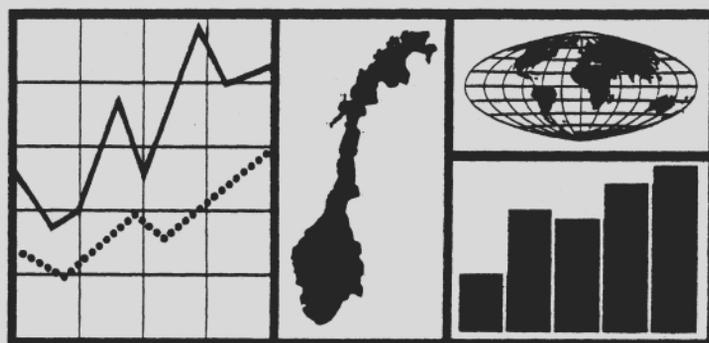


# Økonomiske analyser

NR. 1A — 1987



**Economic survey 1986**

Statistisk Sentralbyrå

Postboks 8131 Dep. N-0033 Oslo 1 – Tlf. (02) 41 38 20

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## PREFACE

The current issue of Economic Survey contains a review of the Norwegian economy for 1986. The first preliminary national accounts figures for 1986, based on the quarterly national accounts system, are also presented. The quarterly calculations are carried out on a less detailed level than the annual national accounts. Especially for the last few months of 1986, the calculations are to a large extent based on estimates and reported plans. The first, preliminary national accounts figures based on data for the year as a whole are scheduled to be published in Economic Analyses in April/May of this year.

The Economic Survey of 1986 has been prepared by the Research Department in the Central Bureau of Statistics. The cut-off date for information used in the publication was Wednesday, 28 January 1987.

*Let us all be happy and  
live within our means --  
even if we have to borrow the money  
to do it with.*

*(C. F. Browne)*

## SUMMARY

Economic developments in Norway in 1986 were heavily influenced by a strong deterioration in the terms of trade (relationship between export and import prices) and by a continued surge in domestic demand. This resulted in a decline of as much as 6 per cent in real disposable income for Norway, a record high current account deficit of Nkr 33 billion and a high growth in production and employment. Gross Domestic Product (GDP) measured at constant prices increased by 3.8 per cent in 1986, according to provisional estimates. GDP, excluding oil and shipping, increased by 3.5 per cent. The growth was almost as high as in the preceding year and higher than in most other OECD countries.

Fiscal policy was gradually tightened during 1986. Along with rising prices, an increasing interest rate level and a record low level for the household sector's saving ratio, this has contributed to a gradually slower growth in domestic demand through the year, particularly for private consumption. A very tight labour market and high capacity utilization in large parts of industry and trade have also placed limitations on continued growth.

A strong growth in demand, a tight labour market and a rising growth in wages, the devaluation, and increases in excise taxes counteracted the effect of lower international prices so that the rise in consumer prices accelerated from May 1986. For the sixth consecutive year consumer prices in Norway rose faster than in competing countries, and the gap widened considerably later in 1986.

### SELECTED ECONOMIC INDICATORS

	1985	1986
<u>Selected macroeconomic variables</u>		
Percentage change in volume*)		
Private final consumption expenditure .....	8.1	5.5
Government final consumption expenditure .....	3.4	1.9
Gross fixed capital formation .....	-14.8	21.8
Exports .....	5.5	1.0
Imports .....	7.0	8.8
Gross Domestic Product ..	4.0	3.8
- excluding oil and shipping .....	3.9	3.5
<u>The labour market</u>		
Employment, percentage change .....	2.7	3.5
Unemployment rate .....	2.5	1.9
<u>Prices and wages</u>		
Percentage change		
Consumer price index ....	5.7	7.2
Export prices .....	4.5	-18.0
Import prices .....	6.6	0.0
Compensation of employees per man-year .....	7.8	9.5
<u>Balance of payments</u>		
Currents external balance in billion Nkr .....	25.6	-33.0

\*) See technical comment in the discussion of the quarterly national accounts on page 9.

## Continued moderate growth internationally

-----  
 The upturn in the United States and Western Europe has now lasted for four years. GNP/GDP in these countries expanded by about 2.5 per cent in 1986, or approximately the same rate as in the preceding year. It was particularly higher private consumption which contributed to this growth. Unemployment remains very high. The rise in consumer prices last year was very low; in European OECD countries combined it was 3 3/4 per cent, and slightly lower in the U.S. The fact that the rise in prices has remained so low during this upturn, albeit moderate, can largely be ascribed to falling raw material prices and relatively modest wage increases.

In some West European countries the development in import prices and costs should imply an even slower rise in domestic prices than has been the case. Instead, profit margins in manufacturing and trade have increased and the deficits on government budgets have been reduced. This may be one of the reasons why the growth in Western Europe has remained so low in spite of the positive effect of the fall in oil prices on income.

Future developments will particularly depend on uncertain factors like the change in oil prices and exchange rates and on economic policy in the U.S. and the major West European countries. Private consumption is expected to continue to be the most important impetus on the economy in 1987, but the rate of growth will most likely taper off. With other demand components making some contribution to growth, it now seems likely that the moderate output growth will continue at about the same pace.

## Less expansionary economic policy in Norway

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 Economic policy was somewhat less expansionary in 1986 than in the preceding year. Transfers to the private sector and municipalities increased considerably again last year, while government expenditure on goods and services showed a lower growth in volume

terms. In spite of increases in taxes and excises through the year and a sharp growth in wages and consumption, government sector revenue increased far less than expenditure due to the reduction in oil taxes. The fiscal budget surplus before loan transactions was thus reduced by nearly 30 per cent.

Credit policy was tightened in 1986. Nevertheless, the credit supply, as has been the case for several consecutive years, was substantially higher than budgeted. This must be viewed in connection with the liberalization of the credit market in previous years and with the high level of domestic demand. However, the sharp increase in interest rates, generated by the unrest in the foreign exchange market, and the slower growth in domestic demand probably resulted in a levelling off of the growth in lending towards the end of the year. Stagnation in domestic demand and changes in the tax system may result in a noticeably lower growth in the demand for credit later in 1987.

High growth in private consumption, but stagnation towards the end of the year

-----  
 Private final consumption expenditure is estimated, on a somewhat uncertain basis, to have increased in volume by 5.5 per cent from 1985 to 1986. This is lower than the record growth the preceding year, but still high compared with the period 1980-1984.

Following a strong growth through 1985, there were signs of a slowdown as early as the first half of 1986, and when adjusted for normal seasonal variations the growth came to a complete halt in the second half of the year. In addition to a pronounced decline in the demand for durable consumer goods, the growth in sales of non-durable consumer goods and services has shown signs of tapering off.

Negative saving ratio for households

-----  
 Preliminary and uncertain estimates for the

household sector's real disposable income show a growth of some 2 per cent in 1986, less than the increase of 3.4 per cent the preceding year. A considerably higher rise in private consumption than in disposable income for the second consecutive year has entailed that the saving ratio fell substantially and that it now is clearly negative. The design of the tax system and the liberalization of the credit market have made this development possible. As a result of increased debt and higher interest rates, the household sector's interest expenses increased by more than 30 per cent from 1985 to 1986. A situation with such a low saving ratio cannot persist over a long period. A weaker trend in the household sector's real disposable income and a higher debt burden may therefore result in a decline in private consumption in 1987.

#### Strong investment growth in many industries

-----

Total gross fixed capital formation increased in volume by about 15 per cent from 1985 to 1986, about the same as the growth in fixed investment excluding oil activities and shipping.

Gross investment in the oil production sector and pipeline transport grew as much as 65 per cent. Incurred investment costs in the oil sector, which are a better measure of investment activity, remained approximately unchanged in volume terms from 1985 to 1986. This was particularly due to a reduction in exploration activity, but the fact that many projects were completed or are in the final phase, while only a few new ones were initiated, also plays a role. The volume of investment costs is expected to be slightly lower next year.

Investment in Mainland Norway has been rising since 1983 and is considerably higher than the peak investment level in 1981. The growth from 1985 to 1986 can be particularly ascribed to a strong growth through 1985, while the growth rate slowed substantially in 1986. The growth in investment volume in manufacturing and mining was 31 per cent in

1986, compared with about 22 per cent in 1985. The growth rate fell sharply through the year, but the investment peak seems to occur at a later time and at a higher level than previously assumed. Investment in service industries expanded by some 15 per cent in 1986, a rise from about 1 per cent the previous year. It is especially investment in the transport and communications sector which has risen at the same time that investment in commercial buildings has also exhibited a high growth. After having declined in the period 1983-1985, housing investment also increased last year by about 10 per cent.

Even though the investment growth in some industries may still be positive, investment will probably not make a significant contribution to growth in the Norwegian economy in 1987.

#### No growth in traditional exports

-----

Exports advanced in volume by 1 per cent from 1985 to 1986. The volume of "traditional" merchandise exports only showed a negligible rise, while the volume of oil and gas exports expanded by some 6 per cent. Exports of second-hand ships continue to be very high as a result of registration abroad. The shipping sector's gross freight earnings were thereby reduced so that exports of services fell from 1985 to 1986.

Strong growth in traditional imports, but stagnation and decline towards the end of the year

-----

Total imports increased in volume by 8.8 per cent from 1985 to 1986, both as a result of a strong growth in demand and rising import shares. Imports of "traditional" goods increased as much as 14.0 per cent. The peak was recorded in the second quarter, and imports have since that time been decelerating as a result of a lower growth and an altered composition of domestic demand. Imports of services are dominated by the shipping sector's operating expenditure and direct purchases abroad by resident

households. Measured in volume, the shipping sector's operating expenditure was reduced by almost 6 per cent. This must be viewed in connection with the reduction in Norway's merchant fleet. Direct purchases abroad by resident households increased by 14 per cent, but the rate of growth was decelerating through the year.

#### Strong deterioration in terms of trade

The terms of trade deteriorated as much as 18 per cent in 1986, following a deterioration of about 2 per cent the preceding year. The fall in oil and gas prices was the most significant factor, although the devaluation and the decline in other export prices also played an important role.

Import prices remained approximately unchanged from 1985 to 1986. They declined in the first half of 1986, but rose again in the second half of the year as a result of the devaluation. The prices for total exports fell by 18 per cent last year, primarily due to the fall in oil prices in the first half of the year. Oil prices have risen again since the summer of 1986, while gas prices which lag somewhat behind oil prices, continued to show a decline throughout the year, and at year-end were nearly 20 per cent lower than one year earlier. Price of traditional merchandise exports also fell from 1985 to 1986. Export prices have risen after the devaluation, but not enough to offset the previous decline. Due to changes in the composition of merchandise exports and imports, the terms of trade for traditional goods and services did show an improvement in the last half of the year, in spite of the devaluation.

#### Large current external account deficit

The deficit on the current account of the balance of payments is estimated at Nkr 33 billion in 1986, a deterioration of almost Nkr 60 billion compared with the record surpluses in the preceding two years. Measured as a percentage of GDP, however,

the deficit was higher in the mid-1970s. The value of total exports was reduced by some 17 per cent from 1985 to 1986, while the value of imports increased by about 9 per cent. The balance of interest and transfers showed little change from the previous year, while the balance of trade in traditional goods deteriorated by some Nkr 23 billion, or more than 48 per cent. The decline in the terms of trade, including reduced oil and gas prices, accounted for two thirds of the deterioration in the current external balance from 1985 to 1986, while about a third can be ascribed to the growth in import volume.

#### Sizeable decline in real disposable income for Norway

Provisional calculations show that real disposable income for Norway fell by 6 per cent in 1986 compared with a growth of about 5 per cent in 1985. The decline in the terms of trade reduced real disposable income as much as 10 per cent, while the growth in net domestic product made a positive contribution of about 4 per cent. With a continued high growth in consumption, this entails that real savings for Norway were more than halved in relation to the record level of the previous year.

#### Sharp rise in consumer prices and wages

Consumer prices, measured by the Central Bureau of Statistics' official consumer price index, rose by 7.2 per cent from 1985 to 1986. The rise in consumer prices was stable through the last half of 1985 and into the first half of 1986, but increased considerably as a result of the devaluation in May as well as excise tax increases and reductions in subsidies that were approved later in the spring of last year. The cost trend nonetheless seems to have been the most important factor underlying the accelerating rate of inflation. In December, prices were 8.9 per cent higher than in the same period one year earlier.

### Record high employment growth

-----  
 The number of man-years performed grew by 3.5 per cent in 1986; this was the highest growth in employment registered since the reconstruction period after the war. The growth in employment entailed that the number of job-seekers without income from employment averaged only 1.9 per cent of the labour force, according to the Central Bureau of Statistics' labour market survey. This is the lowest unemployment rate since the boom in 1980. The strong growth in employment must be viewed in connection with increased domestic demand, and has particularly taken place in private service industries. A more sluggish demand trend in the second half of 1986 and into 1987 will probably lead to a substantially slower rise in the number of man-hours. Adjusted for normal seasonal variations, there were indications that employment showed a slower growth through the second half of last year. The reduction in working hours, however, will help to maintain the demand for labour. Unemployment is therefore not likely to increase very much in the first half of 1987.

### Growth in sheltered industries

-----  
 A strong growth in domestic demand also represented one of the driving forces underlying the growth in production in 1986 as a whole. As in the preceding year consumer and investment demand expanded considerably, while exports showed little change. More production resources were thus channeled to private service industries, the construction sector and sheltered and import-competing manufacturing industry. This is normal in later stages of an upturn, but the domestic impetus to growth has been exceptionally strong and has lasted longer than previously expected.

Manufacturing production increased by 2 per cent in 1986, as against 2.3 per cent the

preceding year. There was, however, a shift between the various manufacturing groups; the decline in gross product in export-oriented manufacturing sectors was amplified while sheltered and import-competing manufacturing sectors continued to advance. The output growth in the construction sector was high in 1986 as was also the case for service sectors excluding the government sector.

Following a weak production trend in export-oriented manufacturing sectors the past two years, there were signs of renewed growth in parts of this industry towards the end of 1986. For sheltered and import-competing manufacturing sectors, on the other hand, there is a danger that weaker domestic demand may entail that 1987 will be a considerably less favourable year than 1986.

In spite of the labour conflict in the North Sea in the second quarter, oil and gas production increased by 6.7 per cent from 1985 to 1986. More new fields came on stream, or are being started up, entailing that the rise in production will continue in 1987 even with a production limitation of 7.5 per cent in the first half of the year.

Very weak productivity gains in most industries and decline in competitiveness for manufacturing

-----  
 Labour productivity stagnated or showed a decline in most industries last year. This was particularly noteworthy in sheltered sectors in view of the sharp growth in production. Norwegian manufacturing industry lost market shares both on domestic and export markets while, at the same time, profitability was reduced. Along with a somewhat faster rise in unit labour costs in Norway compared with our competing countries, this indicates that Norwegian manufacturing industry's competitive position deteriorated in 1986.

