government	18.1	3.4	4.8	-11.5	7.5	5.4	11.5	5.5	-16.0	1.2
Central government	1.6	9.9	3.3	-3.8	39.5	-2.3	8.9	15.3	-33.2	3.8
Civilian central government	3.1	15.8	4.3	-1.0	58.6	-1.6	11.8	25.2	-36.6	2.4
Defence	-2.1	-5.6	0.9	-11.4	-14.1	-4.5	2.4	-14.7	-15.8	8.1
Local government	32.7	-1.0	6.2	-15.9	-10.6	11.0	13.7	-0.8	-0.8	-0.4
Mainland Norway	12.8	2.4	10.9	3.7	1.4	4.2	0.6	-2.8	-6.7	-5.0
Education	73.4	-25.0	-1.7	-41.9	-34.3	-4.5	2.7	-1.3	-6.6	-7.2
Health and social work	8.6	23.4	7.7	24.9	23.2	22.0	23.4	20.9	17.3	19.2

Table A28. Gross fixed capital formation by type of capital goods and by industry. Percentage change in prices from the same period in the previous year

	1997	1998	97:4	98:1	98:2	98:3	98:4	99:1	99:2	99:3
Gross fixed capital formation	2.2	4.3	2.1	5.3	4.8	3.8	3.3	2.0	2.0	1.3
Building and construction	2.9	4.9	3.8	3.8	4.7	5.7	5.6	6.2	5.7	5.3
Oil exploraion, drilling, pipelines	7.2	7.6	7.8	9.2	10.6	7.1	4.3	0.3	-3.3	0.5
Oil platforms etc.	3.8	3.2	4.0	5.0	3.8	3.8	0.8	2.0	1.2	1.6
Ships and boats	6.4	-1.0	7.5	10.2	-0.6	-10.1	-7.6	-6.3	-1.4	-3.2
Other transport equipment	-0.9	8.1	-4.7	12.6	5.8	3.4	11.2	-6.0	3.9	1.1
Machinery and equipment	-1.9	2.2	-1.6	0.8	3.5	3.4	1.1	1.4	-0.7	-2.1
Agriculture and hunting	0.3	3.7	0.1	2.4	4.1	4.7	2.8	2.9	2.3	1.8
Forestry and logging	0.7	3.9	1.4	2.7	4.2	4.7	3.8	4.1	2.9	2.1
Fishing and fish farming	3.0	3.3	-1.9	7.0	1.0	-5.3	14.3	-0.2	1.9	-2.2
Oil and gas extraction incl. services	5.4	4.6	5.9	7.2	6.4	4.3	1.0	0.8	-0.7	0.2
Oil and gas extraction	5.4	4.8	5.9	7.0	6.6	4.6	1.4	1.1	-0.8	1.0
Service activities incidental to oil and gas ext.	9.2	-2.5	4.3	-2.3	-4.1	11.9	1.0	9.2	1.1	0.2
Mining and quarrying	-0.2	4.2	-0.3	4.4	4.4	5.0	3.6	1.8	1.8	0.5
Manufacturing	-0.0	3.1	0.4	2.5	3.9	3.7	2.3	2.1	1.1	0.8
Food products, beverages and tobacco	0.4	3.4	0.9	2.4	4.6	3.9	2.8	2.4	0.8	1.2
Textiles,wearing apparel, leather	-1.3	2.7	-1.3	1.0	3.8	3.3	2.3	4.2	0.7	-0.6
Wood and wood products	0.1	4.3	0.9	4.6	5.3	4.2	2.8	2.6	3.8	1.0
Pulp, paper and paper products	-0.9	2.2	-0.5	1.8	2.8	2.8	1.1	1.0	0.0	0.8
Publishing, printing, reproduction	-0.4	3.0	-0.4	2.7	4.0	3.0	2.9	1.1	-0.2	-0.3
Refined petroleum products	2.6	-0.3	3.3	2.5	1.4	0.0	-1.6	-2.3	0.6	1.4
Basic chemicals	-0.7	3.1	-1.0	1.3	3.5	3.9	2.5	0.4	-1.1	-1.9
Chemical and mineral products	0.5	2.7	1.1	3.2	3.9	3.5	1.4	1.9	1.9	2.6
Basic metals	0.4	4.2	1.2	2.4	4.3	5.8	4.3	4.0	4.3	2.5
Machinery and other equipment n.e.c.	-0.1	3.9	0.3	3.1	5.1	4.9	2.7	3.5	0.9	-1.4
Building of ships, oil platforms and moduls	-0.4	3.3	0.1	2.6	4.4	3.9	2.7	3.0	2.1	1.5
Furniture and other manufacturing n.e.c.	-0.8	3.2	-0.6	2.2	4.3	4.9	1.7	1.5	0.7	3.0
Electricity and gas supply	0.3	3.9	0.6	2.6	4.4	4.9	3.6	3.4	1.5	1.2
Construction	-0.7	5.5	-2.0	6.2	5.3	4.8	5.8	-0.9	0.2	-1.0
Service industries excl. general government	1.5	4.1	1.3	5.5	4.4	2.9	3.8	1.5	2.8	1.5
Wholesale and retail trade	-0.6	4.9	-1.5	5.1	5.2	5.0	4.8	1.0	1.0	0.2
Hotels and restaurants	1.1	4.5	1.1	4.5	5.2	4.6	4.6	3.5	2.4	1.0
Transport via pipelines	3.6	3.4	3.7	3.9	4.8	3.3	3.3	0.3	2.4	0.4
Water transport	6.4	-1.3	7.5	10.4	-0.5	-10.1	-8.7	-6.3	-0.7	-3.2
Ocean transport	6.3	-1.1	7.2	10.6	-0.4	-10.0	-8.2	-5.6	0.6	-3.2
Inland water and costal transport	7.9	-3.3	9.8	9.2	-1.6	-11.8	-13.6	-12.6	-9.8	-3.3
Other transport industries	0.6	5.0	-0.4	6.8	6.1	1.8	6.2	-0.4	2.4	3.5
Post and telecommunications	-0.4	3.3	-0.1	2.1	4.0	4.1	2.9	2.2	0.8	-0.4
Financial intermediation	1.0	4.4	1.3	3.9	4.5	5.0	4.6	3.2	3.0	2.5
Dwelling service	2.9	4.9	3.8	3.8	4.7	5.7	5.7	6.2	5.6	5.3
Business services etc.	-0.0	5.2	-0.4	5.1	5.3	5.3	5.1	2.8	3.0	2.5
Personal services	0.6	4.1	0.9	3.3	4.5	4.8	4.0	3.9	2.9	2.2
General government	1.6	3.8	2.0	2.8	3.0	4.6	4.3	4.7	4.6	2.9
Central government	1.3	3.1	1.2	2.7	1.8	4.0	3.9	4.5	5.3	2.3
Civilian central government	2.0	3.6	2.8	3.2	1.7	5.1	4.8	4.8	6.5	3.4
Defence	-0.3	1.1	-2.2	1.0	1.7	0.3	1.4	1.6	1.0	-0.7
Local government	1.8	4.3	2.6	2.9	4.1	5.0	4.6	4.8	3.8	3.3
Mainland Norway	0.9	4.2	0.9	4.1	4.3	4.2	4.4	3.0	3.1	2.3
Education	1.6	3.8	2.5	2.5	3.4	4.6	4.0	4.6	3.2	2.9
Health and social work	1.0	4.0	1.6	2.9	4.4	4.8	4.0	4.7	3.4	2.5

