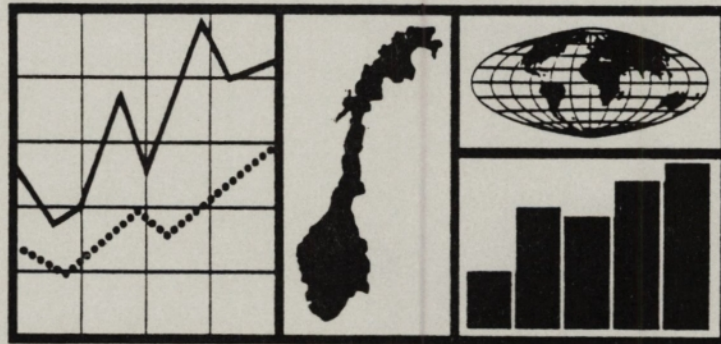


Økonomiske analyser

NR. 1A – 1988



Economic survey 1987

Statistisk Sentralbyrå

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

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The current issue of Economic Survey contains a review of the Norwegian economy for 1987. The first preliminary national accounts figures for 1987, based on the quarterly national account 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 1987, 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 May of this year.

The Economic Survey of 1987 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, 27 January 1988.

Summary

The after-effects of an unusually strong surge in domestic demand from 1984 to 1986, the plunge in world petroleum prices, the 1986 devaluation of the Norwegian krone and a mandated reduction in the work week, all strongly influenced the Norwegian economy in 1987. Demand in Mainland Norway levelled out or declined in 1987, leading to only a slight growth in production from 1986 to 1987. The Gross Domestic Product (GDP) rose by 1.3 per cent, but growth amounted to a mere 0.4 per cent when oil and shipping activities are excluded. Lower domestic demand pressure reduced imports, and in conjunction with an increase in the demand for traditional exports (i.e., all goods except oil and shipping), an improvement in the balance of trade occurred. Nonetheless, the current external account deficit was substantial, amounting to some NOK 28 billion, or 5 per cent of the country's GDP.

Although the turnaround in domestic demand was mainly due to cyclical and other independent fiscal factors, a certain tightening of economic policy was also a contributing factor. High interest rates and tax hikes were instrumental in reducing the household sector's disposable income. However, an even more important brake on demand was posed by an increase in the household sector's saving ratio, despite the fact that this was negative for the third consecutive year (-3 per cent in 1987). Investment also fell back last year following several years of steady growth. On the other hand, local government spending rose considerably from 1986 to 1987, despite the reduction in the work week.

A tight labour market, the reduction in the working week and the after-effects of the devaluation all contributed to the rise in prices and hourly wages from 1986 to 1987. The inflation rate gradually decelerated during the latter half of the year as the direct effects of the 1986 devaluation diminished. But for the seventh consecutive year Norway's rise in consumer prices continued to outpace that of its main trading partners.

Weak growth throughout 1987

Both demand (consumption and investment) and output in Mainland Norway exhibited weak growth through the latter half of 1986 and all of 1987. However, the growth in output remained somewhat higher than domestic demand as a result of the buoyancy of traditional exports. Towards the end of 1987, the Mainland economy showed a tendency towards a slow rise in demand and output. This trend was, however, heavily influenced by the investments made in the Mongstad oil refinery, of

Selected Economic Indicators

	1986	1987
Selected macroeconomic variables		
(Percentage change in volume ¹)		
Private final consumption expenditure	5.8	-1.9
Government final consumption expenditure	3.1	2.7
Gross fixed capital formation	23.8	-3.7
Exports	-0.8	4.1
Imports	8.9	-3.4
Gross domestic product	4.1	1.3
– excluding oil and shipping	4.5	0.4
The labour market		
Employment, percentage change	2.8	1.9
Man-hours worked, percentage change	3.6	0.0
Unemployment rate	2.0	2.1
Prices and wages		
Percentage change		
Consumer price index	7.2	8.7
Export prices	-16.9	-1.0
Import prices	0.0	3.8
Compensation of employees per man-hour	10.0	11.4
Balance of payments		
Current external balance		
in NOK billion	-32.8	-28.1

¹ See technical comment in the discussion of the quarterly national accounts on page 6.

which there is a great deal of uncertainty as to how the quarterly accounts ought to be divided. Excluding the Mongstad facility, private consumption and investment clearly showed weaker development in 1987.

Stable growth in OECD countries

Output growth in the OECD area as a whole has remained relatively modest, changing little in recent years. GDP growth from 1986 to 1987 is estimated at 2.75 per cent.

Most people expected the 1986 drop in oil prices to stimulate economic growth, but it appears that the price reduction has had less impact than expected towards increasing the GDPs of OECD countries. The fall in the price of crude oil and other raw materials in 1986 has nonetheless contributed to a rise in consumption over the past two years due to a lower

rate of inflation and the subsequent growth in real household incomes. However, substantial growth in consumer demand in many OECD countries has not led to any upswing in private sector investment. This may be due to the uncertain situation perceived by business and industry, especially with respect to currency fluctuations and stock market developments. In 1987 fiscal policy was tight in most of the OECD countries, and it was generally targeted at reducing public sector budget deficits.

Inflation in the OECD area rose somewhat from 1986 to 1987, reaching about 3.5 per cent in 1987. While the sharp drop in oil prices resulted in negative growth in 1986, several raw materials recorded higher prices in 1987.

The large-scale world trade imbalances of recent years were not reduced in 1987. The US foreign trade deficit remained high, while West Germany and Japan both had considerable foreign trade surpluses. International foreign exchange and stock exchange markets experienced a great deal of turmoil in 1987, exemplified most notably by the stock market plunge in October and the fall in the US dollar.

Tighter economic policy, and continued high interest rates

The goal of the Norwegian Government's 1987 economic policy program was to curb domestic demand. Fiscal policy was tightened, mainly by increasing Fiscal Budget revenues. The higher tax levels of the latter half of 1986 were maintained, at the same time as taxes on gross income were raised and taxes on net income were lowered. In 1987 tax and excise payments increased more rapidly than anticipated in the Budget due to higher than expected levels of wages and employment. On the other hand, total spending also rose strongly, by 10.5 per cent, according to provisional estimates. The fiscal budget surplus before loan transactions, adjusted for oil taxes, etc., was estimated at NOK 1.8 billion in 1987, compared to a deficit of NOK 5.5 billion the preceding year.

The Government's credit policy presumed that the tax reforms, combined with a continued limited use of policy instruments aimed at financial institutions, would result in an interest rate reduction during the year. However, such a reduction proved unfeasible. This was partly related to the use of short-term interest rates as an instrument to defend the krone's rate of exchange. Furthermore, the use of policy instruments vis-a-vis the banks helped to push up lending rates compared to interest rates on deposits. Despite an increase in the general level of interest rates throughout the year, lending far exceeded government budgetary projections.

Clear decline in private sector consumption, but continued negative saving ratio for households

Private sector consumption declined by 1.9 per cent from 1986 to 1987 after rising rapidly in 1985 and 1986. The decline appears to have halted in the latter half of 1987. The decline in the consumption of commodities slowed down, and the demand for durable consumer goods in particular experienced a pronounced reduction from 1986 to 1987. The consumption of services, on the other hand, grew steadily throughout the entire year, showing no sign of tapering off.