DEVELOPMENT IN SELECTED MACROECONOMIC VARIABLES. Percentage change in volume in 1985 prices 1)											
	Bill. Nkr.	Growth					Underlying tendency.				
		1986	1986	86.1	86.2	86.3	85.4	86.1	86.2	86.3	86.4a
Private final consumption expenditure 2)	255.1	5.5	8.2	10.4	3.4	9	7	2	-2	-6	
Goods	169.8	5.4	8.9	12.7	2.7	11	7	1	-5	-11	
Services	74.8	4.0	5.1	3.6	3.9	4	4	4	3	1	
Direct purchases abroad by resident households	17.9	13.9	28.3	21.1	4.1	*	*	*	*	*	
- Direct purchases in Norway by non-resident households	7.3	8.2	29.7	12.8	-1.0	*	*	*	*	*	
Government final consumption expenditure	94.3	1.9	1.9	1.9	1.9	*	*	*	*	*	
Gross capital formation (incl. stocks)	142.8	15.2	7.3	39.0	16.3	*	*	*	*	*	
Oil activities and shipping 3)	24.9	-4.3	-23.2	40.8	-32.1	*	*	*	*	*	
Mainland Norway	101.4	14.9	14.2	20.3	16.6	17	18	14	7	-1	
Manufacturing and mining	16.3	31.0	51.0	39.8	41.3	47	41	23	2	-24	
Other goods-producing industries	15.8	0.4	1.2	-1.9	-0.8	-3	-2	-3	3	12	
Other services	69.3	15.3	11.3	22.8	16.4	17	19	16	10	2	
Stocks (contribution to GDP growth) 4)	16.4	(1.4)	(1.0)	(3.0)	(3.3)	*	*	*	*	*	
Final domestic use of goods and services	492.2	7.4	6.7	15.7	6.7	12	10	6	-1	-9	
- demand from Mainland Norway	450.9	6.6	7.9	10.5	5.8	9	8	5	1	-3	
Exports 2)	237.4	1.0	4.7	-5.2	2.4	0	-4	-3	11	25	
Traditional goods	75.3	0.3	-3.4	3.8	1.2	-1	0	1	1	0	
Crude oil and natural gas	90.6	6.4	7.4	-13.4	9.6	-5	-5	5	43	78	
Ships and oil platforms	12.1	-4.3	109.6	-21.5	-16.7	*	*	*	*	*	
Services	59.5	-4.4	-1.6	-2.7	-2.6	1	-3	-8	-11	-13	
Total use of goods and services	729.6	5.2	6.0	8.4	5.3	8	5	3	2	1	
Imports 2)	212.7	8.8	9.5	20.6	8.4	17	11	5	-2	-8	
Traditional goods	140.3	14.0	10.7	26.3	16.5	20	17	11	5	-4	
Crude oil	3.9	44.8	-19.8	323.3	15.6	*	*	*	*	*	
Ships and oil platforms	9.4	0.9	25.5	27.3	6.4	*	*	*	*	*	
Services	59.1	-2.4	5.4	-1.9	-5.6	1	-8	-9	0	18	
Gross Domestic Product (GDP)	517.0	3.8	4.7	3.7	4.1	4	3	2	4	5	
- excluding oil and shipping	403.6	3.5	3.1	7.3	2.0	5	3	2	2	3	
Oil activities and shipping	113.3	4.9	10.1	-9.4	12.1	2	2	5	15	13	
Other activities	391.2	3.1	1.5	6.4	2.0	3	3	2	2	5	
Manufacturing and mining	70.3	2.1	-2.0	5.3	2.2	1	2	1	2	3	
Other goods-producing industries	65.4	0.5	-1.3	3.8	-0.3	2	0	0	3	8	
Other services	255.5	4.1	3.4	7.2	2.7	5	3	2	3	5	
Correction items (contribution to GDP growth) 5)	12.4	(0.4)	(1.2)	(0.9)	(0.0)	*	*	*	*	*	

1) See technical comment next page. 2) The delimitation between the various groups of goods and services deviates from the classification in the annual national accounts/balance of payments. 3) Includes ships, oil platforms and platform modules in progress. 4) Excludes ships, oil platforms and platform modules in progress. The contributions to GDP growth are computed as the difference between the increase in stocks in the quarter and the same quarter the previous year, measured as a percentage of GDP the same quarter the previous year. 5) Corrected for imputed bank service charge and certain excises. The contributions to GDP growth are computed as the increase in the item from the same quarter the previous year, measured as a percentage of GDP the same quarter the previous year. 6) Growth from previous quarter in smoothed seasonally adjusted series, converted to an annual rate. a) Estimates partly based on projections. \*) Percentage changes are meaningless measured at an annual rate.

PRICE INDICES FOR SELECTED MACROECONOMIC VARIABLES				
	Percentage	Percentage change from same		
	change from previous year 1986	period previous year 86.1 86.2 86.3		
Private final consumption expenditure ..	7.4	5.9	6.6	8.5
Government final consumption expenditure	6.8	5.2	4.4	7.8
Gross capital formation (incl. stocks) .	5.0	7.2	3.1	4.5
Final domestic use of goods and services	6.6	6.1	5.2	7.1
- demand from Mainland Norway .....	7.2	5.9	6.1	8.3
Exports .....	-18.0	-16.1	-18.9	-20.8
- traditional merchandise exports .....	-6.5	-5.7	-10.7	-7.5
Total use of goods and services .....	-1.4	-1.7	-2.3	-1.6
Imports .....	0.0	-1.0	-2.1	1.1
- traditional merchandise imports .....	0.9	1.0	-0.4	1.7
Gross Domestic Product (GDP) .....	-2.0	-2.0	-2.4	-2.7
- excluding oil and shipping .....	8.7	7.2	7.7	9.5

#### TECHNICAL COMMENT ON THE QUARTERLY NATIONAL ACCOUNTS

**Quarterly calculations:** The calculations are made on a less detailed level than the annual national accounts calculations and based on a simpler procedure. The quarterly accounts figures for the years up to and including accounts figures for the years up to and including 1985 have been reconciled against the most recently published national accounts figures. At the moment the Central Bureau of Statistics only has limited experience in judging the reliability of the calculations; figures for changes between quarters in particular should therefore be interpreted with caution.

**Base year and linking:** The figures on volume for 1986 are computed at 1985 prices, and weights from that year have been used. In the quarterly national accounts all the variables are computed at constant prices with the previous year as the base year. In the annual national accounts the base year is 1980. The choice of base year influences the constant price figures and thus the annual rate of change in volume (growth rates). For the sake of comparison, all the tables show growth rates with 1985 as the base year (common conversion year). This is done by linking the constant price figures for the years prior to 1986 to 1985 prices. The linking is made on the quarterly accounts sectoral level.

**Seasonally-adjusted figures:** The quarterly national accounts are calculated as non-seasonally adjusted accounts in which an attempt is made to register actual transactions in each quarter. Many of the statistical series therefore show clear seasonal variations. These are therefore seasonally adjusted on the detailed accounts level and are thereafter added together with the other statistical series to obtain the total figures which are presented in the tables and the charts.

**Gross fixed capital formation:** Total gross fixed capital formation is heavily influenced by the major fluctuations in investment in oil activities. These fluctuations are due in part to the fact that platforms which have been in progress 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.

**Government consumption and investment:** At the moment the Central Bureau of Statistics does not have a statistical basis for distributing the government sector's purchases of goods and services over the year. Until such material is available, it has been decided to distribute this expenditure evenly, with a fourth for each quarter. To the extent there has actually been a growth in expenditure through the year, the method will result in too high a growth at the turn of the year and too weak a growth through the year.

## ECONOMIC POLICY

Economic policy in 1986 was marked by the bleak outlook for Norway's external economy. One of the main goals was to reduce the deficit on current external account, both by reducing the rate of growth in domestic demand and by preventing a further deterioration in Norwegian companies' competitiveness. The most important instruments adopted were a sizeable devaluation, more restrictive tax and excise rules, a tightening of government expenditure, and measures to limit the demand for credit.

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FISCAL POLICY

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In the proposal for the 1986 fiscal budget the Government planned on a deficit before loan transactions of Nkr 950 million. When the State's direct participation in petroleum activities, oil taxes and transfers from the Bank of Norway were excluded, the deficit was estimated at Nkr 27.5 billion.

The plans called for a substantial increase in expenditure. The growth in central government expenditure on goods and services, excluding direct participation in petroleum activities, and the growth in total transfers excluding interest was 7.6 and 9.3 per cent respectively. Total revenue, excluding oil taxes and transfers from the Bank of Norway, increased at a relatively slower rate than expenditure. By raising the threshold limits in the National income tax by an average 7 per cent and the rate for family allowances by an average 8 per cent, a real tax relief was planned. Prices were estimated to rise by 5.5-6 per cent.

During the budget debate and vote in the Storting some changes were made in the programme and the estimates for revenue were revised. This entailed that the approved

budget showed a surplus before loan transactions of about Nkr 2 billion.

As a result of a steadily growing need for an additional tightening, the Government presented its so-called "Easter package" in March. This entailed that the Storting approved on April 30 excise tax increases and spending reductions which improved the balance on the fiscal budget by Nkr 800 million. The increase in revenue was estimated at about Nkr 105 million. The proposal to increase the petrol tax by 35 øre a litre, however, led to a change in Government on May 9.

The Brundtland Government then presented a Revised National Budget. It contained proposals for increases in taxes and excises totalling about Nkr 1.7 billion and net spending reductions of some Nkr 500 million. Among other things, it was proposed that a surtax be levied at the rate of 2 per cent of assessed taxes for 1986 based on rules already approved. The final resolution, however, entailed that the rate for the pension component of members' social security contributions was to be raised by 0.7 percentage points for the 1986 income year. Moreover, a deduction of Nkr 150 was granted in members' contributions. To allow the increase in taxes to have an effect as early as 1986, withholding taxes for the second half of the year were increased by 1.5 per cent of gross income. The proposal to increase the petrol tax by 35 øre a litre was also approved.

In the Final Budget Proposal for the 1987 budget the 1986 estimate for the deficit before loan transactions, adjusted for oil taxes, transfers from the Bank of Norway and State petroleum activities, amounted to Nkr 8.4 billion. The reason for the improvement compared with the original, approved fiscal budget, including social security, can be

REVENUE AND EXPENDITURE IN CENTRAL GOVERNMENT ACCOUNTS, INCLUDING SOCIAL SECURITY			
	1985 <sup>1</sup> Billion Nkr	1986 <sup>2</sup> Billion Nkr	Percentage change from 1985 to 1986
Total revenue .....	223.0	242.9	8.9
Taxes, royalties and other income from petroleum activities .....	46.7	36.2	-22.4
Other taxes and excises .....	139.5	161.7	15.9
- Direct taxes .....	10.9	12.6	15.9
- Social security and pension premiums .....	53.8	61.8	14.9
- Indirect taxes .....	74.9	87.3	16.6
Other revenue .....	36.8	45.0	22.3
Total expenditure .....	198.3	225.5	13.7
Expenditure on goods and services .....	52.5	56.4	7.4
Transfers .....	137.5	155.6	13.2
- To local authorities, including grants to Tax Equalization Fund .....	31.8	34.8	9.3
- Other transfers .....	105.7	120.8	14.3
Surplus before loan transactions .....	24.7	17.4	-29.6
Surplus before loan transactions adjusted for oil taxes, transfers from the Bank of Norway and State petroleum activities .....	-16.7	-8.4	-49.9
<sup>1</sup> Accounts			
<sup>2</sup> Estimates for the accounts			

Source: Final Budget Proposal for the 1987 budget and the National Budget 1987.

found in an increase in the estimate for revenue, from Nkr 227 to 243 billion. Total expenditure is approximately unchanged. The increase in revenue is due in part to a sharp rise in tax revenue as well as interest income. The growth in indirect taxes can be attributed to the tighter measures as well as a sharp growth in private consumption, including the registration of new cars. Direct taxes and social security and pension premiums increased sharply as a result of the tighter

measures, a very favourable employment trend and a higher than expected growth in wages.

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#### FISCAL POLICY INDICATORS

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Fiscal policy indicators are often used to evaluate the effects of the fiscal policy programme on the activity in the economy. Important indicators for this purpose are the surplus on the central government and

social security budget before loan transactions, the level of government sector expenditure on goods and services, and the contribution from the budget surplus to the growth in the public's liquidity (money supply). The information these isolated indicators can provide, however, is limited. The effect of a specific fiscal policy programme on economic activity will also depend on monetary and credit policy, capacity utilization in the industries, conditions on the labour market, and the economic situation otherwise.

When evaluating the effects of the fiscal policy programme on demand, expenditure for State petroleum activities, oil taxes and transfers from the Bank of Norway are often excluded. Adjusted for these items, the deficit before loan transactions in the central government and social security sector (including tax collectors' accounts) in 1986 is estimated at about 1.9 per cent of Gross Domestic Product, excluding oil activities and shipping, as against 4.3 per cent in 1985.

The change in these indicators, however, is influenced by both cyclical conditions and changes in the central government's asset position. The high level of activity in the Norwegian economy in recent years has resulted in a growth in direct taxes, reduced payments of benefits for the unemployed and - through increased private consumption - a growth in indirect taxes. Oil taxes have contributed to strengthening the central government's asset position and thereby increased the central government's net interest income. The change in budgetary accounting routines may also be of significance. In order to obtain a better basis for evaluating the isolated effect of fiscal policy the Ministry of Finance has therefore calculated an activity-adjusted surplus on the central government and social security budget. An attempt has been made to take account of changes in budgeting and accounting procedures, cyclical effects and changes in net interest income from abroad and the Bank of Norway. The deficit on the

budget balance - adjusted for these factors - is in 1986 estimated at 5.1 per cent of cyclically-adjusted GDP excluding oil and shipping, as against 5.9 per cent in 1985. The evaluation of fiscal policy for these years is substantially altered when these revised indicators are used. This is particularly due to the high level of demand and employment in 1986 which significantly strengthened the budget balance.

Government expenditure on goods and services amounted to 27.7 per cent of GDP excluding oil and shipping in 1986, as against 28.7 per cent the preceding year.

Money supply growth in 1986 was estimated at 6.7 per cent in the National Budget for 1987 compared with 15 per cent the preceding year. This estimate may be somewhat low inasmuch as the supply of credit seems to be higher than budgeted. When evaluating these figures, it must also be taken into account that the Bank of Norway has had some problems in registering the actual credit supply. On the other hand, it may appear that the growth in the capital outflow will be somewhat higher than assumed earlier due to a higher current external account deficit.

Following a shift in fiscal policy in a clearly expansionary direction from 1984 to 1985, a review of the fiscal policy indicators for 1986 as a whole gives the impression of a tighter stance. The tightening, however, seems to have been moderate.

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#### CREDIT AND FOREIGN EXCHANGE POLICY

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Because the growth in the credit supply for several consecutive years has been far higher than budgeted, the use of instruments towards both the banks and other credit enterprises was tightened in 1986. Reserve requirements were raised on several occasions and for the first time life insurance companies were also subject to

primary reserve requirements.

The strong expansion in credit the last few years may particularly be ascribed to a sharp growth in lending from the commercial and savings banks even though the lending growth of the life insurance companies has also been high, but from a much lower level. In the first eleven months of 1986 ordinary lending from the commercial and savings banks increased, according to preliminary figures, by Nkr 29.6 billion. In the National Budget for 1987 the credit supply for 1986 as a whole was estimated at Nkr 19 billion. By way of comparison, the lending growth in 1985 was some Nkr 52 billion. When assessing these figures, account must be taken of the problems the Bank of Norway has had in registering the actual lending growth in 1986, among other things as a result of the banks' possibilities for transferring funds.

Even though the growth in lending is still high, it is now slowing. This weaker trend is expected to continue in the period ahead and is partly due to the households' income and liquidity situation which is commented on elsewhere in this publication. The reduced importance of interest deductions as a result of the change in the tax system will pull in the same direction. A weaker operating surplus in many industries has entailed that the yield on bank deposits may be as high as the yield on most shares and fixed investment even when it is taken into account that financial investments in the Norwegian tax system are taxed more severely than fixed investment. If this is now the case, it must be assumed that the companies' fixed investment, and thus the demand for credit, will show a slower growth. A slower growth in lending may gradually contribute to a reduction in the interest rate level.