Table A29. Exports of goods and services. At current prices. Million kroner

	1997	1998	97:4	98:1	98:2	98:3	98:4	99:1	99:2	99:3
Total exports	448 631	414 077	114 966	111 926	102 821	99 418	99 911	98 958	107 342	118 188
Goods	343 673	306 044	89 456	85 483	75 889	70 223	74 448	74 030	81 113	87 935
Crude oil and natural gas	163 674	118 304	41 909	35 444	29 947	25 988	26 925	27 916	34 144	43 605
Ships, new	5 267	7 364	1 326	2 727	1 889	1 480	1 268	1 425	2 911	201
Ships, second-hand	4 126	2 897	945	459	1 497	311	630	701	869	222
Oil platforms and modules, new	231	66	9	18	37	9	2	5	17	2
Oil platforms, second-hand	1 005	523	26	399	40	53	31	48	98	41
Direct exports related to petroleum activities	132	127	31	29	36	34	28	57	83	85
Other goods	169 238	176 763	45 210	46 407	42 443	42 348	45 564	43 878	42 991	43 779
Agriculture, forestry and fishing	7 711	8 830	2 181	2 201	2 093	2 183	2 353	2 085	2 072	2 320
Mining and quarrying	2 284	2 409	593	561	603	618	627	513	613	545
Manufacturing products	158 631	165 097	42 214	43 571	39 685	39 394	42 446	41 181	40 180	40 471
Food products, beverages and tobacco	21 430	23 769	6 668	6 245	5 468	5 296	6 760	6 269	5 270	5 493
Textiles, wearing apparel, leather	2 351	2 460	632	596	592	611	661	633	573	609
Wood products	2 923	2 827	712	657	690	671	809	776	826	758
Pulp, paper and paper products	10 811	12 074	2 824	3 041	2 973	3 020	3 040	3 148	2 871	2 967
Printing and publishing	473	625	131	143	124	146	212	195	191	190
Refined petroleum products	20 619	13 838	4 884	4 827	3 048	3 134	2 829	2 645	3 266	4 357
Basic chemicals	12 963	13 727	3 238	3 762	3 432	3 400	3 133	3 177	3 155	3 347
Chemical and mineral products	10 627	11 241	2 737	2 691	2 861	2 879	2 810	2 962	3 179	2 867
Basic metals	33 792	35 451	8 767	9 656	8 736	8 559	8 500	8 464	8 451	8 124
Machinery and other equipment n.e.c.	39 124	45 346	10 607	11 050	10 882	10 785	12 628	11 912	11 452	10 851
Other manufacturing products n.e.c.	3 518	3 739	1 014	903	879	893	1 064	1 000	946	908
Electricity	612	427	222	74	62	153	138	99	126	443
Services	104 958	108 033	25 510	26 443	26 932	29 195	25 463	24 928	26 229	30 253
Gross receipts, shipping	52 125	52 066	13 035	13 301	12 931	13 204	12 630	11 898	12 337	13 373
Petroleum activities, various services	752	736	193	192	184	170	190	187	182	186
Oil drilling etc.	1 925	1 722	511	518	578	304	322	594	824	766
Pipeline transport	3 987	4 909	1 173	1 187	1 015	1 070	1 637	1 572	1 410	1 571
Travel	15 667	16 741	2 896	3 227	4 072	6 380	3 062	3 392	4 552	6 549
Other services	30 502	31 859	7 702	8 018	8 152	8 067	7 622	7 285	6 924	7 808
Transport, post and telecommunication	8 633	9 223	1 842	2 149	2 426	2 607	2 041	1 856	1 991	2 486
Financial and business services	17 461	18 302	4 660	4 803	4 599	4 403	4 497	4 399	3 938	4 151
Services n.e.c.	4 408	4 334	1 200	1 066	1 127	1 057	1 084	1 030	995	1 171

Table A30. Exports of goods and services. At constant 1996-prices. Million kroner

	1997	1998	97:4	98:1	98:2	98:3	98:4	99:1	99:2	99:3
Total exports	437 915	440 221	111 339	115 485	108 704	105 560	110 471	108 723	108 520	107 691
Goods	338 470	338 655	87 409	90 659	83 527	78 494	85 974	84 314	84 207	80 460
Crude oil and natural gas	159 905	153 893	41 217	41 519	38 582	35 033	38 759	37 789	37 504	37 144
Ships, new	5 211	7 130	1 296	2 676	1 822	1 413	1 219	1 392	2 805	193
Ships, second-hand	3 645	2 896	775	402	1 415	323	756	837	1 030	259
Oil platforms and modules, new	222	62	9	17	35	8	2	5	16	2
Oil platforms, second-hand	1 005	523	26	399	40	53	31	48	98	41
Direct exports related to petroleum activities	122	107	28	25	30	28	25	49	73	71
Other goods	168 360	174 043	44 059	45 620	41 604	41 636	45 183	44 194	42 681	42 751
Agriculture, forestry and fishing	7 531	8 060	2 149	2 093	1 811	1 968	2 189	1 990	1 903	2 223
Mining and quarrying	2 293	2 284	562	522	563	606	593	461	584	513
Manufacturing products	157 793	163 026	41 005	42 930	39 150	38 710	42 237	41 624	39 974	39 328
Food products, beverages and tobacco	20 792	21 305	6 162	5 785	4 784	4 526	6 210	5 561	4 751	4 981
Textiles, wearing apparel, leather	2 442	2 609	676	629	655	619	705	637	585	624
Wood products	2 771	2 706	673	634	661	633	777	732	797	729
Pulp, paper and paper products	12 333	12 587	3 157	3 293	3 130	3 071	3 093	3 264	3 002	3 119
Printing and publishing	436	551	110	118	102	125	206	144	143	154
Refined petroleum products	19 287	16 515	4 529	5 195	3 713	3 936	3 670	3 750	3 854	3 979
Basic chemicals	12 694	13 664	3 214	3 712	3 391	3 386	3 175	3 334	3 330	3 417
Chemical and mineral products	11 008	11 486	2 824	2 748	2 940	2 971	2 827	3 083	3 110	2 992
Basic metals	33 758	34 900	8 550	9 200	8 425	8 459	8 816	9 041	9 027	8 197
Machinery and other equipment n.e.c.	38 859	43 168	10 164	10 754	10 531	10 141	11 742	11 143	10 494	10 278
Other manufacturing products n.e.c.	3 413	3 535	946	860	818	841	1 017	936	880	858
Electricity	743	673	343	75	80	352	165	118	221	687
Services	99 446	101 566	23 930	24 827	25 177	27 066	24 497	24 409	24 313	27 231
Gross receipts, shipping	48 005	49 579	11 850	12 282	12 136	12 246	12 915	12 479	11 744	12 128
Petroleum activities, various services	730	689	184	184	173	158	174	174	167	169
Oil drilling etc.	1 657	1 248	432	394	399	210	245	450	619	572
Pipeline transport	3 728	4 016	1 118	1 061	909	827	1 219	1 243	1 069	1 089
Travel	15 188	15 680	2 755	3 049	3 802	6 016	2 812	3 102	4 092	5 956
Other services	30 137	30 353	7 590	7 855	7 758	7 609	7 131	6 961	6 622	7 317
Transport, post and telecommunication	8 511	8 816	1 839	2 083	2 300	2 475	1 958	1 712	1 840	2 329
Financial and business services	17 325	17 417	4 586	4 741	4 385	4 143	4 147	4 278	3 852	3 891
Services n.e.c.	4 301	4 121	1 166	1 031	1 073	991	1 026	970	929	1 097