Provisional, rather uncertain estimates show that growth in households' real disposable income advanced by approximately 1 per cent in 1987, slightly less than the previous year. For the third consecutive year, however, the household sector had a negative savings ratio, i.e. the value of their consumption exceeded their disposable income. The savings ratio was estimated at -3 per cent for 1987, an improvement of about 3 percentage points from the year before. A negative savings ratio means that the household sector increased its net indebtedness, and thus also its net interest expenses last year. This accumulation of debt, combined with the high nominal and real interest rates, will, through higher net interest expenses, contribute to negative growth in households' future real disposable income.

Downturn in investments, though level remains high

Total gross fixed-capital formation dropped by 3.7 per cent from 1986 to 1987. The downturn is somewhat less when investments in shipping and oil-related activities are disregarded. Investments in Mainland Norway had been on the rise since 1984, but fell somewhat in 1987. Nonetheless, investment remained at a considerably higher level than the 1981 recorded peak of the previous economic cycle.

Investment in industry, which usually has a strong influence on economic indicators, continued to rise from 1986 to 1987, though the growth rate was clearly slackening. Investment trends in 1987 were strongly influenced by the situation at Mongstad. Investment in industry, excluding the refinery sector, reached a peak in 1986, and dropped off somewhat in 1987, particularly in export-competing manufacturing. Other manufacturing sectors also noted a downturn in investment in 1987, and the electricity supply industry, for example, recorded a decline for the sixth consecutive year.

Most private sector services experienced a stagnation or decline in investments from 1986 to 1987, following high growth rates in the years immediately preceding Residential construction also exhibited clear signs of stagnation.

Gross investment in oil-related activities was significantly lower in 1987 than in 1986. Fluctuations in these investment figures from year to year may, however, be ascribed to the towing out of completed oil platforms. Incurred investment costs, which are a more accurate measure of investment activity, remained approximately unchanged in terms of volume from the year before. Gross investment in the shipping sector rose appreciably from 1986 to 1987 as a result of a slow down in the registration of Norwegian ships under foreign flags and the fact that a number of used ships are now being registered in the Norwegian International Ship Register (NIS).

Upturn in traditional exports

The volume of traditional exports rose a total of 7.3 per cent from 1986 to 1987 after experiencing little change since the beginning of 1985. The majority of the growth was the result of an increase in exports from the export-competing industries (i.e., industries which primarily sell their products abroad against foreign competition), but export growth was also noted in the primary sector and among products from import-competing industries (i.e., industries which primarily sell their products on the home market in competition against foreign imports). A build-up of stocks abroad, market growth among Norway's important trading partners and the Norwegian devaluation contributed to the upturn in exports. However, there were indications of a slow-down in export growth towards the end of the year.

The export volume of crude oil and natural gas was substantially greater in 1987 than in 1986, while gross cargo revenues from shipping were considerably lower, mostly owing to the reduction in the size of the merchant fleet as a result of the registration of Norwegian ships abroad.

Decline in imports, but growth in the latter half of the year

The vigorous turnaround and curbing of domestic demand from mid 1986, combined with a slight improvement in market shares at home, resulted in a decline of 3.4 per cent in the volume of imports from 1986 to 1987. Last year the import of traditional goods decreased by 5.8 per cent, while the import of services increased. The tapering off of domestic demand probably led to the pick-up in imports during the latter half of the year.

Real Disposable Income for Norway and Domestic Use of Goods and Service

The gross domestic product minus capital consumption provides an indication of Norway's Net National Product (net value added) for the year. By subsequently deducting net interest, dividends and transfers abroad, it is possible to arrive at Norway's approximate disposable national income. To obtain an overview of longer-term trends in real disposable national income, the figures must be adjusted for inflation. The figure above shows the development in real disposable national income for Norway from 1976 to 1987, compared to the development of the domestic use of goods and services, private sector consumption, public sector consumption and net investment. The figure illustrates both trends in domestic use and trends in real disposable national income. The difference equals net foreign debt.

Significantly lower rate of growth in most sheltered sectors and in the import-competing sectors

Increased domestic demand was the primary impetus to production growth in 1985 and 1986. Since mid-1986, when demand reached its plateau and then began to show a slight negative tendency, the gross domestic product has only recorded moderate growth. This trend has been especially clear in industries which primarily supply the domestic market, such as the import-competing sectors. The upturn in the export of traditional goods, on the other hand, led to rapid growth in the export-competing sectors. However, weak development in other manufacturing sectors meant that total industrial output remained more or less unchanged in 1987 compared to 1986. Production growth in the building and construction industry, which had been strong in 1986, stagnated last year.

There was notably lower, though still considerable growth in some sheltered industries, particularly in the private service sector. This must be viewed in conjunction with the fact that the demand for services continued to grow. In contrast, a distinct scaling back in the private sector's consumption of goods had direct negative ramifications on wholesale trade. The gross product of shipping was reduced by more than 25%, mainly due to the previous registration abroad of some of Norway's merchant fleet.

Oil and gas production expanded by 11.8 per cent from 1986 to 1987, in spite of a 7.5 per cent limit on production increases. The main reason for the growth was that several new fields came on-stream towards the end of 1986.

Higher productivity in the manufacturing sector, but a steady drop in competitiveness

Labour productivity, measured as gross product per man-hour worked, showed an increase from 1986 to 1987 in some areas of business and industry, including manufacturing, while productivity continued to drop in most service sectors. Manufacturing industry appears to have experienced a certain improvement in market shares both at home and on the export market from 1986 to 1987.

At the same time, unit-labour costs grew more rapidly in Norway than in competing countries, even when we take account of changes in foreign exchange rates. Provisional calculations also indicate a downturn in industrial profitability. Based on this, there seems to be no reason to believe that the moderate growth in market shares from 1986 to 1987 augurs any fundamental improvement in the competitive position of Norwegian industry.

Continued employment growth

Following record high growth in 1985 and 1986 of between three and four per cent, provisional estimates indicate that the number of man-hours worked remained unchanged in 1987. However, the lowering of the number of hours in the working week, which went into effect 1 January, 1987, meant that the number of employed persons rose by about 40,000, or 1.9 per cent. Growth in the number of man-hours worked and employment proved to be strongest in some sheltered sectors, including the private service sector, the building and construction sector and the local government sector, while there was a decline in the number of hours worked in manufacturing, primary industries and wholesale trade. The number of unemployed, measured as the number of job-seekers without earned income according to the Central Bureau of Statistics' Labour Market Survey, amounted to an annual average of 45,000 persons in 1987. This equalled 2.1 per cent of the labour force, roughly the same as in 1986. In spite of the weak production performance of a number of Norwegian enterprises, the labour market has therefore remained extremely tight in 1987 as well. One major reason for this is the reduction in ordinary working hours.