The sharp lending growth must be viewed in connection with the abolition of key elements in credit regulations as from 1984, the sizeable decline in household saving from 1984 to 1985 and into 1986, and the high level of gross investment in Norwegian

industries. This may partly be ascribed to cyclical conditions and incomes and fiscal policy, but is probably also related to a change in the adaptation to the credit market. As a result of the discontinuation of earlier credit regulations, borrowers are now in a freer position than previously to adapt to the credit volume, given the prevailing interest rate situation and tax rules. Moreover, the regulations that are still in force have proved to be less effective than previously, partly as a result of the development of new financial instruments and a transfer of funds on the part of the banks. A strong expansion in credit was therefore a natural consequence of the liberalization of the credit market. If the tax rules are not changed significantly, it must be assumed that the level of lending will remain high compared with earlier, even if the demand for new loans can be reduced.

After the nominal interest rate level showed little change through 1985, the increase in 1986 has been relatively sizeable. This applies to both the money market rate and the bond rate. After the system of interest rate declarations towards the banks was suspended in the autumn of 1985, the money market rate has functioned as a signal rate for short-term lending rates, while the interest rate on the bond market is to serve as a signal for long-term lending rates. 1986 was thus the first year in which the development in interest rates was controlled by market conditions, and in which an attempt was made to use the interest rate as an active instrument for controlling the credit supply. After the devaluation in May the interest rate on the Bank of Norway's loans to the banks was set at 14 per cent and the interest rate in the rest of the money market stabilized at a level slightly higher than this. At the end of November the Bank of Norway raised the interest rate to 16 per cent. This interest rate was later reduced to 14.8 per cent at the end of December. The interest rate on government bond loans also increased from 1985 to 1986. This has been one of the factors contri-

buting to an interest rate increase of about 1 percentage point on private and municipal bonds.

The average interest rate on bank lending not subject to interest rate norms increased in the first three quarters of last year by 1.7 percentage points. Interest rates increased further in the fourth quarter. Even though the rise in prices also accelerated last year, this was not sufficient to prevent an increase in the real interest rate in 1986. The interest rate on total deposits rose by 0.4 percentage points in the first three quarters. Even though it has been maintained that the banks' lending rates have increased more than necessary, it must be assumed that the difference in interest rates on deposits and loans has primarily been caused by an increase in the banks' costs as a result of higher interest rates in the bond and money market as well as an increase in primary and supplementary reserve requirements.

In view of the existing tax system, with unlimited deductibility of interest on debt, the interest rate is probably of limited significance for regulating the domestic credit market. A greater degree of taxation on gross income may change this situation somewhat. A high nominal interest rate compared with other countries, as we have experienced in Norway in recent years, will on the other hand be of significance in that it will be profitable to have financial investments in Norway. The domestic credit supply will thus increase and reduce the effect of using a high interest rate level as a credit policy instrument. Within specific limits, non-residents and some

Norwegian enterprises can therefore on a relatively unrestricted basis carry out financial transactions in foreign currency. This reduces the control over the development in domestic interest rates and liquidity. When there are expectations of a devaluation, it will be advantageous to meet obligations in foreign currencies, while settlement for claims in foreign currency will be postponed. The capital outflow will thus increase, and the interest rates in the money market must be pushed up to counteract this. Both these factors entail that the magnitude of capital movements between Norway and other countries may vary considerably and, in periods, have a destabilizing effect in the money market.

The value of the Norwegian krone has been reduced several times in recent years, most recently on May 11, 1986. The value of the Norwegian krone is maintained at a generally constant level compared with a weighted average of the currencies of our main trading partners (the currency basket). Fluctuations of 2.25 per cent around the central value of this exchange rate index are permitted. When the krone was devalued, the central value for the index was increased from 100 to 112. In reality, this index in the period prior to the devaluation had an average value of some 101.5, and in the period immediately following the devaluation remained at about 109.5. The unrest on the foreign exchange market in connection with the debate on the National Budget has weakened the krone and at the end of the year it remained in the upper part of the permitted interval. The actual fall in the value of the Norwegian krone was thus about 6 per cent on average from 1985 to 1986.

## PRODUCTION

According to the first preliminary calculations, the value of total gross production in the country - before deducting intermediate consumption - passed the trillion

limit in 1986: Nkr 1 004 452 million. After deducting intermediate consumption, the Gross Domestic Product in 1986 is estimated at about Nkr 506 billion. The growth in GDP

is estimated at 3.8 per cent in 1986, as against 4.0 per cent in 1985, both measured at 1985 prices. Measured at 1980 prices, the growth in 1985 was 4.2 per cent. The gross product of the oil sector and shipping expanded by about 5 per cent in 1986 and thus helped to boost GDP growth. When oil activities and shipping are excluded, GDP increased by 3.5 per cent, as against 3.9 per cent in 1985.

In the primary industries there was a production decline in both 1985 and 1986. In 1986 this was due to a decline in the gross product of agriculture as a result of the fall-off in harvests and a decline in crop production. The gross product of the fishing sector increased, and it was particularly fish farming which accounted for this growth.

The gross product of the sector comprising the production and pipeline transport of crude oil and natural gas has shown a solid growth of between 6 and 7 per cent in both 1985 and 1986. The gross product of manufacturing industry expanded by 2 per cent, slightly less than in the preceding year. In export-oriented manufacturing sectors the decline in production was amplified in 1986, while import-competing manufacturing industry showed a continued growth, even though the growth was lower than in 1985. One reason for the lower rate of growth for these manufacturing groups was the loss of market shares, both on export and domestic markets. A slower investment growth in the North Sea may also explain part of this development. The gross product of sheltered manufacturing sectors, on the other hand, showed a more vigorous growth in 1986 than in 1985.

The gross product of the power supply sector fell in 1985, and the decline was amplified in 1986. The reason was a shortage of water in periods which resulted in higher net imports and lower deliveries of occasional power.

A high level of investment activity,

particularly in dwellings and commercial buildings, resulted in a sharp growth in production in the construction sector in 1986. The growth is provisionally estimated at about 8 per cent and was noticeably higher than in the preceding year. The high growth in consumption the last few years has resulted in a substantial growth in production in wholesale and retail trade. The growth in the sector tapered off in 1986,

GROSS DOMESTIC PRODUCT BY KIND OF ECONOMIC ACTIVITY		
Percentage change in volume from previous year.*		
	1985	1986
Primary industries	-1.3	-2.0
Production and pipeline transport of crude oil and natural gas	6.3	6.7
Mining	7.5	7.5
Manufacturing	2.3	2.0
Sheltered	0.0	2.4
Export-oriented	-0.5	-2.2
Import-competing	4.4	3.1
Electricity supply	-1.3	-6.8
Construction	1.5	8.2
Wholesale and retail trade	7.4	4.6
Shipping and oil drilling	-5.2	-6.4
Transport and communication	5.8	4.7
Other private services	5.9	5.8
Producers of government services	3.0	1.3
Gross domestic product - excluding oil and shipping	4.0	3.8
	3.9	3.5

\* Note that the growth rates for 1985 in all the tables in "Economic Survey" are based on figures at constant 1985 prices. (i.e. 1984 figures at 1985 prices are used as a basis). Previously published growth rates for 1985 are based on figures at constant 1980 prices (base year in the national accounts).

but was still higher than the growth in GDP.

As in 1985, there was a weak trend in shipping and oil drilling, and the gross product fell further in 1985. The overall picture for other service industries is characterized by a continued high growth rate, even though some industries like transport and communications recorded a weaker trend last year. In the general government sector, on the other hand, the growth in gross product was reduced to about 1 per cent in 1986.

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PRODUCTION OF CRUDE OIL AND NATURAL GAS

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Oil and gas production totalled 69.4 million tons oil equivalents (toe) in 1986, an increase of 6.7 per cent from the previous year. Oil production grew by 10.5 per cent and gas production by 1.1 per cent. Oil and gas production on the Statfjord, Ekofisk and Frigg fields account for more than 90 per cent of Norway's petroleum production.

More new fields came on stream in 1986; in addition to Heimdal in April, Ula in October and Gullfaks in December, trial production from a production and well-testing ship was started on the Oseberg field. On the other hand, all production from the Norwegian sector of the North Sea was halted for three weeks in April 1986 due to a labour conflict. An estimated 3.5 million toe would have corresponded to normal production in the period the conflict lasted, and if this is included Norway's oil and gas production would have expanded by more than 10 per cent from 1985 to 1986.

The Statfjord field is accounting for an increasingly higher share of Norway's oil and gas production. In 1986, oil production again showed a sharp rise, some 22 per cent from the previous year. The field was responsible for about 70 per cent of Norway's oil production in 1986, as against 60 per cent in 1985. Ordinary gas deliveries via the Statpipe pipeline were

started in February, and gas production on the field accounted for more than 12 per cent of Norway's gas production in 1986.

Oil production on the Ekofisk field in 1986 was nearly 17 per cent lower than in the previous year. When adjusted for the effects of the labour conflict, the reduction is approximately on a par with developments earlier in the 1980s. Gas production fell by about 30 per cent because a large part of the gas was pumped back into the reservoir to reduce the sinking of the seabed under the platforms. This has now come to an end, and the platforms will be jacked up during 1987.

Gas production on the Frigg field declined by some 6 per cent in 1986. Production would have remained approximately unchanged without the labour conflict in April. The field accounted for about 50 per cent of Norway's gas production in 1986.

There will be a substantial increase in Norwegian production capacity in 1987. The Ula field and the Gullfaks A platform will be in production the entire year. If the entire production capacity is used, Norway's

PRODUCTION OF CRUDE OIL AND NATURAL GAS  
BY FIELD

		1985	1986
		Mill. toe	
Ekofisk	- oil	10.4	8.7
	- gas	11.7	8.1
Frigg	- oil	0.1	0.1
	- gas	13.7	12.8
Statfjord	- oil	24.0	29.4
	- gas	0.8	3.5
Other fields	- oil	3.9	4.3
	- gas	0.5	2.5
Total		65.1	69.4
		- oil	42.4
		- gas	27.0

oil production could total more than 50 million tons in 1987, an increase of over 20 per cent from 1986. The Government, however, has decided to reduce oil production somewhat in order to support OPEC's attempt to raise prices. A production cut of 7.5 per cent in relation to the fields' capacity has been indicated. The percentage reduction will be the same for all fields. If the reduction is carried out for the entire year, oil production may be about 48 million toe in 1987, an increase of 14 per cent.

Gas production will probably also rise in 1987 when account is taken of the strike in

1986, the reduction in the injection of gas on the Ekofisk field and the fact that the Heimdal field will be in production the entire year. The reduction of oil production, however, will at the same time reduce gas production for those fields which produce associated gas. The Frigg field only produces gas and will therefore not be covered by the production limitations. Gas production may reach 30 million toe, entailing that Norway in 1987 will have a production capacity for oil and gas of more than 80 million toe. By way of comparison, the total production at the beginning of the 1980s was 50 million toe.

### THE LABOUR MARKET

As in the previous year, developments on the labour market in 1986 were marked by a strong growth in employment and a clear decline in unemployment. The number of man-years worked grew by 3.5 per cent. This is the highest growth in employment which has taken place since the reconstruction period after the war. Nearly 3 percentage points of this growth can be ascribed to an increase in the number of people employed, although an increase in average hours worked also made a positive contribution.

According to the labour force surveys, the

number of people employed increased by altogether 59 000 in 1986. Most of the employment growth took place among adult women and young people in the age group 16-24 years and was accompanied by a relatively sharp growth in labour force participation for these groups.

The growth in the demand for labour also contributed to a noticeable decline in unemployment in 1986. Measured as an annual average, there were altogether 40 000 job

PEOPLE IN THE LABOUR FORCE, EMPLOYED AND JOB-SEEKERS WITHOUT INCOME FROM WORK Annual average 1 000 people/man-years.			
	Level 1986	Change from 1985	
		Abso- lute	Percen- tage
Labour force	2 111	47	2.3
Employed	2 071	59	2.9
Job-seekers	40	-11	-21.5
Man-years worked	1 834	62	3.5

UNEMPLOYMENT AND LABOUR MARKET MEASURES Annual average 1 000 people		
	Level 1986	Change from 1985
Registered unemploy- ment	36	-15
Employed through labour market measures <sup>1</sup>	15	-11
Total	51	-26

<sup>1</sup> Excluding rehabilitation measures.

EMPLOYMENT BY KIND OF ECONOMIC ACTIVITY  
1 000 man-years worked.

	Level 1986	Change from 1985	
		Abso- lute	Per cent
<b>Industries</b>	1 409.4	59.5	4.4
Primary industries	127.8	0.4	0.3
Production and pipeline trans- port of crude oil and natural gas	14.8	1.6	12.1
Mining	7.1	0.1	0.1
Manufacturing	340.5	7.2	2.2
- sheltered	93.9	2.3	2.5
- export-oriented	46.1	-0.7	-1.5
- import-competing	200.5	5.6	2.9
Electricity supply	17.8	0.3	1.7
Construction	155.2	11.2	7.8
Wholesale and retail trade	254.1	12.7	5.3
Shipping and oil drilling	38.6	-4.3	-10.0
Transport and communication	136.8	7.2	5.6
Other private services	316.7	23.1	7.9
<b>Producers of government services</b>	424.3	2.4	0.6
Central government	141.0	1.4	1.0
Local government	283.3	1.0	0.4
<b>Total</b>	1 833.7	61.9	3.5
- excluding oil and shipping	1 780.3	64.6	3.8

seekers without income from work according to the labour force survey. This represented 1.9 per cent of the labour force, and is the lowest unemployment rate recorded since the last upturn in 1980. A considerable reduction in labour market measures, however, contributed to limiting the decline in unemployment during 1986.

Compared with earlier in the 1980s there was a noteworthy change in the distribution of employment growth by industry in 1985 and 1986. The decline in industries exposed to competition came to a halt, while the growth in the government sector was noticeably lower than previously. Sheltered private industries became the prime growth area for employment.

The growth in employment was in evidence throughout 1986, but when adjusted for seasonal variations the growth seems to have slowed somewhat in the second half of the year. Unemployment has remained fairly constant through 1986. Most of the reduction in the annual average stems from a sharp decline in the autumn and winter of 1985/1986.

## PRICES AND WAGES

Price developments in Norway in 1986 were particularly influenced by the fall in petroleum prices, a noticeably slower rise in international prices, the devaluation in May 1986, increases in excise taxes, and a continued strong growth in domestic costs. The increase in the national accounts price index for the domestic use of goods and services was 6.6 per cent in 1986, approximately the same as the previous year. However, the gap between the rate of inflation, measured by the change in consumer prices, in Norway and its trading partner countries, has widened since the summer of 1985 and particularly increased since the devaluation in May 1986.

The sizeable fall in petroleum prices resulted in a decline in the price index for the gross domestic product in 1986, even though domestic demand components registered a positive and in part accelerating rise in

## RISE IN PRICES FOR MAIN COMPONENTS IN THE NATIONAL ACCOUNTS

Per cent from previous year.

	1985	1986
Private final consumption expenditure	5.9	7.4
Government final consumption expenditure	6.4	6.8
Gross fixed capital formation	7.8	5.6
Final domestic use of goods and services	6.7	6.6
Total exports	4.5	-18.0
Traditional goods	3.8	-6.5
Total imports	6.6	0.0
Traditional goods	6.3	0.9
Gross domestic product	5.7	-2.0

## COMPENSATION OF EMPLOYEES PER MAN-YEAR

	Share of employee man-years in 1985	Percentage change from previous year	
		1985	1986
Manufacturing	20.9	8.0	9.7
- sheltered	5.7	8.3	10.2
- export-oriented	3.0	9.1	9.5
- import-competing	12.1	7.6	9.8
Construction	7.7	7.9	11.3
Wholesale and retail trade	13.3	7.8	10.8
Business services	3.3	8.3	10.2
Domestic transport	6.9	7.3	10.5
Central government sector	9.0	6.5	8.6
Local government sector	18.2	7.3	8.6
Total	79.3	7.8	9.5

prices. With the exception of one year, 1953, a decline in prices for the gross domestic product has not been recorded since the period 1924-1933.