Table A31. Exports of goods and services.
Percentage change in volume from the same period in the previous year

	1997	1998	97:4	98:1	98:2	98:3	98:4	99:1	99:2	99:3
Total exports	5.7	0.5	3.6	8.0	-1.3	-3.6	-0.8	-5.9	-0.2	2.0
Goods	5.2	0.1	3.6	8.7	-2.4	-4.4	-1.6	-7.0	0.8	2.5
Crude oil and natural gas	2.1	-3.8	1.6	2.9	-3.4	-8.8	-6.0	-9.0	-2.8	6.0
Ships, new	22.4	36.8	-26.2	76.3	39.4	29.6	-5.9	-48.0	54.0	-86.4
Ships, second-hand	-3.2	-20.6	-1.3	-74.1	92.8	-44.6	-2.4	108.3	-27.2	-19.9
Oil platforms and modules, new	276.2	-71.9	-20.7	-20.6	609.2	-95.5	-78.6	-73.1	-55.1	-78.2
Oil platforms, second-hand	6.9	-48.0	-93.3	..	-92.8	-87.1	19.2	-88.0	145.0	-22.6
Direct exports related to petroleum activities	-4.7	-11.9	-42.2	-27.6	-5.2	1.3	-13.0	96.1	145.0	154.4
Other goods	8.0	3.4	7.9	14.2	-3.3	0.7	2.6	-3.1	2.6	2.7
Agriculture, forestry and fishing	7.1	7.0	14.8	18.0	-4.4	14.8	1.8	-4.9	5.1	13.0
Mining and quarrying	-2.1	-0.4	2.7	1.8	-11.0	3.5	5.5	-11.7	3.6	-15.4
Manufacturing products	8.5	3.3	7.0	14.2	-3.1	-0.2	3.0	-3.0	2.1	1.6
Food products, beverages and tobacco	6.5	2.5	16.4	13.8	0.3	-5.2	0.8	-3.9	-0.7	10.1
Textiles, wearing apparel, leather	10.6	6.8	13.8	11.6	8.0	4.0	4.3	1.3	-10.7	0.7
Wood products	-3.2	-2.4	-10.8	-10.4	-11.3	-1.8	15.5	15.4	20.7	15.2
Pulp, paper and paper products	6.4	2.1	11.5	11.5	0.2	-0.8	-2.0	-0.9	-4.1	1.6
Printing and publishing	-22.0	26.4	-9.0	2.6	-4.4	20.5	86.9	21.8	39.6	23.1
Refined petroleum products	12.5	-14.4	4.2	8.1	-24.8	-21.6	-19.0	-27.8	3.8	1.1
Basic chemicals	4.8	7.6	5.5	22.8	0.9	9.4	-1.2	-10.2	-1.8	0.9
Chemical and mineral products	14.7	4.3	14.4	5.5	4.6	7.3	0.1	12.2	5.8	0.7
Basic metals	9.8	3.4	3.0	12.9	-2.4	0.3	3.1	-1.7	7.2	-3.1
Machinery and other equipment n.e.c.	8.0	11.1	5.1	22.8	0.8	6.8	15.5	3.6	-0.4	1.4
Other manufacturing products n.e.c.	8.1	3.6	6.1	2.2	-3.3	7.8	7.5	8.9	7.6	2.0
Electricity	-24.8	-9.5	272.9	12.3	-12.9	46.1	-51.9	56.9	175.2	95.1
Services	7.2	2.1	3.8	5.4	2.7	-1.4	2.4	-1.7	-3.4	0.6
Gross receipts, shipping	2.4	3.3	-2.1	3.3	-1.4	2.5	9.0	1.6	-3.2	-1.0
Petroleum activities, various services	55.9	-5.6	45.1	0.1	-6.2	-11.1	-5.3	-5.6	-3.3	7.1
Oil drilling etc.	7.4	-24.7	2.6	-1.9	2.9	-51.9	-43.2	14.2	55.4	172.8
Pipeline transport	19.1	7.7	11.9	6.9	13.0	1.8	9.0	17.1	17.5	31.7
Travel	-1.8	3.2	2.5	-1.1	1.2	7.6	2.1	1.7	7.6	-1.0
Other services	19.0	0.7	12.9	12.3	9.7	-10.3	-6.0	-11.4	-14.6	-3.8
Transport, post and telecommunication	11.3	3.6	-7.9	12.9	16.7	-13.4	6.5	-17.8	-20.0	-5.9
Financial and business services	23.1	0.5	18.5	14.8	10.0	-10.4	-9.6	-9.8	-12.1	-6.1
Services n.e.c.	19.8	-4.2	36.3	0.8	-3.8	-0.7	-12.0	-5.9	-13.4	10.8

Table A32. Exports of goods and services.
Percentage change in prices from the same period in the previous year