Further wage and price rises

The average rise in prices in Norway was somewhat higher in 1987 than the year before, and the gap between Norway's inflation rate and those of its trading partners widened even more. We must go back

to 1980 before we find a year in which Norway's inflation rate did not outpace those of its main trading partners. The consumer price index climbed by 8.7 per cent from 1986 to 1987. The cost of capital goods, particularly investment in building and construction and in general government consumption, rose even more.

The inflation rate was especially high during the second half of 1986 and the early half of 1987. Then inflation decelerated somewhat, and at year-end the underlying growth trend in consumer prices amounted to slightly less than 7 per cent. In December 1987, the consumer price index was 7.4 per cent higher than in December 1986.

The May, 1986 devaluation had a direct effect on the growth in consumer prices from 1986 to 1987, even though its major impact came in 1986. In 1987, however, growth in domestic costs was the primary inflationary factor. An extremely tight labour market, the reduction in working hours and the devaluation, with the subsequent growth in import prices, must be assumed to have contributed to the high growth in wages from 1986 to 1987. For the economy as a whole, the average hourly wage rose by about 11.5 per cent, as against about 10 per cent in 1986. Annual wage growth (hourly wage growth adjusted for the reduction in working hours and overtime) totalled approximately 7.5 per cent, clearly less than the year before.

Continuing large current account deficit

The nation's current account deficit amounted to some NOK 28 billion in 1987, an improvement of nearly NOK 5 billion from 1986. Excluding the export and import of used ships, the 1987 deficit was calculated to be NOK 33.8 billion, as against NOK 42.5 billion the preceding year. The deficit reduction from 1986 to 1987 is primarily due to an NOK 11.5 billion improvement in Norway's balance of trade in traditional goods, while the balance of interest and transfers deteriorated by NOK 0.8 billion. Terms of trade with other countries (the ratio of export to import prices) also deteriorated further in 1987, mainly owing to the fact that natural gas prices fell considerably in 1987. Moreover, due to the devaluation in May 1986, the average exchange rate of the Norwegian krone was 3.5 per cent lower than it was the year before. It must be noted, however, that the terms of trade exhibited definite improvement in 1987.

Zero growth in real disposable national income

The deterioration in Norway's terms of trade served to reduce real disposable national income, while

Development Trends in Selected Macroeconomic Variables

(Percentage change in volume in 1986 prices¹)

	1000 million NOK	Growth from the year before	Growth from same period previous year			Underlying tendency. Annual rate (measured from previous qtr. ⁶)				
			1/87	2/87	3/87	4/86	1/87	2/87	3/87	4/87
Private final consumption expenditure ²	274.4	-1.9	-1.6	-4.3	-0.2	-2	-1	-1	0	0
Goods	178.9	-5.5	-4.3	-8.9	-4.1	-6	-6	-3	-3	-1
Services	83.3	5.1	4.6	5.9	4.5	5	6	5	5	3
Norwegian consumption abroad	20.2	5.9	-1.9	-1.3	16.2	*	*	*	*	*
- Non-residents' consumption in Norway	8.0	1.7	-4.6	-10.0	10.1	*	*	*	*	*
Government final consumption	104.8	2.7	4.7	3.5	2.6	*	*	*	*	*
Gross fixed-capital formation (incl. stocks)	146.1	-3.7	-4.7	-21.4	-0.7	*	*	*	*	*
Oil and shipping ³	29.3	-1.5	-35.3	-42.3	47.8	*	*	*	*	*
Mainland Norway	105.9	-2.1	2.7	-5.5	-4.0	0	-4	-4	-2	2
Manufacturing and mining	18.6	5.8	9.7	-1.6	-1.6	5	3	2	7	14
Production of other goods	14.4	-10.0	-7.9	-16.0	-8.3	-9	-13	-10	-1	7
Other services	72.9	-2.2	3.3	-4.0	-3.7	1	-3	-5	-4	-1
Stocks (contribution to GDP growth) ⁴	10.9	(-0.6)	(0.0)	(-2.2)	(-1.7)	*	*	*	*	*
Final domestic use of goods and services	522.4	-1.5	-1.3	-7.9	0.2	-4	-3	1	4	6
- demand from Mainland Norway	485.1	-1.0	0.7	-2.9	-0.5	-1	-1	-1	0	1
Exports ²	202.0	4.1	4.5	10.5	1.1	5	4	3	2	4
Traditional goods	75.5	7.3	8.1	2.4	8.7	5	9	10	10	6
Crude oil and natural gas	61.1	15.2	10.9	45.6	-0.9	20	13	10	12	19
Ships and oil platforms	10.5	-16.9	12.4	60.4	-40.5	*	*	*	*	*
Services	54.9	-5.4	-8.3	-11.0	0.5	-8	-7	-2	4	7
Total use of goods and services	727.4	0.0	0.4	-3.3	0.4	-1	-1	-1	4	5
Imports ²	204.5	-3.4	-5.1	-11.0	0.3	-7	-6	0	6	8
Traditional goods	133.3	-5.8	-2.3	-12.8	-7.0	-8	-9	-5	0	4
Crude oil	1.8	-2.9	-2.0	-63.5	23.3	*	*	*	*	*
Ships and oil platforms	9.3	-3.6	-37.9	-24.9	51.1	*	*	*	*	*
Services	60.2	2.5	-4.9	0.0	10.2	0	3	9	12	9
Gross domestic product (GDP)	522.9	1.3	2.6	0.1	0.5	1	0	2	3	4
- Mainland Norway	450.3	0.4	2.3	-2.8	1.5	0	-1	1	2	2
Oil activities and shipping	72.6	7.6	4.3	22.8	-6.6	7	6	6	8	13
Mainland industry	447.9	2.4	4.3	-0.4	2.9	3	2	2	4	5
Manufacturing and mining	82.2	1.6	6.1	-2.1	1.5	2	2	2	1	1
Production of other goods	76.9	5.8	8.0	1.0	4.7	3	4	5	7	9
Other services	288.9	1.7	2.9	-0.2	2.8	2	1	2	3	5
Correction items (contribution to GDP growth) ⁵	2.3	(-1.7)	(-1.7)	(-2.1)	(-1.2)	*	*	*	*	*

¹ See "Technical comment".² The division of goods and services into the various categories deviates from the division made in the annual national accounts/balance of payments.³ Including ships, oil platforms and platform modules in progress.⁴ Excluding ships, oil platforms and platform modules in progress. The contributions to GDP growth are computed year-on-year, i.e., as the increase in stocks in one quarter from the same quarter the year before, measured as a percentage of GDP the same quarter the previous year.⁵ Corrected for imputed bank service charges and the calculation of certain excises. The contributions to GDP growth are computed year-on-year, i.e. as the increase in the item from the same quarter the year before, measured as a percentage of GDP the same quarter the previous year.⁶ Growth from the previous quarter in smoothed seasonally adjusted series, converted to an annual rate.

* Percentage changes are meaningless measured at an annual rate.