Import prices for traditional goods rose from 1985 to 1986, but in spite of the devaluation the total increase was less than in the previous year. It was particularly finished goods delivered to consumption which recorded a rise in prices, while imports of intermediate goods and capital goods registered a considerably weaker price trend.

The increases in import prices spread quickly to consumer prices later in the summer and autumn of 1986 and, along with an accelerating rise in domestic costs and

increases in excise taxes, contributed to a faster rise in the price index for private consumption in 1986 than in the previous year. The rise in prices for total investment was lower in 1986 than in 1985. The increase in prices for total investment in machinery and transport equipment was lower in 1986 than in the previous year, while investment in buildings, excluding oil activities, recorded a sharper rise in prices in 1986. The slower rise in prices for investment in machinery can be attributed to a considerably lower rise in import prices for engineering products in 1986. There was a substantial decline in the price index for total exports, particularly as a result of the fall in oil and gas prices.

Export prices for traditional goods, however, also fell from 1985 to 1986. The devaluation of the Norwegian krone resulted in an increase in export prices in the second half of the year, but this was not enough to offset the considerable decline in export prices through the last half of 1985 and first half of 1986.

The growth in wages in 1986 was higher than in the previous year. Some service industries in particular recorded a high wage growth, but manufacturing industry also registered a higher growth in wages. Decisive factors underlying this have been the tight labour market and the devaluation.

### INCOMES

In the national accounts, a factor income is computed to indicate the incomes accruing to labour and capital. This is calculated on the basis of an indirect method: Gross domestic product (gross product for each industry) less the consumption of fixed capital and net indirect taxes. The operating surplus is obtained as a residual after deducting the compensation of employees. The operating surplus does not give an indication of profitability in a business sense, since no adjustments are made for direct taxes and financial costs. The preliminary figures are subject to considerable uncertainty, and this can have a major effect on items obtained as residuals such as factor income and operating surplus. The uncertainty is so great that detailed figures by industry are not published for 1986 such a short time after the end of the year. In the accompanying table, however, the total figures for the compensation of employees and operating surplus are split up into four aggregated industry groups in order to highlight some of the developments in income in 1986.

The gross domestic product increased in

value by only 1.8 per cent from 1985 to 1986, according to the first preliminary calculations. The consumption of fixed capital has risen by nearly 10 per cent and net indirect taxes by close to 5 per cent. The calculations therefore indicate that total factor income showed little change from 1985 to 1986. The provisional estimate for total factor income is Nkr 364.5 billion in 1986 as against Nkr 365.4 billion the previous year.

The total compensation of employees is estimated at Nkr 271.4 billion last year, a growth of 13.2 per cent from 1985. The increase from 1984 to 1985 was 11 per cent.

The compensation of employees as a percentage of factor income, when government sector and oil activities are excluded, was 74.5 per cent in 1986, the highest share to be recorded in industries excluding oil activities since 1979.

The total operating surplus is estimated at Nkr 93.1 billion, a decline of as much as 25.9 per cent from 1985. It has also become customary to consider the total economy

## GROSS DOMESTIC PRODUCT BY DISTRIBUTIVE SHARES

	1986 Billion Nkr	Percentage change from 1985
Gross domestic product .....	506.7	1.8
Consumption of fixed capital .....	75.2	9.9
Indirect taxes, net .....	67.0	4.7
Compensation of employees .....	271.4	13.2
Oil production and pipeline transport .....	6.3	22.0
Manufacturing and mining .....	56.1	12.0
Private services .....	102.3	16.8
Other industries .....	106.7	10.0
Operating surplus .....	93.1	-25.9
Oil production and pipeline transport .....	26.2	-56.6
Manufacturing and mining .....	12.8	-1.6
Private services*) .....	32.3	4.7
Other industries .....	21.8	1.9
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All industries excl. oil and shipping:		
Gross domestic product .....	436.4	12.5
Factor income .....	328.8	11.7
Compensation of employees .....	256.7	13.7
Operating surplus .....	72.0	5.1

\*) Including correction for imputed bank service charges.

after deducting oil activities and shipping. With the decline in oil prices and the major effects this had on the income earned in the oil sector in 1986, the percentage changes from 1985 to 1986 are entirely different when this activity is excluded from the total figures. The nominal growth in Mainland Norway is estimated at 12.5 per cent for the gross domestic product and at 11.7 per cent for factor income. The compensation of employees in industries excluding the oil sector and shipping expanded as much as 13.7 per cent. On this basis, the operating surplus for Mainland Norway showed a total growth of 5.1 per cent in 1986.

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DISPOSABLE INCOME AND SAVING FOR NORWAY

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While the gross domestic product for Norway is an indication of the total value added which has taken place during the year, disposable income for Norway shows how much of the value added the country has available for consumption and saving. Disposable income for Norway is obtained by deducting the consumption of fixed capital and net interest, dividends and transfers to abroad, from gross domestic product at current prices.

Preliminary estimates for 1986 show that disposable income for Norway remained virtually unchanged from the previous year. When deflated by the national accounts price index for the net domestic use of goods and

services, this entails a decline of 6.1 per cent in real disposable income for Norway from 1985 to 1986. Real disposable income increased by 4.7 per cent in 1985.

The decline in real disposable income for Norway can be broken down into the contribution from the growth in domestic production, changes in the external balance of interest and transfers, and changes in the terms of trade.

The contribution from the net domestic product has remained relatively steady between 3.5 and some 5 per each quarter since the end of 1984. The contribution for 1986 as a whole was 4 per cent.

The terms of trade are computed as the relationship between average export prices and average import prices. The average export price for Norway is heavily influenced by the prices of oil and gas. The terms of trade showed a deterioration throughout 1985. This can be attributed to a greater extent to the price performance for traditional goods and services than the price of oil. In 1986, the terms of trade on average made a negative contribution of as much as 10 per cent to the growth in real disposable income. The terms of trade for traditional goods and services made a negative contribution in the first half of

1986, while the entire negative contribution in the last six months of the year could be ascribed to oil and gas.

Saving in Norway (disposable income less the value of private and government consumption) fell by Nkr 39 billion in 1986. When deflated by the same price index as for disposable income, real saving in Norway was reduced to half the level of the previous year. The saving ratio in Norway (saving as a percentage of disposable income) declined from 19.5 in 1985 to 10 in 1986.

It should be pointed out that, given the way the national saving ratio is defined above, account has not been taken of revaluations of e.g. petroleum reserves, other natural resources and the foreign debt.

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OIL INCOME

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Income from oil and gas production in the North Sea increased sharply up to 1985 when value added, measured by the gross product in oil and gas production, amounted to Nkr 92 billion. Due to the steep fall in oil prices, the gross product declined to some Nkr 55 billion in 1986. Norway's oil income is made up of the gross product in all oil companies which operate on the Norwegian continental shelf less share dividends which foreign companies take out of the country.

The additional yield oil and gas activities give Norway as a nation, compared with other activities, is often designated as the "oil rent". This can be computed as that share of total production revenue from the production of oil and gas which is obtained above and beyond current production costs and a normal return on invested capital. The method entails that it is disregarded that several input factors which are used in the oil sector probably receive a higher compensation than they would have in other business activities. They can therefore be said to receive, to some extent, part of the oil rent.

CONTRIBUTION TO GROWTH IN REAL DISPOSABLE INCOME FOR NORWAY

Percentage growth from previous year

	1985	1986
Real disposable income for Norway .....	4.7	-6.1
Contribution from:		
Production growth (net domestic product) ....	4.7	4.0
Change in terms of trade	-1.1	-10.0
Change in external balance of interest and transfers .....	1.2	-0.1

INCOME FROM CRUDE OIL AND NATURAL GAS  
PRODUCTION 1977-1986

	Gross product	Oil rent	Oil rent as share of GDP
	Billion Nkr		Per cent
1977	7.4	2.8	1 1/2
1978	12.8	7.0	3
1979	20.8	13.6	5 1/2
1980	41.1	31.8	11
1981	50.1	36.5	11
1982	55.7	37.8	10 1/2
1983	67.3	48.0	12
1984	83.6	60.0	13 1/2
1985	92.0	64.8	13
1986	55.1	23.9	4 1/2

If the normal return on invested capital is set at 7 per cent, which corresponds to the average rate of return on industrial capital the last ten years, preliminary calculations show that the oil rent amounted to almost Nkr 25 billion in 1986. This is a decline of more than Nkr 40 billion from 1985. In 1986, the oil rent was equivalent to about 5 per cent of GDP. The total capital stock in the petroleum production sector was about Nkr 133 billion. The income of private companies and the central government in the form of a return on invested capital, taxes and royalties, thus represented slightly more than 25 per cent of the capital stock.

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INCOMES OF THE HOUSEHOLD SECTOR

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The growth in total disposable income for the household sector in 1986 is estimated at between Nkr 23-24 billion, or about 10 per cent from the previous year. When deflated by the national accounts price index for private consumption, real disposable income expanded by some 2 per cent as against 3.4 per cent in 1985.

The household sector's share of disposable income for Norway was 64 per cent in 1986. This is a sharp increase from 1985 when the share was 58.5 per cent.

Due to a strong growth in both employment and wages, the household sector's wage and salary incomes are estimated to have grown by about Nkr 32 billion, or a little more than 13 per cent from 1985 to 1986. That part of the enterprises' operating surplus which accrues to households also appears to have increased. This can primarily be ascribed to the fact that it was primarily industries with a large number of self-employed which recorded a growth in operating surplus in 1986. Social security disbursements (benefits) have shown a lower percentage growth than wages, due among other things to a reduction in payments of unemployment insurance.

CONTRIBUTIONS TO THE GROWTH IN REAL  
DISPOSABLE INCOME FOR HOUSEHOLDS  
Per cent

	1983	1984	1985	1986
Income	2.3	5.1	6.1	..
Wages and salaries	-0.1	2.1	4.1	..
Operating surplus	-0.2	1.2	-0.3	..
Interest income	0.9	1.0	1.4	..
Transfers	1.6	0.8	0.8	..
Other income	0.1	0.1	0.1	..
Expenses	-0.2	-1.8	-2.7	..
Direct taxes and social security contributions	0.8	-0.7	-0.8	..
Interest expenses	-1.1	-1.1	-1.8	..
Other expenses	0.1	0.0	-0.1	..
Real disposable income	2.1	3.3	3.4	2.1

Tax increases and a stronger rise in interest expenses than in interest income have contributed to reducing the growth in disposable income considerably more than in the last few years. Direct taxes grew at a slightly faster rate than wages and salaries, while the growth in net interest expenses can provisionally be estimated at as much as 44 per cent. The interest expenses of the household sector less interest income are estimated at some Nkr 11 billion in 1986. According to preliminary calculations, the household sector's

interest income rose by some 29 per cent, of which about half stemmed from an increase in claims. The remainder was derived from higher interest rates on claims. The increase in interest expenses is estimated at about 33 per cent, of which nearly two thirds can be ascribed to higher debt.

The household sector's saving ratio is estimated at about -3 per cent in 1986. It is emphasized that there is considerable uncertainty attached to a residually determined item like saving.

### CONSUMPTION

Preliminary calculations show that the total growth in private and government consumption in 1986 was lower than in the preceding year. The growth in volume is estimated at 4.5 per cent in 1986 as against 6.7 per cent in 1985. As in 1984 and 1985, the growth in private consumption was highest, in contrast to earlier in the 1980s when government consumption recorded the strongest growth. Measured as a share of GDP at current prices, total consumption corresponded to 74.0 per cent, a gain of 6.8 percentage points from 1985. The sizeable increase in the share for consumption must be viewed in connection with the sharp fall in oil prices which entailed that GDP at current prices only showed a weak growth, while consumption at current prices increased as much as 12 per cent.

The growth in private consumption was 5.5 per cent in 1986, according to preliminary and somewhat uncertain calculations. This is substantially higher than the record growth of the previous year, but considerably higher than earlier in the 1980s. Private consumption as a share of GDP at current prices corresponded to 54.1 per cent in 1986 as against 48.6 per cent in 1985. After the share for private consumption rose by close to 6 percentage points from 1985 to 1986, it has now reached the same level as in Sweden

and Denmark, although it is still low compared with other OECD countries. The average for the OECD area has been between 61 and 63 per cent in the period 1975-1984.

In Norway, a share for private consumption of more than 54 per cent - which we also recorded in 1977 - is higher than otherwise in the period since 1970. Earlier in the postwar period the share was between 55 and 65.

Measured as a share of GDP at current prices, government consumption represented 19.9 per cent in 1986 as against 18.6 per cent in 1985. This is approximately the same percentage as in many other OECD countries. The share for government consumption in Denmark and Sweden has been considerably higher the last few years, 26-28 per cent. In the period 1975-1984 the share for government consumption in the OECD countries has on average been between 17 and 18 per cent.

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#### GOVERNMENT CONSUMPTION

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According to preliminary calculations, the growth in government consumption was 1.9 per cent in 1986. This is the lowest rate of

growth since 1960. A sluggish growth in employment and a scaling down of labour market measures in the municipalities are the main reasons why local government consumption, according to provisional figures, only rose by 0.9 per cent in 1986 as against 4.2 per cent the preceding year. Military consumption is estimated to have increased by 5.0 per cent in 1986, while the rise in 1985 was 5.7 per cent. The growth rates for military consumption must be viewed in connection with the fact that the definition deviates slightly from that used in the central government budget. The growth in central government civilian consumption is estimated at 2.4 per cent in 1986 compared with 0.1 per cent in 1985.

PRIVATE AND GOVERNMENT CONSUMPTION  
Percentage change in volume from previous year.

	Private consumption	Government consumption	Total consumption
1980	2.3	5.5	3.1
1981	0.9	6.1	2.3
1982	1.6	3.9	2.3
1983	1.5	4.6	2.4
1984	2.7	2.0	2.5
1985	8.1	3.4	6.7
1986	5.5	1.9	4.5

PRIVATE CONSUMPTION

The first estimates for national accounts figures for 1986 show that the volume of private consumption expanded by 5.5 per cent. The growth in the record year 1985 was previously estimated at 8.2 per cent (8.1 per cent in 1985-prices), but new information indicates that this estimate may be revised upwards to about 10 per cent. This means that the growth in consumption in 1985 and 1986 may reach a little more than 16 per cent, or more than the total growth in the entire period 1978-1984.

It must be emphasized that the estimates for consumption for 1986 are very preliminary. For many parts of the consumption of goods it appears that the most important data source for providing an estimate of the development in value - the retail trade index - systematically underestimates this in years with high growth, as in the last few years. The estimate for consumption for 1986 has therefore been adjusted upwards to take this into account and to provide a better accord with other indicators (such as VAT receipts) and with the overall picture the national accounts give for e.g. changes in stocks.

The national accounts price index for private consumption showed a rise of 7.4 per cent from 1985 to 1986. Measured at current prices, private consumption therefore expanded by more than Nkr 32 billion and reached Nkr 274 billion.

In spite of the sharp growth at an annual rate, there were signs that the growth was in the process of levelling off as early as the first half of 1986. Adjusted for normal seasonal variations, private consumption even declined slightly during the second half of the year. This decline was primarily related to the fall in the demand for durable consumer goods, and then in particular private cars. This was the same commodity group which recorded the highest growth during 1984 and 1985, and which also showed the fastest rise measured as an annual average from 1985 to 1986. The growth in sales of non-durable consumer goods and the consumption of services, however, also showed signs of tapering off during the second half of 1986.