	1997	1998	97:4	98:1	98:2	98:3	98:4	99:1	99:2	99:3
Total exports	2.4	-8.2	-1.4	-4.9	-5.6	-9.8	-12.4	-6.1	4.6	16.5
Goods	1.5	-11.0	-3.7	-7.6	-7.5	-13.6	-15.4	-6.9	6.0	22.2
Crude oil and natural gas	2.4	-24.9	-9.1	-19.2	-20.4	-29.1	-31.7	-13.5	17.3	58.3
Ships, new	1.1	2.2	1.5	2.2	3.7	1.9	1.6	0.5	0.1	-0.4
Ships, second-hand	13.2	-11.6	18.5	9.1	-6.6	-22.4	-31.7	-26.7	-20.2	-10.9
Oil platforms and modules, new	4.1	1.8	3.1	3.1	4.3	3.3	4.0	3.2	2.3	2.1
Oil platforms, second-hand	-	-	-	-	-	-	-	-	-	-
Direct exports related to petroleum activities	8.2	9.2	9.5	11.2	11.7	8.3	3.8	0.2	-5.9	-1.7
Other goods	0.5	1.0	1.4	3.3	3.5	-0.6	-1.7	-2.4	-1.3	0.7
Agriculture, forestry and fishing	2.4	7.0	-0.0	0.1	15.9	6.9	6.0	-0.4	-5.8	-5.9
Mining and quarrying	-0.4	5.9	8.8	15.1	9.8	0.3	0.3	3.6	-1.9	4.2
Manufacturing products	0.5	0.7	1.8	3.3	2.9	-0.5	-2.4	-2.5	-0.8	1.1
Food products, beverages and tobacco	3.1	8.2	2.7	10.0	14.4	11.6	0.6	4.4	-2.9	-5.8
Textiles, wearing apparel, leather	-3.7	-2.1	-8.4	-2.9	-7.7	2.1	0.2	4.9	8.4	-1.1
Wood products	5.5	-0.9	4.2	2.3	-2.1	-2.2	-1.6	2.3	-0.8	-1.9
Pulp, paper and paper products	-12.3	9.4	-7.3	6.7	10.6	10.8	9.9	4.4	0.7	-3.3
Printing and publishing	8.5	4.5	-7.1	24.4	11.8	6.2	-13.4	11.9	10.3	5.7
Refined petroleum products	6.9	-21.6	-7.3	-18.4	-17.1	-25.7	-28.5	-24.1	3.2	37.6
Basic chemicals	2.1	-1.6	0.8	4.3	-1.4	-6.8	-2.0	-6.0	-6.4	-2.5
Chemical and mineral products	-3.5	1.4	-1.0	6.6	1.0	-3.8	2.6	-1.9	5.0	-1.1
Basic metals	0.1	1.5	8.8	12.6	3.7	-3.2	-6.0	-10.8	-9.7	-2.0
Machinery and other equipment n.e.c.	0.7	4.3	4.0	2.0	4.9	7.4	3.1	4.0	5.6	-0.7
Other manufacturing products n.e.c.	3.1	2.6	8.6	8.3	5.9	-0.1	-2.4	1.7	-0.0	-0.3
Electricity	-17.6	-22.9	-43.3	37.2	-20.9	-58.4	29.1	-14.8	-26.2	48.4
Services	5.5	0.8	8.0	5.1	0.1	0.7	-2.5	-4.1	0.8	3.0
Gross receipts, shipping	8.6	-3.3	12.2	7.2	-3.5	-4.5	-11.1	-12.0	-1.4	2.3
Petroleum activities, various services	3.0	3.6	3.1	3.1	4.3	3.3	4.0	3.2	2.3	2.1
Oil drilling etc.	16.1	18.8	18.0	23.1	24.5	18.5	11.0	0.4	-8.2	-7.6
Pipeline transport	7.0	14.3	33.3	3.1	0.9	24.0	28.1	13.1	18.2	11.5
Travel	3.2	3.5	3.2	3.8	3.1	3.6	3.6	3.3	3.9	3.7
Other services	1.2	3.7	0.2	1.9	3.5	4.4	5.3	2.5	-0.5	0.7
Transport, post and telecommunication	1.4	3.1	1.3	1.8	2.7	3.8	4.0	5.1	2.6	1.3
Financial and business services	0.8	4.3	-1.0	2.1	4.2	4.8	6.7	1.5	-2.5	0.4
Services n.e.c.	2.5	2.6	2.3	1.3	2.5	4.1	2.6	2.7	2.0	0.0

Table A33. Imports of goods and services. At current prices. Million kroner

	1997	1998	97:4	98:1	98:2	98:3	98:4	99:1	99:2	99:3
Total imports	371 532	411 595	99 318	100 541	100 102	102 647	108 305	94 181	94 203	99 647
Goods	266 413	296 000	71 711	74 559	71 243	70 641	79 557	66 857	65 037	66 065
Ships	14 041	13 316	2 051	5 759	2 513	2 740	2 304	826	825	4 576
Oil platforms and modules	2 241	5 023	54	1 013	116	92	3 802	200	734	56
Direct imports related to petroleum activities	9 761	11 177	2 905	2 562	2 733	2 542	3 340	1 880	1 920	1 195
Other goods	240 370	266 484	66 701	65 225	65 881	65 267	70 111	63 951	61 558	60 238
Agriculture, forestry and fishing	8 323	9 049	2 239	2 879	2 171	2 005	1 994	2 334	2 181	1 777
Crude oil	1 448	1 313	333	446	288	316	263	255	472	619
Mining and quarrying	3 397	3 566	865	984	906	780	896	929	739	823
Manufacturing products	225 882	251 535	63 042	60 585	62 248	62 084	66 618	60 092	57 994	56 970
Food products, beverages and tobacco	10 669	12 428	2 879	2 739	2 950	3 406	3 333	3 077	3 122	3 300
Textiles, wearing apparel, leather	16 738	18 170	3 977	4 830	3 582	5 485	4 273	5 017	3 339	5 306
Wood products	4 869	5 260	1 351	1 307	1 372	1 278	1 303	1 198	1 261	1 147
Pulp, paper and paper products	6 487	6 653	1 753	1 697	1 616	1 614	1 726	1 696	1 638	1 647
Printing and publishing	3 560	3 891	1 018	942	836	980	1 133	997	900	1 014
Refined petroleum products	10 918	9 782	2 981	2 409	2 430	2 521	2 422	2 179	2 431	2 830
Basic chemicals	9 621	9 933	2 474	2 480	2 453	2 421	2 579	2 211	2 514	2 259
Chemical and mineral products	23 529	26 113	6 316	6 260	6 505	6 454	6 894	6 379	6 648	6 249
Basic metals	23 925	24 821	7 189	6 633	6 379	5 913	5 896	5 189	4 952	4 493
Machinery and other equipment n.e.c.	91 568	106 419	26 448	25 244	26 761	25 362	29 052	26 331	24 563	22 555
Other manufacturing products n.e.c.	8 169	9 356	2 455	2 258	2 109	2 203	2 786	2 301	2 097	2 227
Non-competitive imports	15 829	18 709	4 201	3 786	5 255	4 447	5 221	3 517	4 529	3 943
Electricity	1 320	1 021	222	331	268	82	340	341	172	49
Services	105 119	115 595	27 607	25 982	28 859	32 006	28 748	27 324	29 166	33 582
Operating costs shipping, excl. bunkers	26 078	26 696	6 822	6 714	6 848	6 529	6 605	6 387	6 298	7 501
Petroleum actvities, various services	1 585	2 974	477	565	674	746	989	718	1 136	1 171
Operating costs oil drilling, excl. bunkers	5 013	3 384	867	900	820	741	923	1 207	2 088	1 212
Travel	31 614	34 742	7 655	6 241	7 921	12 042	8 538	7 363	8 897	12 423
Other services	40 829	47 799	11 786	11 562	12 596	11 948	11 693	11 649	10 747	11 275
Transport, post and telecommunication	3 393	4 359	917	1 041	1 180	1 171	967	954	1 024	1 107
Financial and business services	20 773	23 147	5 943	5 736	5 658	5 607	6 146	5 805	5 233	5 499
Services n.e.c.	16 663	20 293	4 926	4 785	5 758	5 170	4 580	4 890	4 490	4 669

Table A34. Imports of goods and services. At constant 1996-prices. Million kroner

