

Economic Survey

1/195

Economic survey 1994

- Survey of the Norwegian economy 1994
- Outlook for the Norwegian economy 1995 and 1996
- Preliminary National Accounts for Norway 1994

Article

- Rent from Norwegian natural resources

Economic Survey

1/95

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The cut off date for information used in the publication was 14 March 1995.

Inquiries should be directed to Knut Moum or Mette Rolland.

Economic Survey

Editorial board: Olav Bjerkholt (ed.), Knut H. Alfssen, Julie Aslaksen, Ådne Cappelen, Solveig Glomsrød, Knut Moum, Tor Skoglund. **Editorial assistant:** Wenche Drzwi, tlf.: 22 86 49 74, telefax: 22 11 12 38. **Design:** Enzo Finger Design. **Print:** Falch Hurtigtrykk. **Editorial adress:** Statistics Norway, Research Department, P.O. Box 8131 Dep., N-0033 Oslo. **Sales- and subscription service:** P.O. Box 8131 Dep., N-0033 Oslo, tel.: 22 86 49 64, telefax: 22 86 49 76.

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 90-100 employees (Feb. 1994). The Research Department is today organized in four divisions. Head of Department is *Olav Bjerkholt*.

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The next edition of Economic Survey will be published at the end of June.

Symbols in Tables	Symbol
Data not available	..
Not for publication	:
Nil	0
Provisional or preliminary figure	*

Economic survey

Prospects

1994 was a record year also for the Norwegian economy. After having struggled with mounting unemployment ever since 1987, economic growth finally gathered pace through 1993. While the weak trend in the mainland economy up to 1993 was partly offset by higher oil investments and an expansionary economic policy, the fall in interest rates through 1993 triggered higher growth in consumption and residential construction. In 1994 the upturn gained further momentum and breadth, spurred by the international recovery and investment upswing in mainland Norway, despite the stagnation in oil investment growth and tightening of fiscal policy.

As a result, Norway in 1994 experienced one of the highest GDP growth rates in the OECD area, and Norway's real disposable income grew by as much as 7 per cent. There was record growth in exports of manufactured goods, a substantial current-account surplus and - for the first time since 1987 - a rise in employment and fall in unemployment. Price inflation was the lowest since 1960, government finances were strengthened considerably, and the rise in manufacturing output was the highest in 20 years. The fact that Norway's interest rates are low in a European context and that the Norwegian krone proved resilient during the recent turbulence in foreign exchange markets is directly related to this. The description of the Norwegian economy in 1994, however, would not be complete without adding that unemployment remains very high by Norwegian standards, Norway's real disposable income was only marginally higher than in 1985 and mainland fixed investment was still lower than the level recorded in the mid-1980s.

The favourable trend in 1994 is evidently related to our particularly fortunate position with regard to natural advantages. At the same time, some serious imbalances in the Norwegian economy from the 1980s have gradually been corrected through a painful process, particularly for the labour market. Households have improved their financial situation over a period of several years and could therefore take advantage of the opportunities provided by the decline in interest rates. Wage costs in Norway have remarkably quickly approached the levels among our trading partners, from a very weak starting point. Moderate wage inflation, but also changes in payroll taxes and the decline in the value of the Norwegian krone, have all made a contribution. Even though competitiveness deteriorated slightly in 1994, the business sector was therefore able to benefit from the international recovery.

Free capital movements across borders and the deregulation of the credit market and other markets have in many ways changed the operating environment in the Norwegian economy. Interest rate and exchange rate policy is affected rather directly by economic strengths and weaknesses in the Norwegian economy, in addition to international conditions that are entirely outside our control. The consideration for interest rate and exchange rate developments is thus also an important guideline for fiscal policy, at the same time that reactions in international financial markets clearly limit our economic room for manoeuvre.

Industry and commerce must also adapt to the effects of free capital movements. The dividing line between sheltered and exposed industries is becoming increasingly blurred and demands on profitability and competitiveness are being extended to all parts of the economy. Previously, underlying differences in market conditions, competitiveness and the distribution of income could be compensated by various support, regulatory and protective measures. Deregulation and the opening up of markets help to reveal substantial market-based profitability differentials between individual Norwegian enterprises and industries, with major consequences for the structure of industries and employment.

With differing albeit, in general, noticeably improved profitability in industry and commerce, there will be increasing pressures for more differentiated pay increases through local wage negotiations. The tension between wage determination and an incomes policy that both aim at and presuppose a maximum degree of parallel movements and common solutions on the one hand and a business sector where differences in profitability are allowed to become visible on the other, will be clearly demonstrated in the period ahead. The incomes and distributional policy approach which has been pursued in recent years will thus be put to a very serious test. Against this background, the possibilities for a continued improvement in cost competitiveness in relation to our competing countries are not very great.

In the Norwegian business sector, profitability differentials are particularly evident between some natural resource-based industries and industries which operate without these advantages. Many of the natural resource-based industries have a strong competitive position vis-à-vis other countries in product markets and vis-à-vis other Norwegian industries in the labour and capital market. They therefore contribute to, and can sustain, a cost level that is higher than other more ordinary industries can cope with in an international competitive situation. Increased emphasis on the taxation of resource rent may therefore be a natural continuation of a more market-oriented industrial policy.

Developments in the labour market have lagged behind the improvement of the Norwegian economy the last few years. Between 1987 and 1994 employment showed little change or declined while the labour force remained virtually unchanged even though the working-age population grew as much as 90 000 in the same period. This means that the participation rate fell noticeably, particularly among the youngest and oldest age groups, a development which contributed to curbing the rise in unemployment. With the improvement in employment in 1994, we experienced the opposite; the growth in employment triggered an expansion in the labour force which curtailed the decline in unemployment. This indicates considerable flexibility on the supply side of the labour market. This also applies to the large proportion of part-time employees in industry and commerce and government administration and the sharp rise in the supply of trained labour we can expect in the period ahead. Recent history thus indicates that the potential labour force is considerable. The pace of the reduction in unemployment in the period ahead will therefore be noticeably lower than the projected growth in employment.

Even though the Norwegian economy is still facing a number of problems, the overall impression is that in the short term we will experience a favourable economic trend and that Norway's position is considerably better than that of most of our trading partners. An important reason behind the strength of the Norwegian economy is that we are now in the process of entering a phase in which the degree of exploitation and profit-taking in petroleum activities will be very high. This sector has already for some time made a considerable positive contribution both to the current balance and government finances. In the period ahead fixed investment in the petroleum sector will stabilize and gradually decline. In the short and medium term the production of oil and gas will largely be determined by earlier decisions and investments. Oil production is already at a record level and the production of gas will rise sharply the next few years. There is now the prospect that Norway will become a net creditor vis-à-vis other countries as early as this year. It is also likely that the central government will again begin to increase its financial wealth beginning in 1995, among other things in the form of the much discussed oil fund.

It is important to analyze how the newly won economic scope for manoeuvre, which is partly a result of higher petroleum revenues, shall be used: For establishing a broader real economic basis for higher future production in mainland Norway or for maximum accumulation of net external assets, so that the capital return can later finance considerable net imports of goods and services. Earlier experience indicates, however, that it is difficult to transfer petroleum wealth to other types of capital or to consumption without at the same time influencing operating conditions for the rest of the Norwegian economy in an unfavourable direction.

International background

In 1994 the strongest economic growth was again recorded by non-OECD countries, particularly in Asia. A majority of the countries in eastern Europe and in the Baltic area also experienced positive growth rates, while the former Soviet republics continued to record a sharp decline in GDP. Most OECD countries were in a serious recession in 1993, but this situation began to change around the end of 1993/beginning of 1994. For the OECD area as a whole, GDP growth from 1993 to 1994 is estimated at 2.8 per cent compared with 1.3 per cent the previous year. The cyclical situation, however, varied between different areas. While the cyclical peak appears to have been reached in Anglo-Saxon industrial countries, continental Europe and Japan recorded higher economic growth, particularly towards the end of the year. The outlook for 1995 for western industrial countries remains bright. GDP for the OECD area is likely to grow by 2.5 per cent, and inflation will remain subdued. Unemployment began to decline in a number of OECD countries last year, but from a very high level. Higher economic activity will probably amplify the decline in unemployment somewhat.

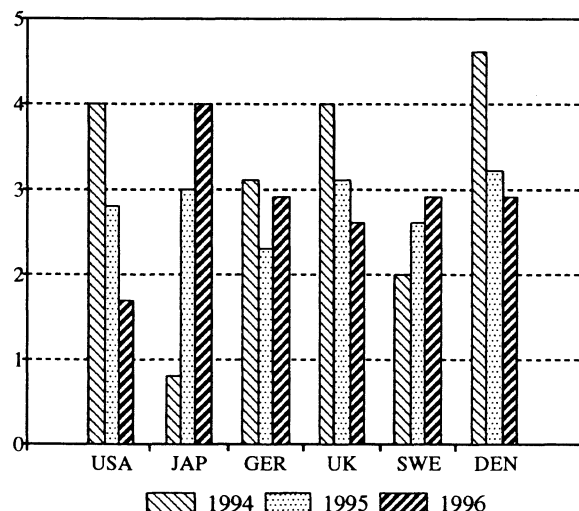
The growth rate in the *US* picked up further in 1994 from the previous year; preliminary national accounts figures show a GDP rise of 4 per cent, against 3.1 per cent in 1993. Domestic demand in particular made a positive contribution to growth last year, but exports also rose sharply on the previous year. The growth rate in the economy is projected to be slightly lower in 1995, primarily because the tightening of monetary policy is expected to curb the expansion. Since February 1994 the Federal Reserve has raised the Federal funds rate in seven steps by altogether 3 percentage points, to 6.0 per cent. Market participants expect a further rise in interest rates later this year, but indica-

tions that economic growth has started to slow down are creating uncertainty about future interest rate movements. Even though interest rates in the *US* rose at a faster pace and to a higher level than in other major countries, the *US* dollar depreciated considerably against other main currencies last year, a development which must partly be viewed in connection with the sharp rise in the trade deficit through the upturn. The recent dramatic decline in the exchange rate was probably triggered by the Mexico crisis, and amplified by indications that interest rates would not be increased further.

Japan has been experiencing an unusually deep downturn since 1991, and GDP declined in 1993. There are, however, clear signs that a turnaround is in process, and preliminary estimates show a GDP growth of slightly less than 1 per cent from 1993 to 1994. The greatest positive contribution came from domestic demand, in the form of private and public consumption, and housing investment, whereas other private investment continued to exhibit a sluggish trend. The earthquake in Kobe in January this year is expected to have a negative impact on output in the first half of 1995. As a result of the major reconstruction projects, activity is likely to pick up later in the summer. In spite of the sharp appreciation of the yen in recent years, exports grew by about 4 1/2 per cent last year. The surplus on the balance of trade rose by about 1 per cent from 1993 to 1994, far less than in the previous two years. As the economy gradually moves to a recovery phase, the trade surplus is expected to decline.

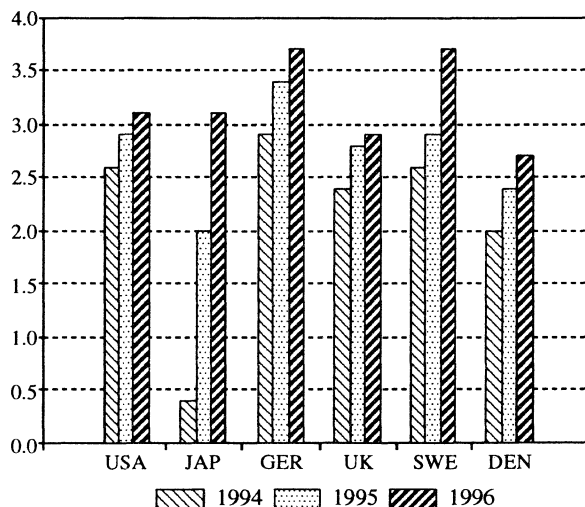
The deepest recession in the post-war period experienced by many of the large countries in *Europe* was finally replaced by a period of recovery in 1994. All EU countries rec-

GNP/GDP growth for selected countries
Per cent



Source: Consensus Forecasts and Statistics Norway.

Growth in consumer prices
Per cent



Source: Consensus Forecasts and Statistics Norway.

orded positive GDP growth last year, and a further rise is expected in 1995.

The upturn in *Germany* was considerably stronger last year than assumed at the end of 1993. According to preliminary national accounts figures, GDP expanded by 2.8 per cent from 1993 to 1994, following a decline in production of 1.1 per cent the previous year. The eastern *länder* continued to record the highest rate of growth, but western *länder* also showed clear signs of improvement. As during earlier upturns, higher export growth was the engine of the recovery, although construction investment also made a substantial contribution, particularly in the eastern *länder*. The German central bank's key rates have remained unchanged since May last year. After it emerged that the upturn in the German economy was stronger than previously expected, a further decline in interest rates does not seem very likely. GDP growth will probably rise slightly in 1995 and 1996. The driving force this year will continue to be a rise in exports and investment, while next year there will probably also be an upswing in private consumption.

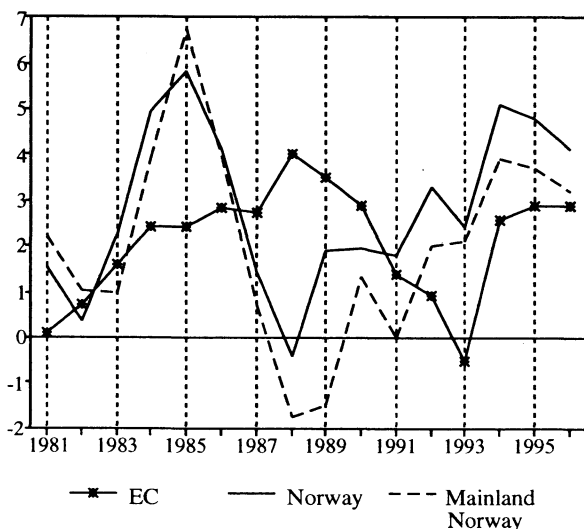
In the *UK*, the upturn has now lasted for three years, and according to preliminary national accounts figures GDP expanded by 4 per cent in 1994. Private consumption fuelled the upturn for a long time, and consumption growth remained high last year in spite of tax increases. Nevertheless, it was exports which made the strongest contribution to the high GDP growth recorded last year, primarily as a result of increased activity in important export markets. In addition, housing investment rose slightly, and there were also some signs of an upswing in business fixed investment. Unemployment began to decline in 1993 and continued to fall through 1994. Unemployment fell by nearly 1.5 percentage points from January to December 1994, and at end-year stood at 8.6 per cent of the labour force. Unemployment will probably continue to drift down even though GDP growth is expected to slow gradually in 1995 and 1996.

In *Sweden*, the recovery appears to be stronger than previously envisaged, primarily as a result of the marked growth in export-oriented manufacturing sectors. Preliminary estimates show positive GDP growth in 1994 after three consecutive years of a decline in production. Domestic demand seems to have bottomed out following several years of decline. Private consumption increased last year, mainly as a result of the rise in household real disposable income. The steep fall in gross fixed investment recorded in recent years was curbed considerably last year. Housing investment, however, continued to decline, while business fixed investment expanded by about 15 per cent. The general government budget deficit was equivalent to 13 per cent of GDP last year, but this ratio is projected to narrow to 7 per cent in 1996 as a result of three austerity programs that have been presented since June last year. The recovery of the Swedish economy is expected to gather pace in 1995 and 1996, based on a growth in investment and a continued positive trend for export industries.

The economic upturn in *Denmark* in 1994 was considerably stronger than expected. Preliminary figures indicate that GDP grew by a little less than 5 per cent. Growth was primarily fuelled by domestic demand, with a sharp rise in private consumption and gross fixed investment. Exports also showed an appreciable increase last year following a decline in the previous year. Economic growth, combined with the special leave-of-absence scheme, contributed to a substantial decline in unemployment in the last half of 1994. The unemployment rate, which is now around 11 per cent, is projected to continue moving on a downward trend the next two years. In spite of the robust upturn, inflation remains very low; consumer prices increased by 2 per cent last year and the forecasts indicate that inflation will remain subdued in the period ahead. Some tightening of fiscal policy is expected to limit GDP growth to 3.5 per cent this year and 3 per cent next year.

Crude oil prices were as low as \$ 13 p/b at the beginning of 1994, but rose in the first half of the year to about \$ 17 and remained at approximately this level the remainder of the year. The price rise must be viewed in connection with expectations of higher demand as a result of the recovery in Europe and, to some extent, in Japan. Altogether, the demand for oil increased by 1 million barrels a day from 1993 to 1994, and the forecasts for economic developments indicate further growth in oil consumption in the period ahead. There was also a substantial rise in oil production last year, primarily in non-OPEC countries. As in 1993, the North Sea made the strongest contribution to growth, but some OPEC countries also boosted their production beyond agreed quotas. The forecasts indicate that the supply from non-OPEC countries will continue to rise in the period ahead, and future price movements will partly depend on OPEC's reaction to this development. Iraq represents a considerable element of uncertainty since it is unclear when permission for resuming oil production will be granted.

GDP growth, Norway and European Community (EC)
Annual rates



Source: Statistics Norway, OECD and Consensus Forecasts.

Norwegian economy

Developments in 1994

Preliminary national accounts figures show that gross domestic product (GDP) expanded by 5.1 per cent last year. This is the same rate of growth as in the boom year 1985, and a sharper rise in GDP has not been recorded since 1976. A brisk growth in exports and noticeable rise in private consumption and investment contributed to a mainland output growth of 3.9 per cent, a doubling of the growth rate from the two previous years. Developments through 1994 indicate that the upturn in the Norwegian economy has been more broadly based and stronger than assumed earlier. In particular, it is worth noting that mainland investment seems to have picked up.

The pronounced turnaround in the Norwegian economy is the result of several factors. Whereas demand in Norwegian export markets remained virtually unchanged from 1992 to 1993, growth in 1994 can provisionally be estimated at about 9 per cent. The reorientation of monetary policy internationally, first in the US and gradually in a number of European countries as well, has been an important driving force in the cyclical turnaround in Norway's main trading partner countries. Furthermore, Norwegian producers improved their cost competitiveness through the period 1988-1993, which enabled them to take advantage of the international cyclical turnaround. Traditional merchandise exports grew by a good 14 per cent in 1994, the highest growth in 30 years. This was an important factor underlying the 5 per cent rise in manufacturing production.

The decline in European interest rates did not only have an effect on the Norwegian economy through higher foreign demand for Norwegian products. Norwegian interest rates also fell substantially through 1993 and into 1994. However, interest rates in Norwegian money and capital markets started to move on a rising trend in April last year, partly as a result of the impending referendum on EU membership. Following the referendum, Norwegian money market and long-term interest rates fell again, and are now lower than corresponding ECU rates, but slightly above the German level.

The fall in interest rates through 1993 and into 1994 resulted in a pronounced decline in households' real after-tax interest rate, from around 7.5 per cent in 1992 to about 4.5 per cent last year. The decline in borrowing costs quickly translated into higher demand for dwellings. From the trough recorded in the first quarter of 1993, the price of existing dwellings rose in real terms by more than 20 per cent up to the third quarter of 1994. There were, however, some signs of a levelling off in house prices towards the end of last year, at a level which in real terms was more than 30 per cent lower than the peak level of 1987.

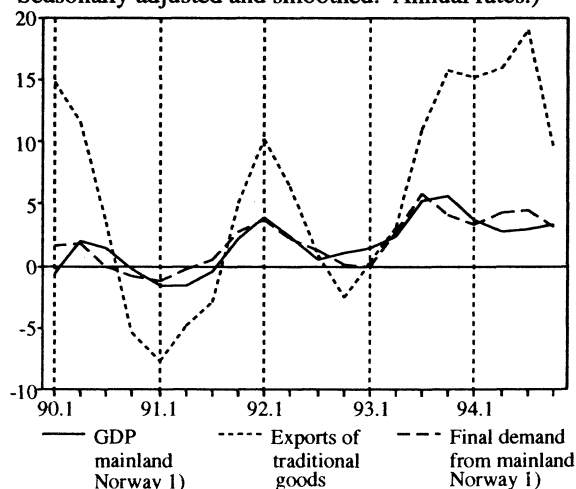
In the summer of 1993 housing starts again began to move on an upward trend, and housing investment increased by nearly 34 per cent last year. New car sales also reacted relatively swiftly to the decline in interest rates, and a sharp rise in household purchases of new passenger cars contributed to boosting the growth in private consumption from 2.3 per cent in 1993 to 4.4 per cent in 1994. Public consumption grew by 2.7 per cent last year, which is noticeably lower than mainland GDP growth.

Preliminary national accounts figures indicate that mainland investment, which since 1987 has shown a substantial decline, rose by more than 6 per cent last year. Along with housing investment and investments related to the new main airport, manufacturing investment also made a positive contribution.

The pronounced rise in mainland output resulted in an increase in total employment in 1994, for the first time since 1987. Both the number of persons employed and the number of man-hours worked rose by 1.5 per cent. Even though the supply of labour also increased last year, unemployment fell by a good half a percentage point on an annual basis, to 5.4 per cent. Employment in the private sector in mainland Norway grew by a good 19 000 persons last year, following a decline of almost 200 000 from 1987 to 1993. Employment in manufacturing industry rose by

Cyclical development

(Per cent growth from previous quarter.
Seasonally adjusted and smoothed. Annual rates.)



1) Excl. oil and ocean transport.

Source: Statistics Norway.

more than 10 000, while employment in the public sector increased by nearly 12 000.

There was only a marginal rise in the growth in hourly wages, from 2.7 per cent in 1993 to 2.9 per cent in 1994. The rate of price inflation nevertheless declined from 2.3 per cent in 1993 to 1.4 per cent in 1994, the lowest rate of inflation in 34 years. The decline in interest rates through 1993 and into 1994 contributed to slowing the rise in house rents to 0.6 per cent last year, a factor which made a substantial contribution to the decline in average inflation.

The current-account surplus in 1994 is provisionally estimated at Nkr 25.8 billion, which corresponds to 3.3 per

cent of GDP. The entire improvement in the surplus on the current account of about Nkr 10 billion from the previous year is ascribable to a decline in the deficit on the interest and transfers balance. Norway's net foreign debt amounted to Nkr 24.6 billion at the end of 1994, equivalent to 3.2 per cent of GDP.

The upturn in the Norwegian economy and developments in the labour market have contributed to a rapid reduction in general government budget deficits. Growth in the production of oil and gas has also made a positive contribution. Measured by the EU's Maastricht criterion, the deficit was reduced from about 2 1/2 per cent of GDP in 1993 to a little less than 1 per cent in 1994.

Macroeconomic indicators

Growth from previous period unless other noted. Per cent ¹⁾

			Seasonally adjusted ²⁾			
	1993	1994	94.1	94.2	94.3	94.4
Demand and output						
Private consumption	2.3	4.4	1.8	0.2	1.2	0.1
Public consumption	1.8	2.7	1.7	-0.7	-0.5	0.2
Gross fixed investment	7.3	7.9	-1.3	14.1	9.5	-17.6
- mainland Norway	-4.5	6.2	-10.0	10.9	5.2	4.3
- accrued petroleum investment ³⁾	15.9	1.8	19.4	-7.8	5.7	-6.1
Final domestic demand from mainland Norway ⁴⁾	1.1	4.2	0.0	1.4	1.4	0.8
Exports	1.6	7.6	2.0	-0.5	0.4	5.2
- crude oil and natural gas	5.8	11.2	1.3	-0.0	-5.7	13.1
- traditional goods	3.0	14.3	5.0	-0.6	7.4	1.5
Imports	3.2	7.2	1.0	3.5	7.5	-8.2
- traditional goods	1.7	15.2	4.1	3.7	4.1	-0.4
Gross domestic product	2.4	5.1	1.6	0.9	-0.2	1.9
- mainland Norway	2.1	3.9	1.3	0.8	0.1	1.2
Labour market⁵⁾						
Man-hours worked	0.0	1.5	1.2	0.3	1.0	-0.1
Employed persons	-0.0	1.5	0.0	0.6	0.7	0.4
Labour force	0.0	0.9	-0.2	0.9	0.2	0.4
Unemployment rate, level	6.0	5.4	5.5	5.7	5.2	5.2
Prices						
Consumer price index ⁶⁾	2.3	1.4	1.2	1.0	1.6	1.8
Export prices, traditional goods	0.2	1.6	1.5	0.2	1.9	1.3
Import prices, traditional goods	0.4	0.4	0.6	-0.9	0.7	0.6
Balance of payment (unadjusted, level)						
Current balance, bill. Nkr	15.1	25.8	8.4	5.0	3.9	8.5
Memorandum items (unadjusted, level):						
Eurokrone rate (3 month NIBOR)	7.2	5.7	5.1	5.2	5.9	6.7
Average lending rate ⁷⁾	11.4	8.4	8.9	8.4	8.1	8.1
Crude oil price, Nkr (Spotprice Brent Blend) ⁸⁾	121.9	112.0	105.1	116.0	114.6	112.5
Importswweighted krone exchange rate(1992=100)	103.8	105.5	106.6	104.7	106.0	104.5

1) Figures for 1993 may deviate somewhat from those published in Economic Survey 3/94 due to new information.

2) The method for seasonal adjustment has been changed.

3) Growth from previous year.

4) Private consumption + public consumption + gross fixed capital formation in mainland Norway.

5) Based on monthly figures, seasonally adjusted.

6) Percentage change from previous year.

7) Private financial institutions.

8) Average, Norwegian oil production.

Source: Statistics Norway.

Outlook for 1995 and 1996

It appears that the positive trend in the Norwegian economy will continue in 1995 and next year. The production of petroleum will also rise sharply, thereby contributing to maintaining GDP growth at an historically high level. The growth in public sector demand is projected to be relatively moderate both in 1995 and 1996. The growth impetus from abroad and from households is expected to remain strong, but slow somewhat compared with 1994. According to the calculations, investment in the mainland economy will pick up, while the petroleum sector's demand for investment goods and services from domestic suppliers will probably decline both this year and in 1996. Mainland output growth is expected to be approximately on par with last years in 1995, but will slow somewhat in 1996.

According to the calculations, the rise in employment and reduction in unemployment will continue in 1995 and 1996, but an increase in the labour force will entail that the decline in unemployment levels off somewhat through the projection period. The increase in VAT and a sharp rise in electricity prices for the household sector have already contributed to pushing up the inflation rate at the beginning of the year. The rise in the consumer price index in 1995 and next year will probably be 1-1.5 percentage points higher than the record low inflation in 1994. High profits in enterprises and lower unemployment point to a slight rise in wage growth this year and in 1996.

The forecasts for 1995 indicate a stronger and slightly more durable expansion in the economy than the projections presented in Economic Survey no. 4/94. There has been a substantial upward revision in the estimates for investment and production in petroleum activities since the last Economic Survey. Interest rates are expected to show a slightly more favourable trend and investment, exports and production are projected to be higher than assumed previously.

Exchange rates and interest rates at about the current level

Turbulence in foreign exchange and capital markets in March entails that it is even more difficult than usual to form a clear picture of developments in these markets in the short term. Our calculations embody the assumption that short money market rates in the ECU area will be relatively quickly reduced to the level that prevailed at the end of February, after which they are expected to move on a upward trend through the remainder of the projection period. As a result of slightly lower price inflation in Norway than in the ECU area and a further improvement in the current-account balance next year, Norwegian money market rates are expected to increase slightly less than in the ECU area through the remainder of 1995 and in 1996. Deposit and lending rates are expected to remain relatively stable through 1995 and 1996. Lending rates in the state

banks as well as average deposit rates are expected to be reduced slightly from 1994 to 1995.

In the projections we have assumed a dollar exchange rate of Nkr 6.30 from the second quarter of 1994 and throughout the projection period. Other exchange rates are assumed to remain at the level prevailing in the second week of March, entailing that the import-weighted value of the Norwegian krone will show an average rise of about 3 per cent from 1994 to 1995.

Main economic indicators

Percentage change from previous year unless otherwise noted

	1994	1995		1996	
	Accounts	SN ¹⁾	MoF ²⁾	NB ³⁾	SN ¹⁾
Demand and output					
Private consumption	4.4	2.9	1.5	2 1/2	2.1
Public consumption	2.7	0.7	0.9	1	2.0
Gross fixed investment	7.9	15.7	..	2 1/2	2.1
- mainland Norway	6.2	16.3	9.5	8 1/4	11.2
- accrued petroleum investment ⁴⁾	1.8	11.5	-2.9	-10	-16.1
Demand from mainland Norway ⁵⁾	4.2	4.3	2.8	3	3.5
Exports	7.6	8.6	4.8	4 1/2	6.8
- crude oil and natural gas	11.2	11.5	6.6	5 3/4	8.3
- traditional goods	14.3	7.7	7.0	6 1/2	4.1
Imports	7.2	10.6	3.8	3 1/4	2.6
- traditional goods	15.2	9.3	4.0	5 1/2	5.4
Gross Domestic Product	5.1	4.8	2.8	2 3/4	4.1
- mainland Norway	3.9	3.6	2.3	2 1/2	3.2
Labour market					
Persons employed	1.5	1.7	1 1/4	1	1.5
Unemployment rate (level)	5.4	4.9	5	5	4.6
Prices and wages					
Wages per man-hour	2.9	3.7	2 1/2	3 1/2	4.3
Consumer price index	1.4	2.6	2 1/4	2 1/2	2.7
Export prices, traditional goods	1.6	10.1	5	..	2.6
import prices, traditional goods	0.4	3.2	2	..	1.7
Balance of payment					
Current balance (bill. Nkr)	25.8	26.3	37.9	36	48.8
Current balance (per cent of GDP)	3.3	3.2	..	4 1/4	5.5
Memorandum items:					
Money market rate (level)	5.7	5.4	..	..	6.3
Average borrowing rate (level) ⁶⁾	8.4	8.0	..	..	8.1
Crude oil price Nkr (level) ⁷⁾	112.0	108.0	115	115	113.4
International market growth	8.9	7.2	6 1/4	..	5.1
Importsweighted krone exchange rate ⁸⁾	1.3	-3.1	..	..	-0.2
Households saving ratio	3.4	2.6	2 1/2	2 3/4	3.0

1) SN: Statistics Norway's forecasts published in Economic Survey 1/95.

2) MoF: Ministry of Finance's forecasts. Final budget bill 1995.

3) NB: Forecast according to Central Bank of Norway, Penger og kreditt 1994/4.

4) According to National Accounts definitions.

5) Private consumption + Public consumption + Gross fixed capital formation in mainland Norway.

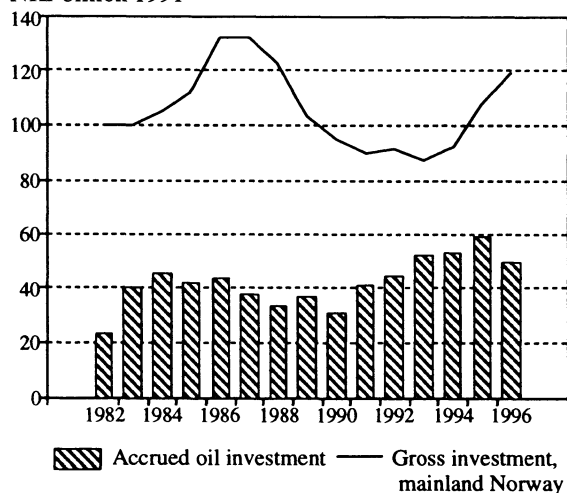
6) Households' borrowing rate in private institutions.

7) Average Norwegian oil production.

8) Positive entails depreciation.

Accrued oil investment and investment in mainland Norway

Nkr billion 1991

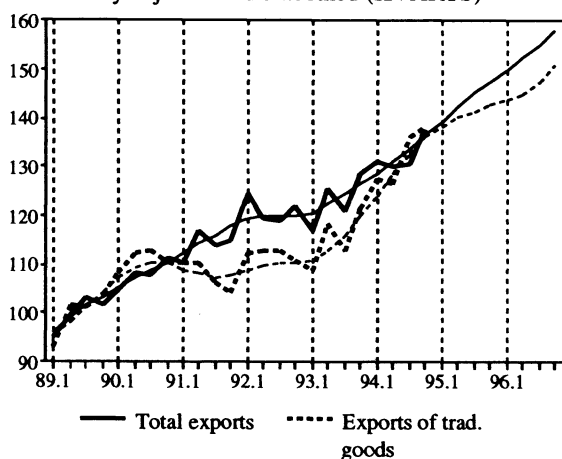


Source: Statistics Norway.

Exports

1989=100. Seasonally adjusted (QNA)

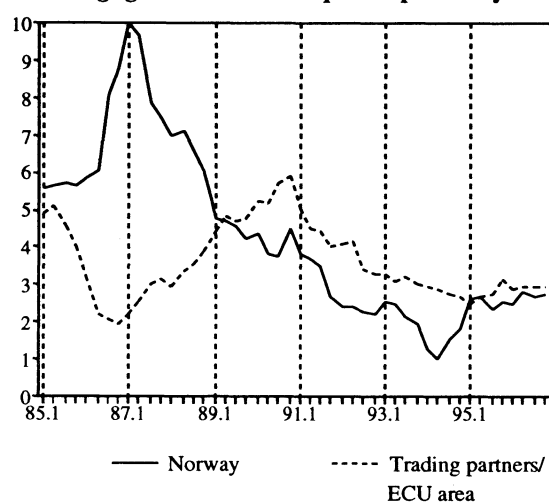
Seasonally adjusted and smoothed (KVARTS)



Source: Statistics Norway

Consumer price index

Percentage growth from same quarter previous year



Source: Statistics Norway, OECD and Eurostat

Tighter economic policy

The assumptions concerning economic policy for 1995 are based on the Final Budget Bill for 1995. Expenditure on the Winter Olympics in Lillehammer contributed to boosting public consumption in 1994, and this is one of the reasons for the subdued rise from 1994 to 1995. For 1996, the projections incorporate the assumption that public consumption growth will be noticeably lower than mainland output growth. The tax and excise duty programme for 1995 is continued in 1996.