An increase in the household sector's real disposable income has naturally been an important reason for the strong growth in private consumption the last two years. But the growth in the real disposable income of households explained in both 1984 and 1985 a smaller share of the growth in consumption than in earlier years. Real disposable income is estimated to have risen by some 2

PRIVATE CONSUMPTION		
Percentage change in volume from previous year		
	1985	1986
Goods	9.2	5.4
- durable consumer goods	29.3	7.2
- other goods	4.8	4.9
Services	5.5	4.0
- housing	3.3	4.2
- other services	6.8	3.8
Specified consumption	8.0	5.0
+ Direct purchases abroad by resident households	9.9	13.9
- Direct purchases in Norway by non-resident households	10.2	8.2
Private consumption	8.1	5.5

per cent in 1986 as against 3.4 per cent in 1985. At the moment, however, the income

estimates for 1986 are marked by considerable uncertainty.

A higher growth in private consumption than in income implies that the saving ratio, as defined on the basis of the income and consumption concepts in the national accounts, fell noticeably in the last two years and was reduced to almost minus 3 per cent in 1986. New statistical material shows, as noted, that the growth in consumption in 1985 was even higher than estimated in the preliminary national accounts figures. In such an event the household sector's saving ratio was negative as early as 1985 and even more negative in 1986 than estimated above. In the national accounts, durable consumer goods with the exception of housing are considered consumed in the year they are purchased. By taking into account that these goods render services over several years, a higher saving ratio is defined than that used in the national accounts. Even on the basis of this definition the saving ratio fell considerably in 1985 and reached a low level of between 1.5 and 2 per cent in 1986.

## INVESTMENT

Gross fixed capital formation amounted to about Nkr 140 billion in 1986. This corresponded to nearly 28 per cent of the gross domestic product, the highest percentage in five years. The high share for investment is to some extent related to the effect of the fall in oil prices on GDP measured at current prices. By way of comparison, the average in the OECD area has been about 20 per cent, although there are sizeable variations from one country to another.

Gross fixed capital formation expanded in volume by almost 22 per cent from 1985 to 1986. This is the exact opposite of the development the preceding year when investment was reduced by nearly 15 per cent,

measured at 1985-prices. In 1986, investment in oil production and pipeline transport made a significant contribution to the growth in investment, expanding in volume by 65 per cent. However, incurred investment costs in oil activities, which give a better indication of the current level of investment, have remained relatively stable the last three years. When investment in oil activities and shipping is excluded, the 15 per cent increase in investment is definitely the highest growth in volume for one year registered thus far in the 1980s.

The preliminary national accounts figures indicate a considerable increase in total stocks. The increase in stocks, however, may be overestimated in the calculations

because the current indicators - particularly in years with a strong growth - may underestimate the development in such variables as private consumption and gross fixed capital formation. The increase was even stronger for stocks of ordinary goods. Stocks of goods in progress, on the other hand, were reduced as a result of the towing out of Gullfaks A and the Ekofisk water injection platform in the summer of 1986. When the increase in total stocks is included, gross investment showed a rise in volume of about 15 per cent from 1985 to 1986.

Investment activity has generally been high

GROSS FIXED CAPITAL FORMATION BY KIND OF ECONOMIC ACTIVITY		
Percentage change in volume from previous year		
	1985	1986
Primary industries	6.2	8.0
Production and pipeline transport of crude oil and natural gas	-42.0	65.0
Mining	- 7.8	37.7
Manufacturing industry	22.8	30.8
Sheltered	- 5.4	13.6
Export-oriented	52.9	53.2
Import-competing	23.2	22.6
Electricity supply	- 0.6	- 8.5
Construction	10.4	13.0
Wholesale and retail trade	19.2	17.1
Shipping and oil drilling	..	..
Transport and communications	- 4.4	34.4
Other private services (incl. dwellings and commercial buildings)	0.5	14.2
Producers of government services	0.3	4.6
Total	-14.8	21.8
- excluding oil and shipping	4.0	14.9

GROSS FIXED CAPITAL FORMATION BY TYPE		
Percentage change in volume from previous year		
	1985	1986
Investment in oil activities	-40.7	69.4
Dwellings	- 1.0	10.4
Other buildings and construction	0.8	7.9
Ships and boats	..	..
Other transport equipment	9.4	40.6
Machinery, equipment, etc.	8.2	15.1
Total	-14.8	21.8

in 1986, and investment expanded in all sectors covered by the calculations with the exception of shipping and the electricity supply sector. The increase was particularly strong in the production and pipeline transport of crude oil and natural gas and in manufacturing and mining, while transport and communications recorded the sharpest rise among the service sectors. Housing investment also rose after declining for two consecutive years, but the investment growth in commercial buildings was higher. In wholesale and retail trade, investment increased slightly less than in 1985, although the growth in investment was still strong. The weak trend in shipping was amplified in 1986, with large, negative gross investment. This can be attributed to increasing sales and registration abroad of existing tonnage and reduced investment in new ships registered in Norway. In the primary industries, it was particularly investment in the fishing sector, including fish farming, which showed a growth.

In the general government sector, the growth in the volume of investment is provisionally estimated at about 5 per cent. Compared with the preceding year this indicates a slightly higher level of government sector investment activity in 1986.

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INVESTMENT IN OIL ACTIVITIES

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Gross investment in the oil production and pipeline transport sector increased, according to preliminary national accounts figures, from Nkr 21.5 billion in 1985 to Nkr 37.0 billion in 1986. Volume expanded as much as 65 per cent. The major fluctuations from one year to the next are related to the fact that platforms are included in gross fixed capital formation at the time they are towed out to the field. In 1986, both the Gullfaks A platform and the water injection platform on Ekofisk were towed out, while there was no equivalent towing out of platforms in 1985.

The estimate for gross investment for 1986 has been revised downwards by about Nkr 9 billion during 1986. The downward revision refers to the investment estimates for exploration and field development. The fall in oil prices through the first few months of 1986 has reduced exploration activity considerably. A lower dollar exchange rate, greater cost consciousness on the part of the companies and very ample cost estimates to avoid excesses also explain most of the downward revision in the estimate.

Incurred investment costs, which best reflect the current investment activity in the petroleum sector, appear to have risen from Nkr 32.9 billion in 1985 to Nkr 34.4 billion in 1986, an increase in value of 4.5 per cent. The estimate for 1987 is Nkr 34.3 billion. As in the preceding year, investment in exploration and field development dominated in 1986, accounting for about 86 per cent of the total costs in the petroleum production sector.

With regard to incurred investment costs, and then in particular costs of goods, it was Oseberg A and B (to be towed out in 1988) and Gullfaks C (to be towed out in 1989) which were of greatest importance in 1986 and will continue to be so in 1987.

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INVESTMENT CONCEPTS - OIL ACTIVITIES

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Incurred investment costs:

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Incurred investment costs are a measure of activity which indicates the current use of resources for a project independently of where the activity takes place. The reporting to the Central Bureau of Statistics is based on the operators' cost control routines.

Gross fixed capital formation:

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In contrast to buildings and construction which are counted as fixed capital formation until the time and with the capital value they have when towed out to the production site. Incurred investment costs for an oil platform are counted as changes in work in progress (i.e. change in stocks) until the platform is placed in the field. For the group field development, there will therefore normally be sizeable deviations between incurred investment costs and gross fixed capital formation in the same period.

The companies plan to develop many new fields, but of these only Gyda and Veslefrikk have been declared commercial. In December 1986, however, a decision was made to develop Troll phase 1 and Sleipner and to build a pipeline from Troll via Sleipner to Zeebrugge in Belgium. Based on these new projects and the fact that the estimate for 1987 is high even without the costs of these projects, it does not appear that the demand from investment in the petroleum sector will taper off in 1987.

Exploration costs in 1986 were about 10 per cent lower in value than in 1985, which was a record year for both costs and number of wells started. The number of drilling vessel days fell by about 18 per cent from 1985 to 1986. The decline, however, did not

Executed and estimated incurred investment costs in oil production and pipeline transport. Billion Nkr, current prices.

	1985	1986 <sup>1</sup>	1987 <sup>1</sup>
Production of crude oil and natural gas	31.6	33.8	33.6
Exploration	7.8	7.0	6.2
Field development	19.2	22.1	21.1
Goods	10.3	12.3	11.5
Services	8.1	8.6	8.3
Production			
drilling	0.7	1.2	1.3
Fields in operation	1.7	2.6	4.4
Goods	0.5	0.6	1.0
Services	0.1	0.9	1.6
Production			
drilling	1.1	1.1	1.8
Land-based activities <sup>2</sup>	2.9	2.2	2.0
Pipeline transport	1.3	0.6	0.7
Total	32.9	34.4	34.3

<sup>1</sup> Estimate according to the Central Bureau of Statistics' investment statistics collected in the 4th quarter of 1986.

<sup>2</sup> Includes office buildings, bases and terminal facilities on land.

take place until the second half of the year. The number of drilling vessel days in the second half of 1986 was almost 40 per cent lower than in the second half of 1985. If this level of activity continues through 1987, it will correspond to full-year employment for 6-7 rigs compared with about 10 in 1986.

Investment for fields in operation, of which production drilling has represented the greatest cost, increased from Nkr 1.7 billion in 1985 to Nkr 2.6 billion in 1986. The estimate for 1987 is Nkr 4.4 billion. The growth from 1985 to 1986 is related to the production start of additional fields. This will also be the case in 1987, but here the costs in connection with the jacking up of the platforms on the Ekofisk field will also play an important role.

In the pipeline transport sector, investment has been low since the completion of the Statpipe pipeline in the autumn of 1985. This situation will change, however, and sizeable investment in this sector must be envisaged when the construction of the pipelines from Oseberg to Sture and from Troll to Zeebrugge is started. The costs for the first phase of Zeepipe are estimated at about Nkr 7.7 billion (1986-prices), and most will be incurred from 1990 to 1992.

## EXTERNAL ECONOMY

The dominating events in Norway's balance of payments in 1986 were the fall in oil prices, the devaluation of the Norwegian krone in May, and a sharp rise in the volume of imports. Altogether, this entailed that the sizeable surpluses in the current account of the balance of payments the previous years were transformed into a very large deficit. The devaluation, which was intended to strengthen the current account

position, thus far only seems to have resulted in higher prices and not a growth in the volume of exports. The volume of imports, however, levelled off towards the end of 1986 and is now showing signs of decline. Nor does the devaluation seem to have been able to prevent a further deterioration in the competitiveness of Norwegian manufacturing industry.

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CURRENT EXTERNAL BALANCE

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The record surpluses on the current account of the balance of payments in 1984 and 1985 were changed into a large deficit in 1986, estimated at Nkr 33 billion. Provisional figures indicate that the deficit was particularly high in April due to the labour conflict in the North Sea, but it was also high from May and up to the end of the year. There is reason to believe that the deficits were nevertheless slightly lower in the last few months of the year. Even though the deficit in 1986 was large in nominal terms, as a percentage of GDP it was lower than in the mid-1970s.

The balance of goods and services shifted from a surplus of nearly Nkr 40 billion in 1985 to a deficit of Nkr 18 billion in 1986. More than two thirds of this reduction can be ascribed to the fall in export prices for oil and gas and traditional goods, including refined petroleum products, while the remainder is due to the increase in the volume of imports. The deficit on the balance of interest and transfers has only risen slightly from 1985 to 1986, while net exports of services changed from a positive

to negative value.

The deficit on the balance of trade for traditional goods, which increased sharply in both 1984 and 1985, rose by an additional Nkr 23 billion, and is estimated at more than Nkr 71 billion for 1986. The deficits have been high in all 12 months of the year, but seem to have been slightly lower towards the end of 1986.

The weak development in the balance of trade for traditional goods can primarily be attributed to the sharp increase in import volume. This was further magnified by the 7 per cent reduction in the terms of trade (relationship between export and import prices). This deterioration was on the whole a result of a reduction in export prices as a result of the decline in prices of refined petroleum products.

The registration of the Norwegian merchant fleet abroad, which has particularly taken place the last two years, entails that the current account deficit in 1986 will be slightly lower than it otherwise would have been. Sales of second-hand ships abroad (including registration abroad) are recorded as exports of second-hand ships in the balance of payments. Sales of second-hand

CURRENT ACCOUNT OF THE BALANCE OF PAYMENTS 1)

Million Nkr.

	1985	1986	Change	Decomposed	
				Volume	Price
Balance of goods and services	39 408	-18 019	-57 427	-14 671	-42 756
- oil and gas	82 356	52 295	-30 061	4 261	-34 322
- ships and oil platforms	3 344	2 752	-592	-634	42
- traditional goods	-47 973	-71 200	-23 227	-17 027	-6 200
- services	1 681	-1 866	-3 547	-1 271	-2 276
Balance of interest and transfers	-13 770	-15 000	-1 230		
Current external balance	25 638	-33 019	-58 657		

1) The delimitation between the various groups of goods and services deviates from the classification in the annual national accounts/balance of payments.

NET FOREIGN DEBT AT THE END OF THE YEAR Billion Nkr.		
	1985	1986
Central government sector	0.5	..
Local government sector	8.8	..
Bank of Norway	-105.2	..
Other finance institutions	58.3	..
Shipping and oil activities	50.1	..
Other Norwegian sectors	33.9	..
<b>Total</b>	<b>46.4</b>	<b>75.0</b>

ships abroad in 1985 and 1986 were more than Nkr 6 billion higher than the average for the five preceding years. It must be assumed, however, that the ships sold would have generated net foreign exchange earnings (gross freight earnings minus expenditure abroad) if they were still registered in Norway. It is therefore difficult to calculate a net effect of registration abroad on the current external balance.

At the end of 1985 Norway's net foreign debt had been reduced to 9.3 per cent of the gross domestic product, which is the lowest percentage Norway has recorded since the 1950s. The central government's net foreign debt had been virtually repaid. If the current account deficit in 1986 is used as an estimate for the increase in the net debt, and adjustments are made for revaluations of reserves and borrowing as a result of exchange rate changes during the year, the increase in debt can be estimated at about Nkr 29 billion. The net foreign debt was in such an event about Nkr 75 billion at the end of 1986 and corresponded to about 15 per cent of the gross domestic product.

#### EXPORTS

Norwegian exports declined in value by about 20 per cent from 1985 to 1986. After having shown a sharp growth since 1982, the value of exports reached a peak at the end of 1985 and then declined in the first half of 1986. The fall in the price of oil and gas counts for almost the entire decline. The volume of Norwegian exports, except for a temporary

EXPORTS BY SECTOR OF ORIGIN 1)							
	Bill. Nkr Value 1986	Percentage change from previous year					
		Value		Volume		Price	
	1985	1986	1985	1986	1985	1986	
Traditional goods	70 387	7.8	-6.2	3.9	0.3	3.8	-6.5
Primary industry goods	2 646	27.2	9.9	12.8	28.0	12.8	-14.1
Sheltered goods	9 396	6.4	1.8	3.8	-7.9	2.5	10.5
Export-oriented goods	34 960	4.8	-14.4	3.5	-2.1	1.3	-12.6
Import-competing goods	23 205	12.4	6.1	7.4	7.2	4.9	-1.1
Electric power	180	6.3	-74.0	-49.4	-64.6	110.1	-26.5
Crude oil and natural gas	54 135	8.6	-36.4	3.6	6.4	4.8	-40.2
Ships and platforms	12 629	36.6	-0.1	56.0	-4.3	-12.4	4.4
Services	57 599	11.2	-7.4	3.1	-4.4	7.9	-3.1
<b>Total exports</b>	<b>194 750</b>	<b>10.2</b>	<b>-17.1</b>	<b>5.5</b>	<b>1.0</b>	<b>4.5</b>	<b>-18.0</b>

1) See footnote on page 30.

decline due to the labour conflict last spring, has risen slightly through 1986. At the moment it is not possible to detect any rise in volume following the devaluation of the krone. Part of the explanation can probably be found in the high level of capacity utilization in many export industries even before the devaluation. It seems, however, that exporters have been able to derive some benefits in the form of higher prices.