Price Indices for Selected Macroeconomic Variables

	Percentage change from the year before	Percentage change from the same period the year before		
	1987	1/87	2/87	3/87
Private final consumption expenditure	8.0	9.8	9.0	6.7
Government final consumption expenditure	9.1	12.9	11.9	7.2
Gross fixed-capital formation (incl. stocks)	9.9	11.4	12.3	8.6
Final domestic use of goods and services	8.7	10.9	10.5	7.4
– demand from Mainland Norway	8.9	11.5	10.4	7.6
Exports	-1.0	-4.8	0.8	3.3
– traditional merchandise exports	5.3	4.2	7.3	5.3
Total use of goods and services	6.0	6.1	7.7	6.4
Imports	3.8	7.3	6.7	2.0
– traditional merchandise imports	4.4	9.3	8.5	1.8
Gross domestic product (GDP)	6.9	5.6	8.1	8.1
– excl. oil and shipping	9.9	11.8	10.8	8.6

Technical Comment on The Quarterly Accounts Figures.

Quarterly calculations: The calculations are made on a less-detailed level than the calculations for the annual national accounts, and are based on a simpler procedure. The quarterly national accounts figures for the years up to and including 1986 have been reconciled against the most recently published annual accounts figures.

Basis year and linking: The figures on volume for 1986 and 1987 are computed at 1986 prices, and weights from that year have been used. In the quarterly national accounts all variables are computed at constant prices, with the previous year as the base year. 1980 is the base year for the annual national accounts. 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 1986 as the base year (common conversion year). This has been done by linking the constant price figures for the years prior to 1986 to 1986 prices. The linking is made on the quarterly accounts' sectoral level.

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

Government consumption and investment: The Central of Bureau Statistics now has a statistical basis for distributing the central government sector's purchases of goods and services over the year. Such information is not yet available for the local government sector, so expenses have been divided equally over the four quarters.

Seasonally-adjusted figures: The quarterly national accounts are not seasonally-adjusted, as these accounts are attempts to register the actual transactions that have taken place in each quarter. Many of the statistical series thus show clear seasonal variations. These are therefore seasonally adjusted on the detailed accounts level and then added together with the other statistical series to obtain the total figures presented in the tables and charts. Seasonal adjustments for the central government sector's purchase of goods and services are based on estimates, as there is not enough information available yet to map out the seasonal pattern.

growth in the net domestic product made a positive contribution. Altogether, real disposable national income remained unchanged from 1986 to 1987, following a record drop of nearly 6 per cent the year before due to the plunge in oil prices.

Continued stagnation and growing foreign debt?

A separate annex to this Survey presents a model designed by the Central Bureau of Statistics for the calculation of economic development in 1988 and 1989. This model is based on a number of assumptions concerning economic policy and the international situation. Given these assumptions, the calculations show that Norwegian economy may be entering a phase of stagnation for the next few years. According to these estimates, the gross domestic product, excluding oil activities and shipping, will not change significantly, employment will fall and unemployment will rise. Inflation and wage expansion will, however, be considerably reduced. The foreign trade deficit will remain sizeable, and Norway will continue to increase her foreign debt at about the same rate as in the past few years. This emphasizes the serious imbalance in Norway's economy, and the main challenge facing the country in the time to come will thus be to manage to achieve a more favourable economic development than the one indicated in the projections based on this model.

Economic Policy

The Government's economic policy plans for 1987 were affected by the serious problems facing Norway's economy, including a severely weakened balance of payments and a level of consumption that the nation could ill afford. The Government's primary task was to improve Norway's balance of payments by scaling down growth in domestic demand and bringing price and cost growth a major step closer to the low price and cost rises among the country's trading partners.

The most important instrument of fiscal policy used by the government was to continue to pursue the tightening measures outlined in the Revised National Budget for 1986. The higher tax level of the latter half of 1986 was maintained. The taxation program was otherwise in harmony with the tax reforms voted by a majority in the Storting in the spring of 1987 – higher taxation of gross income and lower taxation of net income. Through this, the Government intended *inter alia* to curb the trend in private consumption by making it less profitable to finance private sector consumption on credit.

Further, the budget was to be tightened in most areas, e.g., central and local governments were not to be compensated for the general rise in prices which came in the wake of the devaluation. It was also decided that groups whose wages were fixed by the fiscal budget would be given a 6.5 per cent increase in income, in line with the income policy goals for annual wage growth.

The Government continued the tight vigil kept over credit in 1986 through its use of credit policy instruments. One very essential goal was to reduce the availability of credit in relation to both the planned and registered levels for 1986.

Fiscal Policy

The Government's Fiscal Budget Proposal for 1987 was based on a surplus of NOK 78 million before loan transactions, against NOK 18.3 billion in 1986. This huge reduction is because the Government assumed there would be a major reduction in incurred oil taxes and a reduction in the transfers from Norges Bank (the Central Bank of Norway).

The deficit before loan transactions, excluding oil taxes, transfers from Norges Bank and direct State participation in petroleum activities, was estimated at NOK 3.2 billion. This amounted to a strengthening of the budget balance of NOK 5.6 billion compared to 1986, reflecting the anticipation of a steep rise in tax and excise payments. Tax revenue increases from 1986 to 1987 may be ascribed to the

tighter policy initiated in May 1986 when the pension component of the membership contribution to the National Insurance Scheme was raised by 0.7 percentage points on an annual basis. Estimates regarding growth in excise revenues were affected by changes in the periods of payment for taxes collected by the customs and excise authorities. Adjusted for this one time impact, the Fiscal Budget estimated that growth in excise payments would be weaker in 1987 than in the two previous years, partly due to the anticipated curbing of private consumption.

Plans were made to increase spending before loan transactions, excluding expenditure on State participation in petroleum activities, by 10.7 per cent. Part of this expansion may be ascribed to a large increase in State subsidies to the tax equalization fund in connection with tax reforms. Adjusted for this transfer, it was estimated that final general government expenditure would climb by 10.1 per cent.

During the Storting's consideration of the budget, certain changes were made in the plan, entailing that revenue estimates were adjusted upwards. For example, estimates rose as to revenues from petroleum activities and from national insurance and pension premiums. Expenditure was reduced somewhat, and the budget adopted was based on a surplus of NOK 4.6 billion before loan transactions.

The Final Budget Proposal for the 1988 budget estimates that the surplus before loan transactions for 1987 will be NOK 8.8 billion, while the surplus before loan transactions adjusted for oil taxes, etc., is estimated at NOK 1.8 billion. The main reason for the improvement in relation to the original, approved fiscal budget lies in the fact that revenue estimates (including oil taxes, etc.) have increased from NOK 247.6 billion to NOK 257.4 billion. The increase in revenues is mainly ascribable to the sharp increase in tax and excise payments owing to more vigorous growth in wages and employment than expected. Total expenditures appear to amount to approximately NOK 1 billion more than estimated in the budget adopted. The main reasons for this are extra appropriations related to the substantial increase in the number of refugees and asylum-seekers arriving in Norway, subsidies to the Kongsberg Vaapenfabrikk, adjustment of the basic National Insurance Scheme pension and a retroactive adjustment of pensions in the State Pension Fund. Conversely, an even more restrictive stance was taken to cut back expenditure in general.