Investment in the public sector is projected to rise slightly this year and in 1996. Local government investment will expand, while central government investment will remain unchanged.

Higher revenues from taxes and from petroleum production and a lower level of unemployment benefits will contribute to an improvement in the public sector's budget balance in the projection period. Measured by the Maastricht criterion, the general government budget balance will move from a deficit of about 1 per cent of GDP in 1994 to a surplus of around 1 per cent in 1995 and 2.5 per cent in 1996.

Slightly negative demand impetus from petroleum investment

Following substantial growth in accrued investment in the petroleum sector over a period of three years, there was only a small increase in 1994, according to the national accounts. In our new projections accrued investment will rise by about 12 per cent in 1995. However, imports related to the completion of several major investment projects are expected to be considerable. In 1996, investment in the petroleum sector will show a sharp decline of about 16 per cent, according to our forecasts. When adjusted for the very high import share in 1995, the projection for both 1995 and 1996 entails that investment in the petroleum sector will impart a slightly negative demand impetus to the Norwegian economy.

Investment in oil and gas pipelines expanded sharply from 1993 to 1994. Pipeline investment in 1995 and 1996 is projected to remain at approximately the same level as last year. The Norwegian share of these deliveries, which has previously been limited, will probably rise in the projection period.

Continued buoyant growth in export markets

In the calculations it is assumed that the sharp growth in markets for traditional Norwegian export goods, which started at the end of 1993, will continue in 1995 and 1996. Export growth through the projection period, however, is expected to be more moderate than in the previous six quarters, entailing that traditional merchandise exports are projected to rise by 7.7 per cent in 1995 and 4.1 per cent in

1996. The volume of oil and gas exports will increase substantially in both 1995 and 1996.

The improved economic situation internationally is expected to push up import prices in 1995. Prices of traditional merchandise imports are projected to rise by 3.2 per cent in 1995. Prices of industrial raw materials are generally expected to increase more than the prices of finished goods. Excluding industrial raw materials, import prices for other traditional goods are expected to rise by 1.2 per cent in 1995 and 1.6 per cent in 1996, compared with 0.1 per cent last year. A sharp rise in prices of industrial raw materials helps to explain the strong rise in the prices of Norway's traditional export goods in 1995.

Slightly higher price and wage inflation in 1995 and 1996

The fall in interest rates through 1993 and into 1994 was an important factor underlying the low price inflation in 1994. Rents are an important component in the consumer price index and the fall in interest rates has entailed that the rise in rents has virtually come to a halt. Interest rate movements cannot be expected to dampen price inflation to the same extent in the period ahead.

The one percentage point increase in VAT on 1 January 1995 is another factor indicating slightly higher price inflation in 1995. On an uncertain basis, we have estimated that the price feed-through for 1995 as a whole will be 80 per cent. Based on this assumption, the VAT increase will contribute 0.4 percentage point to the rise in the consumer price index this year. Higher price inflation internationally will boost the rise in prices in Norway, but in the calculations this is offset by a projected moderate appreciation of the Norwegian krone.

The calculations show a higher rise in the consumer price index, moving from 1.4 per cent in 1994 to 2.6 per cent this year. In 1996, the rise in prices is estimated at 2.7 per cent. Among the assumptions underlying the inflation projection, we would particularly point to the uncertainty related to exchange rates.

According to the calculations, improved profitability in the business sector as a result of the cyclical upturn both in Norway and abroad will contribute to pushing up the rise in hourly wages from 2.9 per cent in 1994 to 3.7 per cent this year. This increase, however, must also be viewed in light of the fact that there are two fewer working days in 1995 compared with 1994. On this basis, average wage growth per normal man-year is estimated at 3.2 per cent. In the calculations, continued favourable profitability results in wage growth of 4.3 per cent in 1996.

Strong growth impetus from mainland investment

Output growth and the decline in interest rates resulted in an upswing in mainland fixed investment in 1994, and the

expansion seems to be amplified in 1995. In the calculations, mainland fixed investment shows a rise of about 16 per cent this year and 11 per cent in 1996, compared with a growth of a good 6 per cent in 1994. In spite of this sharp growth, the volume of mainland fixed investment will not exceed the average of the 1980s until 1996, and will even then be about 10 per cent lower than the peak level in 1986.

The development of Gardermoen airport and the rise in housing investment are important factors behind the projected growth, but the calculations also point to a broadly-based and significant investment upturn in the mainland business sector. Statistics Norway's investment intentions survey from the first quarter of 1995 also indicates a very sharp growth in manufacturing investment. In line with this, the estimates for manufacturing investment have been adjusted upwards compared with earlier calculations, entailing that this investment shows a rise of about 30 per cent this year. The growth in manufacturing investment is projected to decline to a good 14 per cent in 1996.

As the effects of the decline in interest rates on house prices are gradually exhausted and prices reach a more reasonable level in relation to building costs, the rise in house prices will slow from about 13 per cent in 1994 to about 6 per cent in both 1995 and 1996.

High income growth over a period of several years and in the period ahead, the prospect of lower real mortgage rates, higher prices for existing dwellings and the low level of residential construction for a number of years are factors which explain why the sharp growth in housing investment may continue this year, with an increase of more than 30 per cent. However, even following further growth of about 19 per cent in 1996, the projection for housing investment that year is still lower than the average for the 1980s.

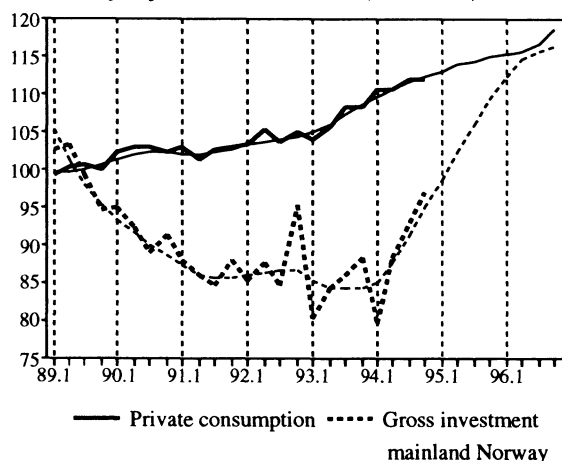
Household real disposable income expanded by 2.2 per cent in 1994, and the calculations indicate approximately the same growth in 1995 and 1996. The income growth can largely be ascribed to higher wages as a result of the growth in real wages and increase in employment.

The increase in wealth, decline in interest rates and growth in real income are factors underlying the noticeable growth in private consumption in 1994. In the projection period the positive effects of the fall in interest rates taper off, while the other factors will contribute to a consumption growth of 2.9 per cent in 1995 and 2.1 per cent in 1996. An important element in consumption growth has been, and will continue to be, a sharp albeit slower increase in purchases of consumer durables.

According to the calculations, the household saving ratio will be reduced from 3.4 per cent in 1994 to 2.6 per cent in 1995, edging up to 3.0 per cent in 1996. When consumption is adjusted for purchases of consumer durables, the decline in the saving ratio from 1994 to 1995 is reversed to a rise. In spite of the vigorous growth in household con-

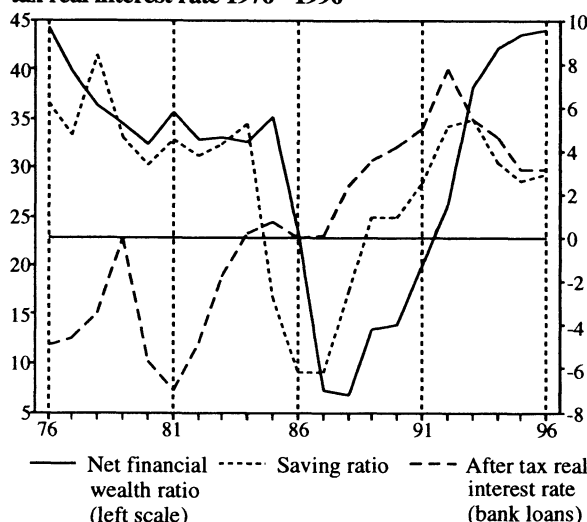
Consumption and investment

1989=100. Seasonally adjusted (QNA)
Seasonally adjusted and smoothed (KVARTS)



Source: Statistics Norway

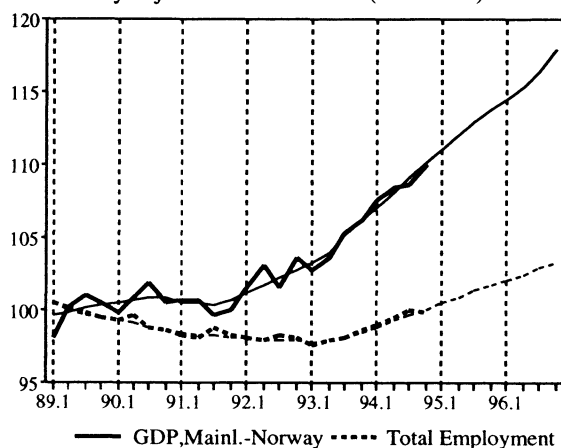
Net wealth ratio, saving ratio and after tax real interest rate 1976 - 1996



Source: Central Bank of Norway and Statistics Norway.

Gross domestic product and employment

1989=100. Seasonally adjusted (QNA)
Seasonally adjusted and smoothed (KVARTS)



Source: Statistics Norway

sumption and fixed investment in both 1995 and 1996, the household sector will continue to improve its net financial asset position.

Continued high GDP growth

According to the calculations, total GDP growth will reach about 5 per cent in 1995 and a good 4 per cent in 1996. As a result of the investment upswing in mainland Norway, production in the construction industry picked up considerably through 1994. A brisk growth in housing and construction investment will result in higher production growth in this industry through the projection period.

Manufacturing output is expected to rise by about 3 per cent this year and in 1996, compared with 5 per cent in 1994. Growth is being spurred by machinery investment and exports, while the demand from the petroleum sector will probably make a negative contribution in both 1995 and 1996. Production in private service industries appears to have increased considerably in 1994, and production is projected to grow at almost the same pace in both 1995 and 1996.

Growth in public sector production is expected to be low in 1995, but edge up in 1996. Total output growth in the mainland economy, which picked up markedly last year, is expected to remain high, albeit slightly slower, in both 1995 and 1996.

Oil and gas production is projected to advance markedly in both 1995 and 1996. Output in the shipping sector is also expected to expand.

Lower unemployment

The substantial growth in activity will result in a continued improvement in the labour market. The number employed is likely to expand by a little less than 2 per cent this year and 1.5 per cent in 1996 and, according to the calculations, the average number of persons employed will be about 100 000 higher in 1996 than in the trough year 1993. This increase, however, will not be sufficient to bring employment up to the peak level recorded in 1987. The projections indicate that the number employed will still be about 30 000 below this level.

In tandem with employment growth, the labour force is also now increasing. Demographic factors alone indicate labour force growth of 10-15 000 a year. The calculations point to a slight rise in participation rates, entailing that the supply of labour rises by about 25 000 a year. According to the calculations, unemployment will thus fall from 5.4 per cent of the labour force in 1994 to 4.9 per cent in 1995 and further to 4.6 per cent in 1996.

Sizeable current-account surplus

Crude oil prices are assumed to remain at \$ 17 p/b throughout 1995, rising to \$ 18 P/b in 1996. With a projected dollar exchange rate of Nkr 6.30 from the second quarter of

this year, this is equivalent to a crude oil price of NKr 108 p/b in 1995 and a good NKr 113 p/b in 1996.

The brisk growth in imports this year, especially related to petroleum investments, will entail that the balance of trade surplus remains approximately unchanged between 1994 and 1995 in spite of a vigorous growth in exports of petroleum products. From 1995 to 1996 a reduction in the petroleum sector's imports, combined with a sharp rise in the value

of oil and gas exports, will be the most important factors behind the projected sharp improvement in the balance of trade. The deficit on the interest and transfers balance will decline further in both 1995 and 1996 as a result of lower net interest payments abroad. The current-account surplus is estimated at a good NKr 26 billion in 1995, rising to nearly NKr 49 billion in 1996. According to these calculations, Norway may be in a net creditor position vis-à-vis other countries towards the end of 1995.

How accurate were Statistics Norway's forecasts for 1994?

The Economic Surveys published by Statistics Norway over the past two years have presented forecasts for macroeconomic developments in 1994 as many as eight times. The first forecasts were presented in Economic Survey 1/93, and this was followed by forecasts in each quarterly survey. The table below shows how Statistics Norway's forecasts for 1994 have changed over time and gradually approached the figures from the preliminary accounts presented in this Economic Survey.

The first forecasts for 1994, presented two years ago, were marked by the deep recession in Norway and other European countries. Turbulence in international foreign exchange markets through 1992, culminating in December 1992, influenced the projections in several ways, including the uncertainty linked to the type of exchange rate policy Norway would conduct after the krone was floated. Later in 1993 a number of these questions were clarified. The Norwegian krone depreciated less than at first expected, while the nominal interest rate decline was greater. This resulted in a slight downward adjustment in the inflation forecast and an upward revision of estimates for the growth in private consumption.

Approximately one year ago there were clear signs that the European economy was moving to a recovery phase, but the strength of the recovery was naturally difficult to pre-

dict. It was only last summer that the forecasts began to reflect the vigorous growth in exports which the figures now show. At that time, i.e. late spring 1994, the forecasts for growth in private consumption and mainland gross fixed investment were increased by one percentage point. However, there is reason to point out that our forecasts have systematically underestimated export growth. With the benefit of hindsight, we know this is ascribable not only to an underestimation of our projections for market growth among our trading partners, but also that the KVARTS model's relationships for traditional merchandise exports underpredicted export volumes in both 1993 and 1994. This has then spilled over to the estimates for GDP growth and, to some extent, employment growth as well.

The forecasts concerning nominal developments have generally been accurate. The forecasts for both price and wage inflation, particularly from the end of 1993, were very close to the figures now available for 1994.

For the current-account balance, the projections vary considerably, partly due to our estimates for oil prices. 1994 as an average was marked by very low oil prices measured in Norwegian kroner. However, the estimates the past year, i.e. from the last Economic Survey, have been close to the outcome, entailing that our underestimation of export revenues, excluding oil, has been offset by a corresponding underestimation of import growth.

Statistics Norway's forecasts for 1994. Growth rates in per cent

	ES1/93 ¹⁾	ES2/93	ES3/93	ES4/93	ES1/94	ES2/94	ES3/94	ES4/94	ES1/95 ²⁾
Private consumption	2.6	2.9	3.2	3.2	3.1	4.3	4.2	4.7	4.4
Public consumption	2.3	1.8	2.1	2.3	2.2	1.7	3.1	2.1	2.7
Mainland gross fixed investment	4.3	4.8	5.3	4.3	4.6	5.8	5.0	6.1	6.2
Exports	5.8	5.5	5.1	4.9	4.7	5.8	6.6	7.0	7.6
-traditional goods	3.9	3.1	2.1	4.3	4.7	6.8	9.1	13.3	14.3
Imports	2.9	3.9	5.7	4.7	5.6	4.7	6.9	7.5	7.2
-traditional goods	2.1	3.0	4.0	3.2	5.8	7.9	13.9	15.0	15.2
GDP	3.0	3.0	3.2	3.4	3.0	4.2	4.4	4.5	5.1
Mainland GDP	1.9	1.8	2.2	2.3	2.2	3.3	3.2	3.5	3.9
Man-hours worked, employees	0.3	1.0	1.0	0.8	1.1	1.4	1.7	1.5	1.5
Unemployment rate (level)	6.1	5.9	6.0	6.0	5.7	5.6	5.7	5.4	5.4
Hourly wages	3.5	3.0	2.9	2.6	2.7	2.7	2.8	3.0	2.9
Consumer prices	2.3	2.1	2.0	1.6	1.4	1.1	1.3	1.4	1.4
Current account (bill. NKr).	47.1	41.3	46.4	34.2	19.9	27.6	19.0	24.2	25.7

1) Economic Survey no 1/93.

2) Preliminary national accounts figures for 1994.

Norway: Trends in selected macroeconomic variablesPercentabe volume changes in 1991 prices ^{*)1)}

	Billion 1991-NKr	Growth from the same period previous year								
	1994	1994	93.1	93.2	93.3	93.4	94.1	94.2	94.3	94.4
Private consumption	380.1	4.4	0.7	0.0	4.8	3.3	6.4	4.8	3.5	3.1
Goods	236.8	5.4	0.6	-0.1	6.0	3.9	9.3	6.1	3.9	3.1
Services	131.7	2.9	0.7	0.8	3.0	2.1	3.6	3.2	2.2	2.8
Norwegian consumption abroad	26.3	6.8	0.3	0.4	4.6	5.8	5.6	6.8	10.7	2.4
- non-residents' consumption	-14.7	11.9	-3.2	7.8	6.1	7.8	31.5	13.1	9.4	-1.8
Government consumption	161.0	2.7	3.0	-1.2	2.9	2.7	4.8	5.2	0.9	0.3
Central government	64.1	3.0	4.8	-6.6	4.2	4.2	7.9	9.4	-1.3	-2.3
Civilian	42.6	2.6	9.9	-2.8	8.6	14.3	5.9	6.2	-4.4	2.7
Military	21.5	3.8	-7.6	-13.9	-3.7	-7.7	13.7	16.3	5.2	-9.6
Local government	96.8	2.5	1.9	2.5	2.1	1.5	2.9	2.5	2.3	2.3
Gross fixed capital formation	134.0	-12.4	7.9	-20.6	95.1	3.2	10.4	-14.8	-28.5	-0.7
Oil and shipping	41.1	-37.2	98.1	-35.1	405.6	56.3	38.8	-39.4	-53.1	-27.2
Mainland Norway	92.9	6.2	-6.2	-3.8	1.5	-8.6	1.1	4.2	8.4	9.4
Manufacturing and mining	13.7	2.8	-1.9	7.1	4.4	-10.6	-1.5	-1.5	4.5	7.4
Production of other goods	11.3	-5.5	-1.2	5.8	6.7	-15.5	-15.7	-4.4	-15.1	12.9
General government	21.5	-4.8	-9.7	-20.3	1.1	-14.3	-7.5	-5.9	-5.7	-1.8
Dwellings	15.6	33.8	-12.5	-12.9	-6.7	11.3	23.7	34.8	39.4	36.3
Other services	30.7	10.2	-3.9	6.7	1.8	-6.1	4.7	6.9	21.2	8.2
Stocks (contribution to GDP growth) ⁴⁾	13.2	4.0	1.7	2.4	-10.8	0.9	-1.8	7.4	9.3	0.9
Other commodities (contribution to GDP growth) ³⁾⁴⁾	-4.3	0.5	0.2	-1.2	0.7	0.4	-1.6	2.9	-0.3	1.2
Ships and oil platforms in progress (contribution to GDP growth) ⁴⁾	17.5	3.4	1.4	3.6	-11.6	0.5	-0.2	4.5	9.6	-0.3
Gross investment (incl. stock changes)	147.2	7.9	15.4	-16.1	22.0	9.4	-2.5	29.3	4.7	4.5
Final domestic use of goods and services	688.2	4.7	4.3	-3.7	7.9	4.3	4.0	9.4	3.2	2.7
-accrued petroleum investment ²⁾	52.9	1.8	12.6	-4.9	47.7	17.2	19.4	-7.8	5.7	-6.1
-demand from mainland Norway	634.0	4.2	0.3	-0.9	3.8	1.1	5.3	4.8	3.6	3.4
Exports	357.1	7.6	-6.4	5.0	2.5	5.5	11.9	3.7	7.9	7.3
Traditional goods	137.9	14.3	-3.3	4.4	0.7	10.1	16.7	7.0	20.3	13.9
Crude oil and natural gas	126.1	11.2	-0.6	7.6	1.7	14.2	18.4	10.6	8.6	7.9
Ships and oil platforms	9.1	-30.2	-52.4	45.8	54.7	-35.4	-21.3	-51.7	-35.7	4.2
Services	84.1	-0.9	-5.6	-3.0	0.6	-4.6	0.9	1.0	-1.7	-3.7
Total use of goods and services	1 045.4	5.7	0.5	-0.8	6.1	4.7	6.6	7.4	4.7	4.2
Imports	281.0	7.2	-0.1	-4.6	11.1	6.7	8.1	8.5	9.1	3.4
Traditional goods	183.8	15.2	-3.0	-1.4	3.0	7.8	14.3	19.0	16.1	11.9
Crude oil	0.9	-26.3	64.7	-25.4	16.5	59.2	-21.4	-33.6	-24.5	-27.0
Ships and oil platforms	12.0	-24.3	78.8	-14.8	166.8	40.9	-3.7	-32.4	0.7	-65.6
Services	84.3	-1.3	-1.7	-7.4	11.6	-0.4	-1.8	-1.9	-0.0	-1.8
Gross domestic product (GDP)	764.4	5.1	0.7	0.7	4.3	4.0	6.1	7.0	3.1	4.5
Mainland Norway	610.4	3.9	1.1	0.3	4.4	2.6	4.2	5.2	2.7	3.7
Oil activities and shipping	153.9	10.3	-1.1	2.4	3.7	10.0	14.2	14.5	4.8	8.0
Mainland industry	560.1	3.5	0.9	0.4	4.0	2.3	3.4	4.7	2.5	3.3
Manufacturing and mining	102.5	5.0	0.1	0.6	2.8	3.1	1.9	8.1	5.5	4.6
Production of other goods	73.6	-0.5	0.2	-4.0	8.1	1.4	0.5	2.9	-2.7	-1.3
General government	121.7	2.1	2.7	1.9	2.6	3.8	3.0	2.1	1.8	1.7
Private services	262.5	4.6	0.6	0.6	3.6	1.7	5.1	5.0	3.5	4.9
Correction items (contribution to GDP growth) ⁴⁾⁵⁾	50.3	0.6	0.2	-0.0	0.6	0.3	0.8	0.7	0.3	0.5

*) Notes, see "Technical comments.

Norway: Trends in selected macroeconomic variablesPercentage volume changes in 1991 prices ^{*)1)}

	Billion 1991-NKr	Growth from previous quarter seasonally adjusted ⁶⁾								
	1994	1994	93.1	93.2	93.3	93.4	94.1	94.2	94.3	94.4
Private consumption	379.8	4.4	-1.0	1.5	2.8	-0.0	1.8	0.2	1.2	0.1
Goods	236.6	5.4	-2.1	2.3	3.6	0.2	2.8	-0.8	1.3	0.1
Services	131.7	3.0	-0.0	1.4	1.6	-0.6	1.5	0.7	0.3	0.5
Norwegian consumption abroad	26.1	6.4	1.4	-1.1	3.4	2.0	-0.4	4.0	4.5	-5.2
- non-residents' consumption	-14.6	12.6	-6.8	10.0	5.6	1.8	10.8	-3.9	-0.2	-6.0
Government consumption	161.3	2.9	0.3	-1.4	4.2	0.3	1.7	-0.7	-0.5	0.2
Central government	64.4	3.6	0.5	-4.3	10.4	-0.2	2.1	-1.9	-1.4	-0.1
Civilian	42.6	2.3	9.1	-5.5	10.8	-0.1	-0.0	-3.4	-0.6	6.4
Military	21.8	6.0	-13.5	-1.8	9.7	-0.4	6.2	0.8	-3.0	-12.4
Local government	96.9	2.5	0.2	0.6	0.3	0.5	1.5	0.2	0.1	0.5
Gross fixed capital formation	133.7	-12.7	-11.3	40.5	45.5	-41.6	-9.1	11.0	21.4	-19.6
Oil and shipping	41.2	-37.1	8.5	154.8	104.2	-71.4	-6.9	11.2	59.0	-56.4
Mainland Norway	92.5	5.6	-16.1	5.3	1.7	3.1	-10.0	10.9	5.2	4.3
Manufacturing and mining	13.6	1.4	-17.1	8.7	5.0	-1.0	-13.8	9.9	10.1	1.8
Production of other goods	11.2	-6.9	0.7	3.4	3.3	-20.6	-1.4	17.8	-7.5	4.2
General government	21.5	-5.3	-12.7	0.7	1.4	-2.4	-8.8	6.2	-1.4	3.7
Dwellings	15.5	33.7	-3.5	-1.0	5.6	9.8	7.5	8.6	8.9	6.8
Other services	30.7	10.0	-28.2	11.5	-1.8	18.4	-19.0	13.6	11.3	4.7
Stocks (contribution to GDP growth) ⁴⁾	13.3	0.1	3.1	-7.7	-4.9	9.7	1.3	0.8	-1.8	0.2
Other commodities (contribution to GDP growth) ³⁾⁴⁾	-4.2	0.2	2.1	-3.0	2.8	-2.1	1.2	0.5	0.6	-1.4
Ships and oil platforms in progress (contribution to GDP growth) ⁴⁾	17.5	-0.1	0.9	-4.7	-7.8	11.8	0.2	0.2	-2.3	1.6
Gross investment (incl. stock changes)	147.0	8.0	6.2	-8.3	27.2	-13.1	-1.3	14.1	9.5	-17.6
Final domestic use of goods and services	688.1	4.8	0.7	-1.2	7.8	-2.9	1.2	2.7	2.7	-4.0
-accrued petroleum investment ²⁾	53.0	2.0	1.9	41.5	6.7	-22.9	3.0	8.7	22.6	-31.6
-demand from mainland Norway	633.6	4.2	-3.1	1.3	3.0	0.5	0.0	1.4	1.4	0.8
Exports	357.0	7.7	-4.2	7.4	-3.4	6.0	2.0	-0.5	0.4	5.2
Traditional goods	137.8	14.4	-1.5	8.4	-4.3	7.3	5.0	-0.6	7.4	1.5
Crude oil and natural gas	126.0	11.2	-2.5	7.1	-3.9	13.7	1.3	-0.0	-5.7	13.1
Ships and oil platforms	9.1	-30.2	-30.1	56.9	-20.8	-25.7	-14.9	-3.5	5.4	20.4
Services	84.1	-0.8	-5.2	-0.1	2.1	-0.7	0.5	-0.8	-1.8	-1.2
Total use of goods and services	1 045.1	5.8	-0.9	1.6	3.9	-0.0	1.4	1.6	1.9	-0.9
Imports	280.9	7.3	-1.0	3.9	6.8	-3.0	1.0	3.5	7.5	-8.2
Traditional goods	183.8	15.3	-3.3	1.9	5.9	3.1	4.1	3.7	4.1	-0.4
Crude oil	0.9	-26.3	54.7	-13.0	27.7	-7.3	-23.6	-26.5	45.0	-10.2
Ships and oil platforms	12.0	-24.3	11.2	36.7	25.9	-26.4	-24.0	-4.1	87.6	-74.8
Services	84.1	-1.4	1.4	3.1	4.6	-8.9	-0.4	4.6	4.1	-9.3
Gross domestic product (GDP)	764.2	5.2	-0.9	0.8	2.9	1.1	1.6	0.9	-0.2	1.9
Mainland Norway	610.4	4.0	-0.8	0.8	1.6	0.9	1.3	0.8	0.1	1.2
Oil activities and shipping	153.8	10.2	-1.6	1.1	8.1	1.9	2.7	1.5	-1.4	4.7
Mainland industry	560.2	3.5	-0.9	0.6	1.2	1.4	0.7	0.7	0.1	1.6
Manufacturing and mining	102.4	5.0	-0.2	0.6	1.7	1.2	0.2	3.1	0.8	0.3
Production of other goods	73.7	0.3	-3.7	0.2	3.1	2.1	-3.9	0.8	1.1	0.0
General government	121.7	2.0	1.7	0.6	0.5	0.9	0.4	0.1	0.4	0.7
Private services	262.4	4.7	-1.4	0.7	0.9	1.4	2.4	0.1	-0.5	2.9
Correction items (contribution to GDP growth) ⁴⁾⁵⁾	50.2	0.1	0.0	0.2	0.4	-0.3	0.5	0.1	0.0	-0.2

*) Notes, see "Technical comments".

Norway: Price indices for selected macroeconomic variables

	1994	Percentage change from the same period the previous year				Growth from previous quarter seasonally adjusted. Per cent ⁶⁾			
		94.1	94.2	94.3	94.4	94.1	94.2	94.3	94.4
Private consumption	1.4	1.0	1.0	1.8	1.6	0.1	0.4	0.8	0.3
Government consumption	2.0	2.6	2.0	1.9	1.8	0.9	0.2	0.5	0.2
Gross fixed capital formation	0.4	1.3	0.4	0.1	0.4	-0.1	-0.4	0.3	0.5
- mainland Norway	2.6	3.5	2.9	2.7	1.8	1.2	0.5	0.5	-0.5
Final domestic use of goods and services	1.1	1.2	0.8	1.2	1.1	0.8	-0.2	0.3	0.4
- demand from mainland Norway	1.7	1.8	1.5	2.0	1.7	0.5	0.4	0.7	0.1
Exports	-1.5	-5.3	-2.3	-1.2	2.5	-0.8	2.7	1.3	0.7
- traditional merchandise exports	1.6	-0.6	0.3	1.7	4.7	1.5	0.2	1.9	1.3
Total use of goods and services	0.2	-1.1	-0.1	0.4	1.4	0.3	0.8	0.7	-0.2
Imports	-0.1	1.2	-0.0	-1.5	0.2	0.5	-1.4	0.1	1.0
- traditional merchandise imports	0.4	0.6	0.1	0.1	0.9	0.6	-0.9	0.7	0.6
Gross domestic product (GDP)	0.3	-1.9	-0.2	1.1	1.9	0.2	1.6	0.9	-0.6
- mainland Norway	2.2	1.7	2.0	2.6	2.3	0.8	0.7	1.1	-0.1

Technical comments on the quarterly accounts figures

Footnotes:

- 1) Figures for 1993 may deviate somewhat from those published in Economic Survey 3/94 due to new information.
- 2) Including ships, oil platforms and platform modules in progress.
- 3) Excluding ships, oil platforms and platform modules in progress.
- 4) Contributions to GDP growth are calculated as the difference between corresponding figures calculated as a percentage of GDP.
- 5) Corrected for free bank services and certain indirect taxes.
- 6) The method for seasonal adjustment has been changed.

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. The quarterly national accounts figures for the years up to and including 1991 have been reconciled against the most recently published annual accounts figures.

Gross fixed capital formation: Total gross fixed capital formation is heavily influenced by significant fluctuations in investment in oil activities. These fluctuations are inter alia due to the fact that platforms that have been under construction for several years are counted as investment in the quarter and with the capital value they have at the time they are towed out to the field.

Seasonally-adjusted figures: The original quarterly national accounts are not seasonally adjusted, as these accounts are attempts to register the actual transactions that have taken place in each quarter. Many of the statistical series thus show clear seasonal variations. Most series are therefore seasonally adjusted on the detailed accounts level and then aggregated to obtain the figures presented in the tables and charts of this volume.

Underlying trend: The Norwegian economy is so small that random or single important occurrences can give wide variations in the figures. The seasonally adjusted figures are therefore smoothed so that it is possible to calculate the underlying trend for each series. Smoothing is an attempt to distinguish between random and systematic variations in the series.

Norway: Revisions of underlying trend

Percentage growth from previous quarter. Seasonally adjusted and smoothed. Annual rates

Published:	91.1	91.2	91.3	91.4	92.1	92.2	92.3	92.4	93.1	93.2	93.3	93.4	94.1	94.2	94.3	94.4
GDP mainland Norway																
Sep. -91	0	-1														
Dec. -91	0	-1	-1													
Feb. -92	0	0	0	1												
June -92	0	-1	-1	0	1											
Sep. -92	0	-1	-1	0	2	3										
Dec. -92	0	-1	0	0	1	1	0									
Feb. -93	0	-1	0	1	2	2	1	-1								
June -93	-1	-1	-1	1	2	2	2	2	0							
Sep. -93	-1	-1	-1	1	2	2	2	2	0	-1						
Dec. -93	-1	-1	-1	1	2	2	2	2	1	1	2					
Feb. -94	-1	-1	-1	1	2	2	2	2	2	2	4	4				
June -94	-2	-2	-1	2	4	3	1	1	1	3	6	7	4			
Sept. -94	-2	-2	-1	2	4	2	1	1	1	2	5	5	4	2		
Dec. -94	-1	-2	-1	2	4	2	1	1	1	3	6	6	4	3	2	
Feb. -95	-2	-2	-1	2	4	2	1	1	2	2	5	6	4	3	3	3
Final demand from mainland Norway																
Sep. -91	-1	-2	-3													
Dec. -91	-1	-2	-2	0												
Feb. -92	-1	-1	0	3	4											
June -92	0	0	0	2	2	2										
Sep. -92	0	0	0	1	2	2	3									
Dec. -92	0	0	0	1	2	2	2	1								
Feb. -93	0	0	0	1	2	2	2	1	0							
June -93	0	-1	-1	1	2	2	3	2	1	-1						
Sep. -93	0	-1	-1	1	2	2	2	2	1	-1	-1					
Dec. -93	0	-1	-1	1	2	2	2	1	1	1	2	4				
Feb. -94	0	-1	-1	1	2	2	2	2	1	1	3	4	4			
June -94	0	-1	-1	1	3	4	2	2	-1	-1	3	6	4	2		
Sep. -94	-1	0	1	3	4	2	1	0	-1	2	6	5	3	4		
Dec. -94	-1	-1	1	3	4	2	1	0	0	2	5	4	3	5	5	
Feb. -95	-1	0	1	3	4	2	1	0	0	3	6	4	3	4	4	3

Comments on the revisions

Revisions can either be due to new/revised quarterly figures for the current year, new/revised annual national accounts figures for previous year, or a change to a new base year. Because the growth rates calculated as annual rates are rounded off to the nearest whole per cent, a 1 percentage point change in the growth rate can be due to different rounding.