The value of oil and gas exports was reduced by over a third from 1985 to 1986. True, the volume of exports showed a growth, but it was the sharp decline in prices which dominated the picture. Oil prices fell by about two thirds from the end of 1985 to the summer of 1986, but have again been rising since that time. Changes in the price of gas often lag slightly behind corresponding movements in the price of oil, and the price of natural gas is still falling. At the end of 1986 it was nearly 20 per cent lower than one year earlier.

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IMPORTS

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The value of total imports passed a peak in the second quarter of 1986 after having moved on an upward trend since the beginning of 1983. Even though imports have later shown a decline, the annual average for 1986 is well above the average for the preceding year. The growth in value can be ascribed to a very brisk rise in import volume, while prices up until the devaluation showed a decelerating trend. In the last half of 1986, however, it is prices which have risen while volume has declined. Apparently the increase in imports can primarily be explained by a strong rise in the demand for goods with high import shares, particularly from private consumption and investment in industries excluding oil and shipping. To a great extent imports have also supplanted Norwegian production in as much as some Norwegian industries have lost shares on the domestic market.

IMPORTS BY SECTOR OF ORIGIN 1)

	Bill.Nkr. Value 1986	Percentage change from previous year					
		Value		Volume		Price	
		1985	1986	1985	1986	1985	1986
Traditional goods	141 586	19.6	15.1	12.5	14.0	6.3	0.9
Primary industry goods	5 724	1.2	13.3	1.8	11.6	-0.6	1.5
Sheltered goods	6 718	18.7	18.3	15.7	15.5	2.6	2.4
Export-oriented goods	24 683	8.8	-4.2	5.0	11.1	3.6	-13.8
Import-competing goods	93 100	23.8	20.3	15.0	15.5	7.7	4.2
Transport equipment	10 994	27.5	25.9	15.4	11.4	10.5	13.1
Electric power	367	570.4	-18.1	271.6	-12.5	80.4	-6.4
Crude oil and natural gas	1 840	-21.9	-32.4	-25.6	44.8	5.0	-53.3
Ships and platforms	9 877	-16.1	6.2	-22.7	0.9	8.5	5.2
Services	59 465	11.7	-1.7	4.6	-2.4	6.8	0.7
<b>Total imports</b>	<b>212 769</b>	<b>14.0</b>	<b>8.8</b>	<b>7.0</b>	<b>8.8</b>	<b>6.6</b>	<b>0.0</b>

1) See footnote on page 30.

## PROSPECTS

1986 was a traumatic year for the Norwegian economy. Real disposable income for Norway was reduced by about 6 per cent, or Nkr 6 000 per capita, and real saving was halved. Record high current external account surpluses in both 1984 and 1985 were turned into an even larger deficit in 1986. The rise in prices accelerated as a separate Norwegian phenomenon, interest rates increased to a level that has no precedent in Norway's postwar history and there was a sizeable devaluation of the Norwegian krone. The strong growth in private consumption in 1985 continued through the first part of 1986 while, at the same time, employment showed a record growth. Continued sales and registration abroad of Norwegian ships reduced Norway's merchant fleet to one fourth the level of ten years ago.

The most important single event in 1986 was the fall in oil and gas prices. In isolation, the drop in prices reduced Norway's real disposable income as much as 9 per cent and accounted for more than half of the deterioration in the balance of payments. Profitability in the petroleum sector was significantly reduced, but is still noticeably better than in most other industries in Norway. This is reflected in the fact that even though the oil rent, i.e. the additional yield oil and gas production gives Norway as a nation beyond the normal compensation of factors of production, was more than halved in 1986, it was nevertheless equivalent to nearly 5 per cent of the gross domestic product. Oil activities are still a decisive element in the Norwegian economy.

The fall in oil prices in 1986 has primarily taught us that oil revenue is uncertain and that in the short term there can be downward movements far beyond the margins of uncertainty assumed earlier. The long-term assessment of the development in oil and gas

markets has not changed very much. There is still reason to assume that the real prices of oil and gas in the longer run will be significantly higher than in 1986, with positive effects for the Norwegian economy and the current external balance. Adjustments in the Norwegian economy were necessary so that the oil revenue could contribute to raising the material standard of living. Other goods-producing industries had to be supplanted, primarily through reduced competitiveness. If the adjustment to an oil economy has now gone too far, it should be possible in the event to achieve a better adaptation to the long-term outlook for oil and gas revenue and development tasks without too dramatic measures.

Some self-inflicted features of economic developments in recent years are of greater concern. Partly as a result of the expansion in oil activities, Norway has for many years recorded a faster rise in prices and costs and lower productivity gains than our trading partners. In the long run, however, these trends are not compatible. Rather systematic attempts have been made to correct this through a series of devaluations which on the whole have only contributed to making Norway a high-inflation country with an almost predictable exchange rate performance. During the recession in 1981-1983 a tight economic policy was conducted with rising unemployment without this having brought us in line with the growth in international costs. The effect of the international cyclical upturn since the beginning of 1983 on the Norwegian economy was sharply amplified and prolonged through 1984 and 1985 through a substantial escalation of oil investment and an expansionary fiscal policy. At the same time, the most important credit regulations were removed. Altogether, this resulted in an almost explosive growth in private consumption (more than 16 per cent increase in two

years), a considerable advance in private investment, a substantially tighter labour market, a high rate of increase in prices, wages and profit margins and a widening gap between the rise in prices in Norway and other countries. Developments on the credit market have reduced the control possibilities in the Norwegian economy and been an important factor underlying a decline of close to 10 percentage points in the household saving ratio over a few years' time. These development tendencies have clearly contributed to the deterioration in the balance of payments.

In the current situation a tight fiscal policy is a necessary, but far from sufficient requirement for solving the problems related to the balance of payments and cost level. A tighter fiscal policy influences demand and the structure of industry directly through reduced government consumption, higher taxes and reduced transfers and indirectly through a less tight labour market and lower rise in costs and through a lower interest rate level. In view of the sizeable adjustment problems in the Norwegian economy, however, exclusive reliance on fiscal policy as a remedy will result in an unemployment level which will be considerable by Norwegian standards. Most of the effect of a repeated tightening of fiscal policy on the current account will in fact be a result of lower domestic demand and production, while the effect on the rise in costs and thus competitiveness will probably rapidly taper off with rising unemployment.

A tight fiscal policy to curb the rise in domestic demand and costs must therefore be supplemented with measures which can promote a more direct shift of resources and know-how to ensure an optimal utilization of labour and capital. Many of our heavily raw material-based industries will have limited possibilities for expansion in the future. At the same time, other parts of industry, often the least profitable, have been sheltered from adjustments. Over a period of many years this has given us low gains in

production and productivity and generally low and very varying rates of return on capital in traditional sectors of industry, in spite of the high level of investment in Norway compared with other countries. The main reason for this must be sought in the fact that most investment in the business sector is based on criteria other than social-economic yields and is influenced among other things by extensive government capital grants and support and subsidy arrangements. In this area much remains to be done, but the potential benefits are thus probably also considerable.

The use of credit policy instruments will figure centrally in promoting a better allocation of resources. The liberalization of the credit market in recent years aimed at achieving greater competition between the finance institutions and a better social-economic allocation of capital. At the same time, new instruments, based on market operations, were developed. Thus far the results have hardly corresponded to the expectations. The design of the tax system entails that it is difficult to achieve the intended effects; the tax system distorts the rates of return between different types of investment, between industries and between real capital and financial capital in an often undesirable and unintended way, and promotes purely tax-motivated investment. The role of the interest rate as a market regulator is thereby partly neutralized. The combination of a liberal credit market and a tax system with shortcomings was also one of the factors underlying the fall in the saving ratio and the strong growth in consumption in 1985 and into 1986. The conflict of goals between the consideration for the exchange rate situation and free capital movements contributed to raising the interest rate level through 1986 and into 1987. Work on a fundamental tax reform should therefore be given high priority in 1987 both because of the short-term control possibilities and the long-term growth outlook. Subsidy and support arrangement should be revised considerably based on altered framework conditions. This

does not have to exclude more direct, forward-looking selective measures.

A decisive precondition for strengthening the Norwegian economy in the short run is a substantially lower rise in prices and costs. The wage and price carry-over from 1986 and the reduction in working hours as

from the beginning of the year provide a poor starting point for an improved cost performance in the year ahead. The goal should therefore be to achieve a rise in costs which is on a par with our trading partners during 1987. A slightly higher oil price will give us some breathing space, but not much more.

## FEATURES OF PRODUCTION AND INVESTMENT DEVELOPMENTS IN OIL ACTIVITIES IN THE YEARS AHEAD

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### PRODUCTION AND INVESTMENT IN OIL ACTIVITIES

### IN THE PERIOD TO 2000

### =====

In the course of the last ten years Norway has become a considerable producer of oil and gas. In 1986, production totalled nearly 70 million tons oil equivalents (toe). In 1990, production from fields which today are in production or being developed will total about 90 million toe if the production capacity is used. This corresponds to what has previously been called a moderate pace of development in Norwegian oil policy.

To maintain a production capacity of about 90 million toe in the 1990s calculations indicate that an annual gross investment in field development of about Nkr 15 billion the next ten years (measured at constant 1986 prices) will be sufficient. This is only half the current investment level. If, on the other hand, an attempt is made to maintain a generally constant and high level of real investment in the years ahead by speeding up development projects, entailing that more fields are developed, the production capacity in the 1990s may amount to more than 100 million toe annually.

The two paths of investment and production will have different consequences for the demand for engineering products. Any acceleration in development projects to maintain a high level of investment in the years ahead will not be able to prevent a sizeable reduction in the demand for engineering products the next three years, but the demand in the 1990s will be noticeably higher. If the number of development projects on the continental shelf is considered to be definite, however, a high rate of investment in the 1990s may entail a more dramatic decline in oil investments around the year 2000 than without any acceleration.

An acceleration of projects will thus only postpone the decline which must take place sooner or later if the production capacity is to be stabilized, but then at a higher level than previously envisaged.

If it is assumed that the production of oil and gas shall remain at about 90 million toe from 1990, employment in offshore-oriented industries will have to be sharply reduced. This reduction in employment can be avoided in several ways:

- i) Offshore-oriented manufacturing industry can make use of idle capacity to increase its exports.
- ii) Offshore-oriented industries can increase their market shares on the domestic market by improving their competitiveness.
- iii) The import share for existing deliveries can be reduced through direct regulations.
- iv) The development of oil and gas fields can gradually be shifted to deeper waters and areas north of the 62nd parallel so that continuously higher investment is required to produce the same volume of oil and gas.

Combinations of these alternatives are conceivable, but some of the combinations are not so easy to achieve. For example, it is not very reasonable to believe that Norway's offshore-oriented industry will gain much of a foothold on export markets (alt. i) if other countries consider Norway's policy as protectionist (alt. iii). Both alternative i) and iv) presuppose relatively high oil and gas prices.

One conclusion resulting from the review above is that if Norway's offshore-oriented industry does not succeed in developing from a generally domestic market-oriented to a more export-oriented industry, a number of companies and employees should be prepared

to shift to other activities during the next few years. Such an adjustment may make an important contribution to improving the competitive position of Norwegian industry in the years ahead.

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THE TROLL/SLEIPNER AGREEMENT: LARGEST EXPORT CONTRACT IN NORWAY'S HISTORY

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In May 1986 an agreement was signed concerning the sale of gas from Troll, Sleipner and other Norwegian fields to a group of gas companies in West Germany, Belgium, the Netherlands and France. The agreement was approved by the Governments of the respective countries by the end of the year.

The deliveries, which will start in 1993, shall be escalated to a plateau of 18.3 bcm (billion cubic metres) annually from the turn of the century and 20 years thereafter, with possibilities for expanding and extending the agreements. In addition, an agreement has been concluded with Austria for 1 bcm. The gas price will depend on a contractually-stipulated formula which includes the price of oil. Such formulas have not been made public.

Based on an assumed oil price, probably between \$25 and 30 a barrel, the agreement's total sales value is estimated to be in the order of Nkr 500 billion (Statoil magazine 3/1986).

Total recoverable gas reserves in the fields to be developed, East Troll (Troll phase 1) and East Sleipner, are about 860 bcm and 60 bcm, respectively. The production capacity of Troll will be 23 bcm annually from the year 2000, while Sleipner can produce 7.6 bcm from 1996. With this production pace East Sleipner will be depleted in 2002, entailing that this field will account for most of the deliveries before the turn of the century, while Troll alone can cover the deliveries through the contract period and for an additional 20 years at least.

Investment

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At an ocean depth of more than 300 metres a gigantic concrete platform will be built on the Troll field at a total cost of Nkr 26.2 billion (1986 prices). The Sleipner platform will cost Nkr 13.8 billion. Total investment in pipelines and transport equipment is estimated at Nkr 14.2 billion. This will allow for a flexible delivery system in which gas from other fields can also be included so that associated gas can be used. Moreover, there will be two landing points on the continent as well as a link to the United Kingdom and Norway.

Investment activities will start next year and last until the turn of the century, with most taking place in the first half of the 1990s. The projects will be under way at a time when no other major field development on the continental shelf has been planned at the moment, and will make an important contribution to employment in offshore-based manufacturing industry. The share accruing to Norwegian industry will of course depend on the ability to win contracts in competition with other bids.

Norway's role in the West European gas market

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Norway's exports to Western Europe were about 25 bcm in 1985, or about 12 per cent of the market. After the news of the gas agreement became known, some newspaper headlines referred to Norway as a future market leader. Most the current deliveries, however, will disappear during the 1990s, and the gas agreement will thus replace these exports. If no new export agreements are signed, Norway's market share is more likely to decline than rise. It is therefore more correct to say that the Troll agreement will serve to maintain Norway's position in the continental market, while it will be weakened in the British market.

Economy and risk

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Compared with earlier Norwegian gas

agreements, often called depletion contracts, the Troll agreement differs on several points. The most important are:

- Price flexibility. The price is indexed in relation to the prices of alternative energy sources in the various market segments. Oil products in particular weight heavily. The price formula can be renegotiated.
- The volume can be adapted to the market's needs, rather than the depletion profile of the various fields.
- Delivery reliability. Idle production capacity as well as stocks for a minimum 14 days' supply in the event of a brief production halt will ensure long-term and stable supplies for the buyers.
- There are possibilities for extending and expanding the agreements.

The terms of the contract entail a shift in the economic risk to the seller. On the other hand, Norway can achieve a better utilization of the gas fields, as well as a higher price compared with depletion contracts with a lower risk but a less favourable market adaptation.