	1997	1998	97:4	98:1	98:2	98:3	98:4	99:1	99:2	99:3
Total imports	366 394	399 893	97 044	98 066	97 062	98 720	106 044	93 806	93 157	96 591
Goods	267 131	294 697	71 435	73 990	71 163	69 592	79 953	68 838	66 499	66 960
Ships	12 747	12 856	1 767	5 122	2 398	2 790	2 546	939	861	4 681
Oil platforms and modules	2 061	5 080	49	917	112	92	3 959	207	748	56
Direct imports related to petroleum activities	9 459	10 451	2 770	2 461	2 571	2 355	3 063	1 751	1 766	1 084
Other goods	242 865	266 310	66 848	65 489	66 081	64 355	70 386	65 942	63 124	61 139
Agriculture, forestry and fishing	7 843	8 190	2 138	2 490	1 975	1 840	1 884	2 069	2 133	1 808
Crude oil	1 609	1 983	348	634	422	490	437	429	601	586
Mining and quarrying	3 157	3 422	831	1 015	836	757	814	907	793	826
Manufacturing products	228 419	251 113	63 187	60 878	62 362	61 132	66 740	61 989	59 214	57 830
Food products, beverages and tobacco	10 359	11 015	2 656	2 461	2 684	2 968	2 902	2 680	2 957	3 159
Textiles, wearing apparel, leather	16 216	17 002	3 725	4 589	3 581	4 922	3 910	4 761	3 370	4 980
Wood products	4 856	5 242	1 321	1 285	1 354	1 330	1 273	1 228	1 287	1 169
Pulp, paper and paper products	6 973	7 001	1 875	1 820	1 691	1 684	1 806	1 818	1 762	1 754
Printing and publishing	3 733	4 015	1 111	953	885	991	1 186	1 036	915	1 032
Refined petroleum products	10 845	11 656	2 882	2 724	2 789	3 061	3 083	2 999	2 749	2 802
Basic chemicals	9 666	9 883	2 608	2 490	2 477	2 306	2 611	2 216	2 597	2 377
Chemical and mineral products	23 322	25 107	6 270	6 063	6 310	6 238	6 496	6 064	6 447	6 178
Basic metals	23 456	25 119	6 988	6 366	6 483	5 972	6 298	6 384	5 771	4 955
Machinery and other equipment n.e.c.	95 572	108 776	27 215	26 389	27 173	25 314	29 900	27 112	25 429	23 718
Other manufacturing products n.e.c.	8 139	9 018	2 388	2 193	2 091	2 118	2 615	2 287	2 081	2 194
Non-competitive imports	15 282	17 280	4 148	3 546	4 844	4 230	4 660	3 404	3 849	3 512
Electricity	1 837	1 602	344	470	486	135	511	548	383	88
Services	99 263	105 196	25 609	24 077	25 900	29 128	26 091	24 967	26 659	29 631
Operating costs shipping, excl. bunkers	21 393	22 094	5 281	5 473	5 408	5 457	5 756	5 561	5 234	5 405
Petroleum actvities, various services	1 550	2 801	463	547	642	694	918	673	1 067	1 086
Operating costs oil drilling, excl. bunkers	4 867	3 169	827	865	771	687	846	1 124	1 920	1 100
Travel	31 719	32 973	7 622	6 200	7 580	11 343	7 851	6 839	8 488	11 778
Other services	39 734	44 159	11 417	10 992	11 499	10 948	10 720	10 770	9 950	10 263
Transport, post and telecommunication	3 324	4 139	926	972	1 079	1 118	970	876	953	1 068
Financial and business services	20 565	21 964	5 823	5 649	5 398	5 256	5 662	5 566	5 079	5 095
Services n.e.c.	15 846	18 055	4 667	4 372	5 022	4 574	4 088	4 328	3 918	4 100

Table A35. Imports of goods and services.
Percentage change in volume from the same period in the previous year

	1997	1998	97:4	98:1	98:2	98:3	98:4	99:1	99:2	99:3
Total imports	12.0	9.1	6.3	17.6	3.8	6.8	9.3	-4.3	-4.0	-2.2
Goods	10.3	10.3	3.2	18.3	3.4	8.2	11.9	-7.0	-6.6	-3.8
Ships	101.5	0.9	-25.2	-1.9	-5.2	-13.6	44.0	-81.7	-64.1	67.8
Oil platforms and modules	-43.5	146.5	-98.5	..	-93.5	-65.7	..	-77.5	568.4	-39.1
Direct imports related to petroleum activities	22.6	10.5	36.2	25.0	5.2	3.5	10.6	-28.9	-31.3	-54.0
Other goods	8.2	9.7	8.8	18.4	6.4	9.9	5.3	0.7	-4.5	-5.0
Agriculture, forestry and fishing	-3.0	4.4	-2.5	33.2	-9.0	10.5	-11.9	-16.9	8.0	-1.7
Crude oil	17.0	23.3	-42.4	41.0	12.9	12.1	25.5	-32.4	42.4	19.6
Mining and quarrying	8.6	8.4	11.2	45.5	-2.1	-2.2	-2.1	-10.7	-5.1	9.1
Manufacturing products	9.4	9.9	11.3	19.0	6.7	9.9	5.6	1.8	-5.0	-5.4
Food products, beverages and tobacco	9.1	6.3	7.9	8.5	1.9	5.9	9.3	8.9	10.2	6.5
Textiles, wearing apparel, leather	5.7	4.8	0.9	9.9	-0.1	4.0	5.0	3.7	-5.9	1.2
Wood products	18.3	7.9	18.2	25.2	2.8	11.7	-3.7	-4.4	-5.0	-12.1
Pulp, paper and paper products	9.5	0.4	9.9	9.9	-2.9	-0.9	-3.7	-0.1	4.2	4.1
Printing and publishing	10.2	7.6	8.8	16.5	6.5	1.8	6.7	8.7	3.4	4.1
Refined petroleum products	9.4	7.5	19.3	9.6	-3.7	18.6	7.0	10.1	-1.4	-8.5
Basic chemicals	6.6	2.2	18.7	16.9	-0.5	-5.5	0.1	-11.0	4.9	3.1
Chemical and mineral products	7.2	7.7	8.1	16.4	3.3	8.7	3.6	0.0	2.2	-0.9
Basic metals	3.3	7.1	13.9	14.0	13.0	16.0	-9.9	0.3	-11.0	-17.0
Machinery and other equipment n.e.c.	14.7	13.8	18.6	28.8	9.2	10.1	9.9	2.7	-6.4	-6.3
Other manufacturing products n.e.c.	15.5	10.8	14.6	19.9	5.1	9.6	9.5	4.3	-0.5	3.6
Non-competitive imports	-6.2	13.1	-20.2	2.1	13.7	24.4	12.3	-4.0	-20.6	-17.0
Electricity	-45.1	-12.8	-69.2	-59.7	84.0	117.7	48.5	16.4	-21.2	-34.9
Services	17.0	6.0	16.2	15.5	4.7	3.8	1.9	3.7	2.9	1.7
Operating costs shipping, excl. bunkers	2.4	3.3	-2.1	3.3	-1.4	2.5	9.0	1.6	-3.2	-1.0
Petroleum actvities, various services	36.6	80.7	88.3	159.6	66.8	41.3	98.2	23.1	66.3	56.4
Operating costs oil drilling, excl. bunkers	39.0	-34.9	-13.7	38.4	-62.0	-50.4	2.4	30.0	148.9	60.2
Travel	8.6	4.0	10.0	6.5	3.0	3.9	3.0	10.3	12.0	3.8
Other services	32.1	11.1	34.2	23.6	21.4	10.0	-6.1	-2.0	-13.5	-6.3
Transport, post and telecommunication	-4.8	24.5	-6.8	18.5	41.9	37.0	4.7	-9.9	-11.7	-4.5
Financial and business services	43.9	6.8	40.5	18.0	9.3	4.8	-2.8	-1.5	-5.9	-3.1
Services n.e.c.	28.8	13.9	38.5	33.2	33.1	10.9	-12.4	-1.0	-22.0	-10.3