Published:	Price basis:	New annual accounts:	Other comments:
Dec. -89	1987		Revised seasonal adjustment programme
Feb. -90	"		
June -90	1988	1987-88	
Sep. -90	"		
Dec. -90	"		
Feb. -91	"		
June -91	1989	1988-89	
Sep. -91	"		
Dec. -91	"		
Feb. -92	"		
June -92	1990	1989-90	
Sep. -92	"		
Dec. -92	"		
Feb. -93	"		
June -93	1991	1990-91	
Sep. -93	"		
Dec. -93	"		
Feb. -94	"		
June -94	"		Revised seasonal adjustment programme
Sep. -94	"		
Dec. -94	"		
Feb. -95	"		

Economic policy and financial developments

Fiscal policy

Preliminary estimates for central government accounts for 1994 show a deficit before loan transactions of Nkr 30.8 billion. Adjusted for central government net petroleum revenues, the budget deficit came to Nkr 56.8 billion last year. The government budget deficit was reduced by Nkr 13.1 billion from 1993 to 1994, while the non-oil budget deficit showed a decline of Nkr 15.1 billion in the same period.

- The reduction in the non-oil government budget deficit between 1993 and 1994 is primarily ascribable to the following factors:
- The sharp growth in the level of activity in the Norwegian economy beginning in the second half of 1993 contributed to boosting tax revenues from mainland Norway by Nkr 15.6 billion from 1993 to 1994. Particularly the brisk rise in car sales led to a sharp increase in excise duty receipts.

- Transfers from Norges Bank were Nkr 4.5 billion higher than in 1993. The increase is mainly due to the large surplus recorded by the central bank in 1992 as a result of the rise in the krone value of foreign exchange reserves following the depreciation of the Norwegian krone in the autumn of 1992.
- Transfers from the Tax Equalization Fund were Nkr 5.5 billion higher than the transfers from the central government to the local government sector due to the increase in the tax equalization contribution rate in 1994.
- Expenditure on goods and services was reduced by Nkr 1.1 billion in 1994, but an increase of Nkr 4.9 billion in transfers to the private sector and abroad contributed to limiting the reduction in the budget deficit.

The government budget deficit recorded over the last few years and the decline in nominal interest rates from 1992 to 1993 have contributed to reducing the central government's net interest income. In 1994, the central government's net interest income (excluding the capital return on

Fiscal budget revenue and expenditure, including social security

	Accounts Nkr bill.	Accounts estimates ¹⁾		Growth from previous year, per cent	
	1993	1994	1995	1994	1995
Total revenue	321.7	343.1	353.8	6.6	3.1
Taxes, royalties and other revenue from petroleum activities	44.6	44.8	46.5	0.3	3.7
Revenue, excl. oil taxes and revenue from state petroleum activities	277.1	298.3	307.3	7.6	3.0
Direct and indirect taxes from mainland Norway	201.1	216.7	228.6	7.7	5.5
- Direct taxes and National Insurance contributions	88.8	91.9	95.0	3.5	3.4
- Indirect taxes	112.4	124.8	133.6	11.1	7.0
Transfers from the Tax Equalization Fund	15.2	21.5	27.0	41.1	25.6
Transfers from the Central bank of Norway	5.1	9.6	8.2	87.9	-13.6
Interest revenue	28.4	23.8	21.4	-16.2	-10.2
Other revenue	27.2	26.7	22.1	-1.8	-17.2
Total expenditure	365.6	373.9	364.7	2.3	-2.5
Expenditure for state petroleum activities	16.6	18.8	10.8	12.9	-42.6
Expenditure excl. expenditure for state petroleum activities	349.0	355.1	353.9	1.8	-0.4
Expenditure on goods and services	86.6	85.5	86.2	-1.3	0.9
- Civilian purposes	63.6	62.0	62.6	-2.6	1.0
- Military purposes	23.0	23.5	23.6	2.2	0.5
Transfers	262.4	269.6	267.7	2.8	-0.7
- To local government sector	52.0	52.8	54.1	1.6	2.4
- Interest expenditure	19.5	21.1	19.8	8.2	-6.0
- Other transfers	190.8	195.7	193.7	2.5	-1.0
Surplus before loan transactions	-43.9	-30.8	-10.9		
Surplus before loan transactions for government net revenue from petroleum activities	-71.9	-56.8	-46.6		
Surplus excl. investment in petroleum activities and other state enterprises	-30.4	-18.1	2.1		

1) Final Budget Bill for 1994 budget.

Source: Ministry of Finance.

Evaluation of the tax reform

In connection with the approval of the tax reform in 1992 it was also decided that the split-income model should be evaluated after a period of two years, i.e. in 1994. As a result, Statistics Norway was given responsibility for collecting and processing data on unincorporated businesses and joint-stock companies that were affected by the split-income model. The results of the analyses carried out by Statistics Norway and the Ministry of Finance have been published in Proposition no. 19 to the Odelsting 1994. Here, we will provide a brief summary of the main conclusions in the evaluation.

The split-income model

The purpose of the split-income model is to divide income from business activities into a personal income component and a capital income component. The reason for this division is that the tax rate for personal income in the current tax system can be up to 24.4 percentage points higher than the rate for capital income, and it is virtually impossible on an objective basis to draw a clear boundary between personal and capital income. The split-income model is primarily intended to apply to unincorporated businesses since these earn their income partly through their own labour and partly through the ownership of capital. Unincorporated businesses, however, can easily organize their activities as a joint-stock company, and thereby avoid the progressive personal tax rates. This entails that the split-income model must also apply to joint-stock companies in which the owner(s) are active. Since, for obvious reasons (if a distinction between company and personal taxation is desired), the split-income model could not be introduced for all joint-stock companies, it was decided that a personal income would be computed for joint-stock companies in which active owners own at least two thirds of the share capital or are entitled to two thirds of the profit.

The division of income from business activities is relatively simple. The starting point is the financial result of the activity which is then adjusted for actual capital income and capital expenditure. A computed capital return and any pay deductions are subtracted from this amount. The return on capital is computed as the capital in the activity multiplied by a specifically determined rate of capital return, which was set at 16 per cent in 1992 and 1993 and 13.5 per cent in 1994. The computed personal income is income after subtracting the capital return and pay deductions. This income is consequently taxed at progressive personal tax rates. There is, however, a ceiling for the taxation of personal income. Incomes exceeding a level that is 34 times the basic pension unit (basic amount) in the social security system are only taxed at the rate for capital income. The tax function is thus regressive for very high personal incomes.

Statistical material and evaluation method

Surveys of income and wealth for unincorporated businesses (which pay taxes in advance) and enterprises (which pay taxes on a preceding year basis) were carried out for the income years 1991 and 1992. Emphasis was placed on obtaining a satisfactory sample of tax subjects which were affected by the split-income model. Special surveys were therefore carried out for both the self-employed and enterprises. Both surveys have been weighted in such a way that they

shall represent the actual population of tax subjects that were affected by the split-income model.

The main objective of the evaluation was to identify and explain changes in the tax burden for tax subjects that were affected by the split-income model. Emphasis was placed on procuring average figures for the tax burden in both years, distributed on the basis of such characteristics as income, industry classification and other characteristics of the enterprise as e.g. wage costs.

The self-employed

Altogether 5 000 unincorporated businesses were selected for 1991 and 1992. These were selected on a random basis within 8 different sub-groups. It was decided to divide the sample population into various sub-samples in order to ensure that all industry categories were represented in the survey. The persons included in the sample are generally the same in both years, but for natural reasons (closures, start-ups) some of the self-employed are only represented in one of the years. The sample for the self-employed is linked to household information and linked up with income and wealth surveys for other groups that pay taxes in advance (employees, pensioners and self-employed persons not included in the special survey). This makes it easier to compare the income and wealth of employees and the self-employed. One of the stated main objectives when introducing the split-income model for unincorporated businesses was to have approximately equal treatment of employees and the self-employed (Report O. no. 80 for 1990-91, p. 238).

The tax burden for the self-employed was estimated with the help of Statistics Norway's microsimulation model LOTTE. LOTTE is a model which enables us to calculate taxes and social security for each person in the statistical material. In connection with the evaluation the model was expanded by a calculation module which can be used to evaluate the effects of the split-income model. In this module it is possible to simulate proposals for changes in the split-income rules, e.g. a change in the rate for the return on capital.

Table 1 shows that the short-term effect of the tax reform appears to be small. The tax changes were generally marginal from 1991 to 1992 for all income intervals, with the exception of those with a gross income of less than Nkr 100 000. The main reason that those with the lowest income registered a higher tax burden is that the lowest net tax rate rose from 26.5 to 28 per cent. For employees, this increase was offset by an increase in the standard allowance, but the standard allowance is not applicable to the self-employed. The self-employed with high gross incomes recorded a marginal decline, primarily because the marginal tax rate on personal income declined from 1991 to 1992. It must be emphasized that a personal income was also computed for the self-employed in 1991, but was computed on the basis of entirely different rules. The result was that most of the self-employed did not experience major changes between 1991 and 1992. The table shows average figures within each income group. It must be emphasized, however, that averages may conceal considerable changes for some individuals.

Table 1. Total income taxes in per cent of gross income for the self-employed at various levels of income. Married couples/personal level. 1991-NKr

Income in 1 000 NKr	Share in per cent 1991	Skatt i prosent av bruttoinntekt		Change percentage point
		1991	1992	
-100	11	8	12	4
100-150	8	18	20	2
150-200	13	19	20	1
200-250	12	18	21	3
250-300	12	21	22	1
300-350	10	21	23	2
350-400	9	23	24	1
400-500	10	25	24	-1
500	15	28	27	-1
Totalt	100	21	22	1

Source: Proposition no. 19 to the Odelsting (1994-95).

Reference is made to Proposition no. 19 to the Odelsting 1994-95 for a more thorough analysis.

Enterprises

For this sector, information was collected for about 6 600 enterprises in both years. Emphasis was placed on including the same enterprises in both years in this survey as well. It was considered particularly important to have a large representation of potential split-income enterprises in 1991 and actual split-income enterprises in 1992. For 1992 there is data for about 2 500 split-income enterprises.

The split-income model entails a link between personal taxation and company taxation. Since the taxation of personal income is linked to the individual unincorporated business' characteristic, a tax model which takes this link into account is required. Statistics Norway has previously not had a model which computes taxes for enterprises and the newly constructed model was called LOTTE-A/S.

The taxation of an enterprise depends on the allocation of income. In an enterprise with active owners, the total tax will thus be a function of the amount the active owners wish to withdraw in the form of wages, dividends and retained earnings. In order to take this into account, enterprise information and the active owners' tax assessment information are linked in LOTTE A/S. This means that the taxation of the enterprise and the owners is seen as a unit.

The short-term effect of the split-income model on actual taxes was small for enterprises as well. The actual tax burden for all enterprises combined was actually unchanged. Some sectors, however, registered relatively considerable changes. This was particularly in evidence in private services, which recorded a relatively substantial increase in taxes. If

Table 2. Total taxes for enterprises¹⁾ and owners in per cent of enterprise's earnings that accrue to owners. Tax on computed personal income per active owner

Industry	Number of companies 1991	Tax in per cent of earnings		Tax on computed pers. income per active owner NKr
		1991	1992	
Manufacturing	2 700	28	28	4 500
Construction	3 700	27	29	1 900
Wholesale and retail trade, hotels and restaurants	9 600	28	27	7 400
Transport	1 400	28	26	9 800
Property management, commercial services	3 200	31	29	4 300
Private services	1 800	28	35	4 600
Other/unspecified ²⁾	300			
Total	22 700	28	28	5 500

1) Enterprises are defined here as split-income companies in which the same number of owners can be traced in the statistical material in both 1991 and 1992. The number of companies shows inflated figures.

2) There are so few observations in this category that there is no basis for comments on developments in the tax burden.

Source: Proposition no. 19 to the Odelsting (1994-95).

we look more closely at the data, we find that the dispersion is greater among enterprises than for the self-employed. Some enterprises have experienced considerable changes in the tax burden, and these changes do not emerge in the average figures shown in the table.

Conclusion

This review in itself is not sufficient to draw definitive conclusions about the short-term effects of the tax reform. The analyses presented in Proposition no. 19 to the Odelsting show, however, that the short-term effects of the split-income model were small. Certain reservations, however, should be made. First, there is some uncertainty in the statistical material on which the analyses are based. The data are based on sample surveys and thus cannot be directly compared with total counts. Second, the results must be interpreted as the immediate effects of the tax reform. Many of the changes in the tax rules have by definition long-term effects (e.g. the profile of depreciation may be influenced). In addition, the annual effect of a tax reform will be a function of general developments in the economy. It is well known that 1991 and 1992 were years of recession. This means that many enterprises and unincorporated businesses recorded small profits or a loss and thus paid little or no taxes. Inasmuch as the tax system allows losses to be carried forward, this may also influence taxation during the first few years of recovery. The survey date may therefore have a considerable influence on the annual effects of tax changes. In order to avoid these distortions, we should ideally have information covering many years so that we have data for both favourable and unfavourable years. This was not possible, however, within the time limits established for this evaluation.

direct investment in state petroleum activities) was Nkr 6.2 billion lower than in 1993 and Nkr 9.7 billion below the level in 1992.

In the National Budget for 1995 the Ministry of Finance estimated that fiscal policy contributed to curbing the domestic demand for goods and services by the equivalent of 1 per cent of GDP from 1993 to 1994. Attempts have then been made to adjust for some cyclically-determined budget revenues and expenditure as well as factors which do not have a direct influence on domestic demand. The government budget for 1994 is the first since 1988 which, according to the Ministry of Finance's calculations, has contributed to curtailing domestic demand.

In the Final Budget Bill for the 1995 budget, the central government budget for 1995 shows a deficit before loan transactions of Nkr 10.9 billion, which is Nkr 19.9 billion lower than in 1994. About half of the reduction in the budget deficit between 1994 and 1995 is ascribable to higher net revenues from petroleum activities. The non-oil budget deficit is estimated at Nkr 46.6 billion in 1995. The decline in the non-oil budget deficit from 1994 to 1995 is primarily due to:

Growth of Nkr 11.9 billion in tax and excise duty revenues from mainland Norway. The rise in these revenues is related to the Ministry of Finance's projection that mainland economic growth will be relatively strong in 1995. In the Final Budget Bill, it is estimated that the increase in the VAT rate from 22 to 23 per cent with effect from 1 January 1995 will boost indirect tax receipts by Nkr 2.9 billion this year. Higher rates for some excise duties with effect from 1 July 1994 and 1 January 1995 also contribute to the rise in indirect tax revenues.

Transfers from the Tax Equalization Fund will rise by Nkr 4.2 billion more than the transfers from the central government to the local government sector, partly as a result of the increase in the tax equalization rate from 1994 to 1995.

An amount of Nkr 3.8 billion is being transferred from the Government Bank Insurance Fund to the Treasury.

Central government expenditure on goods and services will increase in nominal terms by only 0.9 per cent.

Transfers to the private sector and abroad will be reduced by Nkr 2.0 billion, partly because the decline in unemployment through 1994 will result in lower payments of unemployment benefits in 1995 than in 1994.

This will be partially offset by a decline of Nkr 4.8 billion in extraordinary revenues from state enterprises and a reduction of altogether Nkr 2.8 billion in net interest income and transfers from Norges Bank from 1993 to 1994. In the Final Budget Bill, it is estimated that fiscal policy will contribute to reducing domestic demand by the equivalent of 1.25 per cent of mainland GDP from 1994 to 1995.

Monetary policy and financial developments

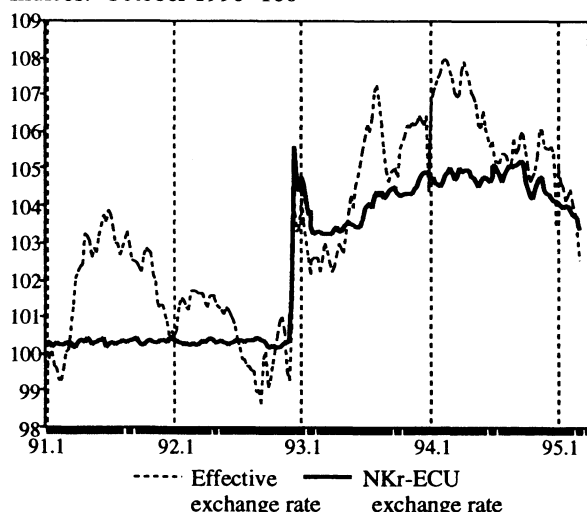
The suspension of Norges Bank's obligation to keep the krone exchange rate within a fluctuation band of ± 2.5 per cent against the ECU in connection with European currency turbulence in the autumn of 1992 meant that Norway formally adopted a policy of floating exchange rates. In practice, however, Norges Bank has continued its attempts to keep the exchange rate at a stable level. This practice was formalized in the regulation on Norges Bank's exchange rate policy issued by the Government in connection with the presentation of the Revised National Budget in May 1994. This states that "The monetary policy to be conducted by Norges Bank shall be aimed at maintaining a stable krone exchange rate against European currencies, based on the range of the exchange rate since the krone was floated on 10 December 1992".

In recent years monetary policy in an increasing number of countries has been aimed at ensuring domestic price stability. Even though the operational target for monetary policy in Norway is now a stable exchange rate against European currencies, this monetary policy may also contribute to price stability. Norway has a small, open economy where inflationary impulses even in the short term are largely related to movements in exchange rates and foreign price trends. This particularly applies to consumer goods, which are largely imported from EU countries. A stable exchange rate against EU currencies - where monetary policy is primarily aimed at keeping inflation at a low level - will thus make an important contribution to price stability in Norway as well.

An economic policy that aims at stabilizing the exchange rate may also help to ensure a growth in wage costs that is compatible with low inflation and a stable competitive position for manufacturing industry. Experience from the first half of the 1980s, when frequent devaluations were used to compensate for an excessive wage inflation which did not allow manufacturing industry's competitive position to be maintained, showed in any case that such an exchange rate policy would gradually contribute to amplifying the inflationary impetus, partly because it deprived the labour market participants of any responsibility for keeping wage growth at a low level, and partly because it encouraged speculative waves from exchange-market agents.

The new regulation for Norges Bank states that the krone shall be maintained at a stable level against "European currencies", without a further specification. Taking into account the previous fixed exchange rate policy against the ECU, the fact that the regulation was issued at a time when Norway was applying for membership in the EU and that the Government expressed a desire for Norway to participate in the future EU monetary union, it seems natural to interpret this as stability against the ECU. The regulation also refers to the "range of the exchange rate since the krone was floated on 10 December 1992", but does not specify a central rate or fluctuation margins within which the exchange rate shall be maintained. After the krone was floa-

Effective exchange rate of manufacturing and the Nkr - ECU exchange rate
Indices. October 1990=100



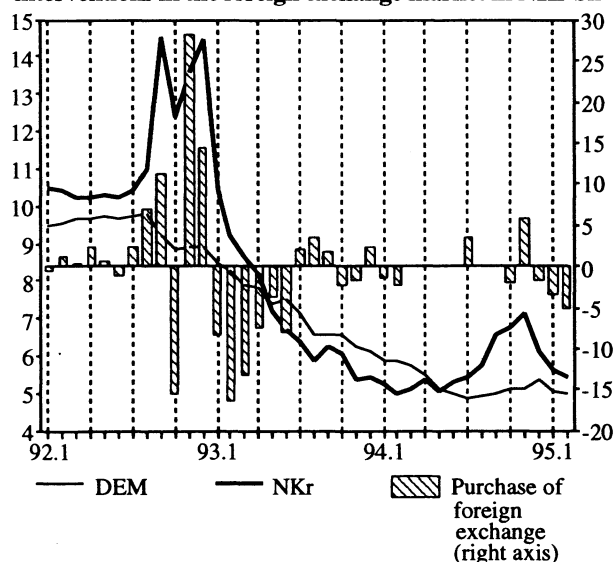
Source: Central Bank of Norway.

The weights in the European Currency Unit, the ECU, are not representative of the geographical dimension of Norwegian trade. An indicator for manufacturing industry's effective krone exchange rate (trade-weighted index) is therefore often used to illustrate the importance of exchange rate changes to cost competitiveness. The weights in this indicator are estimated in such a way that changes in individual exchange rates will not affect manufacturing industry's competitive position as long as the effective krone exchange rate remains constant. Because the rate of exchange between the ECU and the US dollar has shown wide fluctuations in the last few years, manufacturing industry's effective krone exchange rate has over time fluctuated more than the krone's value against the ECU. Changes in the ECU/pound sterling exchange rate over the past year has also contributed to these fluctuations.

ted, its index value fell from about 100.4 against the ECU to an index value of 105.6, and later strengthened to about 103.5. In the following two years the krone remained at approximately this level. The index against the ECU averaged 104.7 in 1994, compared with 104.0 in 1993, a weakening of 3/4 per cent. The weakening in 1994 persisted until September, and the krone was then close to the weak outer margin of the fluctuation range mentioned above, but has since strengthened towards the strong outer margin. The new exchange rate policy also entails a lower level of ambition in terms of currency stability than the fixed exchange rate regime which was conducted until the autumn of 1992. The Norwegian krone has also been noticeably less stable against the ECU the last 2 1/2 years than in previous years.

After stability against the ECU took over as the target for the Norwegian krone in October 1990, replacing a basket of currencies for Norway's most important trading partners and competing countries, manufacturing industry's effective

Short term Euro-rates and Central Bank of Norway's interventions in the foreign exchange market in Nkr bn



Source: Central Bank of Norway.

ve krone exchange rate has naturally shown greater fluctuations over time than the ECU index. Manufacturing industry's effective krone exchange rate thus appreciated considerably through 1994, primarily as a result of the fall in the dollar. This was, however, more than offset by a depreciation through 1993, entailing that the result on an annual basis was a depreciation of 1.5 per cent.

If Norway is to maintain a stable exchange rate, the total supply and demand for the domestic currency must be in balance. The authorities can achieve this through a combination of exchange market interventions (purchases or sales of foreign exchange) and an adjustment of domestic interest rates. In its discussion of the regulation in the Revised National Budget, the Ministry states that "interest rates must be adjusted with the aim of avoiding persistent and extensive interventions. The central bank will not use instruments to the same extent, i.e. with regard to purchases and sales of the domestic currency and short-term changes in interest rates to defend the krone as under a fixed exchange rate regime. However, if significant changes in the exchange rate occur, the instruments will be oriented with the aim of returning the exchange rate to its initial range."

This regulation entails that Norges Bank, through exchange market interventions and interest rate adjustments, will to some extent contribute to stabilizing the exchange rate in the short term, but that major imbalances which arise in the market shall be allowed to translate into changes in the exchange rate. In the longer term, however, interest rate policy shall be aimed at returning the exchange rate to its initial level, while persistent exchange market interventions shall be avoided. This policy should entail slightly greater short-term movements in the exchange rate, but somewhat less variations in very short interest rates (and possibly in the difference between the Norwegian rates and the corresponding ECU averages) and - in particular - in the scale of exchange market interventions than under the fixed ex-

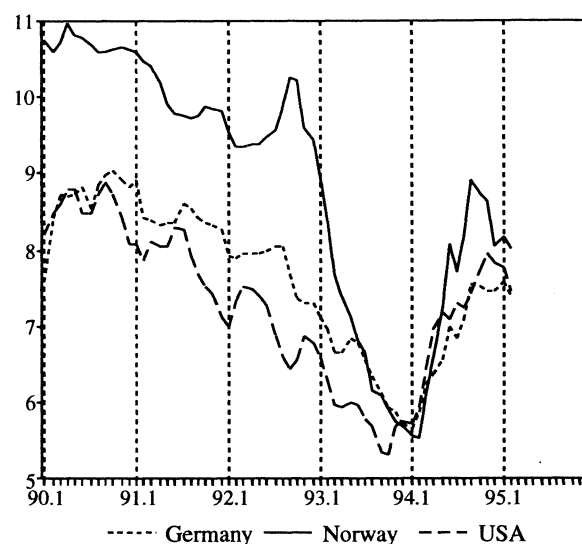
change rate regime. For market participants, this means a greater short-term exchange rate risk and a lower short-term interest rate risk, while the effects in relation to the former fixed exchange rate policy are more unclear with regard to long-term exchange rate and interest rate risks.

Following Norges Bank's repurchases of foreign exchange through the first half of 1993, which exceeded the outflow which took place during the currency turbulence in the autumn of 1992, exchange market interventions measured on a monthly basis have returned to a low level compared with the levels up to the period of currency unrest in the autumn of 1992. The exceptions were some purchases of Norwegian kroner in July 1994 in conjunction with spillover effects resulting from renewed turbulence in connection with the Swedish budget deficit, and in November 1994 just prior to the Norwegian EU referendum. Support purchases in November were followed by sales of kroner both in December and later in 1995.

There were considerable changes in Norwegian money market and long-term interest rates during 1994. From a situation in January when the yield curve was falling slightly and both short-term and long-term interest rates were lower than corresponding German rates and noticeably below ECU rates, interest rates rose sharply through November and then receded slightly in December. The turnaround came first and was strongest for long-term interest rates, with the result that the yield curve at the end of the year was sloping upwards and generally was above corresponding ECU rates. Later in the year, however, the rise in interest rates spread to money market issues with increasingly shorter maturities. Starting with a common yield of about 5 1/4 in February 1994, the rate on 12-month maturities began to rise. The interest rate on 3-month maturities also began to increase, but a sharp rise did not occur until the beginning of August. Interest rates for 1-month maturities showed a transitory rise in September and then again at the end of October/beginning of November, while the 14-day rate did not begin to rise in earnest until the first half of November. It appears as though the time when the date of maturity for an issue first extended beyond the date of the EU referendum had a decisive influence on the timing of most of the increases in interest rates.

Around the date of the referendum all these interest rates had approached the same level, i.e. an effective rate of about 7.5 per cent. The fact that money market rates at varying maturities reached the same level entails that they did not incorporate any change in the exchange rate relating to the referendum, but only that the referendum would be followed by a period of higher interest rates. If a possible exchange rate change were to be incorporated in the interest rate structure, it would have implied a greater impact on interest rates the shorter the maturity. Viewed in this manner, the market's reaction could be interpreted as a perception that Norges Bank would most likely increase interest rates for a longer period, but not before the referendum had taken place, and that this increase in interest rates would not only be necessary but also sufficient to maintain a

Bond yields



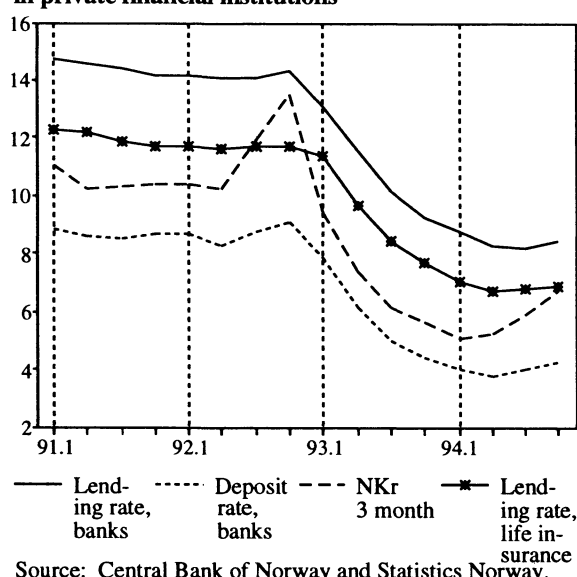
Source: Central Bank of Norway.

stable exchange rate, i.e. that Norges Bank's exchange rate policy would succeed.

Market participants' fear of higher interest rates was probably ascribable to several factors. First, economic short-term statistics that were released through the year showed that the Norwegian economy was experiencing a strong growth period at the end of 1993 and first half of 1994. A pure extension of this growth trend indicated the potential for demand pressures in Norwegian labour and product markets, with a subsequent sharp rise in inflation. Moreover, there was probably some uncertainty concerning the political situation and formulation of economic policy following a possible - and over time increasingly probable - No vote in the referendum. The combination of political statements indicating a firm commitment to sound economic policies immediately after the referendum result was known and new data which showed that the economic upturn was not as strong as assumed contributed to a swift decline in interest rates following the referendum, a decline which continued into 1995.

The increased fears of inflation and uncertainty surrounding the EU referendum as well as spillover effects from Sweden probably also contributed to the rise in Norwegian bond yields through 1994. A sharp increase in interest rates internationally, however, was the most important reason. The fact that the effect on interest rates was as strong as it was must also be viewed in terms of the Norwegian market itself, which for historical reasons does not seem to function very well. Even though it was deregulated in the mid-1980s, liquidity is still limited. Individual events may thereby result in considerable shifts in the demand curve for bonds. The bond market is also used very little by the private sector as a source of finance, and the public sector's bond offerings are probably not very sensitive to interest rates. Based on a virtually given supply of bonds, a shift in the demand for bonds will have little effect on volu-

3 month eurorates and average lending rates
in private financial institutions



mes, but a major impact on prices. Taken together, these properties entail that the Norwegian market can show considerable price variations over time, largely governed by changing expectations and with only weak links to the real economy. A rise in interest rates - as in 1994 - can easily be self-reinforcing in the short term. Similarly, the decline in interest rates in 1993 resulted in a (largely negative) interest rate differential vis-à-vis other countries at the end of last year, which in the long run was most likely untenably low.

The steep rise in long-term interest rates in 1994 entailed considerable securities losses which the financial institutions felt obligated to record in their accounts, thereby making them visible. In order to limit the potential for securities losses many of them decided to shift investments to issues with shorter maturities. This contributed to amplifying the decline in bond prices. The Banking Insurance and Securities Commission's more precise formulation of accounting rules in the autumn of 1994, which allowed bonds to be treated in the accounts as fixed assets which cannot be

subject to valuation adjustments, probably contributed to a greater willingness to hold on to bonds, and thus to the fall in yields towards the end of the year.

The rise in interest rates in money and capital markets in 1994 entailed that the decline in private financial institutions' deposit and lending rates not only came to a halt, but was reversed to a slight rise during the year, albeit less than the increase normally implied by both 3-month money market rates and bond yields. This is ascribable to the competitive situation for the large commercial banks which are market leaders in the competition between financial institutions: A weak demand for loans which depressed the rise in lending rates at the same time that liquidity was sufficient to allow for a low interest rate at the short end of the money market; here, as noted, the rise in interest rates was short-lived. In step with the continued decline in both short and long-term interest rates through the first quarter of 1995, many of these institutions announced that they were again lowering their interest rates. The interest-rate margin for banks continued to fall through 1994, but due to a sharp reduction in losses - including reversals of earlier loan-loss provisions - there was an overall improvement in profitability.

General government sector

According to preliminary estimates, Norway's general government sector recorded a total deficit, or negative net lending, of Nkr 6.5 billion in 1994, equivalent to 0.8 per cent of GDP. The budget deficit (net lending) is estimated at a good Nkr 8 billion for the central government sector, an improvement of more than Nkr 12 billion from 1993. The budget deficit in the local government sector, which was gradually reduced up to and including 1993, was reversed to a surplus of a good Nkr 3 billion last year.

Net lending, defined as income less expenditure, including expenditure on gross fixed investment, is the surplus indicator used in the national accounts and which is also used in the Maastricht Treaty for the requirements of general government budget policy in the EU. Net lending in the general government sector comprises both the central and local

Selected key figures for the general government sector

	1990	1991	1992	1993	1994 ¹⁾
A. Net lending:					
General government, accrued amounts in Nkr billion	16.4	-1.7	-16.5	-20.2	-6.5
General government, in per cent of GDP	2.5	-0.2	-2.3	-2.7	-0.8
Central government, recorded amounts in Nkr billion	14.1	3.6	-18.6	-20.9	-8.4
Local government, recorded amounts in Nkr billion	-1.5	-1.3	-0.2	0.2	3.3
B. The magnitude of the general government sector:					
General government expenditure, in per cent of GDP	54.4	56.1	57.6	57.7	56.0
Public consumption, in per cent of GDP	21.1	21.5	22.4	22.0	21.9
Taxes in per cent of GDP	46.9	46.7	47.2	46.2	47.4
Man-hours worked, in per cent of total employment	24.3	25.3	26.0	26.8	26.9

1) Estimates.

Source: Statistics Norway.