The projects' present value and internal rate of return depend on several uncertain factors in which the future price of gas and capacity utilization are the most important. Calculations made by the operating companies show a present value of 53.3 billion 1986-kroner (with a 7 per cent discount rate) and an internal rate of return of 18.5 per cent before taxes for the Troll field development. The corresponding figures for Sleipner are specified at 17.1 billion and 20.5 per cent, respectively. A higher gas price and capacity utilization (which will result from expanded or new contracts) will improve the projects' profitability and vice versa. Preliminary calculations made in the

Central Bureau of Statistics indicate that the internal rate of return will increase by 2-4 per cent per \$/mmbtu increase in the gas price. A gas price of about \$4/mmbtu is assumed to correspond to an oil price of \$30 a barrel, with the price relationship between oil and gas in recent years as a starting point. A reduction in this gas price of one dollar will reduce the present value of the contract by about Nkr 30 billion. If the price of oil is considerably lower than assumed in the calculations, and Norway does not succeed in selling more gas than expected, the return on the projects will be low.

In spite of the high risk Norway has undertaken for these costly development projects, the agreement has been approved by both the developers and the authorities. From a social-economic point of view the following advantages can be emphasized:

- A relatively high expected return.
- Contracts for offshore-based industry which is expected to have idle capacity during the development phase.
- Infrastructure will be developed and this may improve the profitability of other projects.
- Norway will secure market shares at the expense of other possible exporters like the Soviet Union and Algeria. The contract reduces the profitability of competitors' projects.

Source: Unless otherwise specified, information and figures concerning the development of Troll/Sleipner have been obtained from Proposition no. 1 to the Storting, supplement no. 13 (1986-87), "The development and landing of petroleum from the Troll field and East Sleipner field, etc."

1\*  
NATIONAL ACCOUNTS FOR NORWAY

TABLE A1: GROSS DOMESTIC PRODUCT BY KIND OF ECONOMIC ACTIVITY 1) 2)  
At constant 1985-prices. Million kroner

	1985*	1986*	-----1985-----				-----1986-----		
			1st quarter	2nd quarter	3rd quarter	4th quarter	1st quarter	2nd quarter	3rd quarter
Gross domestic product .	497835	516955	122002	119410	124763	131659	127708	123823	129913
Industries .....	429997	448233	105042	102451	107804	114700	110529	106643	112733
Agriculture, hunting, forestry and fishing etc. ....	17860	17508	3468	1854	8770	3768	3429	1795	8070
Production and pipe- line transport of crude petroleum and natural gas .....	94770	101141	24029	22283	22590	25868	26625	19877	25789
Mining and quarrying .	1561	1678	389	386	354	432	369	467	381
Manufacturing .....	67273	68613	17347	16607	15471	17848	17018	17432	15798
Sheltered manu- facturing .....	18704	19158	4646	4681	4461	4915	4525	4929	4591
Food, beverages and tobacco .....	11387	11607	2725	2903	2781	2979	2634	3028	2854
Printing and publishing .....	7317	7551	1921	1779	1681	1937	1891	1900	1737
Export-oriented manufacturing .....	11749	11488	2972	2962	2856	2960	2928	2921	2751
Paper and paper products .....	3235	3215	854	803	778	800	792	820	749
Industrial chemicals .....	3221	3038	763	835	792	832	803	810	735
Petroleum refining	438	428	110	103	104	121	114	117	99
Metals .....	4855	4807	1245	1221	1182	1207	1220	1174	1168
Import-competing manufacturing .....	36819	37967	9729	8964	8154	9973	9564	9582	8457
Textiles, wearing apparel and foot- wear .....	2040	2042	553	501	442	545	528	527	443
Wood and wood pro- ducts, furniture and fixtures .....	5413	5560	1402	1294	1220	1496	1351	1416	1250
Chemical and mineral products .	7640	8122	1942	1879	1811	2008	1962	2061	1941
Building of ships- and oil platforms	5659	5538	1540	1401	1205	1513	1500	1433	1186
Other manufac- turing goods .....	16067	16706	4291	3888	3476	4411	4222	4145	3638
Electricity supply ...	21322	19872	7015	4532	3814	5961	6275	4432	3992
Construction .....	25878	27988	5743	6266	6729	7140	6309	6912	7185
Wholesale and retail trade .....	58955	61646	13614	14400	14431	16510	14066	16243	14750
Water transport and oil well drilling ....	15142	14175	3791	4208	3775	3368	3883	4246	3719
Transport, storage and communication ...	27139	28424	6473	6808	6854	7004	6766	7295	7093
Dwellings .....	18080	18843	4481	4503	4531	4565	4663	4691	4725
Other private ser- vices .....	71541	75948	17102	17588	18462	18388	18023	19173	19156
Correction sectors ...	10475	12397	1589	3016	2023	3847	3104	4080	2075
Producers of government services .....	67841	68723	16960	16960	16960	16960	17181	17181	17181

1) For the 4th quarter of 1986 the calculations are based upon forecasts or available estimations done by the Central Bureau of Statistics.

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

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NATIONAL ACCOUNTS FOR NORWAY

TABLE A2: EXPENDITURE ON GROSS DOMESTIC PRODUCT. 1)  
At constant 1985-prices. Million kroner

	1985*	1986*	-----1985-----				-----1986-----		
			1st quarter	2nd quarter	3rd quarter	4th quarter	1st quarter	2nd quarter	3rd quarter
Gross domestic product .	497835	516955	122002	119410	124763	131659	127708	123823	129913
Final domestic use of goods and services .....	458425	492211	110758	108072	116353	123240	118133	125047	124166
Private final consump- tion expenditure .....	241916	255116	56374	57937	60326	67280	61023	63962	62359
Specified domestic consumption .....	232976	244549	54786	56032	57344	64814	59001	61517	59129
Direct purchases abroad, net.....	8941	10567	1588	1905	2982	2466	2022	2445	3230
Government final consumption .....	92594	94339	23149	23149	23149	23149	23585	23585	23585
Central government .	35893	37122	8973	8973	8973	8973	9281	9281	9281
Civilian .....	21512	22020	5378	5378	5378	5378	5505	5505	5505
Military .....	14382	15103	3595	3595	3595	3595	3776	3776	3776
Local government ...	56701	57217	14175	14175	14175	14175	14304	14304	14304
Gross capital forma- tion .....	123915	142758	31236	26988	32880	32813	33527	37500	38223
Gross fixed capital formation .....	107963	131547	24126	26936	28849	28054	24268	47263	29321
Investment in oil activity .....	21164	35852	3440	5427	7332	4965	4140	21665	4212
Buildings and other construction	55135	60013	12007	13075	14493	15560	13359	14502	15665
Ships and boats ..	-2564	-6157	1360	166	-1206	-2883	-1808	-199	-944
Other transport equipment .....	9587	13481	2115	2230	2235	3006	2674	3807	3541
Other machinery and equipment ....	24643	28359	5203	6038	5995	7406	5904	7489	6848
Increase in stocks .	15953	11211	7110	53	4031	4759	9259	-9763	8902
Oil platforms in progress .....	6761	-5907	2558	817	951	2435	2841	-12824	1709
Exports .....	234984	237434	57652	57821	56201	63311	60374	54829	57573
- Imports .....	195576	212696	46409	46484	47791	54892	50801	56054	51827

1) See footnote 1, 2 in table A1.

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NATIONAL ACCOUNTS FOR NORWAY

TABLE A3: PRIVATE FINAL CONSUMPTION EXPENDITURE. 1)  
At constant 1985-prices. Million kroner

	1985*	1986*	-----1985-----				-----1986-----		
			1st quarter	2nd quarter	3rd quarter	4th quarter	1st quarter	2nd quarter	3rd quarter
Private final consumption expenditure	241916	255116	56374	57937	60326	67280	61023	63962	62359
Specified domestic consumption .....	232976	244549	54786	56032	57344	64814	59001	61517	59129
Food .....	44740	46101	10240	10971	11067	12462	10585	11454	11344
Beverages and tobacco .....	14898	15417	3266	3693	3663	4276	3416	4036	3501
Clothing and foot- wear .....	17686	18656	3695	4203	4109	5680	3928	4636	4372
Rent, power and fuel	41692	43242	11721	9464	9073	11434	12241	10058	9528
Furniture, furnish- ings and household equipment .....	18502	19417	4193	4059	4534	5717	4370	4522	4608
Medical care and health expences ....	9807	9725	2533	2406	2355	2513	2551	2371	2333
Transport and commu- nication .....	41391	43919	9238	10640	10703	10811	11084	12982	10463
Recreation, enter- tainment, education and cultural services	19201	21463	4524	4471	4593	5614	4895	5055	5396
Other goods and ser- vices .....	25058	26608	5376	6125	7249	6308	5931	6401	7584
Correction items .....	8941	10567	1588	1905	2982	2466	2022	2445	3230
Direct purchases abroad by resident households .....	15722	17904	2792	3578	5460	3893	3584	4332	5682
Direct purchases in Norway by non- resident households	-6781	-7337	-1204	-1673	-2477	-1427	-1562	-1887	-2452

1) See footnote 1, 2 in table A1.

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NATIONAL ACCOUNTS FOR NORWAY

TABLE A4: GROSS FIXED CAPITAL FORMATION BY KIND OF ECONOMIC ACTIVITY. 1)  
At constant 1985-prices. Million kroner

	1985*	1986*	-----1985-----				-----1986-----		
			1.kv.	2.kv.	3.kv.	4.kv.	1.kv.	2.kv.	3.kv.
Gross fixed capital formation .....	107963	131547	24126	26936	28849	28054	24268	47263	29321
Industries .....	94257	117216	20699	23509	25423	24627	20684	43680	25738
Agriculture, hunting, forestry and fishing etc. ....	6164	6659	1161	1844	1718	1441	1288	1957	1816
Production and pipeline transport of crude petroleum and natural gas .....	21473	35441	3731	5664	7584	4494	4492	21486	4468
Mining and quarrying .	338	466	93	61	83	102	66	107	119
Manufacturing .....	12142	15880	2112	2807	2991	4232	3264	3901	4224
Sheltered manufacturing .....	2714	3083	497	582	645	990	621	755	733
Food, beverages and tobacco .....	1993	2221	363	449	466	715	471	559	527
Printing and publishing .....	721	862	134	133	179	275	150	196	206
Export-oriented manufacturing .....	4046	6197	675	1004	977	1390	1163	1594	1685
Paper and paper products .....	831	1324	128	199	205	299	194	324	381
Industrial chemicals .....	847	847	135	210	192	310	155	256	199
Petroleum refining	179	1159	27	48	54	51	192	149	410
Metals .....	2189	2868	386	548	526	730	622	864	695
Import-competing manufacturing .....	5382	6600	940	1221	1369	1852	1480	1553	1806
Textiles, wearing apparel and footwear .....	426	553	69	96	114	147	111	144	127
Wood and wood products, furniture and fixtures .....	938	1042	127	190	279	342	205	252	258
Chemical and mineral products .	1498	2138	268	367	351	512	483	516	661
Building of ships and oil platforms	520	679	101	95	110	213	196	186	189
Other manufacturing goods .....	2000	2188	375	472	515	638	485	456	570
Electricity supply ...	7736	7080	1485	1798	1987	2466	1338	1552	1797
Construction .....	1781	2012	445	445	445	446	502	502	503
Oil well drilling ....	1462	1914	46	157	296	962	-47	816	5
Wholesale and retail trade .....	5561	6512	1391	1382	1385	1403	1616	1619	1633
Water transport .....	-3265	-7228	1157	-13	-1380	-3030	-2097	-455	-1210
Transport, storage and communication .....	9026	12134	1828	2066	1977	3155	2214	3402	3075
Dwellings.....	21114	23320	4645	4830	5721	5918	5105	5455	6288
Other private services [incl. commercial buildings] .....	10724	13027	2604	2467	2615	3038	2944	3338	3019
Producers of government services .....	13706	14333	3426	3426	3426	3426	3583	3583	3583

1) See footnote 1, 2 in table A1.

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NATIONAL ACCOUNTS FOR NORWAY

TABLE A5: EXPORTS. 1)  
At constant 1985-prices. Million kroner

	1985*	1986*	-----1985-----				-----1986-----		
			1st quarter	2nd quarter	3rd quarter	4th quarter	1st quarter	2nd quarter	3rd quarter
Exports, total .....	234984	237434	57652	57821	56201	63311	60374	54829	57573
Agricultural commodities and commodities from forestry and fishing ...	2408	3082	576	665	443	724	650	868	691
Crude petroleum .....	55770	61107	12964	12859	15088	14858	15022	11652	15882
Natural gas .....	29308	29453	8999	7397	5512	7400	8568	5883	6700
Commodities from mining and quarrying .....	1417	1438	363	337	304	413	325	426	317
Manufacturing goods ....	72563	72259	17965	18366	17176	19055	17807	18669	17060
Delivered from									
Sheltered manufacturing	9227	8502	2133	2408	2441	2245	1890	2347	2034
Foods, beverages and tobacco .....	9097	8390	2100	2379	2405	2214	1861	2321	2005
Commodities from printing and pub- lishing .....	130	111	33	30	37	31	29	26	29
Export-oriented manu- facturing .....	39441	38577	9771	10013	9462	10195	9534	10170	9239
Paper and paper products .....	6917	6721	1775	1772	1663	1708	1643	1690	1630
Industrial chemicals	6611	6072	1630	1723	1499	1760	1597	1574	1479
Refined petroleum products .....	6191	6599	1399	1530	1585	1677	1477	1988	1674
Metals .....	19721	19185	4967	4988	4715	5051	4817	4919	4455
Import-competing manufacturing .....	23895	25181	6061	5945	5273	6615	6384	6151	5787
Textiles, wearing apparel and footwear	1500	1481	387	358	358	396	332	343	373
Wood and wood pro- ducts, furniture and fixtures .....	1063	1028	303	267	233	260	250	259	216
Chemical and mineral products .....	6277	7928	1538	1524	1452	1763	1821	1981	1922
Ships and oil plat- forms, new (incl. repairs) .....	2014	1720	417	581	447	569	692	300	395
Other manufacturing goods .....	13041	13024	3415	3215	2783	3628	3289	3268	2882
Ships and oil platforms etc, second-hand .....	10633	10379	1381	2076	2135	5040	3078	1786	1757
Electricity .....	693	245	285	188	86	134	48	42	109
Oil and gas exploration and drilling (incl. leasing of oil drilling rigs) .....	1581	983	672	289	307	313	243	198	290
Gross receipts from shipping .....	37007	34883	8720	9740	8885	9661	9163	9284	8449
Direct exports of services in relation to oil activities .....	644	636	166	149	156	173	177	119	168
Pipeline services .....	3145	3052	951	810	622	761	884	612	718
Direct purchases in Norway by non-resident households .....	6781	7337	1204	1673	2477	1427	1562	1887	2452
Other services .....	13034	12581	3404	3272	3007	3351	2848	3406	2981

1) See footnote 1, 2 in table A1.