Table A36. Imports of goods and services.
Percentage change in prices from the same period in the previous year

	1997	1998	97:4	98:1	98:2	98:3	98:4	99:1	99:2	99:3
Total imports	1.4	1.5	1.1	4.0	2.9	-0.1	-0.2	-2.1	-1.9	-0.8
Goods	-0.3	0.7	-0.4	3.3	1.5	-0.8	-0.9	-3.6	-2.3	-2.8
Ships	10.2	-6.0	15.2	9.0	-5.9	-16.2	-22.0	-21.8	-8.5	-0.5
Oil platforms and modules	8.8	-9.1	9.1	11.0	-4.1	-12.0	-12.0	-12.3	-5.3	0.0
Direct imports related to petroleum activities	3.2	3.6	3.1	3.1	4.3	3.3	4.0	3.2	2.3	2.1
Other goods	-1.0	1.1	-1.0	2.8	2.1	0.0	-0.2	-2.6	-2.2	-2.9
Agriculture, forestry and fishing	6.1	4.1	6.7	11.7	2.8	-0.7	1.0	-2.5	-7.0	-9.8
Crude oil	-10.0	-26.4	-15.8	-22.7	-17.2	-29.2	-37.1	-15.4	15.1	63.8
Mining and quarrying	7.6	-3.2	5.0	-7.1	5.0	-13.6	5.8	5.7	-14.0	-3.3
Manufacturing products	-1.1	1.3	-0.9	2.3	2.5	0.6	0.0	-2.6	-1.9	-3.0
Food products, beverages and tobacco	3.0	9.6	7.3	13.3	11.6	8.4	5.9	3.1	-4.0	-9.0
Textiles, wearing apparel, leather	3.2	3.5	3.8	5.7	3.3	2.8	2.4	0.1	-1.0	-4.4
Wood products	0.3	0.1	1.4	3.7	3.8	-6.6	0.1	-4.1	-3.2	2.1
Pulp, paper and paper products	-7.0	2.1	-3.1	0.8	3.2	2.6	2.2	0.0	-2.7	-2.0
Printing and publishing	-4.6	1.6	-5.1	1.6	-3.7	3.4	4.3	-2.6	4.1	-0.6
Refined petroleum products	0.7	-16.6	-5.5	-13.3	-8.3	-19.8	-24.0	-17.9	1.5	22.6
Basic chemicals	-0.5	1.0	-2.5	-2.0	-3.5	5.6	4.1	0.2	-2.3	-9.5
Chemical and mineral products	0.9	3.1	2.7	4.0	2.1	1.0	5.3	1.9	0.0	-2.2
Basic metals	2.0	-3.1	4.8	7.0	0.1	-9.9	-9.0	-22.0	-12.8	-8.4
Machinery and other equipment n.e.c.	-4.2	2.1	-3.9	0.1	4.5	4.2	-0.0	1.5	-1.9	-5.1
Other manufacturing products n.e.c.	0.4	3.4	-0.4	6.3	1.4	2.4	3.6	-2.3	-0.1	-2.4
Non-competitive imports	3.6	4.5	-0.3	10.5	0.1	-2.2	10.6	-3.2	8.5	6.8
Electricity	-28.1	-11.3	-39.4	4.3	-41.3	-40.2	3.2	-11.5	-18.6	-8.2
Services	5.9	3.8	5.1	6.1	6.2	1.6	2.2	1.4	-1.8	3.1
Operating costs shipping, excl. bunkers	21.9	-0.9	19.1	11.3	7.8	-8.6	-11.2	-6.4	-5.0	16.0
Petroleum actvities, various services	2.3	3.8	1.3	2.7	3.6	4.3	4.6	3.2	1.4	0.4
Operating costs oil drilling, excl. bunkers	3.0	3.7	3.2	3.1	4.3	3.3	4.0	3.2	2.3	2.1
Travel	-0.3	5.7	0.9	5.4	5.0	4.6	8.3	6.9	0.3	-0.6
Other services	2.8	5.3	1.9	4.3	6.7	5.0	5.7	2.8	-1.4	0.7
Transport, post and telecommunication	2.1	3.2	1.3	3.0	5.0	2.9	0.7	1.7	-1.7	-1.0
Financial and business services	1.0	4.3	-0.5	2.3	3.7	5.2	6.4	2.7	-1.7	1.2
Services n.e.c.	5.2	6.9	4.6	6.8	9.7	5.3	6.1	3.2	-0.1	0.7

Table A37. Balance of payments. Summary. At current prices. Million kroner

	1997	1998	97:4	98:1	98:2	98:3	98:4	99:1	99:2	99:3
Total exports	448 631	414 077	114 966	111 926	102 821	99 418	99 911	98 958	107 342	118 188
Goods	343 673	306 044	89 456	85 483	75 889	70 223	74 448	74 030	81 113	87 935
Services	104 958	108 033	25 510	26 443	26 932	29 195	25 463	24 928	26 229	30 253
Total imports	371 532	411 595	99 318	100 541	100 102	102 647	108 305	94 181	94 203	99 647
Goods	266 413	296 000	71 711	74 559	71 243	70 641	79 557	66 857	65 037	66 065
Services	105 119	115 595	27 607	25 982	28 859	32 006	28 748	27 324	29 166	33 582
Balance of goods and services	77 099	2 482	15 648	11 385	2 719	-3 229	-8 394	4 777	13 139	18 541
Primary income and transfers from abroad	47 588	58 458	12 327	14 498	15 194	14 314	14 452	15 670	16 240	17 061
Compensation of employees	1 500	1 500	375	375	375	375	375	375	375	375
Interest	28 798	38 107	7 700	9 462	10 210	9 233	9 202	10 301	10 972	11 621
Dividends etc.	3 172	3 797	943	763	1 370	615	1 049	514	1 614	961
Reinvested earnings	5 410	5 534	1 250	1 459	974	1 705	1 396	1 834	1 061	1 456
Current transfers to Norway	8 708	9 520	2 059	2 439	2 265	2 386	2 430	2 646	2 218	2 648
Primary income and transfers to abroad	68 564	77 207	18 239	18 163	18 831	18 005	22 208	20 510	23 223	22 543
Compensation of employees	3 724	3 786	951	947	967	943	929	913	910	1 045
Interest	28 203	33 838	7 240	8 065	7 789	7 843	10 141	10 384	12 198	11 666
Dividends etc.	11 660	13 643	1 413	4 845	6 713	1 107	978	2 517	6 165	588
Reinvested earnings	6 223	4 430	2 905	-521	-1 609	3 221	3 339	1 775	-853	3 700
Current transfers from Norway	7 328	8 588	2 806	1 710	2 122	1 402	3 354	1 833	1 948	2 039
Current transfers from Norway	11 426	12 922	2 924	3 117	2 849	3 489	3 467	3 088	2 855	3 505
Primary income and transfers from abroad, net	-20 976	-18 749	-5 912	-3 665	-3 637	-3 691	-7 756	-4 840	-6 983	-5 482
Current external balance	56 123	-16 267	9 736	7 720	-918	-6 920	-16 150	-63	6 156	13 059
Capital transfer, net	-1 287	-754	-288	-68	-292	90	-484	-135	-25	-119
Acquisitions of patents, licenses etc, net	..	..	..	..	..	..	..	7	439	252
Net lending	54 836	-17 021	9 448	7 652	-1 210	-6 830	-16 634	-205	5 692	12 688