Production and demand in the general government sector

Percentage change in volume from 1993 to 1994

	Man-hours worked	Inputs	Consumption	Gross fixed investment
General government	1.7	4.0	2.7	-4.8
Central government	0.6	4.9	3.0	-15.2
Civilian central government	1.9	6.8	2.6	-15.2
Defence	-1.4	3.5	3.8	-
Local government	2.2	2.9	2.5	3.8

Source: Statistics Norway.

government sectors, where the central government in addition to the Treasury and social security scheme also encompasses other government and social security accounts, e.g. the National Insurance Fund and other government funds. Taxes are measured on an accrued basis, which in the national accounts is technically handled by a constructed sector for deviations between accrued and recorded amounts. Direct investment in state enterprises, including state petroleum activities, is included on the expenditure side of the government budget and contributes to the deficit before loan transactions according to the system used in the national budgets. In the national accounts, on the other hand, such expenditure is considered financial investments, which increase the assets of the central government sector.

One of the Maastricht criteria is that the general government deficit (negative net lending) should not exceed 3 per cent of GDP. With a combined general government deficit of 0.8 per cent of GDP, Norway more than satisfies this requirement. In the mid-1980s, however, the general government budget surplus was as high as 10 per cent of GDP. In spite of the deterioration in the period up to and including 1993, the financial position of the general government sector in Norway is considerably better than for most countries in the EU and OECD area. According to statistical material from the EU Commission, the deficit among EU countries combined was about 6 per cent of GDP in 1993, while it is estimated at 5.6 per cent of GDP in 1994. The OECD has projected 4.2 and 3.8 per cent respectively for the OECD area.

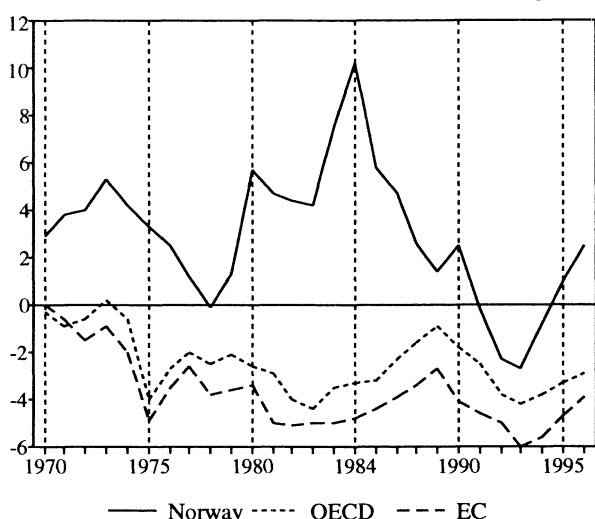
Total general government expenditure, including public consumption, gross fixed investment and transfers, etc., fell marginally from 1993 to 1994 as a share of GDP. Total accrued taxes, ie. direct and indirect taxes, social security and pension premiums, amounted to an estimated 47 per cent of GDP in 1994, a slight rise on the previous year.

According to preliminary estimates, public consumption grew in real terms by 2.7 per cent from 1993 to 1994, i.e. noticeably slower than the growth in mainland GDP. Public consumption has amounted to about 22 per cent of GDP in the last two years.

Employment in the general government sector, measured by the number of man-hours worked, rose by 1.7 per cent from 1993 to 1994, 0.1 percentage point more than the average for mainland Norway. The general government sector

General government net lending

Per cent of GDP. 1970-1994, forecasts for 1995 og 1996



Source: OECD, European Community and Statistics Norway.

now accounts for 26.9 per cent of total employment in Norway measured in man-hours, or 27.8 per cent when oil industries and shipping are excluded.

The general government sector, and particularly the local government sector, has had a major influence on developments in employment the last few years. Between 1987 and 1993 employment in mainland Norway was reduced by altogether 123 000. Mainland industries, excluding general government, recorded net job losses of about 200 000 in this period. On the other hand, the number of persons employed in municipalities and counties, including job-creation measures under the auspices of the municipalities, rose by about 70 000 in these years. The number of persons employed in the central government sector rose by about 7 000 in the same period. The growth in public sector employment continued in 1994, with a rise of 12 000. The increase in employment in other mainland industries, however, was as much as 19 000 last year.

Gross fixed investment in the general government sector fell by 4.8 per cent in real terms from 1993 to 1994, while fixed investment in other mainland activities expanded by 10 per cent in the same period.

Economic policy calendar 1994

January

1. The EEA Agreement comes into force.

3. Torstein Moland takes over as head of Norges Bank after Hermod Skånland.

8. Kaci Kullman Five announces that she will not seek re-election as Conservative Party chairman at the annual conference this spring.

10. The EU Commission presents a draft reply to Norway's fishery demands at the EU membership talks. The EU accepts Norway's position that catch quotas in Norwegian territorial waters should remain unchanged, and that Norway should be given full market access from its first day as an EU member. On the other hand, the Commission does not accept Norway's demand for complete control over fishery resources north of the 62nd parallel.

10. Statoil and the Finnish group Neste formalise an agreement to merge their petrochemical operations. The new company, Borealis, with headquarters in Copenhagen, will be owned 50-50 by Statoil and Neste. The agreement is subject to the approval of the boards of the two companies, and by the Norwegian and Finnish authorities.

11. The European Monetary Institute starts operations. The Maastricht Treaty designates the institute as the forerunner of the European central bank. The EMI's head office is in Frankfurt.

13. Foreign Minister Johan Jørgen Holst dies at Sunnaas Hospital.

19. The Ministry of Transport and Communications decides that the road link across the Oslo Fjord to Drøbak shall be laid in a tunnel under the seabed. The Ministry thereby sets aside the recommendation of the Directorate of Public Roads for a road bridge across the fjord. The tunnel will be finished in 1998 at the earliest.

21. Statoil finds oil in the Barents Sea, about 40 km off the North Cape. This is the first time oil has been discovered in this area. Preliminary studies indicate modest reserves, in the order of 4-5 million barrels.

24. Bjørn Tore Godal is appointed foreign minister after Johan Jørgen Holst. Grete Knudsen succeeds Mr. Godal as trade minister, while Hill-Marta Solberg becomes the new health and social affairs minister.

26. Representatives of the EU and EFTA agree on a supplementary package of more than 400 directives and other regulations to be included in the EEA Agreement. The new section of the agreement, called EEA 2, includes a number of laws and rules for the single market that have been

adopted since August 1991. The new package must be approved by the EFTA countries' national assemblies.

28. The boards of Norges Postbank and the Postal Giro endorse the proposal to merge the two institutions with effect from 1 January 1995. The Storting will probably vote on the merger during the spring session of 1994.

30. The world's six leading aluminium producers agree to reduce excess production on the world market. However, a statement issued after a meeting of representatives from the EU, USA, Russia, Canada, Australia and Norway gives no indication of how much each country is willing to reduce its production.

February

3. The British firm Tarmac and the Norwegian company Noran A/S present plans for the construction of a stone crushing plant in Jøssingfjord in Sokndal. The plant is estimated to cost NOK 750 million.

4. The EU Commission approves minimum prices for a number of fish types, including cod, haddock and salmon, following widespread unrest and demonstrations by French fishermen. The minimum price arrangement enters into force immediately and will be in effect until 15 March 1994.

7. The British Energy Minister Tim Eggar rejects a renegotiation of the Frigg agreement on the transport of natural gas to the UK. This agreement expires in 1997 when the Frigg field is depleted according to plans. This will be an obstacle to annual gas deliveries of a good 2 billion cubic metres from Norway to the British electricity company National Power.

8. Norges Bank lowers its overnight lending rate from 7 to 6.75 per cent. The interest rate on banks' sight deposits is also reduced to 4.75 per cent.

12. The XVII Winter Olympic Games at Lillehammer begin. The Games are completed after 15 days of beautiful weather, and 10 gold medals won by Norway.

15. Bergenhalvøens Municipal Power Company (BKK) is awarded a contract for supplying electric power to the Troll terminal at Kollsnes. The contract will give BKK revenues of more than NOK 1 billion a year.

17. The German Bundesbank lowers its discount rate by half a percentage point, to 5.25 per cent.

18. A government-appointed committee, headed by Professor Aanund Hylland, presents its report on the future role of private pension insurance. The committee proposes that

the tax relief for retirement saving be maintained, but that such saving should no longer have to contain an insurance element. The criterion for tax deductions is that the savings are tied up until the age of retirement and that payments are made over a certain period of time.

24. The Government presents a new White Paper on petroleum activities (Report no. 26 to the Storting, 1993-94) which paves the way for exploratory drilling in new areas off the coast of central Norway and the county of Nordland as well as in a limited part of Skagerak. Controversial areas around Lofoten will be protected from exploratory activities.

March

1. Sweden and Finland complete their membership negotiations with the EU. For Norway, some issues still have to be clarified, particularly concerning the agricultural and fishery sectors. Negotiations are resumed after a five-day break.

7. Norway and the EU temporarily suspend negotiations on membership after failing to reach agreement about catch quotas in Norwegian territorial waters. Negotiations on the agricultural chapter have already been completed. As a member of the EU, the main principle is that EU prices will apply from the first day. However, Norway will be permitted, in a transitional period, to maintain a system that limits imports of some products, including meat, concentrated feedstuffs, tinned vegetables and a few dairy products.

7. Aker Stord is awarded a contract for joining the deck and concrete base for Troll phase 1. Altogether, the Aker Group has received contracts worth about NOK 10 billion for the Troll field development.

11. In a report on future student financing, the Storting's Church and Education Committee advocates an increase in the scholarship component of student loans to 30 per cent by 1997.

11. The central government approves the proposal presented by Norsk Hydro's board to increase capital by up to NOK 5 billion. The Government indicates that it will participate in the share capital increase, with the government retaining its majority shareholding in Hydro.

15. Norway and the EU reach agreement on a fishery agreement. The fishery chapter entails that Spain will have a quota of about 4,000 tons of cod in Norwegian territorial waters beginning in 1995. Norway will continue to have control over fishery resources north of the 62nd parallel up to July 1998. After this time the EU will formally take over the management, but the agreement contains declarations that the EU will apply Norway's management regime for fishery resources. For processed fish, Norway will have full market access from the first day of membership. However, a monitoring system will be established which, in a

transitional period, can result in import limitations for certain types of fish.

18. The Swedish Government decides that the referendum on EU membership will be held on 13 November.

19. The international agreement on climate change comes into force. The Climate Convention, signed by 159 countries at the UN Climate Conference in Rio de Janeiro in 1992, requires that the countries draw up an action plan for climate measures. The aim is to stabilise national emissions at the 1990 level in the year 2000.

21. Aker Contracting is awarded a contract for the installation of a new process module on the Frigg field. The contract, worth NOK 200 million, was awarded by Elf Petroleum Norge.

26. At a meeting in Geneva OPEC decides to maintain current quotas, with total daily production at 24.5 million barrels of crude oil.

30. Kværner Energy A/S is to supply turbines and mechanical equipment to the hydropower project Natpha Jhakri in India. The contract is worth NOK 350 million.

30. EU countries reach an understanding on new voting rules in an enlarged union. The last chapter in negotiations between the EU and the four applicants - concerning institutional conditions - can thus be completed.

April

10. The trade union and employer's organisation in the engineering industry reach agreement in this year's wage rounds. The agreement provides a general pay increase of NOK 1 from 1 April this year. Local negotiations will take account of each company's financial position. The parties agree to study more flexible working time arrangements in the period to 1995.

10. Jan Petersen becomes chairman of the Conservative Party after Kaci Kullman Frie.

12. Negotiators from the EU and Norway sign the final agreement for Norway's accession to the EU.

14. The German Bundesbank reduces its discount rate by 25 basis points, to 5.00 per cent. The Lombard rate is also lowered to 6.50 per cent.

14. The new GATT agreement (Uruguay Round) is signed by 122 countries, and a new free trade organisation - World Trade Organization - is established to replace GATT.

24. It is revealed that the stockbroking firm Carnegie has lost more than NOK 200 million on large transactions in money and bond markets.

25. Norsk Hydro presents its profit and loss accounts for the first quarter of 1994. The accounts show an operating profit of almost NOK 1.6 billion for the period. Agricultural business accounts for much of the improvement in results from the first quarter of 1993.

25. The Government proposes a merger of Norges Postbank and the Postal Giro with effect from 1 January 1995 (cf. also 28 January). The new bank, to be fully owned by the Postal Services Administration, will have total assets of NOK 76 billion and be the fourth largest bank in the country.

29. The gas pipeline, Zeepipe, is officially opened. The pipeline will transport natural gas from the Troll field to Zeebrugge in Belgium.

29. Public sector pay negotiations are completed, entailing that all central and local government employees will receive a pay increase of NOK 2,100 from 1 May this year. In addition, limits have been set for local wage adjustments.

May

4. The EU Parliament approves the membership agreement with the four new applicants, including Norway.

6. The Government presents the Revised National Budget for 1994. The budget includes proposals to raise petrol taxes by 25 øre a litre and increase the wealth tax.

11. The German Bundesbank lowers its discount rate by half a percentage point, to 4.50 per cent. The Lombard rate is also reduced to 6 per cent.

18. Saga Petroleum A/S concludes its drilling and testing of two exploratory wells southwest of the Snorre field. Promising finds of hydrocarbons are made in both wells.

20. Den norske Bank carries out a private placement of 53 million shares. With a price per share of NOK 16.75, DnB's share capital increases by NOK 888 million.

25. The EU approves the oil directive. The directive regulates the exploration for oil and gas, including the North Sea. Norway was actively involved in the work on the directive through the EU negotiations. Irrespective of whether or not Norway becomes a member, the oil directive, subject to deliberations both nationally and in an EEA context, will apply to the Norwegian continental shelf as part of the EEA Agreement.

June

3. The Government presents a White Paper (Report no. 40 to the Storting 1993-94) on Norwegian EU membership.

6. The Storting passes a resolution to convert Norwegian Telecom from a public corporation into a state-owned limited company.

11. The Labour Party and Christian Democratic Party arrive at a compromise in the Storting on the Revised National Budget for 1994, entailing that VAT compensation for some food products will not be reduced as proposed by the Government. The implied loss in revenue will partly be covered by raising the excise duty on cigarettes and increasing the production tax on electric power. As part of the agreement on the revised budget, the interest rate on loans in the State Educational Loan Fund are also reduced from 8.5 to 7.5 per cent for loans provided during the last seven years.

16. The Norwegian Coast Guard cuts the trawl and fires warning shots at Icelandic fishing vessels fishing in the protected zone around Svalbard.

16. The Ministry of Industry and Energy reaches an agreement with the Phillips Group concerning the further development of the Ekofisk field. The development will require investments of nearly NOK 20 billion.

24. Group Managing Director Harald Norvik in Statoil informs the board of directors that the expansion of the Kalundborg refinery will cost altogether DKK 3.2 billion, entailing cost overruns of about one billion.

24. At an EU meeting on Corfu, the heads of government of the four applicant countries Sweden, Finland, Austria and Norway sign accession treaties with the EU.

27. Helikopterservice (HS) signs an agreement with Bond Helicopters on a gradual takeover of the British company over a three-year period. HS will pay a total of NOK 800 million for the takeover, entailing that 49 per cent of the shares are acquired this autumn and the remainder three years later.

28. The Norwegian Nurses' Union and four other unions affiliated with the Federation of Norwegian Professional Associations select about 1,500 of their members to go on strike following the collapse of negotiations with the Norwegian Association of Local Authorities.

30. The strike in the health sector ends following a decision on compulsory arbitration.

30. Hafslund Nycomed buys the contrast medium division of the US company Sterling Winthrop for USD 450 million. Following the purchase, Hafslund will be one of the world's leading operators in the sale and production of contrast medium.

July

1. Mediation in the wage settlement between the Federation of Offshore Workers' Trade Unions and the Offshore

Industry's National Association breaks down. The parties are immediately summoned to Minister of Local Government and Labour Gunnar Berge who informs them that the Government will use compulsory arbitration. The formal statutory resolution on compulsory arbitration is adopted the same day.

1. Excise duties on petrol, diesel and tobacco increase. The production tax on electric power goes up. Excise duties for motor vehicles rise, and changes are made in the indirect tax system by removing specified safety equipment for private cars from the tax base.

1. Skandia's chief executive, Bjørn Wolrath, announces that the company will totally boycott Swedish government bonds until the Government presents a satisfactory plan for reducing the general government debt. This results in some unrest in capital and foreign exchange markets.

8. The Federation of Offshore Workers' Trade Unions summons the Government to appear before the Oslo Town Court to clarify the views of Norwegian courts on the use of compulsory arbitration.

11. Norway's Minister of Finance, Sigbjørn Johnsen, participates for the first time at the EU Finance Ministers' meeting and gives his speech in Norwegian.

11. The bankrupt estate of the Fish Farmers' Marketing Association (FOS) loses its case in the High Court of Appeals in the appeal against Follalaks AS. The issue at hand was to what extent an insolvent FOS had the right to pledge receivables for sold, unpaid salmon. The ruling is important in principle, and may, if it remains in force, entail that the FOS estate must pay nearly NOK 200 million to the fish farmers.

15. The 12 EU leaders appoint Luxembourg's Prime Minister Jacques Santer as the new president of the EU Commission after Jacques Delors.

17. After five years of difficult negotiations, representatives of the Nordic countries, the EU, the US, Japan and South Korea reach an agreement which prohibits state support for shipbuilding as from 1 January 1996. The agreement must be approved by the respective countries' national assemblies before it can come into force.

August

1. Production on the 100% Esso-owned gas field Odin shuts down two months earlier than planned. It is uncertain what will happen to the 40 employees and the installations.

1. Ekofisk closes for two weeks for annual maintenance. The production decline is estimated at about NOK 800 million a day.

3. Golar Nor Offshore AS is awarded the contract for phase one in the development of the Foinaven field in the

British sector of the North Sea. The contract with BP has a gross value of NOK 3.7 billion and comprises the entire field development with the exception of the production wells.

5. The Coast Guard fires two cold shells against an Icelandic trawler that is fishing in the protected zone near Svalbard. This is the first time that the Coast Guard has fired at vessels to enforce Norway's fishery legislation, and the episode takes place after the Icelandic crew has fired rifle shots against the Coast Guard.

9. Norsk Hydro makes a new commercial oil and gas discovery in the North Sea, near the Oseberg field.

11. The Swedish central bank raises its lending rate to banks from 7.5 to 8 per cent in order to strengthen the currency and prevent higher price inflation. Short-term and long-term interest rates immediately increase by nearly 1 percentage point, and the turmoil in Sweden spills over to some extent to the Norwegian financial market.

16. Statoil awards ABB Offshore Technology the contract for supplying safety valves and wellhead systems for four of the fields in the North Sea. The contract, including options, is worth around NOK 350 million.

16. DnB presents its half-year report which shows a profit of NOK 1,471 million. The favourable result is partly ascribable to the reversal of previous loan loss provisions.

17. Selmer AS is awarded a construction contract, worth NOK 240 million, for the Ibsen block in Oslo.

19. The new Act on company acquisitions is approved by the Council of State. The new act replaces the rules in the Industrial Concession Act on the rights of non-nationals to purchase Norwegian companies. The draft law advocates a notification requirement for acquisitions of a certain size and will ensure that employees are given an opportunity to express an opinion.

19. Statoil approves investments in a desulphurisation plant amounting to NOK 400-500 million. The investment is necessary as a result of the new rules on sulphur emissions within the EU.

20. The Social Democrats present their election manifesto with proposals to reduce the Swedish budget deficit by SEK 61 billion over a four-year period. Skandia's chief executive, Bjørn Wolrath, then removes his purchase boycott of Swedish government bonds.

22. Bjørn Wolrath changes his mind and decides not to remove the purchase boycott of Swedish government bonds.

31. The oil companies announce that they are shelving nine planned oil field development projects as a protest against the tax level and operating conditions for activities

on the Norwegian shelf. At worst this may entail that investments of nearly NOK 80 billion will not materialize.

September

1. AS Betonmast secures the contract for building an 80-kilometre long power line in central Thailand. The contract is worth Nkr 110 million and is the company's second major contract in Thailand.

2. The Norwegian State Railways (NSB) awards ABB Strømmen the contract for 22 electric locomotives. NSB will pay Nkr 735 million for the locomotives, to be delivered in 1996 and 1997, and ABB Strømmen will handle about 30 per cent of the work.

9. The British authorities approve Helicopter Service's acquisition of the Bond Group. The agreement entails that the Norwegian company will pay Nkr 800 million for the takeover, initially acquiring 49 per cent of the shares and the remainder after three years.

12. The Ministry of Environment decides that Norsk Fettog Limindustri in Ringerike must be closed as a result of offensive fumes from emissions. It is probably the first time that the authorities order a company to close down pursuant to the Pollution Act.

14. Statoil announces further budget overruns of Nkr 250 million for the refinery project in Kalundborg. Total budget overruns have now reached nearly DEK 1.4 billion.

14. Minister of Industry and Energy Jens Stoltenberg presents proposals for changes in the operating conditions for petroleum activities on the continental shelf. The Government advocates that the tax system for the petroleum sector be retained, but proposes changes in the sliding scale, reduced central government participation in the 15th round of licences and a more active adjustment of state shares in licenses that have already been allocated.

20. Statoil and seven other western oil companies sign a production agreement with Azerbaijan on oil production in the Caspian Sea. Total investment is estimated at Nkr 54 billion, of which Statoil will contribute about Nkr 5 billion. Total reserves in the two fields to be developed are put at about 4 billion barrels of oil, with Statoil accounting for 8.56 per cent of production.

21. Russia does not accept the agreement between the authorities in Azerbaijan and eight western oil companies, including Statoil. The Russian authorities are of the view that the resources in the Caspian Sea are of decisive importance to all surrounding nations, and that unilateral agreements on the part of one nation are a violation of other countries' interests.

21. Minister of Industry and Energy Jens Stoltenberg receives a plan for the development and operation of the Norne field amounting to Nkr 9.8 billion. Statoil's threat

to refrain from developing the lucrative field unless the oil companies' operating conditions are improved thereby fails to materialise.

22. The construction of the cavalry's new camp in Åmot Municipality in Østerdalen begins. The camp project is estimated to cost Nkr 1.3 billion and over the next three years an area covering 78 000 square metres will be built.

26. Statoil awards Odfjell Well Services a contract for up to Nkr 150-200 million for well maintenance on the Gullfaks, Veslefrikk, Troll and Heidrun fields. The project will extend over a period of three years, with an option for an additional two two-year periods.

October

4. The Government tables proposals for the government budget for 1995. The budget proposal shows a deficit before loan transactions of Nkr 20.9 billion. The general government deficit is Nkr 4.3 billion and is equivalent to about 0.5 per cent of Gross Domestic Product.

12. Statoil and Norsk Hydro sign a cooperation agreement with the two German gas importers Ruhrgas and BEB for the construction and operation of the gas pipeline system to the eastern länder. The pipeline system will require investments of about Nkr 4.4 billion, with Statoil and Hydro responsible for 25 per cent. The agreement will give the Norwegian companies improved opportunities for following price trends in the user market and probably ensure a higher share of the profit from gas sales.

13. The Russian Foreign Minister reaches agreement with the President of Azerbaijan on cooperation in connection with the agreement for oil production in the Caspian Sea which Statoil/BP recently concluded with the Government of Azerbaijan. When the agreement was signed, Russia refused to approve it, thereby creating uncertainty about the possibilities for implementation.

13. Texaco awards the ABB Group in Norway project responsibility for the development of the Captain field north of Scotland. The development is estimated to cost Nkr 3 billion. ABB's share, including supplies, amounts to about Nkr 1 billion.

14. Saga presents a plan for the development and operation of the Vigdis field to the Ministry of Industry and Energy. Total field investment is estimated at a little less than Nkr 5 billion. Eight production wells and four injection wells are planned. Production on the field, which contains 180 million barrels of recoverable oil reserves, is expected to begin in the summer of 1997.

14. The Storting's Standing Committee on Local Government and Environment presents proposals for a new Working Environment Act which include a ban on the use of temporary labour for companies' ordinary activities.

16. In a consultative referendum in Finland 57 per cent of the voters vote Yes to Finnish membership in the EU from 1 January. The final decision will be made by the National Assembly later this year.

17. Norsk Hydro pays \$ 15 million for a 10 per cent stake in a new aluminium smelter in Slovakia. The European Bank for Reconstruction and Development (EBRD) will also have an interest amounting to \$ 15 million and will provide a loan of \$ 115 million. Norsk Hydro has an option to purchase the EBRD's share in the smelter.

18. The Ministry of Industry and Energy issues a licence to Norsk Krafteksport AS for a power exchange agreement with the Dutch power company N.V. Samenwerjende elektriciteits-produktiebedrijven (Sep). Norsk Krafteksport will make available power supplies of 2.16 TWh a year. Sep has an option to export, and the Norwegian parties to the agreement the right to import 0.6 TWh a year at an agreed price. The exchange shall take place through a new cable which will be put into operation in 2001, and the agreement applies for 25 years.

18. Saga revises upwards the recoverable reserves in the Snorre field from 717 million to 1 billion barrels of oil. Total investments for development are revised down to about Nkr 4.5 billion, a considerable reduction from the original plans. Oil on the Vigdis field will also be processed on the Snorre field, and substantial coordination gains will increase the fields' profitability.

19. Statoil and Saga conclude a cooperation agreement on the development of the Midgard and Smørbukk fields on Haltenbanken in order to reduce the costs of development and operations. The agreement entails that the companies will be equal partners, with Statoil having operator responsibility. Based on the new plans, the companies expect savings of at least Nkr 8 billion from the original costs of Nkr 47 billion.

19. Statoil makes a large gas discovery in the North Sea, close to the Gullfaks field. The field may contain 60 billion cubic metres of gas, thereby representing gas reserves worth about Nkr 40 billion.

20. The Union Group approves investments of about Nkr 650 million. The bulk, Nkr 530 million, will be used to modernise Union Bruk at Klosterøya in Skien. In addition to paper and pulp, Union will also invest in properties.

28. The Storting gives its approval to an increase in the tax on housing. 750 000 Norwegians must pay higher taxes. The assessed value of all real property, excluding forests, is increased 10 per cent. A new two-tiered system is introduced where the normal rate is 2.5 per cent on dwellings and cottages with an assessed value of up to Nkr 440 000, while a rate of 5 per cent is levied on dwellings with an assessed value exceeding Nkr 440 000. The tax-free allowance for dwellings is set at Nkr 50 000.

29. The Government appoints Thorvald Stoltenberg as Norway's representative in the EU Commission. Stoltenberg will be the EU's Fisheries Commissioner if Norway becomes a member of the Union.

31. Norges Bank launches a new 200-krone note and a new 20-krone coin in the Northern Lights Planetarium in Tromsø.

November

1. The small contractor Boye Pedersen from Sandefjord is awarded a contract, worth Nkr 1.6 billion, for a development project in Turkey. Through its recently established subsidiary Boye Pedersen International, the firm will build nearly 2 000 exclusive one-family dwellings and flats for members of parliament in Ankara.

2. Swedish Minister of Finance Göran Persson presents the largest austerity package in Swedish history. More than SKr 58 billion is to be saved up to 1998.

3. The subsidiary of Maritim Group, Unit Rig, is awarded a drilling contract worth Nkr 150 million for Texaco's Captain field in sharp competition with the company Noble Drilling.

3. As operator of the Norne field, Statoil is now in the process of distributing contracts worth altogether Nkr 2.3 billion. Kværner Energi can add Nkr 600 million to its order backlog, while Ugland Coflexip is awarded a contract for Nkr 500 million. Nkr 1.1 billion goes to the company Far East Livingston in Singapore. The company will build the hull of the production ship, which from 1997 will pick up oil from the Norne field.

4. Wilh. Wilhelmsen Limited AS acquires the holdings of the two remaining Finnish investors in Wilhelmsen Lines AS, thereby increasing its ownership interest from 70 to 100 per cent. The purchase price is \$ 47.2 million.

4. The Office of the Auditor General refuses to approve Postal Giro's accounts. Nkr 1 billion has vanished, and the head of Postal Giro, Roald Ulltang, is unable to account for these funds. The Office of the Auditor General has uncovered erroneous entries, unexplained discrepancies and accounting errors that go back to 1985.

10. The Oil Taxation Office releases the oil companies' tax assessment figures for 1993, showing that the central government's revenues will be Nkr 1.5 billion lower than in 1992. Total assessed taxes amount to about Nkr 15.3 billion. Statoil is still the decidedly largest taxpayer with assessed taxes of Nkr 6.9 billion.

11. Statoil's activities in Asia yield results. Gas revenues from the Bangkot field in Thailand, where Statoil and BP have ownership interests, have thus far this year generated earnings of Nkr 140-150 million.

12. Two new controversial tax proposals from the Government are turned down by the Storting. This means that Pilsner beer will remain Pilsner beer next year and food packaging will not be subject to an environmental tax.

14. The Swedish people vote Yes to Swedish membership in the EU. The result of the referendum is 52.2 per cent in favour and 46.9 per cent against membership.

16. By extinguishing the torch on the Gullfaks A platform, Statoil marks an international environmental event. Large quantities of gas shall be sold on the market instead of being burned. In addition, the company will avoid paying the state carbon tax. The torch on the sister platform Gullfaks C will be extinguished in the near future.

20. Statoil confirms that the exploration rig "Deepsea Bergen" has made a discovery outside the Møre coast, 50 kilometres northwest of Florø. Both oil and gas have been found in the reservoir, but this is probably a small find.

21. Smedvig Robray Ltd. in Singapore signs a contract with the Chinese oil company Arco China. The contract will secure up to two years of employment for the mobile drilling rig "West Alpha" in the South China Sea. Including options, the contract is worth Nkr 225 million. Mobilisation costs of Nkr 70-80 million come in addition.

22. OPEC decides to freeze oil production in its member countries at 24.52 million barrels per day throughout 1995. As a result of the surprising decision, oil prices rise to more than \$ 17 p/b.

22. Defence Ministers from Norway, Sweden, Finland and Denmark agree to cooperate on the procurement and development of defence materiel. The countries will sign a framework agreement totalling more than Nkr 50 billion before Christmas.

22. SAS sells the SAS hotel in Brussels to a German property broking firm. The price tag is about Nkr 550 million. SAS International Hotels shall continue to be responsible for the hotel's management.

24. Diderik Schnitler, Group Managing Director of Kværner, is elected president of the Confederation of Norwegian Business and Industry (NHO) after Svein Aaser. Mr. Schnitler, who was recommended by the election committee, received 211 votes while his opponent Leif Frode Onarheim received 141 votes. This is the first time in NHO's history that an election has taken place with rival fractions at the general meeting.

25. Statoil has awarded Eeg-Henriksen Anlegg and NCC AB the contract for the construction work for the extension on the gas terminal, methanol and gas plant in Tjeldbergodden. The contract, worth Nkr 250 million, is to be shared between Eeg-Henriksen (two thirds) and NCC AB (one third).

28. The Norwegian people vote No to Norwegian membership in the EU. The result of the referendum shows that 52.2 per cent of the voters say NO to membership while 47.8 per cent say Yes.

30. The Storting gives its approval to Norwegian ratification of the establishment of the World Trade Organisation (WTO). WTO is the result of the Uruguay Round in GATT, and was signed by 110 countries earlier this year.

December

1. Statoil announces the allocation of steel contracts for Nkr 8 billion. European and Japanese steel suppliers will handle deliveries for 5 new gas pipeline projects in the North Sea in the years to the turn of the century. The agreement, which covers 1.5 million tons of steel, is one of the world's largest in this decade, and the largest ever in development projects on the Norwegian shelf.

5. Minister of Agriculture Gunhild Øyangen presents a plan to achieve a more market-oriented agricultural sector. The plan calls for purchases and sales of milk quotas as early as next year, lower grain prices and a doubling of the licensing limit for poultry and pork as a means of achieving the goal of cheaper food through more efficient production.

6. Statoil has extended and expanded the contract with Helikopter Service for flights from Bergen's Flesland Airport to installations in the North Sea. The new, expanded contract will run until 15 January 2000 and is worth Nkr 250 million.

6. The Kværner Group's Finnish shipyard, Kværner Masa-Yards, is to build another cruise ship for the U.S. shipping company Carnival Cruise Lines. The contract is worth about Nkr 2.1 billion and is the seventh cruise ship Kværner is building for Carnival.

6. The first of six anti-aircraft batteries worth Nkr 4 billion will be delivered to the air force unit at Rygge air station by Norsk forsvarsteknologi (NFT) and its US partner Hughes Aircraft Company. The anti-aircraft battery, which is the world's most advanced missile system, is called NASAMS (Norwegian Advanced Surface-to-Air Missile System). NFT's share of the contract comes to Nkr 1.3 billion.

9. The Government presents its final budget proposal for 1995. The Government proposes a 1 percentage point increase in VAT and the allocation of Nkr 1.6 billion to industry and commerce to offset the effect of Norway's No vote in the EU referendum. Minister of Finance Sigbjørn Johnsen's main objective is a sharp reduction in the budget deficit and an improvement in industry's ability to compete.

12. The authorities approve the plan for the development and operation of the Ekofisk field. The Ekofisk IIA plan en-

tails that two new platforms will be built for drilling and production and handling and transport, respectively, at the existing Ekofisk centre. Investments related to the development are estimated at Nkr 19 billion and are expected to be implemented by 1998. The development ensures sales revenues from the field of about Nkr 130 billion in the period 1999 to 2028, based on an oil price of \$ 15 p/b.