Revenues and Expenditure in Central Government Accounts including Social Security

	1986 ¹ NOK billion	1987 ² NOK billion	Pct. change from 1968 to 1987
Total revenues	246.5	257.5	4.5
Taxes, royalties and other income from petroleum activities	36.7	23.6	-35.7
Other taxes and excises	164.1	186.3	13.5
– Direct taxes	13.1	17.1	30.5
– Social security and pension premiums	62.5	73.0	16.8
– Indirect taxes	88.5	96.2	8.7
Other revenues, including interest income and transfers from Norges Bank	45.7	47.6	4.2
Total expenditure	225.1	248.7	10.5
– Expenditures in connection with State petroleum activities	13.0	17.2	32.3
Expenditure on goods and services	56.8	62.3	9.7
Transfers	155.3	169.2	9.0
– To local authorities including grants to Tax Equalization Fund	35.0	38.1	8.9
– Other transfers	120.3	131.1	9.0
Surplus before loan transactions	21.3	8.8	58.7
Surplus before loan, transactions, adjusted for oil taxes, transfers from Norges Bank and State petroleum activities	- 5.5	1.8	

¹ Accounts.

² Estimates for the accounts.

* Percentage change is difficult to interpret.

Source: Final Budget Proposal for the 1988 budget and the 1988 National Budget.

Fiscal Policy Indicators

A thorough analysis of the ramifications of the fiscal policy being pursued would require that the direct links be known between fiscal and credit policies and key economic indicators such as employment, the current external balance, inflation, income expansion, etc. To assess the effects of fiscal and credit policy schemes on economic activity within a highly simplified and generalized framework, it is common to examine trends in the so-called fiscal and credit policy indicators. These indicators may include:

- the surplus in the fiscal and social security budgets before loan transactions.
- the level of general government consumption of goods and services.
- growth in the liquidity supply to the public (money supply growth).

Higher general government spending on goods and services has an expansive effect on the economy, while tax hikes have a contractive effect. Changes in the surplus before loan transactions are therefore a measure of the "net" demand effect of central government budgets. When evaluating the effect of the fiscal budget surplus on domestic demand, the usual practice has been to exclude oil taxes, transfers from Norges Bank and expenses in connection with State petroleum activities, as these elements are not assumed to have any appreciable effect on demand in Mainland Norway.

Cyclical changes and changes in the State's asset position also influence general government budgets. To achieve a better basis for evaluating the effects of the fiscal policy in isolation, the Ministry of Finance has also calculated the surplus on the fiscal and social security budget before loan transactions, adjusted for activity and interest levels.

It is not sufficient to merely look at the movements in the State's levels of expenditure and revenues. A balanced change in the budget could also have an expansionary effect. For any given surplus before loan transactions, the expansionary effects of the fiscal policy will normally increase in direct proportion to the level of expenditure on goods and services.

Growth in the public's liquidity — the money supply — has often been considered to be an indicator of how the economic policy affects the economy's nominal performance. However, it must be emphasized that the relationship between growth in the public's liquidity and growth in the nominal GDP, at least in the short term, is somewhat uncertain.

Fiscal and Credit Policy Indicators 1985–1987

	1985	1986	1987
Surplus before loan transactions adjusted for oil activities, etc., as a share of GDP excluding oil activities and shipping	-4.3	-1.2	0.4
Surplus before loan transactions adjusted for oil activities and cyclical conditions, etc., as a share of GDP excluding oil activities and shipping	-5.8	-3.9	-2.6
General government expenditure on goods and services as a share of the GDP excluding oil activities and shipping	13.5	12.7	13.8
Percentage growth in the public's liquidity in November computed from November the year before	16.2	9.0	15.5

To enable us to compare the indicators over time without being overly hampered by the inflation factor, the indicators are measured as shares of the gross domestic product, excluding oil activities and shipping.

The oil-adjusted deficit and the oil-adjusted and activity-adjusted deficit as a share of the gross domestic product excluding oil activities and shipping decreased appreciably from 1985 to 1986 and from 1986 to 1987. While general government consumption of goods and services as a share of the GDP was reduced by 0.8 percentage points in 1986, the share increased by 1.1 percentage points in 1987. Money supply growth was reduced from 16.2 per cent in 1985 to 9 per cent in 1986. In 1987 growth was once again vigorous, rising to 15.5 per cent. The national accounts' provisional estimates indicate that fiscal policy tightening may have been somewhat more effective than reflected by the budget indicators referred to above.

One problem incurred in connection with the indicators above is that they do not take account of the activities of Norges Bank. For example, a change in Norges Bank's liquidity lending to the banks could influence domestic demand. An increase in the banks' loans to maintain liquidity means an increase in their interest payments to Norges Bank, representing in turn a corresponding reduction in private

sector disposable income. When assessing the effects of the fiscal policy program on domestic demand, it is therefore necessary, in addition to examining the usual fiscal policy indicators, to examine the effects of Norges Bank's revenues and expenditures on the domestic demand for goods and services. While there was a whopping NOK 6.8 billion increase in the banks' interest payments to Norges Bank from 1985 to 1986, the increase from 1986 to 1987 amounted to a mere NOK 0.5 billion.

A review of fiscal and credit policy indicators as a whole gives the overall impression of a restrictive stance in both 1986 and 1987. But the tightening measures appear to be somewhat more modest in 1987 than the year before.

Credit and Foreign Exchange Policy

Since the end of 1983 both the credit and foreign exchange markets in Norway have undergone relatively extensive liberalization. Concurrent with the deregulation of the markets, the availability of credit to the public, i.e., all the domestic sectors apart from the State, social security and banks, has increased considerably, from roughly NOK 41 billion in 1983 to roughly NOK 83 billion in 1985. This trend was an important factor underlying the more restrictive position taken on the use of credit policy instruments at the beginning of 1986.

Throughout the autumn of 1985 and especially after the drop in oil prices in early 1986, it gradually became clear that Norway's scope of manoeuvre in connection with foreign exchange policy had deteriorated considerably. Short-term interest rates had to be more readily accepted as an instrument of foreign exchange policy. The latter became particularly clear in connection with the devaluation in May 1986 and the turbulence on the foreign exchange markets in late 1986/early 1987.

The National Budget for 1987 emphasized the need to pursue a restrictive domestic credit policy. The Government nonetheless assumed that the tax reforms announced for 1987 would afford them an opportunity to reduce interest rates on the Norwegian credit market by about 1 percentage point. NOK 53 billion were budgeted to meet the domestic demand for credit, as against NOK 62 billion set aside for the same purpose in the National Budget for 1986. The current external balance of payments deficit was estimated to be NOK 33 billion. To promote the desired reorientation in Norway's economy, the National Budget assumed that the private sector would raise net loans abroad to cover its foreign exchange requirement. Against this background, the limits for both long-term and short-term

foreign currency loans to the private sector were increased.

The Government announced that it would use interest policies and the instruments granted to it in the Credit Act to achieve its credit policy goals. Early 1987 was characterized by the Government's continued restrictive stance vis-a-vis finance institutions. Private banks (in southern Norway), life insurance companies, etc. and private finance enterprises were made subject to primary reserve requirements. Commercial and savings banks were required to deposit supplementary (non-interest bearing) reserves with Norges Bank. These reserves were to equal a certain percentage of the lending growth of each institution which exceeded a level set by the Ministry of Finance. The lending activities of non-life insurance companies and private finance institutions were directly regulated. Credit institutions' issuance of bonds to finance housing, primary industries, etc., and local government spending were governed by quotas prescribed by the Ministry of Finance.