Table A38. Employed persons by industry. Employees and self-employed. 1000

	1997	1998	97:4	98:1	98:2	98:3	98:4	99:1	99:2	99:3
Total	2 212.8	2 263.2	2 227.3	2 238.2	2 266.3	2 282.8	2 264.8	2 260.0	2 277.6	2 285.8
Agriculture and hunting	77.4	76.2	74.1	74.4	78.1	77.1	75.0	71.5	74.9	73.9
Forestry and logging	5.9	5.7	5.5	5.5	6.2	5.7	5.2	4.8	5.8	5.1
Fishing and fish farming	18.0	17.9	18.5	17.3	18.1	20.1	16.2	15.3	16.5	19.3
Oil and gas extraction incl. services	22.4	23.1	22.6	22.3	22.6	23.5	23.8	23.2	22.0	22.2
Oil and gas extraction	16.2	16.5	16.2	16.1	16.4	16.9	16.7	16.7	15.7	15.6
Service activities incidental to oil and gas ext.	6.2	6.5	6.4	6.2	6.2	6.6	7.1	6.5	6.4	6.7
Mining and quarrying	4.2	4.2	4.1	4.0	4.2	4.3	4.2	4.2	4.3	4.4
Manufacturing	314.8	316.8	313.0	317.0	319.2	317.7	313.4	312.2	311.7	308.0
Food products, beverages and tobacco	56.0	55.1	55.5	55.7	55.5	54.8	54.1	54.0	53.7	52.9
Textiles,wearing apparel, leather	9.1	8.9	9.1	8.9	8.5	9.0	9.1	8.5	8.5	7.8
Wood and wood products	17.2	17.0	17.1	17.1	17.1	17.7	16.1	15.9	16.3	16.9
Pulp, paper and paper products	11.4	11.5	11.3	11.2	11.9	11.9	10.8	10.4	11.4	11.2
Publishing, printing, reproduction	42.2	42.7	41.6	42.2	43.4	41.9	43.3	43.3	43.0	43.3
Refined petroleum products	1.6	1.5	1.6	1.4	1.5	1.5	1.5	1.2	1.2	1.1
Basic chemicals	8.6	8.7	8.6	8.6	8.7	8.8	8.7	8.5	8.6	8.5
Chemical and mineral products	22.8	22.9	22.6	23.7	23.1	22.8	22.1	23.0	23.3	22.9
Basic metals	17.5	17.6	17.2	17.0	17.7	17.8	17.7	16.6	17.7	17.9
Machinery and other equipment n.e.c.	80.1	80.7	79.9	80.9	80.8	81.7	79.6	80.8	78.6	77.5
Building of ships, oil platforms and moduls	33.8	35.1	33.5	34.7	35.6	34.8	35.5	35.4	35.1	33.9
Furniture and other manufacturing n.e.c.	14.7	15.2	14.9	15.5	15.3	15.0	14.8	14.5	14.4	14.0
Electricity and gas supply	19.6	18.8	19.3	18.8	18.8	18.9	18.7	18.0	18.6	18.2
Construction	115.0	122.1	118.5	119.6	122.2	123.5	123.0	120.1	121.3	121.5
Service industries excl. general government	955.5	988.5	963.9	970.6	990.6	1 002.1	990.3	994.1	1 004.4	1 011.2
Wholesale and retail trade	315.1	323.7	319.5	319.4	326.7	326.1	322.5	326.2	326.0	326.3
Hotels and restaurants	62.1	64.1	61.4	60.4	63.9	66.9	65.3	62.5	65.9	66.5
Transport via pipelines	0.3	0.3	0.4	0.2	0.3	0.3	0.3	0.2	0.3	0.2
Water transport	50.3	51.3	50.1	50.8	51.2	52.2	50.9	50.1	50.9	51.7
Ocean transport	41.5	42.4	41.4	42.3	42.3	42.9	42.2	41.4	41.8	42.1
Inland water and costal transport	8.9	8.9	8.6	8.5	8.9	9.3	8.7	8.7	9.1	9.6
Other transport activities	91.0	93.8	92.3	91.8	92.6	94.8	96.0	96.3	96.4	95.2
Post and telecommunications	51.5	52.3	49.7	52.0	52.0	53.4	52.0	51.9	52.4	53.3
Financial intermediation	49.9	48.9	49.5	49.4	49.2	49.0	48.0	48.5	49.4	49.6
Dwelling services	1.2	1.3	1.0	1.2	1.3	1.3	1.3	1.2	1.3	1.3
Business services etc.	141.7	154.2	145.0	148.1	154.1	158.4	156.0	160.3	162.3	167.5
Personal services	192.5	198.6	195.0	197.3	199.3	199.7	198.0	197.0	199.5	199.8
General government	680.0	689.9	687.9	688.6	686.3	689.8	695.1	696.6	698.1	701.9
Central government	152.8	152.1	153.5	153.7	150.4	151.8	152.5	153.9	151.7	152.5
Civilian central government	109.1	109.1	110.0	109.9	107.6	109.1	109.6	110.0	108.0	109.6
Defence	43.7	43.1	43.5	43.8	42.8	42.7	43.0	43.9	43.7	42.9
Local government	527.1	537.8	534.4	534.9	535.9	538.0	542.5	542.8	546.4	549.4
Mainland Norway	2 148.6	2 197.4	2 162.9	2 173.4	2 201.1	2 216.1	2 198.4	2 195.2	2 213.5	2 221.2

Table A39. Employed persons by industry. Employees and self-employed. Percentage change from the same period in the previous year