12. Alcatel Kabel Norge signs a cable contract worth Nkr 640 million in Manila. The cables have been ordered by Napocor, the state electricity company in the country. The contract is the largest ever signed by Norwegian industry in the Philippines.

16. The board of the NSB (Norwegian State Railways) approves an austerity package of Nkr 430 million.

19. NSB's maintenance workers in Lodalen and Grorud go on a political strike. The employees are striking as a result of the board's austerity package and the proposal to increase the pay of top managers.

19. Norsk Hydro drops planned domestic investments amounting to several billion kroner as a result of Norway's No vote in the EU referendum. The company is shelving the plans to double production at the aluminium smelter in Sunndalsøra and the plans for a foundry for magnesium car components at Herøya.

21. Norway, the EU, Japan, the US and South Korea meet to sign an agreement which will ban shipbuilding subsidies. The agreement which forbids subsidies is under the auspices of the OECD.

23. This day marks the 25th anniversary of the first discovery of oil in the North Sea. Phillips Petroleum made the first commercial discovery of oil on the Cod field in the Ekofisk area. Over the course of these years oil and gas worth Nkr 775 billion have been pumped from the fields on Ekofisk.

29. Kværner Warnow Werft GmbH (KWW) in Germany is awarded the contract for building two container ships. The contract has been concluded with a subsidiary of Deutsche See Reederei, Reederei F. Laeisz, and is worth DM 150 million (about Nkr 650 million). Kværner will have an ownership stake of 50 per cent in the two ships.

January - 1995

1. Sweden, Finland and Austria accede to the EU.

2. The Norwegian power supply producer Mascot Electronic A/S receives orders worth more than Nkr 500 million from various mobile telephone producers.

3. The Army's new tanks are supplied with gun turrets from Kværner Eureka. The contract is worth about Nkr 500 million. Hagglunds Vehicle AB won the contract with the Defence last year on the condition that they purchase goods and services in Norway.

4. EFTA's surveillance body ESA deals with the Norwegian retail monopoly for wine and spirits. The surveillance body declares unequivocally that the retail monopoly is a violation of the EEA Agreement's prohibition of quantitative trade restrictions and provisions on monopolies. ESA has previously declared that it will abolish the State Wine Monopoly's exclusive rights on imports, exports and wholesale sales.

7. An out-of-court settlement is reached between Hambros Bank and the Norwegian state in connection with the Reksten case. The settlement between Hambros Bank and the Norwegian Guarantee Institute for Ships and Drilling Vessels (GI) ensures that the state will receive Nkr 300 million and will mark the conclusion of the search for Reksten's hidden fortune abroad.

10. Sweden's Minister of Finance Göran Persson presents a government budget in which SKr 21.7 billion is to be saved over the next 18 months. The goal is to reduce central government debt to less than 60 per cent of GDP, compared with close to 100 per cent today.

13. Freia AS hands over the responsibility for the distribution of chocolate products to the large food chains' own wholesalers. Initially, 114 Freia employees will be dismissed.

14. Telenor Mobil awards the contract for expanding the GSM network in Norway to the Swedish company Ericsson. The framework agreement is worth about Nkr 500 million and will run for three years.

14. Aker Offshore Partner and Kværner Installasjon in Stavanger are awarded contracts worth altogether Nkr 2.3 billion by Statoil. The agreement will run for five years and relates to maintenance and smaller modifications to the Statfjord and Gullfaks platforms.

17. Kværner wins a contract worth Nkr 5 billion to build three new cruise ships. The ships, which have been ordered by the US company Carnival Cruise Lines, shall be built at Kværner Masa-Yards in Finland (see also 6 December 1994).

17. The cooperative movement in Norway celebrates the 150th anniversary of the world's first cooperative. The 100th anniversary of the establishment of the cooperative movement's international organization is also celebrated. The cooperative movement in Norway has an annual turnover of close to Nkr 100 billion and about 1.3 million members.

20. The Federation of Norwegian Professional Associations (AF) becomes a member of the Nordic Professional Associations Union (NFS). It is AF's cooperation agreement with the Norwegian Federation of Trade Unions that has paved the way for the agreement. NFS has eight million members in the Nordic countries.

25. The Gas Negotiations Committee, Total and the French monopoly importer Gaz de France sign a new and comprehensive agreement concerning the sale of Norwegian natural gas to France. The agreement will run for 26 years and relates to a total of 40 million toe natural gas. Deliveries will start in the year 2001 and reach a plateau of 2 million toe a year in 2005. The agreement has a gross value at delivery of about \$ 4.5 billion.

26. The Government suffers two defeats in the Storting. Minister of Finance Sigbjørn Johnsen must acknowledge that the tightening of the split-income tax model will be rejected. Instead the majority in the Finance Committee want accept for a differentiated personal income ceiling. In addition, the draft bill for a new Companies Act was returned to Minister of Justice Grethe Faremo with a request to draw up a separate companies act for small companies.

27. The Government gives its approval to the development plan for a new gas pipeline from the Troll terminal, the so-called Zeepipe Phase IIb. Total investments come to Nkr 3.3 billion. The pipeline will extend from the riser platform 16/11-E in the North Sea to Kollsnes.

31. Norsk Helikopter is awarded a contract worth Nkr 500 million for helicopter transport from Sola to the Ekofisk area. The contract will run for a five-year period.

February

1. The Post Office records a surplus of Nkr 466 million after the accounts for 1994 are finalized. Total revenues amounted to Nkr 10.1 billion, while expenditure was Nkr 9.6 billion.

2. Remøy Holding is awarded the largest supply ship contract in the North Sea, worth about Nkr 400 million. According to the contract, Statoil will lease a new supply ship for Nkr 150 million for twelve years, with the possibility of an extension for a further six years.

2. The European Commission approves additional state support for the Kværner-owned Warnov yard in Germany. The Commission gives its consent to investment support amounting to altogether DM 202.5 million, or a little less than Nkr 1 billion.

3. Minister of Industry and Energy Jens Stoltenberg announces 56 blocks on the continental shelf, 16 in the North Sea and 40 further north in the Norwegian Sea, as part of the 15th round of licensing.

7. The Environmental and Energy Committee gives its consent to the development and operation of the Norne field.

13. The Government decides to relinquish the import monopoly for wine and spirits. It is hoped that this decision will save the retail monopoly from attacks by the EFTA Court.

14. Den norske Bank announces its highest profits ever. The profit for 1994 was Nkr 2.68 billion, compared with Nkr 0.94 billion the previous year.

16. Statoil presents its best results ever. The after-tax profit came to Nkr 5.4 billion for 1994, against Nkr 3.4 billion in 1993. The company will pay Nkr 11.5 billion in taxes and Nkr 1.6 billion in dividends to the state.

20. Norsk Hydro announces an operating profit of Nkr 7.27 billion and a net profit of Nkr 4.04 billion for 1994, an increase of Nkr 3.23 and 1.04 billion from 1993.

23. By revitalizing its German subsidiary, Saga Petroleum enters into an agreement with the gas distributor company Wingas. The agreement relates to a 15-year lease of transport and storage capacity for gas as well as the resale of gas to Wingas. Saga has applied to the Gas Negotiations Committee for the purchase of the gas, which represents a value of about Nkr 1 billion a year. The background for the agreement is the rejection on several earlier occasions of Wingas' applications to purchase Norwegian natural gas.

24. Aker and Kværner have each been awarded a contract by Statoil. Aker shall be responsible for assembly and hook-up on the Norne field, while Kværner will handle the hook-up work on the Sleipner T platform. The contracts for Aker and Kværner are worth Nkr 460 and 315 million, respectively.

March

1. The Farsund company Bredero Price Norway is awarded the highest ever pipe treatment contract. The contract, awarded by Statoil, relates to rust treatment and concrete protection for 200 000 pipes and is worth Nkr 2 billion. The pipeline shall transport gas to the continent from 1999.

4. Nera A/S is awarded a contract worth Nkr 500 million by the US telephone company AT&T to supply microwave radio links. The order is part of the world's largest telecommunications project which AT&T is building for Saudi Arabia.

9. The Storting approves the development of the Norne field off the coast of Nordland county. The development will cost about Nkr 8 billion (see 7 February).

9. The Government approves the EU's licensing directive for oil activities. Norway thereby accepts that oil and gas are included under the provisions of the EEA Agreement.

Rent from Norwegian natural resources

Hilde Lurås

Rent from a resource-based industry gives us an indication of the additional return earned by factor inputs compared with other economic activities. Calculations based on National Accounts statistics show that rent from Norwegian natural resources amounted to NKr 43 billion in 1991, equivalent to 6 per cent of gross domestic product (GDP). Of total rent, NKr 38 billion, or nearly 90 per cent, was earned in the petroleum sector. Moreover, NKr 2.8 billion of total rent can be attributed to hydropower resources, while forestry account for NKr 1.9 billion. Rent from the mining sector was negative. The inefficient management of fish resources implies that rent from this sector was zero in 1991. Under certain assumptions, rent can be used as an estimate of future income from a natural resource. If we compute natural resource wealth as the present value of future rent, natural resource wealth in 1991 amounts to NKr 654 billion.

1. Introduction

For a long time, the Norwegian economy has depended on natural resources. Forestry and fishing have always been important for the country. The industrialization of Norway in the early 1900s was largely based on the exploitation of hydropower, and oil and gas extraction has generated substantial revenues the last few decades. Much of Norwegian manufacturing production is still based on natural resources, and today nearly 25 per cent of total value added stems from resource-based industries. Natural resources and processed products based on natural resources together account for about 70 per cent of Norway's exports. In addition, the availability of natural resources has been of increasing importance to the tourist industry.

In the extraction and sale of natural resources, some of the income is used to cover costs related to intermediate consumption, labour and capital employed. Income that is neither used to cover current costs for intermediate consumption nor to cover the factor input costs labour and capital is called resource rent, or simply *rent*. Rent may be viewed as additional income beyond what is usually earned in ordinary economic activities. The reason that the resource extraction may give rise to this additional income is scarcity, or a special quality of the resource. This article presents estimates of the development in rent for some important Norwegian resource industries over the period 1977-1991¹.

Resource wealth is usually defined as the present value of future income. It is common to use rent accruing from the extraction of the resource as an approximation of future income. Future rent depends on the future scale of resource extraction, future resource prices, development costs, etc. This implies that estimates of resource wealth require assumptions concerning the future development of a number of variables. These estimates must necessarily be of a

hypothetical nature. A simple assumption we can make is that future rent is equal to the last observed rent, and this assumption will be discussed further in section 3. This gives us an estimate of natural resource wealth which can be compared with other existing estimates. In this article, we have concentrated on calculations of rent, and any estimates of wealth are based on these calculations of rent.

An important point when estimating rent is the return which should be considered normal for capital employed in the extraction of resources. Here, we assume an annual discount rate of 7 per cent², i.e. that we can save and borrow at a constant annual real interest rate of 7 per cent. Even though this is a common assumption in official studies in Norway, it may be slightly arbitrary. We will, therefore, look at how alternative discount rates affect our estimates.

Our calculations of rent are based on data from the Norwegian National Accounts³. Using these data, we arrive at actual natural resource income based on the current management of resources. These calculations, however, will give us incomplete information about the potential earnings of various natural resources. In order to obtain better estimates of the potential earnings from natural resources, the rent calculations must be based on the assumption of an "optimal" management of resources, and this requires more advanced models.

This article does not make any attempt to determine whether the management of resources in Norway is "good" or "bad". Instead, we attempt to reveal actual income within resource-based industries. We also present some possible explanations of the resource rent and the income patterns over the period.

1 All figures are in constant 1991 prices.

2 Lorentsen, Kartevoll and Strøm (1980) concluded that 7 per cent is the average return on investments in Norwegian manufacturing industry.

3 Source: Statistics Norway NOS National Accounts Statistics 1977-1991.

2. Rent

The classical theory of economic rent is used as a starting point for computing income from Norwegian natural resources. According to Ricardo's analysis⁴, a rise in the demand for agricultural products will result in less fertile land being brought into cultivation. Landowners who possess previously cultivated and more productive land will then earn additional profits as a result of the scarcity of the resource. Gray (1914) starts with the classical theory of rent and develops a corresponding concept of rent from non-renewable resources. If we use this analysis for traditional natural resources, the explanation of differences in profitability among deposits is found in quality differentials. The additional profit earned in rich deposits is called rent or income from the natural resource, and this is the statistical basis for our estimates of wealth.

As an example, if we assume that a barrel of oil is sold for \$15, while the extraction, including wage and capital costs, costs \$10, then the last \$5 is rent.

Usually, however, rent calculation is not so simple and clear-cut. We can, for instance, consider a fishing vessel which has an average annual gross-income of NKr 930 000 and for which operating expenses plus wages for employed labour amount to NKr 490 000⁵. This type of vessel has a replacement value of NKr 3 million, money which alternatively can be invested in other activities at a 7 per cent rate of interest, i.e. an annual return of NKr 210 000. The fishing vessel owner will thus have NKr 230 000 left. The owner of the fishing vessel, however, has also been working on the vessel, and in the rent calculation his wage costs must be deducted. Wages can be computed on the basis of the value of the alternative use of labour. We will use average annual wages in fish processing as an approximation of wages, which in 1990 amounted to NKr 148 000⁶. In a situation where labour has few alternative employment possibilities, as is the case in fishing, the alternative cost of labour will be far lower than the actual remuneration. The remaining NKr 82 000 of the gross-income can be attributed to fish resources. The fish resources themselves are the reason why this fishing vessel owner has additional profits beyond what he could have earned on the mainland with the same amount of capital.

The example above applies to a specific vessel. In principle, it is possible to compute total rent for the sector by calculating the rent for each fishing vessel and adding up. Alternatively, we can use sectoral data. By using National Accounts figures for the fishery sector this is what we do below. In a manner analogous to the calculation above, we can then compute resource rent on the basis of the following accounting relationships:

Factor income
+Indirect taxes
-Subsidies
-Wages
-Normal return on capital
=Rent

Factor income of the sector is the total income after all costs, excluding wages and capital costs, have been deducted. If we add payments of indirect taxes (here defined as taxes that are not imposed on all goods and services) and deduct subsidies, we arrive at the amount earned by factor inputs. In the National Accounts, wage costs are set equal to the amount firms pay as compensation for work, primarily wages and social security contributions. This means, for example, that wages of fishing vessel owners are not included in the wage concept and must be calculated separately. If resource rent is earned, the residual item after deducting wage costs contains both the return on real capital and resource rent. It is customary to assume that the return on capital in the extraction sector is equal to the average return on capital in other sectors, and the rent is thereby determined residually as the return in excess of this normal return on capital.

As noted earlier, a real return rate of 7 per cent is often used as a "standard" required return, but we will again emphasize that this assumption can be debated. The return on capital varies not only among industries but also among firms within an industry. The variation may be permanent, as a result of different production costs, or temporary, as a result of cyclical fluctuations. For oil and gas extraction, the estimated rent amounts to about NKr 38 billion in 1991, but if we instead assume a normal return of 5 per cent, income comes to about NKr 42 billion, i.e. an increase in income of NKr 4 billion. It must also be emphasized that even though a 7 per cent return on capital is a reasonable assumption, there may be other reasons why the activity earns additional income. For example a monopolist has greater opportunities to earn profits than a small participant in a competitive market.

3. The calculation of natural resource wealth

Rent is thus defined as the share of income from resource-based activities which cannot be attributed to the production factors labour and capital. Natural resource wealth is the present value of future rent. Norway's natural resource wealth in 1991 is estimated to be NKr 680 billion (Statistics Norway (1993b)). This corresponds to an annual discounted rent of NKr 44.5 billion in contrast to calculations in this article where the rent is estimated to be NKr 43 billion. By way of comparison, GDP in 1991 amounted to NKr 687 billion.

4 Most of this theory is found in Ricardo's "The Principles of Political Economy and Taxation" from 1817. See Ricardo (1962), the reference to rent is found in ch. 2 and 3.

5 Source: Fisheries Budgeting Board 1990. Vessel group 7; Coastal fishing for cod species in southern Norway.

6 Source: Statistics Norway NOS Wage Statistics 1990.

Since resource wealth is the present value of future rent, to calculate it we need estimates of rent, not only for this year, but also for the years ahead. For calculations of petroleum wealth, the estimates are based on assumptions concerning future production scenarios and expected trends in oil prices (see Report no. 4 to the Storting 1992-93, Long-Term Programme 1994-1997). The calculations of wealth in this article, however, are based on the assumption that all future rents will be equal to rent in the base year. This entails relatively unrealistic assumptions, i.e. that prices, extraction costs and the extraction profile are constant over time. If, for instance, future prices, stocks or quotas deviate from those in the base year, then future resource rent from the fishery sector will deviate from the base year rent.

In earlier calculations of petroleum wealth, it has been customary to assume rising oil prices over time. The actual movement in prices has illustrated that, both in the short and the long run, there is considerable uncertainty concerning oil prices. In view of today's low oil prices, many forecasts are based on the assumption that the real price of oil will be constant in the years ahead⁷. This reinforces the assumption of a constant future petroleum rent. The calculations in this article show possible annual variations in resource rent, and as such they give an indication of the importance of variations in underlying variables. As will be seen later in this article, there are considerable variations in the rent from fisheries and a clearly rising trend for hydropower production, while the rent from other resources is more stable. The assumption of a constant future resource rent is thus, historically, not a satisfactory approach for the petroleum and fishery sectors, although it may appear as a reasonable assumption for other sectors. If we use the total resource rent in 1988 as a basis for calculation, natural resource wealth will be about NOK 450 billion in 1991-prices, which is considerably lower than the estimate of NOK 680 billion (Statistics Norway (1993b)).

Recent calculations (Statistics Norway 1993b) have estimated that natural resources only account for 7 per cent of total national wealth. The other components are human capital, calculated as the present value of future income from employment, and capital stock. Those components account for 67 per cent and 26 per cent, respectively, of national wealth. If we exclude the petroleum sector, natural resources account for about 1 per cent of national wealth. This may easily lead us to conclude that the Norwegian economy is not very dependent on natural resources and that the management of these resources is not so important as earlier assumed. It is important to emphasize, however, that these estimates of wealth are based on resource rent which represents the share of income earned which is solely attributed to the natural resource. To better understand the economic importance of resource-based industries, we must look at total value added which, in addition to rent, includes the remuneration of labour and capital.

With this as a starting point, the scope and importance of resource-based industries can be illustrated by noting that their contribution to gross domestic product was nearly 25 per cent in 1991.

4. Sectoral calculations of rent

In this section we calculate the resource rent from Norwegian natural resources. We have calculated rent for the non-renewable resources oil/gas and mining. A reduction in the stock of a non-renewable resource, through extraction, will limit future production. Further we calculate the rent for a permanent resource, in this case, hydropower. The stock of permanent resource is given independently of the resource management. Finally, we calculate the rent from fisheries and forests, which are biological, or contingent, renewable resources. The stock of this type of resource is renewed continuously, but is influenced by the resource extraction. In the long run, the extraction of the resource cannot exceed its growth rate without the resource disappearing.

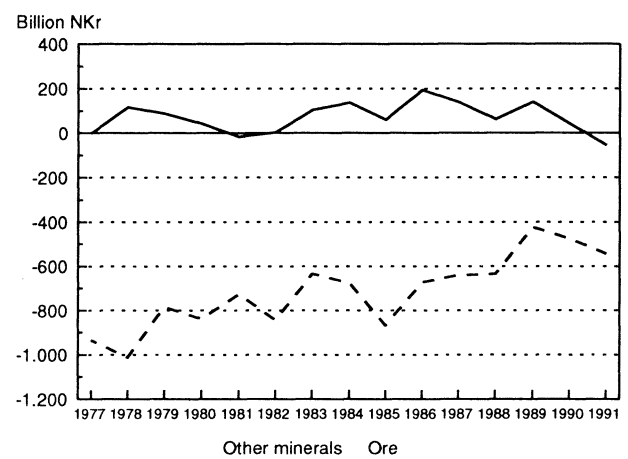
In this article we have only included natural resources which are sold on the market, which implies that no attempt has been made to put a value on services provided by nature beyond those which are purely commercial.

4.1 Mining

Norwegian mining can be divided into the *extraction of ore*⁸ and *other minerals*. Different concession rules apply for these two types of mining, leading to economic effects, in the form of different support schemes, within the industry.

The extraction of *other minerals* comprises sand, gravel and ornamental stone, as well as industrial minerals. Exports of some industrial minerals are considerable, and

Figure 1. Resource rent from mining 1977-1991



7 See, for example, Long-Term Programme 1994-1997, Figure 10.3.2a.

8 Ores are minerals with a specific gravity greater than 5.

world market prices for some of them have varied substantially over time. Fluctuations in prices of export products mean that the operating surplus varies considerably, which is reflected in the unstable resource rent. In the 1980s, the rent from mining showed a positive trend, but in recent years income has fallen. This type of mining generally made a positive contribution to national income over the sample period.

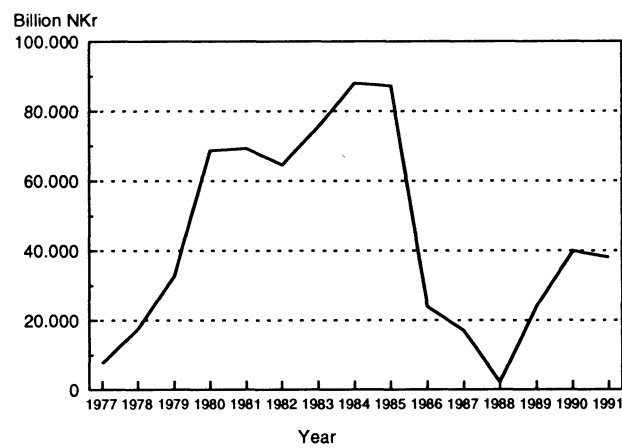
Ore resources which are extracted in Norway include iron, copper, zinc, pyrite and lead. Most of the ore is exported. However since the mines have been exhausted and no new deposits have been found, and since prices of ore-products have been falling, the extraction of ore has been reduced substantially in recent years. Previously operating surplus in the sector was negative, but in 1981 subsidies were increased sharply, which resulted in a positive operating surplus. Because we adjust for subsidies and taxes when we do our calculations, higher subsidies do not have an influence on the ore rent. Throughout the sample period the rent is negative, although we can note that it is less negative towards the end of the period. This is primarily due to the reduced scale of ore mining operations. Probably because the least profitable mines are closed first, the change in resource rent is greater than the change in production volume. According to our method of calculating wealth, a negative rent results in negative natural resource wealth. This result may lead us to assert that there is no economic basis for extracting ore. The extraction of ore, however, takes place in areas where few alternative employment opportunities exist. The reason why ore resources are extracted with the help of subsidies may be a desire to secure jobs in these districts. It may, therefore, be unreasonable to attribute a negative value to ore wealth; it may instead be an indication that labour's alternative value is overvalued in the wages paid to labour.

Adding up the two types of mining gives us the resource rent in the sector as a whole. This total mining rent makes a negative contribution to national income, but the deficit gradually falls over the period. On the grounds that the resource can be used to satisfy other socio-economic objectives, in earlier calculations wealth was set equal to zero when rent was negative, see Statistics Norway (1993b).

4.2 Oil and gas

In the 1970s, activity in the North Sea was characterized by major investments and relatively little production. It was only towards the end of the decade that income from petroleum activities started rising. Higher production combined with the rise in prices in 1979 are the main reasons for the sharp growth in petroleum rent between 1977 and 1985. In 1985, the rent from petroleum activities was more than Nkr 80 billion. The decline in petroleum rent between 1985 and 1986 is primarily due to falling oil prices, while an increase in extraction and a rise in prices are the reasons for growth after 1988. The petroleum rent in 1991 was Nkr 38 billion.

Figure 2. Resource rent from the petroleum sector 1977-1991



If we calculate petroleum wealth as the present value of future income and assume that future income is equal to the rent in 1991, we find that petroleum wealth amounts to Nkr 580 billion. This accounts for nearly 90 per cent of the total natural resource wealth. Brekke et al. (1989) has previously calculated petroleum wealth as the present value of expected future income, where an attempt has been made to take account of a future resource rent profile. Estimates of extraction costs, production profiles, price expectations and the volume of remaining reserves have been used for these calculations. When these variables are incorporated, petroleum wealth is estimated at Nkr 546 billion. For 1991 current rent as an estimate of future rent and a calculation which takes account of the future profile of rent will produce nearly the same estimate of petroleum wealth. This shows, that in 1991, petroleum rent can be used as an estimate for the value of wealth.

According to Clausen (1993), costs in the extraction sector do not reflect the investment in know-how which exploration represents. The reason is that expenditure on exploration is recorded as investment in the National Accounts. If a well turns out to be dry, the entire investment is written off over one year, while costs for drilling where oil or gas is found are written off over 15 years. Considering that wells which are dry also contribute to know-how about oil fields, a better alternative might be to consider exploration an investment in know-how. If dry wells are also written off over 15 years, this will have two effects which influence the estimate of the petroleum rent in different directions. A longer write-off period results in lower capital consumption, and this results in a higher value for the petroleum rent. On the other hand, a longer write-off period results in higher capital stock, which implies a higher return on capital and a lower petroleum rent. In the long run, however, a longer life for capital assets will shift capital consumption to later periods, and lower capital consumption in the short term results in higher capital consumption in a subsequent period. Both the above-mentioned effects reduce the rent in earlier periods, and there is a negative shift in the resource rent for this sector.

One factor that has not previously been taken into account is that the cost of developing and operating individual oil and gas fields occur in separate periods. The planning and investment phases take place before the actual extraction phase for those fields which are to be developed. No income is earned from the fields before these phases are completed. In the National Accounts, income and costs for one year are recorded for the entire sector. In the calculations, the costs of exploration in one area, e.g. Finnmark, are thus deducted from the income of fields which are located in other areas, e.g. the Ekofisk field in the south. The calculations of sectoral resource rent, in other words, also include the costs of fields which do not yield a return for many years. As an alternative, exploration costs could be linked more closely to those fields which are actually in production. It might be difficult, however, to determine the cost of exploration in a specific field. The reason is that before a field is discovered it is impossible to know which field one is looking for. Throughout the period observed, extraction has only taken place south of the 62nd parallel. It may be interesting to disregard oil exploration costs off the coast of North Norway and to calculate petroleum rent for the North Sea separately.⁹ After 1980, the petroleum rent for the North Sea¹⁰, as we might expect, is higher than the rent calculated in the ordinary manner above. The difference in 1980 was Nkr 8 billion (1991 prices), and, as a result of increased activity in the North, the difference has widened to Nkr 9.5 billion in 1990. Viewed in relation to the level of petroleum rent over the entire period, this is a substantial effect even though it is of little significance for the estimate of wealth.

In this article we will not discuss distributional effects in detail, but we will nevertheless point out that wage costs in the North Sea are considerably higher than in fishing and forestry, but also higher than in other mainland sectors. Unsocial working hours and considerable risk are important reasons for this, but there may be reason to assert that part of the petroleum rent accrues to labour.

4.3 Hydropower

Due to differences in natural conditions and in the size of power stations, the costs of expanding and operating hydropower stations vary between waterways. Power stations can be ranked according to rising costs per kWh. When the market price of electricity rises, power stations with low costs earn a profit. Cost differentials for expanding and operating power stations indicate a potential for rent in this sector. We illustrate hydropower rent in Figure 3. The height of the columns is equal to average costs (capital and operating costs). Capital costs are estimated using a discount rate of 7 per cent. The width of the columns shows the production capacity for the power station. The shaded area illustrates the resource rent in a hydropower market when the price clears. The profit earned at each power station is due to a shortage of hydropower projects.

Figure 3. Resource rent in a hydropower market

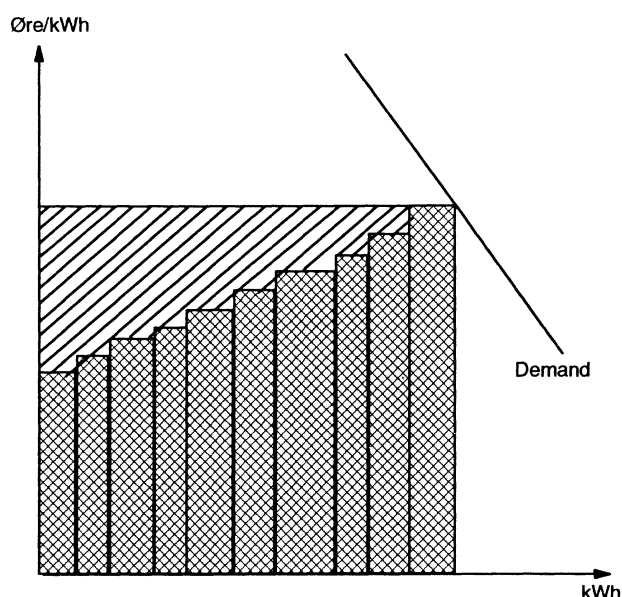
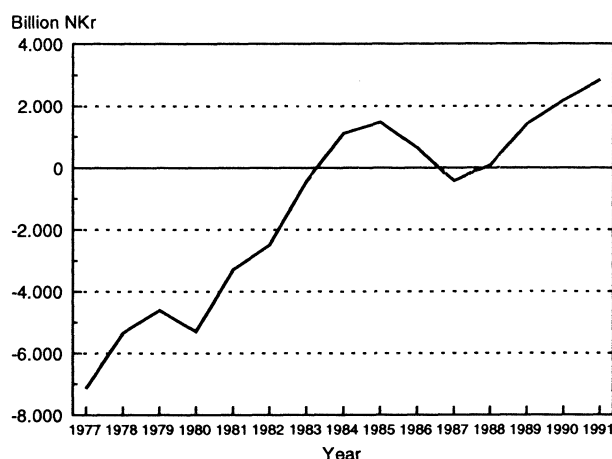


Figure 4. Resource rent in the hydropower sector 1977-1991



A high rent is earned at power stations with low costs, while a lower rent is earned at the more marginal power stations. If the hydropower rent in the figure is to be achieved, the production capacity for electricity must be correctly dimensioned. The electricity price which clears the market is thus equal to the long-run marginal cost for new power generation. The long-run marginal cost is the cost associated with expanding production capacity measured in øre per kWh. A 7 per cent return on capital is included in the long-run marginal cost.

Figure 4 shows developments in actual resource rent in the hydropower sector. Prior to 1983, the estimated rent is negative, which implies that in this period the return on capital in the sector was lower than 7 per cent. There is relatively sharp growth in hydropower rent over the period. The positive rent after 1983 is largely the result of changes in

⁹ Prior to 1980 there was no exploratory drilling north of the 62nd parallel.

¹⁰ The petroleum rent for the North Sea is arrived at by adjusting real capital in the sector for investments in drilling and exploration north of the 62nd parallel.

energy policy in the wake of the White Paper on Energy in 1979-80 (Report no. 54 to the Storting, 1979-80). The report outlined a revision of the method for pricing hydropower, which entailed an increase in the price of electricity for general consumption so that it was more in line with the long-term marginal cost. The decline in hydropower rent in 1986 is a result of low runoff to the reservoirs and lower production. In 1987, several large power stations began operations (including Alta and Kobbelv). This increased the volume of capital in the sector by more than 15 per cent from 1986 to 1987 and contributed to lower hydropower rent that year.

In 1991, hydropower rent amounted to NKr 2.8 billion. Based on our assumptions and methods of calculation, this results in a hydropower wealth of nearly NKr 43 billion. This wealth estimate is based on the current pricing policy for electricity, under which power-intensive manufacturing industries and the pulp and paper sector have long-term contracts at low prices. However, it is interesting to calculate the rent under a regime with a more optimal pricing of hydropower. This provides a better impression of the potential income of hydropower resources. In the Long-Term Programme for 1994-1997 (Report no. 4 to the Storting, 1992-93) an attempt was made to estimate the theoretical rent in Figure 3. It is assumed that total power production capacity is expanded on the basis of rising costs; similarly, it is assumed that the price covers development costs of the most recent project at the end of the period (price equal to long-run marginal cost). The annual rent is not specified explicitly in the Long-Term Programme, but hydropower wealth is estimated to be NKr 88 billion (1991-prices).

This calculation shows that the potential hydropower wealth is about twice as high as the wealth resulting from current electricity pricing policy. As noted earlier, the price of electricity for general consumption is approaching the long-run marginal cost. However, power-intensive manufacturing industries and the pulp and paper sector still obtain electricity at prices far below the long-run marginal cost. This is the most important reason for the low resource rent in the hydropower sector.

The deviation between the actual price and the long-run marginal cost for power-intensive manufacturing industries is the reason for assert that part of the rent accrues to power-intensive industries. The return in this sector has been slightly higher than 6 per cent in recent years (Long-Term Programme 1994-1997). A transfer of rent is thus not reflected in a return that is higher than normal for this industry. If anything, power prices have been used as a political instrument to maintain employment and settlement patterns in regions with power-intensive industries. One measure of the cost of this policy may be a reduction in hydropower rent.