Norges Bank's day-to-day lending rate was 14.8 per cent at the beginning of the year, but it was cut twice in January, first to 14.5 per cent and subsequently to 14.2 per cent. In mid-February the rate was cut again, this time to 13.8 per cent. This level was maintained throughout the remainder of 1987, in spite of the unrest on the foreign exchange market towards the end of the year.

The use of credit policy instruments vis-a-vis the banks contributed to increasing the average bank lending rate by 0.3 percentage points during the first half of 1987, following on the heels of an increase of 2.6 percentage points from the end of the fourth quarter of 1985 to the end of the fourth quarter of 1986. The average rate of interest on deposits increased by 0.7 percentage points in the first half of last year, resulting in the average interest margin falling to 5.5 percentage points at the end of June. Although the reduction in Norges Bank's day-to-day rates gradually led to a marked fall in the money market rate, the reserve requirements in isolation helped to boost the margin between the banks' deposit and lending rates.

The increase in interest rates (nominal and real) did not, however, have the desired effect in the domestic credit supply. According to Norges Bank's credit indicators, the credit supply expanded by roughly NOK 55–60 billion during the first half of 1987. This was nearly twice as much as the 1987 National Budget had envisaged. Thus 1987 was the fourth consecutive year with major discrepancies between planned and registered figures and actual credit expansion. However, the figures from 1986 and 1987 may be influenced by the finance institutions' adjustment to the Government's use of credit

policy instruments.

To satisfy the public's demand for loans, the banks have had to borrow both from Norges Bank and abroad. According to information from Norges Bank, the supply of central bank liquidity to the banks increased from an average of approximately NOK 2 billion in 1985 to nearly NOK 55 billion in 1986 and about NOK 67 billion in 1987. Furthermore, throughout the three-year period the banks gained considerable liquidity through the market for forward exchange as well as through their transactions with Norges Bank.

Towards the end of the early half of 1987, the banks announced that they would have to raise interest rates unless the government's credit policies became less restrictive. A gradual reorientation in the use of credit instruments thus took place. In June the primary reserve requirement was removed for commercial and savings banks and for life insurance companies, etc., and the requirement was reduced somewhat for non-life insurance companies. The supplementary reserve requirement for the banks was reduced in June and July, and abolished completely in October. In July the market for short-term bonds was liberalized.

By the end of 1987 the most important forms of direct regulation of Norwegian finance institutions had thus been removed. However, non-life insurance companies and finance enterprises continued to be subject to direct regulation of lending, although some constraints had been lifted. The credit institutions' financing of housing, primary industries and local government continued to be regulated by quotas.

The reorientation of the use of instruments during the latter half of the year did not lead to any drop in the general interest rate, even though, in isolation, it must have eased the underlying upward pressure on the interest rate. During the third quarter the banks' average lending rate nonetheless rose by 0.4 percentage points to 16.7 per cent, and the average deposit rate rose by 0.3 percentage points to 11.1 per cent. Money market developments after the third quarter may indicate a continued upward pressure on the banks' interest rate.

The registered credit supply expanded rapidly throughout the latter half of 1987. At the end of November Norges Bank's credit indicators showed a total credit supply of nearly NOK 110 billion for the first 11 months. This indicates that growth in the registered credit supply was probably as strong in the second half as in the first half of the year.

The effect of the domestic credit supply on the money supply (as customarily defined in Norway) is offset by the public's net purchase of foreign exchange from the banks. This totalled about NOK

38 billion in the period ending 30 September. This figure exceeded the National Budget's estimate of the current external account deficit for the entire year by NOK 5 billion. Thus it does not appear that the authorities have been successful in achieving their goal that the private non-financial sector was to raise most of its foreign exchange loans abroad. On the contrary, a large part of the capital inflow has come in through the banks, due to non-residents' purchase of kroner/sale of currency in the futures market.

The Norwegian krone was subject to strong devaluation pressures at the turn of the year 1986/87. Norges Bank reacted by shoring up the krone, making substantial purchases and increasing the interest rate on Norges Bank's day-to-day lending to banks. Pressure against the krone eased off through the first quarter, and in the second and third quarters the basket index value was under the central value of 112. (Low index values mean a "strong krone".) At the beginning of the fourth quarter, there was a turnaround in the foreign exchange market and Norges Bank had to sell foreign currency to keep the krone under the ceiling of the upper swing margin of the target zone.

In addition to the fall in the dollar and turmoil on the oil market, the foreign exchange unrest at the end of the year may have been connected to the fact that foreign investors switched out of Norwegian equities. The stock market was without a doubt the most turbulent of the financial markets in 1987. From an average value of 283.75 in December 1986, the Oslo Stock Exchange's total index rose by approximately 55 per cent to 442.44 on 21 September last year. Beginning on 19 October, shares fell drastically. The average value of the index in December 1987 was 13 per cent lower than the average index level in December the preceding year.

Production

According to initial, provisional estimates, the gross domestic product (GDP) for 1987 is expected to amount to some NOK 559 billion. GDP growth from 1986 to 1987 is estimated at 1.3 per cent, measured at 1986 prices. Growth has thus fallen back considerably from the 4.1 per cent 1986 level. Excluding oil activities and shipping, the GDP rose by a mere 0.4 per cent in 1987 compared to 4.5 per cent in 1986.

The gross product of the sector comprising the production and pipeline transport of crude oil and natural gas has registered solid growth over the past five years, and 1987 growth is estimated to reach a total of 15 per cent. On the other hand, the decline in shipping and oil drilling in 1986 continued in 1987. This decline is due to less drilling activity and the sale of fewer ships abroad in 1986 and the first half of 1987. The modest level of new investment during the same period served to reinforce this general trend.

Average growth in the gross product of manufacturing amounted to just less than 2 per cent in both 1986 and 1987. The gross product of the export-competing sectors rallied from a decline in 1986 to a distinct increase in 1987, while growth in the import-competing sectors stagnated. Growth in the sheltered sector matched the pace of manufacturing as a whole.

Among the other sectors, growth was especially strong in the gross product of the power supply sector, which had recorded a decrease in 1986. Comparable trends have been in evidence in the primary industries, but uncertainty about the annual estimate of the gross product is particularly high here. 1987 growth is due in part to agricultural plant production, which rebounded to a normal level following a poor harvest the year before. The level of production in the fish farming sector followed the same upward curve as in preceding years.

In wholesale and retail trade, 1987 output was affected by the decline in private sector consumption, and the gross product dropped off by some 4 per cent. The gross product of the building and construction sector continued to grow in 1987, despite extremely strong growth in 1986. However, less investment in building and construction meant that the growth rate was clearly lower than the preceding year.

With a view to other service sectors, there is at present, soon after the end of the fiscal year, a great deal of uncertainty about the estimates for the year. For the year as a whole, the preliminary figures show an increase in the gross products from 1986 to 1987.