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NATIONAL ACCOUNTS FOR NORWAY

TABLE A6: IMPORTS. 1)  
At constant 1985-prices. Million kroner

	1985*	1986*	-----1985-----				-----1986-----		
			1st quarter	2nd quarter	3rd quarter	4th quarter	1st quarter	2nd quarter	3rd quarter
Imports, total .....	195576	212696	46409	46484	47791	54892	50801	56054	51827
Agricultural commodities from forestry and fishing .....	5054	5638	1358	1304	1005	1387	1567	1406	1150
Crude petroleum .....	2722	3942	815	494	842	571	654	2093	973
Commodities from mining and quarrying .....	2147	2114	553	512	545	537	527	509	551
Manufacturing goods ....	115962	131825	28837	27497	26451	33176	31907	34346	30930
Delivered from:									
Sheltered manufacturing	5678	6560	1310	1305	1420	1643	1456	1600	1621
Foods, beverages and tobacco .....	4320	4960	978	1027	1044	1270	1101	1229	1182
Commodities from printing and publishing .....	1358	1600	332	277	376	373	355	370	440
Export-oriented manu- facturing .....	23608	26513	6145	5722	5477	6265	6427	6355	6410
Paper and paper products .....	3095	3230	804	759	715	817	768	855	768
Industrial chemicals	5855	6487	1467	1515	1372	1502	1565	1523	1654
Refined petroleum ..	4710	6426	1337	1070	1112	1191	1421	1283	1574
Metals .....	9948	10369	2537	2378	2278	2755	2672	2694	2414
Import-competing manu- facturing .....	86676	98752	21382	20471	19554	25269	24025	26391	22899
Textiles, wearing apparel and footwear	11974	13828	3079	2632	3027	3236	3444	3251	3597
Woods and wood products, furniture and fixtures .....	4715	5656	1057	1055	1085	1517	1311	1425	1249
Chemical and mineral products .....	20764	23199	4838	5018	4956	5953	5385	6054	5638
Ships and oil plat- forms (incl. repairs)	9303	9389	2442	2277	1454	3130	3064	2899	1547
Other manufacturing goods .....	39920	46680	9966	9489	9033	11432	10822	12763	10869
Transport equipment etc. (non-competing) .....	8731	9724	1809	1853	2002	3066	2398	3047	2365
Electricity .....	448	392	17	90	206	134	31	203	55
Various imports of goods and services in relation to oil activities .....	3430	2721	675	790	1126	840	611	528	830
Gross expenditure for shipping (excl. repairs)	25300	23822	5733	6428	6097	7042	6275	5941	5514
Direct purchases abroad by resident households .	15722	17904	2792	3578	5460	3893	3584	4332	5682
Other services .....	16059	14614	3819	3937	4057	4246	3247	3651	3778

1) See footnote 1, 2 in table A1.

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NATIONAL ACCOUNTS FOR NORWAY

TABLE A7: EXPENDITURE ON GROSS DOMESTIC PRODUCT. 1)  
Million kroner

	1985*	1986*	1985				1986		
			1st quarter	2nd quarter	3rd quarter	4th quarter	1st quarter	2nd quarter	3rd quarter
Gross domestic product .	497835	506692	120468	119640	125161	132566	123642	121038	126775
Final domestic use of goods and services .....	458425	524705	107348	107770	117315	125991	121513	131124	134092
Private final consump- tion expenditure .....	241916	274003	55236	57622	60608	68451	63330	67805	67954
Specified domestic consumption .....	232976	262470	53610	55720	57697	65950	61225	65148	64376
Direct purchases abroad, net.....	8941	11533	1627	1902	2912	2501	2105	2657	3579
Government final consumption .....	92594	100763	22348	23115	23523	23609	23947	24578	25839
Central government .	35893	39302	8669	8969	9107	9148	9408	9653	10090
Civilian .....	21512	23449	5208	5369	5452	5482	5591	5754	6020
Military .....	14382	15853	3461	3599	3655	3666	3817	3900	4070
Local government ...	56701	61461	13679	14146	14416	14461	14539	14925	15749
Gross capital forma- tion .....	123915	149941	29764	27035	33185	33933	34237	38742	40299
Gross fixed capital formation .....	107963	140223	22918	26972	29065	29009	24970	49800	31776
Investment in oil activity .....	21164	37421	3309	5377	7400	5078	4126	22696	4341
Buildings and other construction	55135	64576	11648	13007	14530	15948	13661	15514	17098
Ships and boats ..	-2564	-6340	1013	338	-1211	-2705	-1630	-284	-1028
Other transport equipment .....	9587	14669	1979	2209	2250	3149	2799	4081	3941
Other machinery and equipment ....	24643	29901	4969	6040	6095	7538	6015	7793	7425
Increase in stocks .	15953	9717	6846	63	4120	4924	9267	-11058	8522
Oil platforms in progress .....	6761	-6199	2478	805	957	2521	2935	-13622	1879
Exports .....	234984	194749	59100	58512	55966	61405	51947	44998	45434
- Imports .....	195576	212769	45981	46644	48120	54830	49819	55085	52751

1) See footnote 1, 2 in table A1.

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NATIONAL ACCOUNTS FOR NORWAY

TABLE A8: EXTERNAL CURRENT ACCOUNT. 1)  
Million kroner

	1985*	1986*	-----1985-----				-----1986-----		
			1st quarter	2nd quarter	3rd quarter	4th quarter	1st quarter	2nd quarter	3rd quarter
Export surplus of goods and services .....	39408	-18020	13119	11868	7846	6575	-2128	-10087	-7317
Exports of goods and services .....	234984	194749	59100	58512	55966	61405	51947	44998	45434
Imports of goods and services .....	195576	212769	45981	46644	48120	54830	49819	55085	52751
Net interest and trans- fers from abroad .....	-13769	-15000	-3607	-3994	-2709	-3463	-3469	-4561	-3246
Interest, dividends etc., net .....	-9007	..	-2416	-3358	-1465	-1771	-2251	-3384	-1918
Transfers, net .....	-4762	..	-1191	-636	-1244	-1692	-1218	-1177	-1328
Surplus on current account .....	25639	-33020	9512	7874	5137	3112	-1341	-14648	-10563

1) See footnote 1, 2 in table A1.

TABLE A9: DISPOSABLE INCOME FOR NORWAY 1)  
Million kroner

	1985*	1986*	-----1985-----				-----1986-----		
			1st quarter	2nd quarter	3rd quarter	4th quarter	1st quarter	2nd quarter	3rd quarter
Gross domestic product	497835	506692	120468	119640	125161	132566	123642	121038	126775
- Interest, dividends etc. to abroad, net	9007	..	2416	3358	1465	1771	2251	3384	1918
Gross national income	488828	..	118053	116282	123697	130796	121391	117654	124857
- Consumption of fixed capital .....	68403	75184	15882	16791	17496	18233	16910	18475	19552
National income .....	420425	..	102171	99491	106201	112563	104481	99179	105305
- Transfers to abroad, net .....	4762	..	1191	636	1244	1692	1218	1177	1328
Disposable income for Norway .....	415663	416508	100980	98855	104957	110871	103263	98002	103977
Disposable real income for Norway 2) .....	415663	390462	104079	99047	104071	108466	100234	93493	96321

1) See footnote 1, 2 in table A1.

2) Deflated by price index of final domestic use of goods and services, excl. consumption of fixed capital.

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NATIONAL ACCOUNTS FOR NORWAY

TABLE A10: EXPORTS. 1)  
Million kroner

	1985*	1986*	-----1985-----				-----1986-----		
			1st quarter	2nd quarter	3rd quarter	4th quarter	1st quarter	2nd quarter	3rd quarter
Exports, total .....	234984	194749	59100	58512	55966	61405	51947	44998	45434
Agricultural commodities and commodities from forestry and fishing ...	2408	2646	584	687	438	699	606	717	586
Crude petroleum .....	55770	28625	14061	13177	14408	14124	9542	4854	5891
Natural gas .....	29308	25510	8622	7452	5825	7409	8076	5199	5483
Commodities from mining and quarrying .....	1416	1422	371	341	305	399	320	404	323
Manufacturing goods ....	72562	67952	17800	18543	17378	18841	16725	17021	16095
Delivered from									
Sheltered manufacturing	9227	9396	2098	2441	2449	2239	1969	2419	2325
Foods, beverages and tobacco .....	9097	9274	2067	2412	2411	2207	1939	2391	2292
Commodities from printing and pub- lishing .....	130	122	32	29	38	32	29	28	33
Export-oriented manu- facturing .....	39441	33538	9996	10297	9390	9758	8554	8667	7919
Paper and paper products .....	6917	6885	1766	1782	1685	1684	1601	1693	1724
Industrial chemicals	6611	5924	1603	1766	1499	1744	1574	1524	1418
Refined petroleum products .....	6191	3436	1474	1592	1516	1610	1134	1051	698
Metals .....	19721	17293	5154	5158	4689	4720	4245	4399	4078
Import-competing manufacturing .....	23894	25017	5706	5805	5540	6844	6201	5935	5850
Textiles, wearing apparel and footwear	1500	1614	356	367	358	419	354	373	384
Wood and wood pro- ducts, furniture and fixtures .....	1063	1098	289	262	240	272	248	275	238
Chemical and mineral products .....	6277	7066	1522	1517	1472	1766	1723	1762	1652
Ships and oil plat- forms, new (incl. repairs .....	2014	1813	408	578	446	581	711	314	427
Other manufacturing goods .....	13041	13426	3130	3081	3024	3806	3165	3210	3149
Ships and oil platforms etc, second-hand .....	10633	10816	1703	1883	2148	4900	2921	1970	1920
Electricity .....	693	180	292	249	88	65	50	27	68
Oil and gas exploration and drilling (incl. leasing of oil drilling rigs) .....	1581	780	645	294	317	325	231	168	218
Gross receipts from shipping .....	37007	31758	9512	10097	8641	8757	7789	8355	8026
Direct exports of services in relation to oil activities .....	644	682	160	148	156	181	183	125	182
Pipeline services .....	3144	3059	882	744	696	822	975	607	693
Direct purchases in Norway by non-resident households .....	6781	7835	1175	1658	2496	1452	1608	1974	2666
Other services .....	13034	13485	3294	3239	3069	3432	2922	3575	3283

1) See footnote 1, 2 in table A1.

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NATIONAL ACCOUNTS FOR NORWAY

TABLE A11: IMPORTS. 1)  
Million kroner

	1985*	1986*	-----1985-----				-----1986-----		
			1st quarter	2nd quarter	3rd quarter	4th quarter	1st quarter	2nd quarter	3rd quarter
Imports, total .....	195576	212769	45981	46644	48120	54830	49819	55085	52751
Agricultural commodities from forestry and fishing .....	5054	5724	1412	1379	979	1284	1510	1570	1179
Crude petroleum .....	2722	1840	852	508	842	521	595	833	332
Commodities from mining and quarrying .....	2147	1877	564	541	553	489	461	446	489
Manufacturing goods ....	115962	132502	28104	27679	26834	33344	31325	34267	31730
Delivered from:									
Sheltered manufacturing	5678	6718	1319	1339	1398	1622	1426	1627	1651
Foods, beverages and tobacco .....	4320	5068	982	1051	1049	1238	1061	1245	1208
Commodities from printing and publishing .....	1358	1649	337	288	348	385	365	382	443
Export-oriented manu- facturing .....	23608	22807	6237	5863	5443	6065	5880	5606	5363
Paper and paper products .....	3095	3379	799	762	716	819	769	874	822
Industrial chemicals	5855	5806	1502	1545	1379	1429	1398	1431	1454
Refined petroleum ..	4710	3630	1382	1110	1067	1150	1134	698	760
Metals .....	9947	9991	2554	2446	2281	2667	2579	2603	2326
Import-competing manu- facturing .....	86676	102977	20548	20478	19994	25657	24019	27034	24716
Textiles, wearing apparel and footwear	11974	13828	3079	2632	3027	3236	3444	3251	3597
Woods and wood products, furniture and fixtures .....	4715	6101	1028	1058	1063	1566	1304	1524	1381
Chemical and mineral products .....	20764	23576	4873	5084	5012	5795	5266	6069	5787
Ships and oil plat- forms (incl. repairs)	9303	9877	2437	2243	1455	3168	3092	3036	1704
Other manufacturing goods .....	39920	48620	9265	9580	9337	11738	10991	13172	11805
Transport equipment etc. (non-competing) .....	8731	9724	1809	1853	2002	3066	2398	3047	2365
Electricitydl.....	448	367	23	107	221	97	34	181	49
Various imports of goods and services in relation to oil activities .....	3430	2927	651	782	1121	877	632	557	902
Gross expenditure for shipping (excl. repairs)	25300	21440	6243	6418	6081	6558	5647	5347	4962
Direct purchases abroad by resident households .	15722	19368	2802	3560	5408	3952	3713	4631	6244
Other services .....	16059	15730	3647	3871	4115	4426	3320	3856	4135

1) See footnote 1, 2 in table A1.

## STATISTISK SENTRALBYRÅS MAKROØKONOMISKE MODELLER

Byråets makroøkonomiske modeller er alle bygget opp med utgangspunkt i nasjonalregnskapets kontosystem. Kjernen i modellene er kryssløpssammenhenger for tilgang og anvendelse av spesifiserte varer og tjenester. Til denne kjernen er det knyttet atferdsrelasjoner mv. for de ulike sektorer i økonomien. Det er omfanget og arten av disse relasjonene og detaljgraden i varekryssløpet som er ulik fra modell til modell, avhengig av formålet med modellene.

MODIS er den mest detaljerte av modellene. Modellen ble opprinnelig utviklet omkring 1960. Den nåværende versjonen, MODIS IV, har en kryssløpskjerne på 210 varer og 150 produksjonssektorer. Modellen inneholder få egentlige atferdsrelasjoner, men gir en inngående behandling av offentlige inntekts- og utgiftsposter, spesielt avgifter og subsidier. Modellen nyttes først og fremst av Finansdepartementet i arbeidet med de årlige stats- og nasjonalbudsjettene og de fire-årlige langtidsprogrammene.

MODAG er mindre detaljert; kryssløpskjernen spesifiserer 41 varer og 33 produksjonssektorer. Modellen er særlig egnet til analyser på mellomlang sikt. Atferdsrelasjonene, som dekker produksjon, konsum, investering, eksport, import, pris- og lønnsdannelse og arbeidsmarkedet, er i Klein-Tinbergen tradisjonen, med elementer fra den skandinaviske inflasjonsmodellen. Modellen nyttes bl.a. av Finansdepartementet til politikkanalyser.

KVARTS er en kvartalsmodell som inneholder stort sett samme type atferdsrelasjoner som MODAG, men er noe mer aggregert. Kryssløpskjernen spesifiserer 25 varer og 16 produksjonssektorer. I modellen er det lagt stor vekt på dynamiske korttidssammenhenger, dvs. at mye av forløpet er bestemt av utviklingen i tidligere kvartaler. Modellen nyttes først og fremst i Byråets arbeid med konjunkturanalyse.

MSG er en anvendt likevektsmodell som forutsetter frikonkurrans og full utnyttning av arbeidskraft og kapital. Den er særlig egnet til å si noe om hvordan næringsstrukturen vil endre seg langs en vekstbane for økonomien. Modellen har sin opprinnelse i et arbeid av Leif Johansen fra omkring 1960. Den nåværende versjonen, MSG 4, nyttes først og fremst til langsiktige perspektivberegninger som grunnlag for regjeringens langtidsprogram og ulike sektoranalyser.

De modellene som er nevnt ovenfor oppdateres årlig og brukes og vedlikeholdes regelmessig. I tillegg er det utviklet enkelte makroøkonomiske modeller for analyse av mer spesielle problemstillinger, bl.a. rene kryssløpsmodeller med spesifikasjoner ned til detaljert nasjonalregnskapsnivå, 340 varer og 185 produksjonssektorer.

Foruten de makroøkonomiske modellene har avdelingen modeller innenfor feltene skatter og offentlige utgifter, demografiske og regionale forhold og naturressurser. Av disse er det særlig tre som berører makroøkonomiske forhold: REGION – en modell som bryter ned de makroøkonomiske størrelsene til fylkesnivå, MAKKO – en modell som belyser økonomiske konsekvenser av ulike standardkrav til kommunale tjenester, gitt visse demografiske utviklingstrekk og MATAUK – en modell som framskriver arbeidsstyrken etter ulike kjennetegn.



## Økonomiske analyser

Utkommer med omlag 10 nummer pr. år.  
Prisen for et årsabonnement er kr 120,—,  
løssalgpris kr 15,—. Forespørsler om  
abonnement eller løssalg kan rettes til  
opplysningskontoret i Statistisk Sentralbyrå.

### Statistisk Sentralbyrå

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