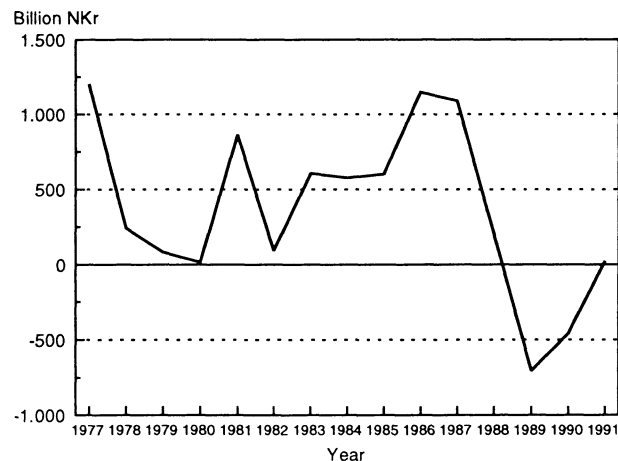
4.4 Fisheries

The Norwegian fish-wealth in 1990 is estimated to be zero in Statistics Norway (1993b). Considering that fish resources are found in Norwegian territorial waters, this result may seem paradoxical. Our result must not be confused with the estimate for the size of Norway's fish stock. In 1990, calculations made by the Institute of Marine Research showed that the stock of Norwegian Arctic cod was 980 thousand tonnes, and the stock of Norwegian spawning herring was 1 660 thousand tonnes¹¹. These are the two most important Norwegian fish stocks. A fish-wealth of zero means that the annual rent from this sector is zero, indicating that income adjusted for subsidies and indirect taxes only covers operating expenditure, wages and a normal return on capital. The fact that the wealth is zero does not mean that fish have little value, but rather that the costs of catching the fish are considerable. Under current resource management, the fishery sector is not earning a profit in commercial terms.

Because the wages of fishing vessel owners are included in the National Accounts' definition of operating surplus, we have adjusted the operating surplus for entrepreneurial wages¹². Without this adjustment, we would have obtained the same development in fish rent, but the figure would have been adjusted upwards by between NKr 0.5 and 1 billion.

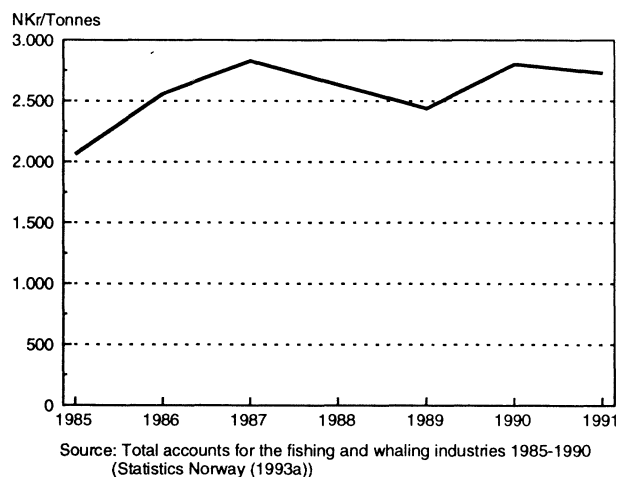
Figure 5 shows that fish rent fluctuates somewhat over the period. In order to formulate possible explanations for these fluctuations, we can, for example, examine the period between 1985 and 1991. Rent rises between 1985 and 1987 and then falls sharply until 1989. After 1989, there is a rise in fish rent, and in 1991 it was slightly positive. The catch declines steadily from 2.2 million tonnes in 1985 to 1.8 million tonnes in 1990. In other words, the reduction in

Figure 5. Resource rent from fisheries 1977-1991



11 Such calculations are made with the help of population analyses on the basis of annual data on the number of fish caught distributed on age groups. Statistic source: Statistics Norway NOS Fishery Statistics 1990-1991.

12 We have used average annual wages in fish processing as an approximation of entrepreneurial wages (1990: NKr 148 000). Moreover, we have used the National Accounts' survey of normal man-years by industry (1990: 47% self-employed).

Figure 6. Average price of the fish when it is first delivered**Table 1. Fish rent 1991. In billions of NKr**

Statistics Norway's statistical basis:	
Gross production	5.0
- Intermediate consumption	2.1
- Depreciation	1.2
- Net subsidies	0.5
- Compensation to labour	0.4
- Compensation to capital	0.7
= Rent	0.1

Flåm/Kjelby's statistical basis:	
Income	7.2
- Costs	0.8
- Compensation to labour	1.1
- Compensation to capital	1.5
= Rent	3.8

the catch may be an underlying reason for the decline in fish rent between 1985 and 1991, but the major fluctuations cannot be explained by this factor. Figure 6 shows the development in the value of the fish when it is first delivered. Here, we see that the price received by each fisherman has moved in the same direction as the fish rent. There is thus reason to believe that fluctuations in fishermen's income is the main reason for the rent fluctuations.

1991 calculations of stocks show that in 1985-1991 the stock of Norwegian spawning herring grew from 600 thousand tonnes to 2 010 thousand tonnes. The stock of capelin declined from 300 thousand tonnes in 1985 to approximately zero in 1987/88, and in 1991 the stock increased to 600 thousand tonnes. Other fish stocks have not shown any significant change. In our estimates, these changes are only expressed if the changes in stocks are reflected in the actual catch. Because the estimate for fish rent is based on the actual catch in a base year, earlier and future changes

in stock are generally not taken into account when calculating fish wealth.

As noted earlier, the reason why the fish wealth equals zero is that the fishery sector has such high operating costs. The costs in the fishery sector are highly dependent on how fishing is organized, and by shifting to other vessels the same quota could be caught at lower total costs. Hannesson (1991) has calculated the maximum income of fish resources. He finds that the potential fish rent is about NKr 2 billion annually. A fish rent of this magnitude presupposes a sharp reduction in costs and efficiency improvements by organizing the Norwegian fishery industry in such a way that it employs the best technology and has an optimal structure. A reorganization of the industry entails a reduction in employment of more than 20 000 persons in fishing, fish processing, management and organisations. The value of Norwegian fish resources is used to satisfy other socio-economic objectives, such as maintaining employment and settlement patterns in the regions. In Hannesson's report, the socio-economic costs of unemployment or depopulation as a result of changes in the operation of the fishery sector are not taken into account.

Hannesson's result is supported by Flåm (1993) who, based on an assumption concerning the optimal size and operation of the herring fleet, estimates the annual optimal "herring rent" to be NKr 1.2 billion. Kjelby (1993) estimates cod rent based on the current fishing fleet to be NKr 2.6 billion. If we compare Hannesson's (NKr 2 billion) and Flåm/Kjelby's (NKr 3.8 billion) estimates, we see that the discrepancy is considerable. We must remember, however, that the results are based on hypothetical figures for costs and types of operation. Flåm and Kjelby estimate, among other things, lower costs for the operation of the fishing fleet than the level assumed by Hannesson.

The uncertainty in the calculations are illustrated in Table 1, which presents simplified accounts for Flåm/Kjelby and our calculation of fish rent. Kjelby's calculation of a cod rent of NKr 2.6 billion (see above) is based on the assumption that the catch is equal to the average fishing quota over the last 20 years. If the actual catch of cod is used as a basis, as is the case in our calculations, income from cod fisheries fall, and the total rent in the fishery sector will be NKr 3.1 billion. Moreover, Flåm/Kjelby disregard subsidies in their calculations, and if we adjust the rent of NKr 3.1 billion for subsidies of NKr 0.5 billion, the result of their calculations is a rent of NKr 2.6 billion. Flåm/Kjelby estimate costs at NKr 0.8 billion. If we replace these costs with National Accounts figures for inputs of NKr 2.1 billion, the rent in Flåm/Kjelby's calculations will be reduced to NKr 1.3 billion. This means that of the NKr 3.7 billion difference in rent, NKr 2.5 billion can be attributed to the difference in the statistical basis for intermediate consumption and compensation to labour and capital as well as the omission of subsidies. There still remains NKr 1.2 billion which we cannot explain, but which is probably due to differing data sources and ambiguities in the statistical material.

Our estimate is the fish rent earned given current policy and the current way of managing resources, and this results in a fish wealth that is equal to zero. Flåm/Kjelby's calculations show the rent we could have earned if we assumed cost minimization, which results in a fish wealth of Nkr 58 billion. The deviation between these calculations is considerable, illustrating that the fishery sector has an economic potential which is not being exploited. The fact that we do not make commercial use of this income potential does not necessarily mean that fish wealth is being wasted. We can instead interpret this to mean that our supply of natural resources enables us to satisfy other economic objectives such as maintaining employment and settlement patterns in the coastal regions.

4.5 Forests

According to our calculations, the rent from Norwegian forestry is slightly less than Nkr 2 billion in 1991. Based on the customary assumption of a 7 per cent discount rate, this results in a forest wealth of Nkr 31 billion. Figure 7 illustrates that forest rent shows underlying growth over the sample period implying that the estimates for wealth must also increase. For example, if we calculate wealth based on the rent for 1977, this amounts to Nkr 22 billion in 1991 prices. The price of timber is the main factor determining the size of income from forestry. Therefore market conditions for the sale of roundwood timber are decisive for estimated wealth.

In addition, it must be mentioned that it is less meaningful to calculate forest rent based on the National Accounts' definition of real capital in forestry. The reason is that the actual forest area is valued here and included in the concept of forests' real capital. This method has been adopted because the value of the land covered by forests can be considered a marketable wealth. In 1991, the real capital of the forestry sector was Nkr 49 billion, and 83 per cent of this, or Nkr 41 billion, is the value of the actual forest area. Based on this concept of real capital, it is pointless to

deduct the normal return on capital when calculating rent from activities in the forestry sector. We have, therefore, used the traditional understanding of real capital, i.e. machinery, buildings, etc.

As in the other primary industries, much of the work in forests is carried out by forest owners themselves. Thonstad (1992) estimates that the remuneration for own work in forests amounts to about half of wage payments, but this is not taken into account in our calculations. If the owners' work in forests is included, the actual rent would be lower than the level we have calculated, and in the sample period it would have amounted to about Nkr 100 million.

In conclusion, it should be noted that forests also provide services beyond the commercial sale of timber. In earlier periods, the forest's "larder" of game, mushrooms and berries was a necessary supplement to the family household. Today, the supply of mushrooms and berries and the opportunity to engage in hunting are not very significant in economic terms. The forest itself and the activities made available by forests, however, do mean a great deal to an individual's feeling of well-being. In addition, the forest has an important function in the ecological system, among other things to preserve biodiversity and to stabilize the climate. Attempts to value these non-economic values are controversial and entail a number of problems, and non-economic values are therefore not included in our calculations.¹³

5. Conclusion

For a long time the Norwegian economy has been based on the exploitation of natural resources, and today resource-based industries account for nearly 25 per cent of total value added. In this article, we have calculated the rent for some important natural resources, based on data from the National Accounts. This gives an indication of how income from natural resources is recorded in official figures for the economy's value added. The rent from Norwegian natural resources amount to Nkr 43 billion in

Figure 7. Resource rent from forests 1977-1991

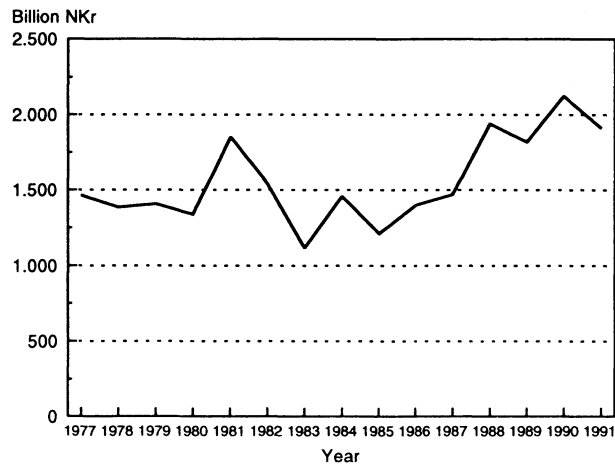
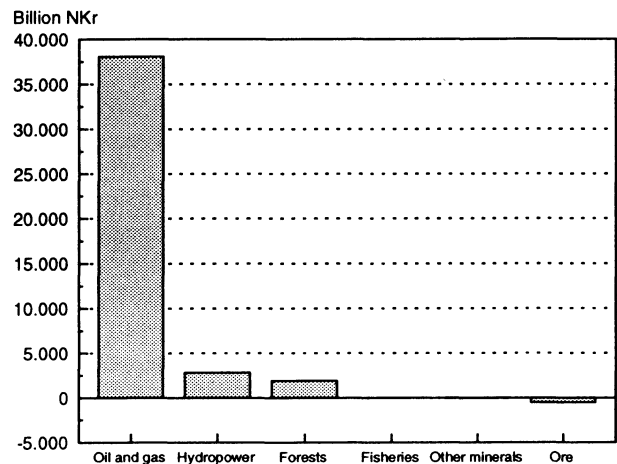


Figure 8. Resource rent 1991



13 Hultkrantz (1992) estimates the supplementary services from Swedish forests at Skr 3.5 billion a year.

1991, corresponding to 6 per cent of GDP that year. Most of the income from natural resources is earned in the petroleum sector, and in 1991 the petroleum rent came to Nkr 38 billion. As a result of changes in energy policy, the hydropower rent rose sharply, while forest rent has been relatively stable. Rent from fisheries has fluctuated considerably, and the calculations show that in recent years Norway has earned nothing from fish resources beyond that which is required to cover wages and a normal return on capital. Ore rent has made a negative contribution to the economy, but the deficit has gradually been reduced over the period.

Natural resource wealth can be calculated as the present value of future rent from natural resources. If we use the rent in 1991 as an estimate for future resource income, Norway's natural resource wealth amounts to Nkr 654 billion. Based on this method of calculation, we also find that oil and gas wealth comes to Nkr 580 billion. Oil and gas wealth for which account is taken of the profile of future rent, is estimated at Nkr 546 billion. For that year, current rent as an estimate of future resource rent and a calculation in which we take account of the future profile of the resource rent will produce much the same estimates for the value of petroleum wealth. If this also applies to other resources, the relationship among rent for the various natural resources provides a good indication of the magnitude of the various components of natural resource wealth.

References

- Brekke et al (1989): *Petroleumsformuen - prinsipper og beregninger* (Petroleum wealth - principles and calculations), *Økonomiske analyser* 1989, 5, Statistisk sentralbyrå.
- Budsjettnemnda for fiskerinæringen (Fisheries Budgeting Board) (1990): *Lønnsomhetsundersøkelser for fiskefartøyer* (Profitability studies for fishing vessels).
- Clausen, T. (1993): *Realkapital og petroleumsformue i Norge* (Real capital and petroleum wealth in Norway), Dissertation in economics, University of Oslo.
- Flåm, S. (1993): *Norsk Sildeformue* (Norwegian herring wealth). Working paper 88, SEFOS.
- Gray, L.C. (1914): Rent under the Assumption of Exhaustibility, *Quarterly Journal of Economics* 28, 466-489.
- Hannesson, R. (1991): *En samfunnsøkonomisk lønnsom fiskerinæring. Struktur, gevinst, forvaltning* (A socio-economically profitable fishery industry. Structure, gains, management), Working Paper 21/1991, SNF-Bergen.
- Hotelling, H. (1931): The Economics of Exhaustible Resources, *Journal of Political Economy* 39, 137-175.
- Hultkrantz, L. (1992): National Accounts of Timber and Forest Environmental Resources in Sweden, *Environmental and Resource Economics* 2, 283-305.
- Kjelby, T. (1993): *De norske torskefiskeriene som nasjonalformue* (Norwegian cod fisheries as national wealth), Working Paper 90, SEFOS.
- Lorentsen, L., Kartevoll T., Strøm S. (1980): Kalkulasjonsrenten (The discount rate), *Sosialøkonomen*, 6, 1980.
- Ministry of Oil and Energy (1980): *Norges fremtidige energibruk og produksjon* (Norway's future use of energy and production), St.meld.nr.54 (1979-1980).
- Ministry of Finance (1993): *Langtidsprogrammet 1994-1997*. (Long-Term Programme 1994-1997), St.meld.nr.4 (1992-1993).
- Ricardo, D.(1962): *The Principles of Political Economy and Taxation*, [1817], J.M. Dent & Son Ltd, London.
- Statistics Norway (1977-1991). *National Accounts Statistics*, Official Statistics of Norway NOS B 981.
- Statistics Norway (1991). *Wage Statistics 1990*, Official Statistics of Norway NOS B 999.
- Statistics Norway (1994). *Fishery Statistics 1990-1991*, Official Statistics of Norway NOS C 93.
- Statistics Norway (1993a): *Totalregnskap for fiske- og fangstnæringen 1987-1988* (Total accounts for the fishing and whaling industry 1987-1988) (Statistics Norway Report 91/9) and Official Statistics of Norway 1987-1990 NOS C 99.
- Statistics Norway (1993b): *Natural resources and the environment 1992*, Reports 93/1A, Statistics Norway.
- Thonstad, M. (1992): *Å sette pris på skogen* (Valuing the forest). Dissertation in economics, University of Oslo.

Research publications in English

New titles

Discussion Papers

Thor Olav Thoresen:

Distributional and Behavioural Effects of Child Care Subsidies

DP no. 135, 1995. pp. 42.

A methodology to describe the distributional and behavioural effects of child care subsidies is presented within a micro simulation framework. We discuss the effects of changing the governmental policy to support families with preschool children, from today's subsidisation of spaces at child care centres to an equal cash transfer to all families with preschoolers. In the decision model applied (Michalopoulos et al. 1992) the mother chooses consumption, market time and average quality of child care. The model is adjusted to the Norwegian child care market and data for mothers is assumed to respond most to the reform. Weaknesses in data and simplifying model assumptions imply that the results must be used with caution. Results from our simulation experiment do not indicate any large decrease in mothers labour supply, when altering the transfer system. The reform will give a substantial decrease in inequality among households with preschoolers, since the child care subsidies very much favour well-off households.

Tor Jakob Klette and Astrid Mathiassen:

Job Creation, Job Destruction and Plant Turnover in Norwegian Manufacturing

DP no. 136, 1995. pp. 36.

The labour market in Norway, as in other Scandinavian countries, is often claimed to be overregulated and incapable of adjustment to changes in job opportunities. The results presented in this paper suggest to the contrary that in terms of job creation and job reallocation between plants, the manufacturing sector in Norway is surprisingly flexible, and similar to the manufacturing sector in other OECD countries such as the U.S. We show that 8.4 percent of the manufacturing jobs are eliminated annually, while new jobs constitute 7.1 percent of manufacturing employment, in an average year. Even in a serious recession year, a considerable number of new jobs are created. The paper also examines

job creation in small versus large plants (and firms), as well as young versus old plants. The results provide support to selection models a la Jovanovic (1982), while vintage-capital models seem to be largely irrelevant as models of plant heterogeneity.

Karine Nyborg:

Project Evaluations and Decision Processes

DP no. 137, 1995. pp. 30.

Cost-benefit analysis have been attacked by many critics because of its implicit ethical assumptions. The normative content of the method is at odds with the common attitude that economists should analyze how to reach given goals, while determination of the goals should be left to the politicians. This paper presents a descriptive model of decision makers' behavior, demonstrating that rational, benevolent politicians will only in special cases accept the evaluation of projects resulting from a cost-benefit analysis. An alternative approach to project evaluation, which allows individual decision makers to rank projects in accordance with their own ethical views, is presented. In this framework, estimates of willingness to pay are generally not required. On the other hand, information about groups that are significantly affected by the project, as well as physical unit information on changes in the supply of public goods, is crucial.

Leif Andreassen:

A Framework for Estimating Disequilibrium Models with Many Markets

DP no. 138, 1995. pp. 80.

This paper presents a framework for estimating non-Walrasian models with many markets based on the virtual price approach in Lee (1986). The paper discusses an open economy multi-market non-Walrasian model with many agents and government production. The modeling of the labor markets is built on the assumption that each combination of worker and firm is a separate micro labor market. The econometric specification in the paper assumes log-linear virtual prices. Despite the use of such a simple specification it is apparent that when there are a large number of markets, the computational burden of estimation becomes heavy due to the large number of possible rationing re-

gimes. The model presented in the paper can be viewed as a basis for either doing econometric work within a multi-market representative agent framework or for developing methods for aggregating across micro markets.

Leif Andreassen:

Aggregation when Markets do not Clear

DP no. 139, 1995. pp. 80.

This paper presents a method for aggregation across markets in a Non-Walrasian model, focusing mainly on labor markets. The method utilized a probabilistic approach based on aggregating across virtual price functions instead of demand functions or budget shares as is normally done. By assuming log-linear virtual price functions and using the GEV distribution, it is possible to identify most of the micro structure of an economy in disequilibrium from observed aggregate variables. The paper discusses different possible indicators of disequilibrium in the labor market and presents some illustrative estimation results.

Terje Skjerpen:

Is there a Business Cycle Component in Norwegian Macroeconomic Quarterly Time Series?

DP no. 140, 1995. pp. 24.

Some main quarterly macroeconomic time series are decomposed into unobserved components within the framework of structural time series models using UCARIMA models. In the most general case we allow for a stationary cyclical component besides a stochastic seasonal and an irregular component. The cyclical component is either interpreted as a part of the trend component or as a component which is additive to the trend. For some of the investigated time series it is possible to extract business cycle component, but the parameters characterizing it are not very precisely estimated and besides the component itself does not seem to be important.

John K. Dagsvik:

Probabilistic Choice Models for Uncertain Outcomes

DP no. 141, 1995. pp. 38.

This paper discusses the problem of specifying probabilistic models for choices

(strategies) with uncertain outcomes. The most general case we consider is choice settings where the uncertain outcomes are sets which may contain more than one alternative. This is of interest for the following type of choice processes that take place in two stages: In stage one the agent has the choice between uncertain sets of alternatives and only knows the probabilities of which alternative that belongs to each set. Conditional of the choice in the first stage the content of the chosen set is revealed and the agent chooses (under perfect certainty) the most preferred one from this set. The standard setting in which the outcomes are single alternatives, follows as a special case of the model.

The point of departure is a generalization of Luce IIA assumption to choice experiments with uncertain outcomes and we analyse the implications when IIA is combined with particular assumptions about invariance with respect to aggregations of strategies.

Documents

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1*
NATIONAL ACCOUNTS FOR NORWAY

Table A1 Gross output, intermediate consumption and gross domestic product. At current prices. Million kroner ¹⁾²⁾

	1993	1994	93.1	93.2	93.3	93.4	94.1	94.2	94.3	94.4
Gross output	1397718	1471635	336028	342380	346473	372838	351883	365975	360128	393650
Mainland Norway	1196955	1261090	286587	292806	296799	320764	301574	312557	309916	337043
Intermediate consumption . .	663231	697391	158730	163645	161214	179642	167323	175037	167109	187923
Mainland Norway	590596	617347	141352	145903	143161	160181	147676	154922	148032	166717
Gross domestic product . . .	734488	774243	177299	178735	185259	193195	184561	190938	193018	205726
Mainland Norway	606359	643742	145235	146903	153638	160583	153898	157635	161883	170326

1) For the 4th quarter of 1994 the calculations are based upon forecasts or available estimations done by Statistics Norway.
2) Inconsistencies in the tables are due to computerized rounding.

2*
NATIONAL ACCOUNTS FOR NORWAY

Table A2 Expenditure on gross domestic product. At current prices. Million kroner ¹⁾²⁾

	1993	1994	93.1	93.2	93.3	93.4	94.1	94.2	94.3	94.4
Gross domestic product . . .	734488	774244	177299	178735	185259	193195	184561	190938	193019	205726
Final domestic use of										
goods and services	685152	725154	163098	161620	177454	182979	171645	178175	185351	189984
Final consumption										
expenditure	542242	572189	126249	131410	136375	148210	135721	139688	142712	154068
Private final con-										
sumption expenditure . . .	380464	402662	88011	91901	96362	104190	94616	97297	101590	109159
Specified domestic										
consumption	368812	390418	85389	89265	93465	100693	92417	94580	98047	105374
Direct purchases										
abroad, net	11651	12244	2622	2635	2897	3497	2200	2717	3542	3785
Government final										
consumption expendi-										
ture	161779	169527	38238	39509	40013	44019	41105	42391	41122	44909
Central government . . .	64723	67917	14337	15212	15778	19396	15856	16931	15834	19296
Civilian	43073	45047	10652	10320	10604	11496	11525	11154	10316	12052
Military	21650	22870	3685	4892	5174	7900	4331	5778	5518	7244
Local government	97056	101610	23900	24297	24235	24624	25249	25459	25288	25613
Gross capital forma-										
tion	142909	152965	36849	30211	41080	34770	35924	38487	42639	35916
Gross fixed capital										
formation	161152	141797	25522	39160	58514	37957	28569	33493	41894	37842
Industries	138392	119504	20888	34152	52997	30354	24152	28680	36509	30164
Oil activities	65307	39936	4931	17098	34684	8594	7210	9027	15695	8004
Other industries	73085	79568	15957	17054	18314	21761	16942	19652	20814	22160
Producers of										
government services . . .	22760	22292	4634	5007	5516	7602	4417	4813	5385	7678
Producers of										
central govern-										
ment services	10328	9012	1913	2344	2437	3633	1727	1902	1954	3428
Producers of										
local govern-										
ment services	12432	13281	2721	2663	3079	3969	2690	2911	3430	4250
Increase in stocks	-18243	11168	11327	-8949	-17434	-3187	7355	4994	745	-1926
Oil platforms in										
progress	-11027	16233	5243	-2028	-18544	4302	5197	5073	1632	4331
Other increase in										
stocks and stat-										
istical discrepancy	-7215	-5064	6084	-6920	1110	-7489	2158	-79	-887	-6257
Exports	316824	335672	75608	81313	79258	80646	80100	82394	84442	88736
Crude petroleum and										
natural gas	104069	107312	25721	26894	24499	26956	25722	27414	25128	29048
Other exports	212755	228361	49887	54419	54759	53690	54378	54980	59314	59689
- Imports	267487	286583	61407	64198	71452	70430	67185	69631	76774	72994

1) For the 4th quarter of 1994 the calculations are based upon forecasts or available estimations done by Statistics Norway.

2) Inconsistencies in the tables are due to computerized rounding.

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NATIONAL ACCOUNTS FOR NORWAY

Table A3 Expenditure on gross domestic product. At constant 1991-prices. Million kroner ¹⁾²⁾

	1993	1994	93.1	93.2	93.3	93.4	94.1	94.2	94.3	94.4
Gross domestic product . . .	727002	764371	175363	175053	182888	193698	186080	187340	188514	202437
Final domestic use of goods and services	657206	688248	157801	154404	170296	174705	164174	168932	175750	179392
Final consumption expenditure	520827	541091	122245	126108	130688	141785	129490	132341	134282	144978
Private final con- sumption expenditure . . .	364081	380120	84704	87747	92139	99490	90150	92000	95400	102570
Specified domestic consumption	352577	368501	82192	85127	89115	96143	88080	89400	91986	99035
Direct purchases abroad, net	11503	11619	2512	2620	3025	3347	2070	2601	3414	3534
Government final consumption expendi- ture	156747	160971	37541	38361	38549	42295	39340	40341	38882	42408
Central government . . .	62253	64124	13995	14667	15062	18529	15104	16051	14867	18102
Civilian	41559	42635	10393	9972	10152	11041	11008	10590	9702	11335
Military	20695	21489	3602	4695	4910	7487	4096	5461	5165	6767
Local government	94493	96848	23546	23695	23487	23767	24237	24290	24015	24306
Gross capital forma- tion	136379	147157	35556	28295	39607	32920	34684	36591	41467	34415
Gross fixed capital formation	152928	133962	24433	37256	55279	35960	26985	31729	39536	35712
Industries	130290	112414	19760	32262	49811	28457	22662	27030	34382	28341
Oil activities	62322	37500	4798	16400	32920	8203	6837	8525	14637	7501
Other industries	67968	74914	14961	15862	16891	20254	15825	18505	19744	20840
Producers of government services . .	22638	21548	4673	4993	5468	7504	4323	4699	5155	7371
Producers of central govern- ment services	10271	8707	1927	2340	2417	3587	1689	1858	1871	3289
Producers of local govern- ment services	12368	12841	2746	2654	3051	3917	2634	2842	3284	4081
Increase in stocks	-16549	13196	11124	-8961	-15672	-3040	7700	4862	1931	-1297
Oil platforms in progress	-10345	15410	5098	-1946	-17583	4086	4982	4802	1582	4044
Other increase in stocks and stat- istical discrepancy	-6203	-2214	6026	-7014	1911	-7126	2718	61	349	-5341
Exports	331864	357134	78202	84254	81956	87452	87476	87394	88410	93854
Crude petroleum and natural gas	113368	126076	26889	28261	26692	31525	31828	31259	28975	34013
Other exports	218495	231058	51313	55992	55264	55927	55648	56135	59434	59841
- Imports	262067	281011	60641	63604	69364	68459	65570	68986	75645	70810

1) For the 4th quarter of 1994 the calculations are based upon forecasts or available estimations done by Statistics Norway.

2) Inconsistencies in the tables are due to computerized rounding.

4*
NATIONAL ACCOUNTS FOR NORWAY

Table A4 Gross domestic product by kind of economic activity. At constant 1991-prices. Million kroner ¹⁾²⁾

	1993	1994	93.1	93.2	93.3	93.4	94.1	94.2	94.3	94.4
Gross domestic product . . .	727003	764372	175363	175053	182888	193698	186080	187340	188515	202437
Industries	561919	592415	136031	134072	141797	150020	144442	144401	146325	157247
Agriculture, forestry and fishing	21448	21701	4507	2264	10164	4512	4424	2873	9587	4818
Agriculture	12427	11680	1838	6	8483	2100	1646	263	7615	2156
Forestry	3383	3377	1333	928	306	816	1121	1029	335	893
Fishing, breeding of fish	5638	6644	1336	1330	1376	1596	1658	1580	1637	1769
Oil activities	118757	133591	28101	28386	29027	33243	32925	33366	30683	36618
Crude petroleum and natural gas	106966	120367	25309	25605	26220	29832	29621	30048	27661	33038
Pipeline transport	11791	13223	2792	2781	2807	3411	3304	3318	3022	3580
Manufacturing, mining and quarrying	97571	102457	24420	24450	23028	25673	24875	26438	24300	26845
Mining and quarrying	1713	1798	431	438	416	428	405	460	449	484
Manufacturing	95858	100659	23989	24012	22612	25245	24470	25978	23851	26361
Sheltered manufacturing	29980	30734	7202	7633	7194	7951	7273	7977	7538	7946
Export-oriented manufacturing	18162	19450	4492	4551	4444	4676	4814	4834	4792	5012
Import-competing manufacturing	47715	50475	12296	11828	10974	12618	12383	13167	11521	13403
Electricity	28523	26921	8032	6171	5920	8400	8070	5905	5551	7396
Construction	23943	24944	5211	5903	5854	6975	5348	5974	6199	7422
Wholesale and retail trade	69003	73463	15346	16852	17360	19445	16672	18019	18276	20496
Ocean transport and oil drilling	20861	20345	5336	5046	5190	5288	5274	4922	5172	4977
Ocean transport	19113	18553	4909	4609	4797	4798	4686	4564	4786	4517
Oil drilling	1748	1792	427	437	393	491	588	358	386	460
Transport and communication	41082	44833	9822	10335	10789	10136	10586	11254	11151	11842
Dwellings	34080	34245	8513	8516	8521	8530	8540	8551	8566	8588
Financial services	27432	27849	6716	6766	6945	7005	6847	6846	7124	7033
Other industries	79219	82065	20026	19383	18998	20812	20882	20254	19715	21214
Hotels and restaurants	9005	9695	1920	2213	2860	2012	2145	2364	3053	2134
Business services and rental services	33690	34833	9021	8177	7561	8931	9368	8575	7901	8989
Other service industries	36524	37537	9084	8993	8578	9869	9369	9315	8762	10091
Producers of government services	119119	121668	29333	30157	29336	30292	30220	30792	29857	30799
Producers of central government services	34599	34958	8175	9011	8406	9007	8516	9098	8384	8960
Civilian	26184	26653	6176	6846	6358	6804	6549	6940	6301	6863
Military	8416	8305	1999	2166	2049	2203	1967	2158	2083	2097
Producers of local government services	84519	86710	21158	21146	20930	21285	21704	21694	21473	21839
Correction items	45966	50290	10000	10824	11755	13387	11418	12148	12333	14391
Accrued value added tax and investment levy	61304	64649	13870	14613	15398	17423	15011	15523	16006	18109
Indirect taxes adjustment	8122	9457	1882	2013	2237	1990	2272	2495	2358	2331
Imputed bank service charge	-23460	-23816	-5753	-5802	-5880	-6025	-5865	-5870	-6031	-6049
MEMO:										
Mainland Norway	587384	610436	141926	141621	148671	155167	147882	149053	152659	160842
Sheltered activities	510773	528692	122038	122547	131155	135033	127502	127983	133926	139281
Export-oriented industries	19875	21248	4923	4989	4860	5104	5218	5294	5241	5496
Import-competing industries	56736	60496	14965	14086	12656	15030	15162	15777	13493	16065

1) For the 4th quarter of 1994 the calculations are based upon forecasts or available estimations done by Statistics Norway.

2) Inconsistencies in the tables are due to computerized rounding.