Gross Domestic Product by Sector

(Percentage change in volume from previous year*)

	1986	1987
Primary industries	-3.8	10.4
Production and pipeline transport of crude oil and natural gas	4.2	15.0
Mining	7.7	-5.6
Manufacturing	1.7	1.8
Sheltered	1.6	1.9
Export-competing	-1.6	6.0
Import-competing	2.8	0.3
Electricity supply	-6.0	7.7
Building and construction	8.6	1.4
Wholesale and retail trade	4.2	-4.1
Shipping and oil drilling	-7.2	-23.8
Transport and communication	9.7	3.3
Other private services	7.8	4.4
Government services	2.3	2.5
Gross domestic product	4.1	1.3
- excluding oil and shipping	4.5	0.4

* Please note that the growth rates for 1986 and 1987 in all the tables in the *Economic Survey* are based on figures in constant 1986 prices. Previously published growth rates for 1986 are based on figures at constant 1980 prices.

But the growth rate for last year appears to be considerably lower than for the year before, although trends vary among the individual sectors. Strong, healthy growth continued in the bank and insurance sectors, hotel and restaurant sectors, and for other private sector services. Growth in the gross product of the general government sector was somewhat stronger than in 1986.

Production of Crude Oil and Natural Gas

Oil and gas production totalled 78.5 million tons of oil equivalents (toe) in 1987, an increase of 11.8 per cent from the preceding year. Oil production rose by 15.8 per cent and gas production by 5.6 per cent. There was no appreciable growth in oil production in the course of 1987. The 1987 growth was primarily due to production increases during the latter half of 1986 (carry-over).

Since 1 February, 1987 Norwegian oil production has been subject to a 7.5 per cent limit on production in relation to expected production capacity. Further, the break in production caused by the need to jack up the platforms at Ekofisk Centre in August 1987 entailed a sharper reduction in Norwegian oil

and gas production than what usually results from ordinary maintenance breaks. However, growth in 1986 was also affected by the labour conflict that year. It is estimated that Norwegian oil production capacity increased last year by roughly 19 per cent, corrected for the production reductions and labour conflict. No new oil or gas fields came on-stream in 1987.

Oil production

In 1987 oil production amounted to 49.1 million toe, or slightly less than 63 per cent of Norway's total production of petroleum. The increase in oil production was largely ascribable to the new fields that came on-stream in 1986, especially the Ula and Gullfaks fields.

Oil production on the Statfjord field rose by 2.7 per cent from 1986. The field, which is far and away Norway's largest, has had a strong rate of growth every year since the start of production in 1979, and the field's oil output accounted for slightly more than 60 per cent of all Norwegian oil production in 1987. The flow from this field has now reached its peak, and it is expected that production will remain at this plateau level until 1990.

The Statfjord field is located on the delimitation line between Norway and Great Britain, and Norway owns an 84.1 per cent interest. Ownership interests are presently being re-negotiated, and any reduction in Norway's interest would considerably reduce the Norwegian share of the oil produced during the repayment period.

The political constraints on Norwegian production also create problems for companies with interests in the Norwegian sector of the Statfjord field, as British production continues at full capacity. The reduction in Norway's production cannot be compensated for at the end of the field's lifetime. To remedy this, the Norwegian authorities decided that, for the fourth quarter, the combined reductions imposed on the Statfjord and Gullfaks fields would be taken from the Gullfaks field alone. This scheme will continue in 1988.

Oil production in the Ekofisk area was reduced by 20.5 per cent from 1986 to 1987, but Ekofisk continues to be Norway's second largest oil field, accounting for 14 per cent of the total oil production. The field reached its peak level of production in 1980 and has fallen off gradually with each passing year. To increase the field's recoverable reserves, the owners invested in a water injection platform which was brought into operation in the fourth quarter of 1987. The central platforms in the Ekofisk area were jacked up in August 1987 because the seabed under the platforms had subsided due to the extraction of oil and gas.

In addition to the Statfjord and Ekofisk fields, there are 3 other major oil fields on the Norwegian continental shelf: Gullfaks, Ula and Valhall. Together, these fields produce 10.6 million toe, or about 22 per cent of Norway's aggregate oil production. All three fields increased production considerably from 1986 to 1987. Gullfaks and Ula were brought on-stream towards the end of 1986 and the Valhall field's production increased as control was gained over problems concerning certain properties of the reservoir. The Gullfaks field, the largest of the three, produced about 120,000 barrels per day at the end of 1987.

Gas production

29.4 million toe of gas were produced in 1987. This is the highest level ever produced on the Norwegian shelf. Throughout the 1980s, Norwegian gas production has remained steady at 26–27 million toe, and the 1987 record may remain standing for quite some time, as production from the Frigg field is now being scaled down relatively rapidly. Norwegian gas production will not reach the levels recorded earlier in the 1980s until deliveries begin from the Troll field in 1993.

Gas production on Frigg was cut back by just under 6 per cent from 1986 to 1987, but the field is still the largest one Norway has on-stream. Frigg gas accounted for some 40 per cent of Norway's total gas production in 1987. Studies have shown that the field's recoverable reserves are less than previously estimated, and the field will begin to be depleted early in the 1990s.

Gas production on the Ekofisk field increased by nearly 5 per cent from 1986 to 1987. The rise is largely due to an improvement in production capacity for gas after substantial amounts of gas were pumped back into the reservoir in 1986 in an effort to reduce the subsidence of the seabed. This reduced gas production by about 30 per cent in 1986. This technique has subsequently been abandoned, as it proved to have no appreciable effect on the subsidence problem.

Gas production on the Statfjord and Heimdal fields reached 4 million toe each, together accounting for about 25 per cent of all Norwegian gas production in 1987.

Prospects for 1988 and 1989

In 1988 gas production will amount to some 26 million toe, a fall of 10 per cent. Norway's capacity to produce oil is expected to rise by slightly less than 5 per cent from 1987 to 1988. The Gullfaks B platform will come on-stream in February 1988, and the stationary platforms on the Oseberg field may come

Production of Crude Oil and Natural Gas by Field

(Million toe)

		1986	1987
Ekofisk	oil	8.7	6.9
	gas	8.1	8.5
Frigg	oil	0.0	0.0
	gas	12.9	12.1
Statfjord	oil	29.4	30.2
	gas	3.5	3.9
Heimdal	oil	0.3	0.5
	gas	2.1	3.6
Ula	oil	0.7	3.9
	gas	0.1	0.4
Gullfaks	oil	0.0	3.5
	gas	0.0	0.3
Other fields	oil	43.3	4.1
	gas	0.4	0.6
Total		70.2 ¹	78.5
	oil	42.4	49.1
	gas	27.8 ¹	29.4

¹ The figure deviates somewhat from the individual fields, which is based on provisional figures from monthly production statistics.

on-stream towards the end of the year, although the official date has been set at 1 April, 1989. If the 7.5 per cent limit on the anticipated increase in oil production capacity is in effect for the entire year, Norway's oil production will amount to somewhat more than 51 million tons in 1988. This means that total Norwegian oil and gas production will be slightly less than in 1987.