	1997	1998	97:4	98:1	98:2	98:3	98:4	99:1	99:2	99:3
Total	2.9	2.3	2.9	2.8	2.5	2.2	1.7	1.0	0.5	0.1
Agriculture and hunting	-2.2	-1.5	3.6	0.6	-2.2	-5.3	1.1	-3.9	-4.1	-4.2
Forestry and logging	-0.5	-4.0	-2.6	-9.6	-1.2	-0.9	-4.6	-12.4	-5.9	-10.0
Fishing and fish farming	-0.3	-0.7	5.3	-2.6	-2.5	15.5	-12.2	-11.6	-8.7	-3.9
Oil and gas extraction incl. services	3.9	2.8	4.1	1.1	1.6	3.1	5.4	4.1	-2.6	-5.3
Oil and gas extraction	-2.1	2.0	-1.6	-0.3	2.3	2.7	3.2	3.9	-4.5	-7.7
Service activities incidental to oil and gas ext.	23.1	5.0	22.0	5.1	-0.2	4.2	10.8	4.6	2.4	0.6
Mining and quarrying	-4.3	-1.4	-2.7	-3.7	-2.9	-0.9	1.9	4.7	3.1	2.1
Manufacturing	3.4	0.6	2.0	1.8	1.3	-0.6	0.1	-1.5	-2.3	-3.1
Food products, beverages and tobacco	2.6	-1.7	-0.3	-0.3	-0.8	-3.2	-2.4	-3.0	-3.3	-3.5
Textiles,wearing apparel, leather	-5.2	-2.2	0.7	-2.4	-5.8	-0.2	-0.3	-4.8	-1.1	-12.7
Wood and wood products	4.5	-1.2	4.9	2.3	-0.1	-0.8	-6.2	-7.0	-4.6	-4.1
Pulp, paper and paper products	3.5	0.8	10.9	0.9	3.6	3.2	-4.5	-7.1	-3.6	-6.1
Publishing, printing, reproduction	4.0	1.2	3.4	-0.3	1.9	-0.8	4.1	2.5	-1.0	3.3
Refined petroleum products	9.1	-6.4	8.6	-2.5	-9.2	-10.1	-2.9	-14.6	-21.4	-26.5
Basic chemicals	-1.1	0.9	-1.2	1.1	0.9	0.0	1.7	-0.8	-1.8	-2.9
Chemical and mineral products	1.9	0.6	-0.3	5.5	2.0	-2.8	-2.2	-3.0	0.7	0.3
Basic metals	4.4	0.7	4.5	0.3	0.8	-1.3	3.1	-2.2	-0.1	0.2
Machinery and other equipment n.e.c.	4.6	0.9	1.5	2.3	0.9	0.7	-0.5	-0.1	-2.7	-5.1
Building of ships, oil platforms and moduls	3.5	4.1	1.6	3.9	5.4	1.2	5.8	2.0	-1.5	-2.5
Furniture and other manufacturing n.e.c.	6.3	3.4	4.3	7.9	4.9	1.8	-0.7	-6.5	-5.5	-6.8
Electricity and gas supply	-0.1	-4.0	-1.0	-3.6	-4.2	-4.9	-3.1	-4.4	-1.5	-3.7
Construction	8.4	6.2	10.7	9.4	6.5	5.3	3.8	0.4	-0.7	-1.7
Service industries excl. general government	3.4	3.5	2.9	3.5	3.9	3.7	2.7	2.4	1.4	0.9
Wholesale and retail trade	4.2	2.7	3.8	2.3	4.1	3.7	0.9	2.1	-0.2	0.0
Hotels and restaurants	3.6	3.3	0.4	2.1	2.2	2.6	6.2	3.5	3.2	-0.5
Transport via pipelines	25.2	-6.7	53.8	-7.2	-7.2	-5.8	-6.5	-7.5	-7.5	-7.5
Water transport	1.0	1.9	-0.7	1.8	2.7	1.6	1.6	-1.4	-0.6	-1.1
Ocean transport	1.2	2.3	-0.2	2.5	3.2	1.8	1.8	-2.0	-1.2	-2.0
Inland water and costal transport	0.1	-0.1	-3.2	-1.5	0.1	0.9	0.3	1.6	2.1	3.0
Other transport activities	2.4	3.0	2.6	2.7	1.8	3.5	4.0	4.9	4.1	0.4
Post and telecommunications	-0.1	1.7	-2.0	-0.2	-0.6	3.2	4.5	-0.2	0.7	-0.2
Financial intermediation	-0.8	-2.0	-1.3	-1.7	-1.4	-1.9	-3.0	-1.9	0.4	1.1
Dwelling services	-0.0	5.9	-11.7	-5.3	0.1	-0.7	37.1	-2.9	-1.2	-1.3
Business services etc.	8.7	8.9	7.1	10.0	8.7	9.2	7.6	8.2	5.3	5.7
Personal services	1.5	3.2	3.0	4.8	4.3	2.2	1.5	-0.2	0.1	0.0
General government	2.0	1.5	2.0	1.8	1.4	1.6	1.0	1.2	1.7	1.7
Central government	0.4	-0.5	0.5	0.3	-1.3	-0.2	-0.6	0.1	0.9	0.5
Civilian central government	2.2	-0.1	2.5	0.7	-1.1	0.5	-0.4	0.0	0.4	0.5
Defence	-3.7	-1.5	-4.2	-0.9	-1.8	-2.1	-1.3	0.3	2.1	0.4
Local government	2.5	2.0	2.4	2.2	2.2	2.2	1.5	1.5	2.0	2.1
Mainland Norway	2.9	2.3	2.9	2.8	2.5	2.2	1.6	1.0	0.6	0.2

Table A40. Total hours worked. Employees and self-employed. Millions

	1997	1998	97:4	98:1	98:2	98:3	98:4	99:1	99:2	99:3
Total hours worked	3 096.1	3 165.4	820.8	815.1	783.3	741.4	825.5	807.4	794.3	736.1
Agriculture, forestry and fishing	197.3	194.8	49.9	49.7	49.0	46.7	49.5	46.1	46.9	44.2
Oil and gas extraction incl. services	37.5	38.7	10.0	9.6	9.4	9.3	10.4	9.9	9.3	8.8
Manufacturing, mining and quarrying	485.0	488.2	126.8	126.1	122.3	113.6	126.2	122.4	120.4	109.7
Electricity and gas supply	29.0	27.9	7.6	7.3	6.9	6.5	7.3	6.8	6.8	6.2
Construction	184.2	195.7	50.1	49.5	48.3	46.2	51.7	48.6	48.2	45.1
Service industries excl. general government	1 336.9	1 384.5	353.6	353.7	341.0	328.8	361.0	355.8	349.9	330.5
General government	826.1	835.7	222.8	219.2	206.5	190.3	219.6	217.7	212.7	191.5
Mainland Norway	2 981.3	3 047.7	790.9	785.5	754.3	712.7	795.3	778.1	765.5	708.3

Table A41. Total hours worked. Employees and self-employed. Percentage change from the same period in the previous year

	1997	1998	97:4	98:1	98:2	98:3	98:4	99:1	99:2	99:3
Total hours worked	2.4	2.2	3.3	7.2	-0.9	2.3	0.6	-1.0	1.4	-0.7
Agriculture, forestry and fishing	-2.1	-1.3	4.1	6.3	-7.7	-1.9	-1.0	-7.3	-4.3	-5.2
Oil and gas extraction incl. services	4.2	3.2	5.8	5.3	-0.3	4.0	4.0	2.9	-1.3	-5.6
Manufacturing, mining and quarrying	2.8	0.6	2.0	5.2	-1.8	-0.1	-0.5	-3.0	-1.5	-3.4
Electricity and gas supply	-0.4	-3.8	-0.8	1.3	-7.7	-4.7	-4.1	-6.1	-0.2	-4.3
Construction	8.1	6.2	10.8	14.3	2.1	6.3	3.2	-1.8	-0.1	-2.5
Service industries excl. general government	2.9	3.5	3.1	8.2	0.7	3.5	2.1	0.6	2.6	0.5
General government	1.3	1.1	2.6	5.9	-1.6	2.0	-1.4	-0.7	3.0	0.6
Mainland Norway	2.4	2.2	3.3	7.3	-1.0	2.3	0.5	-1.0	1.5	-0.6

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