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Table A5 Production and income. At current prices. Million kroner ¹⁾²⁾

	1993	1994	93.1	93.2	93.3	93.4	94.1	94.2	94.3	94.4
Gross domestic product . . .	734488	774244	177299	178735	185259	193195	184561	190938	193019	205726
- Interest, dividends etc. to abroad, net	24351	12081	7405	8300	1864	6782	2286	5468	1254	3073
Gross national product	710137	762163	169894	170435	183395	186413	182275	185470	191765	202653
- Consumption of fixed capital	109026	111636	26449	27098	27608	27871	27536	27698	27987	28415
National income	601111	650527	143445	143337	155787	158542	154739	157772	163777	174238
- Transfers to abroad, net	9921	11260	1660	1851	1915	4495	2262	2322	2497	4179
Disposable income for Norway	591190	639267	141785	141486	153872	154047	152477	155450	161280	170059
- Final consumption expenditure	542242	572189	126249	131410	136375	148210	135721	139688	142712	154068
Saving for Norway	48948	67077	15537	10077	17497	5837	16756	15762	18568	15991
Real disposable income for Norway ³⁾	566610	606231	136818	134944	147847	147001	145915	147156	152754	160407

1) For the 4th quarter of 1994 the calculations are based upon forecasts or available estimations done by Statistics Norway.

2) Inconsistencies in the tables are due to computerized rounding.

3) Deflated by price index (1991=100) of final domestic use of goods and services, excl. consumption of fixed capital.

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NATIONAL ACCOUNTS FOR NORWAY

Table A6 Balance of payments. Summary. Million kroner ¹⁾

	1993	1994	93.1	93.2	93.3	93.4	94.1	94.2	94.3	94.4
Current account										
Exports	316835	335682	75611	81318	79259	80647	80102	82396	84446	88739
Merchandise	227875	246294	54622	59608	54200	59445	58544	60203	59846	67702
Services	88960	89388	20989	21710	25059	21201	21558	22193	24600	21036
Imports	267488	286582	61407	64198	71453	70430	67185	69631	76773	72993
Merchandise	176760	194275	41194	41691	45245	48631	46370	46762	50015	51128
Services	90728	92308	20213	22507	26208	21800	20815	22870	26758	21865
Export surplus of goods and services	49347	49100	14204	17120	7806	10217	12917	12765	7673	15746
Interest and transfers										
From abroad	21891	24397	5544	5427	5793	5127	8396	5477	4978	5547
Interest	15977	19013	3935	4280	4279	3484	6102	4354	4053	4504
Dividends etc.	2370	2976	803	373	540	655	1617	560	433	365
Transfers	3544	2408	806	775	974	989	676	562	492	679
To abroad	56165	47737	14608	15579	9572	16405	12944	13266	8728	12799
Interest	25002	24839	6744	6233	5548	6477	6890	6204	4782	6963
Dividends etc.	17698	9229	5399	6720	1135	4444	3115	4178	958	979
Transfers	13465	13669	2466	2626	2889	5484	2938	2884	2989	4858
Net interest and transfers from abroad	-34274	-23340	-9065	-10152	-3779	-11278	-4548	-7790	-3751	-7252
Surplus on current account ..	15073	25760	5140	6968	4027	-1062	8369	4975	3922	8494
Net changes in assets and liabilities not created by transactions etc.										
Allocations of SDR's	-	-	-	-	-	-	-	-	-	-
Net changes in assets and liabilities due to changes in exchange rates										
Bank of Norway's foreign assets	7444	-4486	-229	3460	732	3481	-809	-2265	-678	-734
Other bank deposits and short-term loans ...	-2851	2541	-250	-226	-985	-1389	359	1343	967	-128
Long-term loans	-27138	14237	-11291	-2362	-4523	-8962	1226	7406	5778	-172
Loans to abroad	9245	-4935	3439	209	1538	4058	-795	-2392	-1827	79
Other assets and liabilities	..	..	..	..	..	..	..	..	..	..
Revaluations	3946	-4887	1091	145	1798	912	-2125	-1528	-984	-249
Decrease in the net debt of Norway	5719	28230	-2100	8193	2587	-2962	6225	7539	7177	7290
Capital account										
Net inflow on long-term capital transactions	7615	-19682	-1108	15971	-10086	2838	-6005	-5453	-4443	-3782
Net inflow on known short-term transactions	-13538	-421	6116	-17924	-6415	4685	-1793	2052	1785	-2466
Net inflow on other short-term capital transactions (incl. errors and omissions) .	-9150	-5657	-10148	-5015	12474	-6461	-571	-1575	-1264	-2246
Total net inflow on capital transactions	-15073	-25760	-5140	-6968	-4027	1062	-8369	-4975	-3922	-8494
Net changes in assets and liabilities due to changes in exchange rates etc.	9354	-2470	7240	-1225	1440	1900	2144	-2563	-3255	1204
Increase in the net debt of Norway	-5719	-28230	2100	-8193	-2587	2962	-6225	-7539	-7177	-7290

1) Inconsistencies in the tables are due to computerized rounding.

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Table A7 Expenditure on gross domestic product. Growth rates. Percentage change from preceding year ¹⁾

	1994	94.1	94.2	94.3	94.4	1994	94.1	94.2	94.3	94.4
	A.	Percentage change in volume from preceding year				B.	Percentage change in prices from preceding year			
Gross domestic product . . .	5.1	6.1	7.0	3.1	4.5	0.3	-1.9	-0.2	1.1	1.9
Final domestic use of goods and services	4.7	4.0	9.4	3.2	2.7	1.1	1.2	0.8	1.2	1.1
Final consumption expenditure	3.9	5.9	4.9	2.8	2.3	1.6	1.5	1.3	1.8	1.7
Private final con- sumption expenditure . . .	4.4	6.4	4.8	3.5	3.1	1.4	1.0	1.0	1.8	1.6
Specified domestic consumption	4.5	7.2	5.0	3.2	3.0	1.3	1.0	0.9	1.6	1.6
Direct purchases abroad, net	1.0	-17.6	-0.7	12.9	5.6	4.0	1.8	3.9	8.3	2.5
Government final consumption expenditure	2.7	4.8	5.2	0.9	0.3	2.0	2.6	2.0	1.9	1.8
Central government . . .	3.0	7.9	9.4	-1.3	-2.3	1.9	2.5	1.7	1.7	1.8
Civilian	2.6	5.9	6.2	-4.4	2.7	1.9	2.1	1.8	1.8	2.1
Military	3.8	13.7	16.3	5.2	-9.6	1.7	3.4	1.5	1.4	1.5
Local government	2.5	2.9	2.5	2.3	2.3	2.1	2.6	2.2	2.0	1.7
Gross capital formation . .	7.9	-2.5	29.3	4.7	4.5	-0.8	-0.1	-1.5	-0.9	-1.2
Gross fixed capital formation	-12.4	10.4	-14.8	-28.5	-0.7	0.4	1.3	0.4	0.1	0.4
Industries	-13.7	14.7	-16.2	-31.0	-0.4	0.1	0.8	0.2	-0.2	-0.2
Oil activities	-39.8	42.5	-48.0	-55.5	-8.6	1.6	2.6	1.6	1.8	1.9
Other industries	10.2	5.8	16.7	16.9	2.9	-1.2	0.4	-1.2	-2.8	-1.0
Producers of government services . .	-4.8	-7.5	-5.9	-5.7	-1.8	2.9	3.0	2.1	3.5	2.8
Producers of central govern- ment services	-15.2	-12.4	-20.6	-22.6	-8.3	2.9	3.0	2.2	3.6	2.9
Producers of local govern- ment services	3.8	-4.1	7.1	7.6	4.2	2.9	3.0	2.1	3.5	2.8
Increase in stocks	-179.7	-30.8	-154.3	-112.3	-57.3	-23.2	-6.2	2.8	-65.3	41.6
Oil platforms in progress	-249.0	-2.3	-346.7	-109.0	-1.0	-1.2	1.4	1.4	-2.2	1.7
Other increase in stocks and stat- istical discrepancy	-64.3	-54.9	-100.9	-81.7	-25.0	96.7	-21.3	-232.3	-537.2	11.5
Exports	7.6	11.9	3.7	7.9	7.3	-1.5	-5.3	-2.3	-1.2	2.5
Crude petroleum and natural gas	11.2	18.4	10.6	8.6	7.9	-7.3	-15.5	-7.8	-5.5	-0.1
Other exports	5.7	8.4	0.3	7.5	7.0	1.5	0.5	0.8	0.7	3.9
- Imports	7.2	8.1	8.5	9.1	3.4	-0.1	1.2	-0.0	-1.5	0.2

1) For the 4th quarter of 1994 the calculations are based upon forecasts or available estimations done by Statistics Norway.

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Table A8 Gross domestic product by kind of economic activity. Growth rates.
Percentage change in volume from preceding year ¹⁾

	1994	94.1	94.2	94.3	94.4
Gross domestic product . . .	5.1	6.1	7.0	3.1	4.5
Industries	5.4	6.2	7.7	3.2	4.8
Agriculture, forestry and fishing	1.2	-1.8	26.9	-5.7	6.8
Agriculture	-6.0	-10.4	..	-10.2	2.7
Forestry	-0.2	-15.9	10.9	9.3	9.4
Fishing, breeding of fish	17.9	24.1	18.8	19.0	10.9
Oil activities	12.5	17.2	17.5	5.7	10.2
Crude petroleum and natural gas	12.5	17.0	17.4	5.5	10.7
Pipeline transport	12.1	18.3	19.3	7.7	5.0
Manufacturing, mining and quarrying	5.0	1.9	8.1	5.5	4.6
Mining and quarrying	5.0	-6.0	5.1	7.9	13.0
Manufacturing	5.0	2.0	8.2	5.5	4.4
Sheltered manufacturing	2.5	1.0	4.5	4.8	-0.1
Export-oriented manufacturing	7.1	7.2	6.2	7.8	7.2
Import-competing manufacturing	5.8	0.7	11.3	5.0	6.2
Electricity	-5.6	0.5	-4.3	-6.2	-12.0
Construction	4.2	2.6	1.2	5.9	6.4
Wholesale and retail trade	6.5	8.6	6.9	5.3	5.4
Ocean transport and oil drilling	-2.5	-1.2	-2.5	-0.3	-5.9
Ocean transport	-2.9	-4.5	-1.0	-0.2	-5.8
Oil drilling	2.5	37.6	-18.1	-1.8	-6.3
Transport and communication	9.1	7.8	8.9	3.4	16.8
Dwellings	0.5	0.3	0.4	0.5	0.7
Financial services	1.5	1.9	1.2	2.6	0.4
Other industries	3.6	4.3	4.5	3.8	1.9
Hotels and restaurants	7.7	11.7	6.8	6.8	6.1
Business services and rental services	3.4	3.8	4.9	4.5	0.6
Other service industries	2.8	3.1	3.6	2.1	2.2
Producers of government services	2.1	3.0	2.1	1.8	1.7
Producers of central government services	1.0	4.2	1.0	-0.3	-0.5
Civilian	1.8	6.0	1.4	-0.9	0.9
Military	-1.3	-1.6	-0.4	1.7	-4.8
Producers of local government services	2.6	2.6	2.6	2.6	2.6
Correction items	9.4	14.2	12.2	4.9	7.5
Accrued value added tax and investment levy	5.5	8.2	6.2	4.0	3.9
Indirect taxes adjustment	16.4	20.7	24.0	5.4	17.2
Imputed bank service charge	1.5	1.9	1.2	2.6	0.4
MEMO:					
Mainland Norway	3.9	4.2	5.2	2.7	3.7
Sheltered activities	3.5	4.5	4.4	2.1	3.1
Export-oriented industries	6.9	6.0	6.1	7.8	7.7
Import-competing industries	6.6	1.3	12.0	6.6	6.9

1) For the 4th quarter of 1994 the calculations are based upon forecasts or available estimations done by Statistics Norway.

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Table A9 Private final consumption expenditure. Growth rates. Percentage change from preceding year ¹⁾

	1994	94.1	94.2	94.3	94.4	1994	94.1	94.2	94.3	94.4
	A.	Percentage change in volume from preceding year				B.	Percentage change in prices from preceding year			
Private final consumption expenditure . .	4.4	6.4	4.8	3.5	3.1	1.4	1.0	1.0	1.8	1.6
Specified domestic consumption	4.5	7.2	5.0	3.2	3.0	1.3	1.0	0.9	1.6	1.6
Food	5.2	9.8	2.6	6.1	3.1	0.8	-0.2	0.5	1.3	1.4
Beverages and tobacco	-0.9	4.6	-1.4	-3.2	-2.5	3.1	1.3	1.9	4.9	4.0
Clothing and foot- wear	2.8	3.2	4.7	-1.3	4.4	1.4	2.9	1.5	1.4	0.4
Gross rent, power and fuel	0.5	5.4	1.1	-1.6	-3.1	1.0	0.7	0.5	1.2	1.6
Furniture, furnish- ings and household equipment	5.3	7.9	6.3	2.2	5.2	1.4	1.2	1.3	1.5	1.6
Medical care and health expenses	3.4	4.3	3.5	3.6	2.2	2.1	1.6	1.5	2.1	3.0
Transport and commu- nication	13.2	12.7	17.6	8.5	14.0	0.9	0.8	-0.0	1.7	1.3
Recreation, enter- tainment, education and cultural service	4.7	4.0	7.1	5.2	2.9	1.6	2.3	1.6	1.4	1.1
Other goods and ser- vices	4.3	6.7	3.5	4.2	3.0	1.5	1.5	1.4	1.4	1.6
Correction items	1.0	-17.6	-0.7	12.9	5.6	4.0	1.8	3.9	8.3	2.5
Direct purchases abroad by resident households	6.8	5.6	6.8	10.7	2.4	2.5	1.7	2.2	3.6	1.9
Direct purchases in Norway by non- resident households	11.9	31.5	13.1	9.4	-1.8	1.1	1.4	0.7	1.2	1.1

1) For the 4th quarter of 1994 the calculations are based upon forecasts or available estimations done by Statistics Norway.

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Table A10 Gross fixed capital formation by type of capital goods and economic activity. Growth rates.
Percentage change from preceding year ¹⁾

	1994	94.1	94.2	94.3	94.4	1994	94.1	94.2	94.3	94.4
	A.	Percentage change in volume from preceding year				B.	Percentage change in prices from preceding year			
Gross fixed capital formation	-12.4	10.4	-14.8	-28.5	-0.7	0.4	1.4	0.4	0.1	0.4
Residential and non-residential buildings, constructions etc.	7.1	2.0	2.8	11.2	10.6	4.0	3.7	3.0	5.1	4.1
Capitalized expenses on oil exploration and drilling, pipelines for oil and gas	20.7	31.5	40.8	20.2	-3.8	2.1	2.8	2.4	1.7	2.0
Ships and boats	60.9	84.7	-291.5	-19.7	-111.0	-41.2	-28.8	..	-33.6	-200.8
Aircraft, motor vehicles etc. and rolling stock	12.7	-11.5	56.0	21.4	-1.5	5.9	10.0	12.6	2.0	-0.4
Oil drilling rigs and ships, oil production platforms etc.	-76.3	-90.4	-97.7	-70.0	-31.3	3.9	514.5	27.2	1.2	0.7
Other machinery and equipment	3.3	6.7	-2.3	2.4	6.7	-0.5	0.8	-1.1	-0.8	-0.6
Industries	-13.7	14.7	-16.2	-31.0	-0.4	0.1	0.8	0.2	-0.2	-0.2
Agriculture, forestry and fishing	3.8	-4.9	3.4	-5.4	26.3	-1.8	1.8	-2.0	-0.7	-6.2
Agriculture	3.8	5.0	3.8	-0.8	9.0	1.8	2.6	1.3	2.4	1.1
Forestry	-6.3	12.4	-20.7	-9.1	8.6	2.1	2.1	2.2	2.6	1.3
Fishing, breeding of fish	7.6	-26.5	15.6	-21.4	321.1	-15.4	1.9	-18.1	-12.4	-57.9
Oil activities	-39.8	42.5	-48.0	-55.5	-8.6	1.6	2.6	1.6	1.8	1.9
Crude petroleum and natural gas	-47.9	50.0	-63.9	-60.1	-6.8	1.5	2.6	1.1	1.8	1.8
Pipeline transport	31.1	20.7	89.4	28.2	-15.0	2.1	2.8	2.4	1.7	1.9
Manufacturing, mining and quarrying	2.8	-1.5	-1.5	4.5	7.4	1.3	2.4	0.9	1.1	1.2
Mining and quarrying	4.6	-13.3	-8.7	-6.7	43.1	1.8	2.9	1.6	1.6	1.4
Manufacturing	2.7	-1.2	-1.3	4.9	6.6	1.3	2.4	0.9	1.1	1.2
Sheltered manufacturing	-3.3	-4.4	-14.2	6.1	-0.5	1.6	2.5	1.3	1.2	1.4
Export-oriented manufacturing	9.6	-12.2	-0.3	8.5	33.6	0.7	1.7	0.0	0.4	0.5
Import-competing manufacturing	5.3	7.7	12.4	2.2	1.3	1.4	2.6	0.9	1.4	1.2
Electricity supply	-15.4	-32.9	-14.1	-24.6	4.7	1.7	2.3	0.8	2.1	1.6
Construction	2.0	5.3	5.4	-11.3	10.2	2.1	4.2	2.8	1.1	0.9
Wholesale and retail trade	14.2	10.2	21.1	12.8	13.2	4.1	8.6	7.3	0.9	1.0
Ocean transport and oil drilling	14.6	25.1	..	267.8	-116.5	-37.2	-22.6	-117.2	-77.3	-132.7
Ocean transport	60.3	85.3	-250.1	-17.8	-120.7	-43.4	-32.5	550.3	-35.3	-124.1
Oil drilling	-360.1	..	-122.5	-106.2	-88.4	-57.9	-1.4	-32.2	16.8	-22.6
Transport and communication	1.4	-3.3	-4.3	24.5	-7.4	3.3	3.6	7.4	2.4	0.1
Dwellings	33.8	23.7	34.8	39.4	36.3	4.1	3.7	3.0	5.2	4.2
Financial services	9.1	2.4	5.1	13.9	14.8	1.1	1.3	1.0	1.1	0.8
Other industries	20.5	11.3	15.1	27.0	26.9	3.7	4.1	3.2	4.1	3.2
Hotels and restaurants	26.2	25.3	37.3	20.0	24.2	3.4	6.9	6.4	0.7	0.4
Commercial buildings	32.2	15.9	19.0	45.3	43.1	5.4	5.2	4.2	6.6	5.1
Water supply	2.5	2.8	3.3	1.9	2.2	3.8	3.6	2.9	4.9	4.0
Other service industries	7.7	6.5	11.4	7.1	6.3	0.9	2.5	1.5	-0.1	-0.2
Producers of government services	-4.8	-7.5	-5.9	-5.7	-1.8	2.9	3.0	2.1	3.5	2.8
Producers of central government services	-15.2	-12.4	-20.6	-22.6	-8.3	2.9	3.0	2.2	3.6	2.9
Producers of local government services	3.8	-4.1	7.1	7.6	4.2	2.9	3.0	2.1	3.5	2.8
MEMO:										
Mainland Norway	6.2	1.1	4.2	8.4	9.4	2.6	3.5	2.9	2.7	1.8
Sheltered activities	6.2	1.6	4.0	9.6	8.4	3.0	3.7	3.4	3.1	2.2
Export-oriented industries	9.0	-12.3	-1.4	6.4	34.6	0.8	1.8	0.2	0.6	0.6
Import-competing industries	4.9	0.1	10.1	-2.0	11.5	-1.1	2.0	-2.1	-0.7	-3.0

1) For the 4th quarter of 1994 the calculations are based upon forecasts or available estimations done by Statistics Norway.

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Table A11 Exports of goods and services. Growth rates. Percentage change from preceding year ¹⁾

	1994	94.1	94.2	94.3	94.4	1994	94.1	94.2	94.3	94.4
	A.	Percentage change in volume from preceding year				B.	Percentage change in prices from preceding year			
Total exports	7.6	11.9	3.7	7.9	7.3	-1.5	-5.3	-2.3	-1.2	2.5
Goods	10.5	15.7	4.6	11.7	10.7	-2.2	-7.3	-3.5	-1.1	2.9
Crude petroleum and natural gas from the North Sea	11.2	18.4	10.6	8.6	7.9	-7.3	-15.5	-7.8	-5.5	-0.1
Ships, new	23.4	2.8	-83.3	950.8	659.5	1.9	1.0	0.7	1.4	1.7
Ships, second-hand	-40.7	-63.4	-42.2	-31.7	-23.8	1.4	3.7	0.0	-0.9	2.1
Oil platforms and moduls, new	-98.6	857.1	-90.5	-99.9	-98.6	-0.5	4.5	2.5	-5.0	-4.8
Oil platforms, second-hand	-17.7	..	..	-100.0	..	-6.3	..	..	..	..
Direct exports in relation to oil activities	30.3	9.3	24.4	8.4	124.8	2.6	2.7	2.7	2.1	2.6
Other goods	14.3	16.7	7.0	20.3	13.9	1.6	-0.6	0.3	1.7	4.7
Products from agri- culture, forestry and fishing	10.9	19.7	6.9	11.6	7.8	3.7	-0.3	3.7	0.7	9.0
Mining products	0.9	11.8	-5.2	0.5	-0.6	2.0	-5.5	2.2	2.3	7.9
Manufacturing pro- ducts	15.2	16.9	7.7	21.8	15.1	1.4	-0.5	-0.0	1.4	4.5
Food, beverages and tobacco	19.1	17.7	12.2	28.5	18.8	0.2	-1.2	2.4	1.3	-1.1
Printed books, newspapers etc.	4.8	2.4	12.9	-8.1	14.3	3.5	4.5	4.2	2.4	3.3
Paper and paper products	14.5	14.3	12.2	25.6	7.3	3.2	-3.1	1.5	3.6	10.3
Industrial chemicals	6.5	-14.2	16.4	17.5	10.9	4.5	4.8	2.1	-2.4	13.3
Refined petroleum products	19.9	30.8	-8.4	35.9	33.7	-8.9	-8.2	-12.6	-5.7	-8.1
Metals	10.3	17.0	9.2	14.1	1.8	10.5	3.0	8.7	10.1	20.3
Textiles and wearing apparel	36.0	6.9	11.7	62.6	61.0	-4.3	1.4	2.0	-6.7	-9.9
Wood products, furniture and fixtures	7.5	7.7	12.3	3.7	6.5	8.3	3.1	6.1	10.4	12.9
Chemical and mineral products	18.3	5.5	17.2	29.6	21.5	-3.9	-1.1	-4.0	-7.2	-3.0
Other metal pro- ducts, machinery and equipment	18.2	38.6	1.9	16.8	18.2	-1.5	-2.7	-4.0	1.4	-0.7
Electricity	-43.4	-24.7	-52.1	-36.7	-54.5	31.0	10.7	37.1	68.6	10.3
Services	-0.9	0.9	1.0	-1.7	-3.7	1.4	1.8	1.2	-0.1	3.1
Gross receipts from shipping	-4.6	-8.9	-3.2	-0.9	-5.3	0.9	0.5	0.5	-2.1	4.8
Gross receipts from oil drilling	1.7	76.6	-26.8	-2.6	-12.5	0.2	6.5	5.2	-4.8	-5.7
Direct exports in relation to other oil activities	7.6	14.8	16.0	2.2	-1.1	5.5	5.8	5.5	5.1	5.7
Exports of pipeline services	9.7	26.3	32.8	24.6	-23.5	4.2	4.4	-2.3	10.6	3.5
Direct purchases in Norway by non- resident households	11.9	31.5	13.1	9.4	-1.8	1.1	1.4	0.7	1.2	1.1
Other services	-2.3	2.3	2.3	-14.1	1.3	2.1	2.9	2.5	2.1	0.9

1) For the 4th quarter of 1994 the calculations are based upon forecasts or available estimations done by Statistics Norway.

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Table A12 Imports of goods and services. Growth rates. Percentage change from preceding year ¹⁾

	1994	94.1	94.2	94.3	94.4	1994	94.1	94.2	94.3	94.4
	A.	Percentage change in volume from preceding year				B.	Percentage change in prices from preceding year			
Total imports	7.2	8.1	8.5	9.1	3.4	-0.1	1.2	-0.0	-1.5	0.2
Goods	11.4	12.7	13.7	14.0	5.6	-1.3	-0.2	-1.4	-3.0	-0.5
Ships, new and second-hand	-18.3	-8.8	152.7	-35.8	-71.2	-19.0	-6.1	-23.1	-35.6	-16.3
Oil platforms and moduls, new and second-hand	71.1	900.9	-93.8	537.6	-54.8	-26.8	10.4	-18.7	-29.4	-36.0
Direct imports in relation to oil activities	-65.5	11.5	-91.5	-58.9	-31.8	5.3	5.8	5.6	5.1	5.7
Other goods	14.9	14.0	18.6	15.7	11.6	0.4	0.6	0.1	0.0	0.9
Products from agri- culture, forestry and fishing	34.0	20.5	15.4	66.4	40.6	6.8	4.2	9.0	6.9	6.8
Crude petroleum	-26.3	-21.4	-33.6	-24.6	-27.0	-8.0	-7.0	-2.3	-12.6	-8.5
Mining products	4.2	21.5	11.2	-5.4	-7.9	6.3	12.8	-1.3	5.4	10.6
Manufacturing pro- ducts	14.4	13.5	18.9	14.8	10.9	-0.0	-0.1	-0.4	-0.2	0.7
Food, beverages and tobacco	3.0	-0.9	10.3	1.3	1.3	6.0	6.6	6.9	7.2	3.8
Printed books, newspapers etc.	4.3	9.8	13.8	1.2	-3.4	-3.4	-1.5	-7.5	-7.2	1.5
Paper and paper products	12.4	18.2	15.6	12.6	4.7	1.2	-3.4	-1.4	1.7	7.5
Industrial chemicals	7.9	17.8	6.5	5.3	3.1	5.3	-0.7	3.1	6.7	12.4
Refined petroleum products	14.8	23.1	27.5	13.0	-0.4	-1.1	0.8	-0.0	1.1	-5.6
Metals	20.7	32.0	6.8	26.0	19.9	0.7	-4.6	-3.7	3.1	7.4
Textiles and wearing apparel	10.6	5.5	8.6	12.9	15.0	-2.2	-3.2	1.8	-3.4	-3.0
Wood products, furniture and fixtures	18.9	10.3	33.6	21.6	12.6	3.9	2.7	0.8	4.3	7.1
Chemical and mineral products	7.8	5.3	11.8	9.8	4.8	0.2	1.5	0.7	-1.6	0.4
Other metal pro- ducts, machinery and equipment	17.2	12.4	25.4	15.0	16.3	-2.3	-0.4	-3.3	-2.4	-2.8
Transport equip- ment not pro- duced in Norway	41.3	51.4	76.9	53.0	4.8	3.2	6.8	2.7	1.3	3.1
Electricity	790.3	..	..	775.1	391.7	44.3	104.7	113.2	40.6	-14.7
Services	-1.3	-1.8	-1.9	-0.0	-1.8	3.1	4.8	3.6	2.1	2.1
Gross expenditure for shipping	-3.9	-10.6	-3.3	-0.0	-1.4	4.1	9.8	5.8	-0.5	1.5
Gross expenditure for oil drilling	-30.8	-22.7	-35.2	-43.0	-16.7	5.5	5.9	5.5	5.1	5.7
Direct imports in relation to other oil activities	15.9	55.5	17.0	3.0	16.9	4.4	5.1	5.0	4.1	4.1
Direct purchases abroad by resident households	6.8	5.9	7.1	10.4	2.4	2.5	1.7	2.2	3.6	1.9
Other services	-8.9	-5.2	-10.7	-11.2	-8.3	2.6	3.1	2.6	2.3	2.5

1) For the 4th quarter of 1994 the calculations are based upon forecasts or available estimations done by Statistics Norway.

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Table A13 Gross output by kind of economic activity. At constant 1991-prices. Million kroner ¹⁾²⁾

	1993	1994	93.1	93.2	93.3	93.4	94.1	94.2	94.3	94.4
Gross output	1379851	1442061	332598	336521	340866	369866	349626	358131	351292	383013
Industries	1130337	1182900	273993	276176	279006	301162	287328	294401	288516	312656
Agriculture, forestry and fishing	45698	46996	9272	10172	16518	9736	9569	11061	16212	10154
Agriculture	28271	27173	4519	5908	12875	4969	4298	6082	11911	4883
Forestry	3966	3958	1563	1088	359	957	1314	1206	392	1046
Fishing, breeding of fish	13461	15865	3190	3176	3285	3811	3958	3773	3909	4225
Oil activities	157025	176646	37156	37541	38397	43930	43526	44116	40575	48429
Crude petroleum and natural gas	143793	161808	34023	34420	35247	40103	39819	40393	37184	44413
Pipeline transport	13231	14838	3133	3121	3150	3828	3707	3723	3391	4017
Manufacturing, mining and quarrying	344493	360984	86239	86417	81376	90461	88190	93254	85561	93979
Mining and quarrying	4266	4478	1073	1090	1037	1067	1008	1145	1119	1205
Manufacturing	340226	356506	85166	85327	80339	89394	87181	92109	84443	92774
Sheltered manufacturing	104338	107754	25093	26674	24789	27783	25365	28167	26134	28089
Export-oriented manufacturing	80887	86425	19912	20357	19923	20696	21353	21536	21304	22232
Import-competing manufacturing	155001	162327	40162	38296	35627	40916	40464	42405	37005	42453
Electricity	58741	55442	16542	12708	12191	17300	16620	12160	11432	15231
Construction	72957	76008	15880	17986	17838	21253	16297	18205	18889	22617
Wholesale and retail trade	110367	117501	24546	26954	27766	31101	26667	28821	29232	32782
Ocean transport and oil drilling	50903	49076	12893	12736	12499	12777	12218	12261	12407	12189
Ocean transport	47589	45678	12083	11907	11753	11846	11104	11582	11675	11317
Oil drilling	3314	3398	810	829	746	931	1114	679	732	872
Transport and communication	78840	83328	18617	19655	20388	20180	19713	20921	20619	22074
Dwellings	44410	44625	11093	11098	11104	11115	11129	11143	11163	11191
Financial services	41313	41942	10114	10190	10460	10550	10311	10310	10729	10592
Other industries	125590	130352	31642	30719	30469	32759	33088	32149	31696	33419
Hotels and restaurants	18987	20442	4049	4666	6030	4242	4522	4984	6437	4500
Business services and rental services	56524	58441	15135	13719	12686	14984	15718	14387	13255	15081
Other service industries	50079	51470	12459	12334	11754	13532	12849	12778	12004	13838
Producers of government services	180089	185055	42852	43719	44226	49293	45016	45711	44411	49917
Producers of central government services	68063	70045	14862	15960	16542	20699	16233	17200	16019	20593
Civilian	46209	47387	10967	11007	11364	12871	11977	11595	10614	13201
Military	21853	22657	3896	4952	5178	7828	4255	5605	5405	7392
Producers of local government services	112026	115010	27990	27759	27684	28593	28783	28512	28392	29324
Correction items	69426	74105	15753	16626	17635	19412	17283	18018	18364	20440
Accrued value added tax and investment levy	61304	64649	13870	14613	15398	17423	15011	15523	16006	18109
Indirect taxes adjustment	8122	9457	1882	2013	2237	1990	2272	2495	2358	2331
MEMO:										
Mainland Norway	1171924	1216339	282550	286245	289970	313159	293882	301754	298309	322394
Sheltered activities	914342	943286	216650	222238	229741	245714	225786	231687	234581	251233
Export-oriented industries	85154	90902	20985	21447	20960	21762	22361	22682	22422	23437
Import-competing industries	172428	182151	44915	42560	39270	45683	45735	47385	41307	47724

1) For the 4th quarter of 1994 the calculations are based upon forecasts or available estimations done by Statistics Norway.

2) Inconsistencies in the tables are due to computerized rounding.

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Table A14 Intermediate consumption by kind of economic activity. At constant 1991-prices. Million kroner ¹⁾²⁾

	1993	1994	93.1	93.2	93.3	93.4	94.1	94.2	94.3	94.4
Intermediate consumption . .	652848	677690	157235	161468	157978	176168	163546	170791	162777	180576
Industries	568418	590486	137962	142104	137209	151142	142886	150001	142192	155409
Agriculture, forestry and fishing	24250	25295	4765	7907	6354	5224	5145	8189	6626	5336
Agriculture	15844	15493	2681	5902	4392	2869	2652	5818	4296	2727
Forestry	582	581	230	160	53	141	193	177	58	154
Fishing, breeding of fish	7824	9221	1854	1846	1909	2215	2301	2193	2272	2456
Oil activities	38267	43056	9055	9155	9370	10687	10601	10750	9892	11812
Crude petroleum and natural gas	36827	41441	8714	8815	9027	10271	10198	10345	9523	11375
Pipeline transport	1440	1615	341	340	343	417	403	405	369	437
Manufacturing, mining and quarrying	246922	258527	61819	61968	58348	64788	63315	66816	61262	67134
Mining and quarrying . .	2553	2680	642	652	620	639	604	686	669	721
Manufacturing	244369	255847	61177	61315	57727	64149	62712	66131	60592	66413
Sheltered manufacturing	74358	77021	17891	19041	17595	19832	18092	20190	18597	20143
Export-oriented manufacturing	62725	66975	15420	15806	15479	16020	16539	16703	16512	17221
Import-competing manufacturing	107286	111852	27866	26468	24653	28298	28081	29238	25484	29049
Electricity	30219	28521	8510	6537	6272	8900	8550	6256	5881	7835
Construction	49014	51064	10668	12084	11984	14278	10949	12230	12690	15194
Wholesale and retail trade	41364	44038	9199	10102	10406	11656	9994	10802	10956	12286
Ocean transport and oil drilling	30042	28731	7556	7690	7308	7488	6945	7340	7235	7212
Ocean transport	28476	27125	7174	7298	6956	7049	6418	7019	6889	6800
Oil drilling	1567	1606	383	392	352	440	527	321	346	412
Transport and communication	37758	38494	8795	9320	9599	10044	9127	9668	9468	10232
Dwellings	10330	10380	2580	2582	2583	2586	2589	2592	2597	2603
Financial services	13881	14093	3398	3424	3514	3545	3465	3464	3605	3559
Other industries	46370	48287	11617	11336	11471	11947	12206	11895	11981	12205
Hotels and restaurants	9982	10747	2129	2453	3170	2230	2377	2620	3384	2366
Business services and rental services	22834	23608	6114	5542	5125	6053	6349	5812	5355	6092
Other service industries	13555	13932	3374	3341	3177	3663	3480	3463	3242	3747
Producers of government services	60970	63388	13519	13561	14890	19000	14796	14920	14554	19118
Producers of central government services	33463	35087	6687	6949	8136	11692	7716	8102	7636	11633
Civilian	20026	20735	4790	4162	5007	6067	5428	4656	4313	6338
Military	13438	14352	1897	2787	3129	5625	2288	3447	3322	5295
Producers of local government services	27507	28301	6832	6613	6754	7308	7079	6818	6919	7485
Correction items	23460	23816	5753	5802	5880	6025	5865	5870	6031	6049
Imputed bank service charge	23460	23816	5753	5802	5880	6025	5865	5870	6031	6049
MEMO:										
Mainland Norway	584539	605903	140624	144623	141300	157992	146000	152701	145650	161552
Sheltered activities	403569	414594	94612	99691	98586	110681	98283	103704	100655	111952
Export-oriented industries	65278	69654	16062	16458	16100	16658	17143	17388	17181	17942
Import-competing industries	115692	121655	29950	28474	26615	30653	30574	31608	27814	31658

1) For the 4th quarter of 1994 the calculations are based upon forecasts or available estimations done by Statistics Norway.

2) Inconsistencies in the tables are due to computerized rounding.

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Table A15 Private final consumption expenditure. At current prices. Million kroner ¹⁾²⁾

	1993	1994	93.1	93.2	93.3	93.4	94.1	94.2	94.3	94.4
Private final consumption expenditure . .	380464	402662	88011	91901	96362	104190	94616	97297	101590	109159
Specified domestic consumption	368813	390418	85390	89266	93465	100693	92417	94580	98047	105374
Food	70264	74517	15818	17570	17693	19183	17342	18122	19014	20040
Beverages and tobacco	27264	27841	5770	7064	6991	7439	6112	7092	7097	7540
Clothing and foot- wear	23473	24484	4734	5384	5769	7586	5031	5720	5775	7957
Gross rent, power and fuel	72919	74002	19478	16935	16564	19942	20675	17204	16494	19630
Furniture, furnish- ings and household equipment	24460	26119	5382	5309	6163	7607	5872	5722	6392	8133
Medical care and health expenses	21170	22337	5039	5230	5296	5604	5337	5498	5602	5900
Transport and commu- nication	49398	56411	11332	12393	13119	12553	12872	14570	14473	14496
Recreation, enter- tainment, education and cultural service	33384	35515	7556	8040	8362	9426	8041	8751	8920	9803
Other goods and ser- vices	46483	49192	10282	11340	13508	11353	11136	11900	14280	11876
Correction items	11651	12244	2622	2635	2897	3497	2200	2717	3542	3785
Direct purchases abroad by resident households	25614	28038	4996	5924	8516	6179	5364	6462	9765	6447
Direct purchases in Norway by non- resident households	-13963	-15794	-2374	-3288	-5620	-2681	-3164	-3745	-6222	-2662

1) For the 4th quarter of 1994 the calculations are based upon forecasts or available estimations done by Statistics Norway.

2) Inconsistencies in the tables are due to computerized rounding.

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NATIONAL ACCOUNTS FOR NORWAY

Table A16 Private final consumption expenditure. At constant 1991-prices. Million kroner ¹⁾²⁾

	1993	1994	93.1	93.2	93.3	93.4	94.1	94.2	94.3	94.4
Private final										
consumption expenditure . . .	364081	380120	84705	87747	92139	99490	90150	92000	95400	102570
Specified domestic										
consumption	352578	368501	82193	85127	89115	96143	88080	89400	91986	99036
Food	70179	73856	15783	17531	17603	19262	17332	17993	18680	19852
Beverages and										
tobacco	24264	24038	5127	6285	6238	6613	5361	6194	6037	6446
Clothing and foot-										
wear	22376	23011	4681	5055	5557	7083	4833	5294	5485	7398
Gross rent, power										
and fuel	69763	70110	18799	16123	15764	19077	19815	16301	15513	18482
Furniture, furnish-										
ings and household										
equipment	23814	25075	5277	5168	5999	7371	5691	5496	6132	7756
Medical care and										
health expenses	19332	19986	4626	4780	4828	5098	4823	4949	5002	5212
Transport and commu-										
nication	46929	53101	10813	11739	12453	11924	12187	13807	13513	13595
Recreation, enter-										
tainment, education										
and cultural service	31537	33028	7187	7615	7870	8865	7472	8157	8278	9121
Other goods and ser-										
vices	44384	46296	9900	10832	12802	10850	10565	11210	13346	11175
Correction items	11503	11619	2512	2620	3025	3347	2070	2601	3414	3534
Direct purchases										
abroad by resident										
households	24607	26282	4761	5706	8286	5854	5027	6092	9169	5995
Direct purchases in										
Norway by non-										
resident households	-13103	-14664	-2249	-3086	-5261	-2507	-2957	-3491	-5755	-2461

1) For the 4th quarter of 1994 the calculations are based upon forecasts or available estimations done by Statistics Norway.

2) Inconsistencies in the tables are due to computerized rounding.

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Table A17 Gross fixed capital formation by type of capital goods and kind of economic activity. At current prices.
Million kroner ¹⁾²⁾

	1993	1994	93.1	93.2	93.3	93.4	94.1	94.2	94.3	94.4
Gross fixed capital formation	161152	141797	25522	39160	58514	37957	28569	33493	41894	37842
Residential and non-residential buildings, constructions etc.	50344	56088	10377	12261	12551	15156	10975	12978	14673	17462
Capitalized expenses on oil exploration and drilling, pipelines for oil and gas	19640	24222	3991	4913	5016	5720	5396	7084	6135	5607
Ships and boats	7118	6738	2556	-1	2080	2482	3362	1993	1109	274
Aircraft, motor vehicles etc. and rolling stock	10334	12328	2405	1931	2773	3226	2341	3391	3432	3164
Oil drilling rigs and ships, oil production platforms etc.	42661	10498	334	12094	28245	1988	198	353	8571	1377
Other machinery and equipment	31056	31923	5859	7962	7850	9385	6298	7694	7974	9957
Industries	138392	119504	20888	34152	52997	30355	24152	28680	36509	30164
Agriculture, forestry and fishing	5096	5194	965	1523	1524	1084	935	1542	1432	1285
Agriculture	3674	3883	596	1129	1092	858	642	1187	1109	945
Forestry	364	348	41	128	102	92	48	104	95	101
Fishing, breeding of fish	1059	963	328	266	330	134	246	252	227	238
Oil activities	65307	39936	4931	17098	34684	8594	7210	9027	15695	8004
Crude petroleum and natural gas	58614	30976	3656	15332	32882	6745	5627	5602	13345	6402
Pipeline transport	6693	8960	1276	1767	1802	1849	1583	3425	2350	1602
Manufacturing, mining and quarrying	13581	14145	2607	3252	3612	4110	2631	3233	3817	4465
Mining and quarrying	350	372	61	84	113	91	55	78	107	133
Manufacturing	13232	13773	2546	3168	3499	4019	2576	3155	3710	4332
Sheltered manufacturing	5236	5145	1042	1345	1249	1600	1021	1168	1341	1616
Export-oriented manufacturing	2536	2798	504	587	700	745	451	585	763	1001
Import-competing manufacturing	5459	5830	1000	1236	1550	1674	1105	1402	1607	1716
Electricity supply	5742	4937	968	1548	1697	1529	665	1339	1307	1626
Construction	1481	1542	310	348	419	403	340	378	376	448
Wholesale and retail trade	6434	7651	1404	1477	1711	1842	1680	1919	1946	2106
Ocean transport and oil drilling	6974	5019	2258	808	1219	2689	2184	1674	1016	145
Ocean transport	6319	5735	2252	-187	1828	2427	2816	1826	972	121
Oil drilling	655	-716	6	995	-609	262	-632	-152	44	24
Transport and communication	11618	12164	2270	3008	2648	3691	2274	3095	3376	3419
Dwellings	11616	16182	2655	2598	2928	3435	3406	3606	4292	4879
Financial services	2969	3273	737	740	748	744	765	785	862	862
Other industries	7575	9461	1781	1753	1807	2234	2063	2081	2390	2926
Hotels and restaurants	255	333	55	61	79	61	73	89	95	76
Commercial buildings	3880	5406	862	855	933	1230	1052	1060	1444	1850
Water supply	803	855	196	198	199	211	208	211	213	224
Other service industries	2636	2867	669	639	597	732	731	722	638	776
Producers of government services	22760	22292	4634	5007	5516	7602	4417	4813	5385	7678
Producers of central government services	10328	9012	1913	2344	2437	3633	1727	1903	1954	3428
Producers of local government services	12432	13281	2721	2663	3079	3969	2690	2911	3430	4250
MEMO:										
Mainland Norway	88872	96842	18333	21253	22611	26674	19175	22791	25182	29694
Sheltered activities	79104	86531	16398	18953	19816	23938	17272	20371	22383	26505
Export-oriented industries	2886	3171	565	671	813	837	505	663	870	1133
Import-competing industries	6882	7141	1370	1630	1982	1900	1398	1758	1929	2056

1) For the 4th quarter of 1994 the calculations are based upon forecasts or available estimations done by Statistics Norway.

2) Inconsistencies in the tables are due to computerized rounding.

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Table A18 Gross fixed capital formation by type of capital goods and kind of economic activity. At constant 1991-prices.
Million kroner ¹⁾²⁾

	1993	1994	93.1	93.2	93.3	93.4	94.1	94.2	94.3	94.4
Gross fixed capital formation	152928	133961	24433	37256	55279	35960	26985	31729	39536	35712
Residential and non-residential buildings, constructions etc.	50519	54099	10557	12311	12532	15118	10773	12658	13942	16727
Capitalized expenses on oil exploration and drilling, pipelines for oil and gas	18794	22693	3869	4715	4761	5449	5089	6641	5723	5240
Ships and boats	3371	5425	1537	-900	1272	1462	2839	1725	1022	-160
Aircraft, motor vehicles etc. and rolling stock	9805	11050	2385	1833	2532	3055	2111	2858	3073	3009
Oil drilling rigs and ships, oil production platforms etc.	40274	9541	326	11534	26549	1865	31	265	7962	1282
Other machinery and equipment	30166	31154	5758	7764	7634	9011	6142	7582	7815	9615
Industries	130290	112414	19760	32262	49811	28457	22662	27030	34381	28341
Agriculture, forestry and fishing	4852	5034	940	1463	1469	979	895	1513	1390	1237
Agriculture	3623	3763	595	1117	1077	835	625	1159	1069	910
Forestry	360	337	41	128	101	90	46	101	92	98
Fishing, breeding of fish	869	935	304	219	292	54	224	253	229	229
Oil activities	62322	37500	4798	16400	32920	8203	6837	8525	14637	7501
Crude petroleum and natural gas	55918	29107	3562	14705	31210	6441	5344	5313	12445	6004
Pipeline transport	6403	8393	1236	1696	1710	1762	1493	3211	2192	1497
Manufacturing, mining and quarrying	13332	13701	2596	3199	3535	4002	2558	3152	3694	4297
Mining and quarrying	343	359	61	83	111	89	53	75	104	128
Manufacturing	12989	13342	2535	3117	3424	3913	2505	3077	3591	4170
Sheltered manufacturing	5147	4980	1037	1325	1223	1562	991	1136	1298	1555
Export-oriented manufacturing	2482	2720	500	576	684	722	440	574	742	964
Import-competing manufacturing	5360	5643	998	1216	1517	1629	1075	1367	1551	1651
Electricity supply	5659	4786	968	1528	1670	1494	650	1312	1260	1564
Construction	1444	1473	309	340	406	390	325	358	360	430
Wholesale and retail trade	6216	7098	1407	1415	1612	1781	1551	1713	1818	2016
Ocean transport and oil drilling	3129	3584	1276	-112	252	1714	1595	1346	925	-282
Ocean transport	2789	4470	1268	-1034	1065	1490	2350	1553	875	-308
Oil drilling	340	-886	7	922	-813	224	-755	-207	50	26
Transport and communication	11212	11364	2230	2948	2502	3533	2156	2822	3116	3271
Dwellings	11661	15603	2703	2609	2923	3426	3342	3515	4075	4671
Financial services	2947	3215	736	735	741	735	754	772	844	844
Other industries	7516	9055	1798	1739	1781	2199	2000	2001	2262	2791
Hotels and restaurants	248	313	55	59	76	59	68	81	91	74
Commercial buildings	3901	5156	884	860	931	1226	1025	1024	1352	1755
Water supply	806	826	199	199	199	210	204	205	202	215
Other service industries	2561	2760	660	621	576	704	703	692	617	748
Producers of government services	22638	21548	4673	4994	5468	7504	4323	4699	5155	7371
Producers of central government services	10271	8707	1927	2340	2417	3587	1689	1858	1871	3289
Producers of local government services	12368	12841	2746	2654	3051	3917	2634	2842	3284	4081
MEMO:										
Mainland Norway	87478	92878	18359	20968	22107	26044	18553	21858	23974	28493
Sheltered activities	78064	82884	16455	18747	19403	23460	16716	19488	21256	25424
Export-oriented industries	2825	3079	561	658	795	811	492	649	846	1092
Import-competing industries	6588	6914	1343	1563	1910	1773	1345	1721	1872	1977

1) For the 4th quarter of 1994 the calculations are based upon forecasts or available estimations done by Statistics Norway.

2) Inconsistencies in the tables are due to computerized rounding.

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NATIONAL ACCOUNTS FOR NORWAY

Table A19 Exports of goods and services. At current prices. Million kroner ¹⁾²⁾

	1993	1994	93.1	93.2	93.3	93.4	94.1	94.2	94.3	94.4
Total exports	316824	335672	75608	81313	79258	80646	80100	82394	84442	88736
Goods	227864	246284	54618	59603	54198	59444	58542	60201	59842	67700
Crude petroleum and natural gas from the North Sea	104069	107312	25721	26894	24499	26956	25722	27414	25128	29048
Ships, new	2372	2984	572	1571	121	108	595	264	1291	836
Ships, second-hand	6696	4027	1631	2112	1081	1873	619	1221	732	1455
Oil platforms and moduls, new	809	11	1	32	754	23	7	3	1	0
Oil platforms, second-hand	1025	790	0	0	1025	0	632	158	0	0
Direct exports in relation to oil activities	107	143	37	28	26	16	41	36	29	37
Other goods	112785	131017	26657	28968	26692	30469	30927	31106	32661	36324
Products from agriculture, forestry and fishing	5869	6748	1207	1468	1396	1797	1442	1627	1569	2111
Mining products	2060	2120	435	549	572	506	459	531	588	542
Manufacturing products	103970	121493	24830	26762	24509	27870	28872	28823	30275	33523
Food, beverages and tobacco	13956	16661	3422	3276	3081	4178	3976	3765	4011	4909
Printed books, newspapers etc.	315	342	69	69	94	83	74	81	88	99
Paper and paper products	8210	9703	1978	2030	1948	2254	2192	2311	2534	2666
Industrial chemicals	9505	10578	2670	2330	2287	2218	2403	2769	2621	2786
Refined petroleum products	10025	10950	2149	3327	2163	2387	2581	2664	2775	2931
Metals	22499	27415	5315	5652	5600	5931	6409	6706	7038	7261
Textiles and wearing apparel	1701	2214	413	411	394	484	447	468	597	702
Wood products, furniture and fixtures	3369	3923	784	817	805	964	870	973	920	1159
Chemical and mineral products	11951	13588	2974	2927	2782	3268	3102	3294	3343	3849
Other metal products, machinery and equipment	22439	26119	5056	5924	5356	6103	6817	5792	6348	7162
Electricity	886	657	185	189	215	296	155	124	230	149
Services	88960	89388	20989	21710	25059	21201	21558	22193	24600	21036
Gross receipts from shipping	45923	44206	11597	11417	11784	11126	10618	11107	11432	11049
Gross receipts from oil drilling	1766	1799	302	479	483	502	568	369	448	414
Direct exports in relation to other oil activities	750	851	178	179	186	207	216	219	199	216
Exports of pipeline services	1747	1997	405	397	341	604	534	515	470	478
Direct purchases in Norway by non-resident households	13963	15794	2374	3288	5620	2681	3164	3745	6222	2662
Other services	24811	24740	6133	5950	6646	6081	6457	6238	5828	6217

1) For the 4th quarter of 1994 the calculations are based upon forecasts or available estimations done by Statistics Norway.

2) Inconsistencies in the tables are due to computerized rounding.

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NATIONAL ACCOUNTS FOR NORWAY

Table A20 Exports of goods and services. At constant 1991-prices. Million kroner ¹⁾²⁾

	1993	1994	93.1	93.2	93.3	93.4	94.1	94.2	94.3	94.4
Total exports	331864	357134	78202	84254	81956	87452	87476	87394	88410	93854
Goods	247033	273070	57978	63468	58594	66994	67064	66405	65443	74157
Crude petroleum and natural gas from the North Sea	113368	126076	26889	28261	26692	31525	31828	31259	28976	34013
Ships, new	2301	2841	560	1522	117	103	575	254	1226	785
Ships, second-hand	8678	5146	2154	2737	1387	2400	788	1582	948	1828
Oil platforms and moduls, new	770	11	1	31	716	22	7	3	1	0
Oil platforms, second-hand	1178	969	0	0	1178	0	755	214	0	0
Direct exports in relation to oil activities	103	134	36	27	25	15	39	34	27	34
Other goods	120636	137895	28339	30890	28479	32928	33073	33059	34266	37497
Products from agri- culture, forestry and fishing	6153	6822	1242	1419	1438	2053	1487	1516	1605	2214
Mining products	2079	2098	414	564	570	532	463	534	573	528
Manufacturing pro- ducts	111522	128475	26526	28695	26210	30091	31005	30906	31923	34640
Food, beverages and tobacco	14975	17834	3650	3585	3333	4407	4295	4023	4283	5234
Printed books, newspapers etc.	290	304	65	64	85	75	67	73	78	86
Paper and paper products	9597	10987	2264	2405	2258	2670	2589	2697	2837	2864
Industrial chemi- cals	10460	11145	3021	2584	2428	2427	2593	3008	2852	2691
Refined petroleum products	11274	13520	2381	3658	2429	2807	3115	3351	3302	3752
Metals	25078	27649	5871	6309	6180	6718	6871	6889	7052	6838
Textiles and wearing apparel	1720	2339	412	434	403	471	441	485	655	759
Wood products, furniture and fixtures	3575	3843	829	875	865	1007	893	982	897	1072
Chemical and mineral products	12042	14245	2995	2961	2782	3304	3159	3470	3604	4012
Other metal pro- ducts, machinery and equipment	22511	26609	5038	5821	5447	6205	6984	5929	6365	7332
Electricity	882	499	157	214	260	252	118	102	164	115
Services	84830	84064	20224	20786	23362	20458	20412	20989	22966	19697
Gross receipts from shipping	44494	42446	11296	11121	11000	11078	10288	10762	10902	10495
Gross receipts from oil drilling	1622	1650	284	456	435	448	501	334	424	392
Direct exports in relation to other oil activities	708	762	170	169	174	195	195	196	178	193
Exports of pipeline services	1791	1966	426	383	348	634	538	509	434	485
Direct purchases in Norway by non- resident households	13103	14664	2249	3086	5261	2507	2957	3491	5755	2461
Other services	23112	22577	5800	5571	6144	5597	5933	5697	5275	5672

1) For the 4th quarter of 1994 the calculations are based upon forecasts or available estimations done by Statistics Norway.

2) Inconsistencies in the tables are due to computerized rounding.

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NATIONAL ACCOUNTS FOR NORWAY

Table A21 Imports of goods and services. At current prices. Million kroner ¹⁾²⁾

	1993	1994	93.1	93.2	93.3	93.4	94.1	94.2	94.3	94.4
Total imports	267487	286583	61407	64198	71452	70430	67185	69631	76774	72994
Goods	176759	194275	41194	41691	45244	48630	46370	46761	50016	51129
Ships, new and second-hand	10589	7009	3304	1175	2476	3635	2828	2282	1024	876
Oil platforms and moduls, new and second-hand	1996	2500	10	1190	500	297	107	60	2247	86
Direct imports in relation to oil activities	5768	2097	243	2073	2993	460	286	186	1293	332
Other goods	158406	182669	37637	37254	39276	44239	43148	44233	45451	49836
Products from agriculture, forestry and fishing	4951	7081	1250	1337	1009	1355	1570	1683	1794	2034
Crude petroleum	1122	760	279	237	325	281	204	154	214	188
Mining products	2473	2739	509	691	639	634	698	759	637	646
Manufacturing products	149803	171362	35588	34982	37297	41936	40354	41442	42737	46829
Food, beverages and tobacco	8291	9050	1884	1974	2096	2338	1989	2328	2277	2456
Printed books, newspapers etc.	2249	2267	520	482	621	626	563	507	583	614
Paper and paper products	4656	5296	1133	1125	1129	1269	1294	1282	1293	1428
Industrial chemicals	7895	8975	1849	2008	2009	2030	2164	2203	2257	2352
Refined petroleum products	2283	2593	463	573	572	675	575	730	653	635
Metals	12722	15454	2849	3409	3229	3235	3586	3507	4196	4165
Textiles and wearing apparel	13941	15068	3792	2621	4110	3419	3870	2899	4485	3814
Wood products, furniture and fixtures	4983	6156	1160	1112	1201	1510	1314	1497	1524	1821
Chemical and mineral products	30787	33276	7302	7393	7543	8549	7803	8328	8153	8993
Other metal products, machinery and equipment	54910	62898	13010	12909	13110	15881	14570	15658	14715	17954
Transport equipment not produced in Norway	7086	10330	1625	1378	1679	2404	2627	2504	2602	2597
Electricity	57	727	11	7	6	33	323	197	69	139
Services	90728	92308	20213	22507	26208	21800	20815	22870	26758	21865
Gross expenditure for shipping	26407	26411	6474	6605	6693	6634	6354	6758	6662	6637
Gross expenditure for oil drilling	1912	1395	400	504	583	425	327	345	350	374
Direct imports in relation to other oil activities	6958	8419	886	1853	3030	1189	1448	2275	3249	1447
Direct purchases abroad by resident households	26447	28957	5162	6097	8711	6476	5561	6672	9968	6756
Other services	29005	27126	7291	7448	7191	7075	7124	6821	6530	6651

1) For the 4th quarter of 1994 the calculations are based upon forecasts or available estimations done by Statistics Norway.

2) Inconsistencies in the tables are due to computerized rounding.

NATIONAL ACCOUNTS FOR NORWAY

Table A22 Imports of goods and services. At constant 1991-prices. Million kroner ¹⁾²⁾

	1993	1994	93.1	93.2	93.3	93.4	94.1	94.2	94.3	94.4
Total imports	262067	281011	60641	63604	69364	68459	65570	68986	75645	70810
Goods	176690	196754	41393	42213	44883	48201	46666	48006	51174	50909
Ships, new and second-hand	8627	7051	2721	990	1848	3068	2481	2502	1186	883
Oil platforms and moduls, new and second-hand	1805	3089	12	1103	438	253	115	68	2791	114
Direct imports in relation to oil activities	5433	1876	231	1957	2812	433	258	166	1156	296
Other goods	160824	184737	38430	38163	39786	44447	43812	45269	46040	49616
Products from agri-culture, forestry and fishing	5487	7351	1376	1494	1120	1498	1657	1724	1863	2106
Crude petroleum	1245	917	310	270	345	320	244	179	260	233
Mining products	2542	2650	548	686	646	662	666	763	611	610
Manufacturing products	151492	173301	36184	35701	37671	41937	41070	42448	43262	46521
Food, beverages and tobacco	8258	8503	1893	1999	2099	2266	1876	2205	2128	2295
Printed books, newspapers etc.	2207	2303	505	444	603	655	554	505	611	633
Paper and paper products	5322	5983	1264	1276	1288	1495	1494	1475	1450	1564
Industrial chemicals	9147	9870	2120	2282	2340	2405	2497	2430	2464	2480
Refined petroleum products	2589	2972	536	639	671	744	659	815	758	741
Metals	14132	17057	3179	3737	3548	3669	4196	3990	4471	4399
Textiles and wearing apparel	14280	15786	3838	2904	4102	3436	4048	3155	4631	3952
Wood products, furniture and fixtures	5409	6433	1269	1201	1324	1615	1400	1604	1611	1819
Chemical and mineral products	30071	32429	7168	7311	7365	8227	7544	8173	8088	8623
Other metal products, machinery and equipment	53668	62910	12883	12645	12845	15295	14485	15862	14778	17785
Transport equipment not produced in Norway	6408	9055	1530	1263	1485	2131	2316	2235	2272	2232
Electricity	58	520	12	11	5	30	175	155	44	145
Services	85377	84257	19248	21391	24480	20259	18904	20981	24471	19901
Gross expenditure for shipping	24655	23695	6210	6331	6009	6105	5550	6120	6009	6017
Gross expenditure for oil drilling	1806	1249	381	476	548	400	295	308	313	333
Direct imports in relation to other oil activities	6558	7601	847	1756	2836	1119	1317	2054	2922	1308
Direct purchases abroad by resident households	25404	27142	4919	5873	8476	6135	5212	6289	9359	6283
Other services	26955	24570	6890	6955	6611	6499	6531	6209	5868	5961

1) For the 4th quarter of 1994 the calculations are based upon forecasts or available estimations done by Statistics Norway.

2) Inconsistencies in the tables are due to computerized rounding.

NATIONAL ACCOUNTS FOR NORWAY

Table A23 Employment by kind of economic activity. Employees and self-employed. Absolute figures and annual percentage change

	Number of persons (1000)			Full-time equivalent employees (1000)			Man-hours worked (Millions)		
	1993	1994	%	1993	1994	%	1993	1994	%
Total	2027.8	2057.9	1.5	1744.0	1769.6	1.5	2869.4	2911.5	1.4
Industries	1409.7	1427.9	1.3	1240.0	1256.6	1.3	2099.7	2128.4	1.3
Agriculture, hunting, forestry and fishing	115.3	111.7	-3.2	98.6	95.5	-3.1	225.3	217.8	-3.3
Agriculture	90.0	86.3	-4.1	74.7	71.6	-4.2	183.0	175.3	-4.2
Forestry	6.7	6.6	-1.2	6.1	6.1	-1.1	10.7	10.6	-0.8
Fishing and breeding of fish	18.6	18.7	0.7	17.7	17.8	0.6	31.6	31.9	0.8
Production and pipeline transport of crude petroleum and natural gas	17.8	17.6	-1.0	17.4	17.2	-1.0	30.2	30.0	-0.7
Crude petroleum and natural gas	17.4	17.3	-1.0	17.1	16.9	-1.0	29.6	29.4	-0.7
Pipeline transport	0.3	0.3	0.0	0.3	0.3	0.0	0.6	0.6	0.0
Manufacturing, mining and quarrying ..	293.4	303.8	3.5	272.7	282.3	3.5	449.4	467.4	3.9
Mining and quarrying	5.0	5.0	-0.2	4.9	4.9	-0.2	7.4	7.4	0.4
Manufacturing	288.4	298.8	3.6	267.7	277.4	3.6	442.0	459.4	3.9
Sheltered manufacturing	87.8	91.6	4.3	76.7	80.0	4.4	127.0	133.0	4.7
Export-oriented manufacturing	39.9	41.0	2.6	38.3	39.3	2.6	62.0	63.8	2.8
Import-competing manufacturing ...	160.7	166.3	3.4	152.7	158.0	3.4	252.9	262.6	3.8
Electricity supply	19.7	19.7	0.0	19.0	19.0	0.0	29.2	29.3	0.3
Construction	119.2	122.2	2.6	113.6	116.5	2.5	190.4	195.4	2.6
Wholesale and retail trade	273.2	273.6	0.1	225.4	225.7	0.1	375.1	375.9	0.2
Ocean transport and oil well drilling ...	36.4	35.8	-1.7	36.2	35.5	-1.7	66.1	65.0	-1.7
Ocean transport	32.6	32.1	-1.7	32.4	31.9	-1.7	59.8	58.8	-1.7
Oil and gas exploration and drilling ...	3.7	3.7	-1.9	3.7	3.6	-1.9	6.3	6.2	-1.7
Transport, storage and communication ..	141.0	142.9	1.3	125.5	127.3	1.4	207.4	210.6	1.5
Dwellings	1.4	1.4	3.6	1.2	1.2	4.2	2.0	2.1	4.0
Financial services	52.9	53.7	1.5	49.5	50.2	1.4	77.9	79.2	1.7
Other industries	339.3	345.5	1.8	281.0	286.1	1.8	446.6	455.7	2.0
Hotels and restaurants	56.4	57.4	1.8	44.0	44.8	1.8	71.2	72.7	2.0
Business services and rental services ..	91.4	93.9	2.7	83.8	86.1	2.7	136.2	140.2	2.9
Other service industries	191.6	194.2	1.4	153.1	155.1	1.3	239.2	242.8	1.5
Producers of government services	618.1	630.0	1.9	504.1	513.0	1.8	769.8	783.1	1.7
Central government	153.2	154.4	0.8	144.8	145.8	0.7	232.8	234.2	0.6
Civilian	99.0	101.0	2.0	91.3	93.1	1.9	138.3	141.0	1.9
Military	54.2	53.5	-1.3	53.4	52.7	-1.3	94.5	93.2	-1.4
Local government	464.8	475.6	2.3	359.3	367.2	2.2	537.0	548.9	2.2
MEMO:									
Mainland-Norway	1973.6	2004.6	1.6	1690.5	1716.8	1.6	2773.1	2816.6	1.5
Sheltered industries	1742.7	1767.0	1.4	1470.6	1490.6	1.4	2408.4	2439.6	1.3
Export-oriented industries	44.9	46.0	2.3	43.3	44.3	2.3	69.5	71.8	2.6
Import-competing industries	186.0	191.6	3.0	176.6	181.9	3.0	295.2	305.1	3.3

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Table A24 Compensation of employees by kind of economic activity. Growth rates. Annual percentage change

	Wages and salaries per full-time equivalent employees	Wages and salaries per man- hours worked	Compensation of employees per man- hours worked
Total	3.0	2.9	2.8
Industries	3.1	2.9	2.8
Agriculture, hunting, forestry and fishing	2.6	2.3	2.3
Agriculture	2.5	2.2	2.2
Forestry	1.9	1.7	1.7
Fishing and breeding of fish	4.4	4.2	4.2
Production and pipeline transport of crude petroleum and natural gas	3.8	3.6	3.6
Crude petroleum and natural gas	3.8	3.6	3.6
Pipeline transport	3.5	3.2	3.2
Manufacturing, mining and quarrying	3.1	2.7	2.7
Mining and quarrying	3.2	2.8	2.8
Manufacturing	3.1	2.7	2.7
Sheltered manufacturing	2.8	2.5	2.4
Export-oriented manufacturing	3.6	3.4	3.4
Import-competing manufacturing	3.1	2.7	2.7
Electricity supply	2.5	2.2	2.2
Construction	2.1	1.9	1.9
Wholesale and retail trade	3.3	3.0	3.0
Ocean transport and oil well drilling	3.0	3.0	3.1
Ocean transport	3.0	3.0	3.0
Oil and gas exploration and drilling	3.5	3.3	3.3
Transport, storage and communication	3.1	2.9	2.9
Dwellings	3.4	3.4	3.4
Financial services	4.2	4.0	4.0
Other industries	3.1	2.8	2.8
Hotels and restaurants	3.1	2.8	2.8
Business services and rental services	2.8	2.6	2.6
Other service industries	3.1	2.9	2.9
Producers of government services	2.8	2.8	2.8
Central government	2.8	3.0	3.0
Civilian	2.2	2.2	2.2
Military	3.5	3.6	3.5
Local government	2.8	2.8	2.7
MEMO:			
Mainland-Norway	3.0	2.9	2.8
Sheltered industries	3.0	2.8	2.8
Export-oriented industries	3.5	3.3	3.3
Import-competing industries	3.2	2.8	2.8

Statistics Norway
Sales- and subscription service
P.O. Box 8131 Dep.
N-0033 Oslo

Telephone: +47 22 00 44 80
Telefax: +47 22 86 49 76

ISBN 82-537-4124-3
ISSN 0801-8324



Statistisk sentralbyrå
Statistics Norway



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