In 1989 oil production is expected to increase by about 15 per cent, while gas production may decrease by another 10 per cent. In that case, Norwegian oil and gas production could amount to approximately 83 million toe, an increase of 7 per cent compared to the estimate for 1988.

The Labour Market

Following record high expansion in 1985 and 1986, amounting to 3.3 and 3.6 per cent, respectively, the number of man-hours worked is expected to remain unchanged in 1987. However, according to the Central Bureau of Statistics' Labour Market Survey, the shortening of the hours in the working week at the start of the year meant that the number of employed persons rose by 40,000 or 1.9 per cent. Although this growth was weaker than in 1986, it was still strong compared to earlier years, and it contributed to keeping the unemployment level low. According to the CBS Survey, calculated as a yearly average, there were 45,000 job-seekers without earned income in 1987. This represented 2.1 per cent of the labour force, an insignificant increase compared to 1986.

The pressure on the labour market in 1987 was also reflected in the number of vacant posts registered with the labour exchanges and the length of time it took to fill them. The labour shortage was especially precarious in several occupational categories requiring higher education, and the shortage was most acute in the Oslo area.

The number of man-hours worked, seasonally-adjusted, has, according to the CBS Labour Market Survey, remained unchanged since total production passed a cyclical peak in the summer of 1986. Nor is there reason to expect any rise in the number of man-hours worked in 1988. As the effects of the reduction in the work week begin to taper off, there are indications that growth in the number of persons employed will stagnate.

Employment growth will probably be severely limited in the time to come. The effects of this on unemployment may be partially offset by weaker growth in the labour force, but when adjusted for seasonal variations, there is reason to believe that the low point in unemployment was passed in the late summer of 1987. For quite some time to come, however, the backlog of vacancies will avert any major increase in unemployment.

Members of the Labour Force, Employed Persons and Job-seekers without Earned Income

(Annual Average (in thousands))

	Change from the previous year			1987 level
	1985	1986	1987	
Labour force	34	46 ²	43	2171
Job-seekers	-10	-12	3	45
Employed	44	58 ²	40	2126
– converted to full-time ¹	57	65	0	1865

¹ 37.5 hour week.

² Adjusted for changes in definitions in Labour Market Survey.

Prices and Wages

In 1987 the level of prices in Norway was strongly influenced by the rise in domestic costs, hikes in excise payments and the considerable after-effects of the devaluation in May 1986. Growth in the national accounts' price index for the domestic use of goods and services ran to 8.7 per cent in 1987, as against 7.3 per cent the preceding year. However, price growth decelerated through the year. The gap between Norway's inflation rate, measured by the consumer price index, and inflation rates among its trading partners was wider in 1987 than in 1986. However, the gap narrowed somewhat as the year passed.

The GDP deflator in the national accounts rose 6.9 per cent, compared to a price fall in 1986 of 1.2 per cent, which was primarily due to the plunge in oil prices. Of the main components of the national product, export and import prices expanded least last year. Export prices were affected by the sharp fall in the price of natural gas (40 per cent), which dragged the figures down, while the price of important traditional exports rose considerably.

As a result of the devaluation in 1986, the average value of the krone fell by approximately 3.5 per cent from 1986 to 1987. This, combined with a certain increase in the rate of international inflation, led to decidedly higher import prices from 1986 to 1987. However, this trend altered considerably during the year. Until the first half of 1987, the development in import prices was directly affected by the after-effects of the devaluation. Later in 1987 these after-effects wore off, and towards the end of the year the inflation rate for traditional imports (calculated over 4 quarters) approached the zero point.

The most notable rise in prices was for gross fixed-capital formation, which reached 10.0 for the year,

as against 5.4 per cent in 1986. The main factor contributing to this was the high cost-contingent price rises on investment in building and construction, which totalled 13.1 per cent (compared to 7.0 per cent in 1986) and which boosted the growth rate. Machinery and equipment, etc., are often imported and are therefore less hard hit by Norway's high domestic inflation rate than building and construction investments. The rise in prices for government final consumption expenditure from 1986 to 1987 was 9.1 per cent — clearly higher than in 1986. Local government consumption, in particular, was severely affected by a high rise in prices (9.9 per cent). The price index for general government consumption is largely determined by wage trends in the public sector. From 1986 to 1987 hourly wages in general government increased by 9.8 per cent (including overtime).

Price Indices for Main Components of the National Accounts

(Percentage change from previous year)

	1986	1987
Private final consumption expenditure	7.4	8.0
Government final consumption expenditure	6.7	9.1
Gross fixed capital formation	5.4	10.0
Final domestic use of goods and service	7.3	8.7
Total exports	-16.9	-1.0
– Traditional goods	-6.4	5.3
Total imports	0.0	3.8
– Traditional goods	1.0	4.4
Gross domestic product	-1.2	6.9

During 1987 growth in domestic costs has become the main price-boosting factor. The reduced hours in the working week and the extremely tight labour market have resulted in substantial wage growth. The 1986 devaluation must also be blamed for part of the high wage growth from 1986 to 1987. On the average for the entire economy, hourly wages rose by about 11.5 per cent compared to about 10 per cent the year before. Growth in annual wages (hourly wages adjusted for the reduction in working hours and overtime) was 7.4 per cent, which is significantly lower than in 1986, when growth totalled 10 per cent.

Incomes

In the national accounts factor incomes, an indication of the incomes accruing to labour and capital, is computed for each industry and for the national as a whole. Factor income is calculated as gross domestic product (the gross product of all sectors) less capital consumption and net indirect taxes. By deducting the compensation of employees, we arrive at the operating surplus as a residual. Compensation of employees includes wages (including social security contributions) to wage-earners and the employers' contribution to the National Insurance Scheme and other insurance schemes. The operating surplus represents the estimated return on capital in production and the owner's own efforts, and does not give an indication of profitability in a business sense, particularly because it also includes 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. In fact, the uncertainty is so great that it has been decided not to publish detailed income figures by sector for 1987 so short a time after the end of the year. The income figures presented are for Norway as a whole and for Mainland Norway (all sectors except for oil and shipping).

The provisional national accounts calculations show that the gross national product, measured in value terms, increased by 8.4 per cent from 1986 to 1987. Consumption of fixed capital increased by just less than 10 per cent, while net indirect taxes increased by some 3 per cent. The factor income rose from NOK 370.3 billion in 1986 to NOK 403.7 billion in 1987, an increase of 9 per cent.

Total compensation of employees is estimated to have climbed to NOK 304.9 billion in 1987. This corresponds to an 11.7 per cent increase from 1986, while the increase from 1985 to 1986 amounted to 13.8 per cent.

The operating surplus was estimated at NOK 98.8 billion, up 1.6 per cent from 1986.

Factor income, compensation of employees and operating surplus for Mainland Norway

Sectors other than oil and shipping have recorded somewhat stronger income growth than Norway as a whole. Factor income for Mainland Norway expanded by 11.3 per cent from 1986 to 1987, more than 2 percentage points higher than the growth in factor income for Norway as a whole. The provisional, somewhat uncertain estimates indicate

Gross National Product by Distributive Shares

	1987 NOK billion	Percentage change from 1986
Gross domestic product	559.1	8.4
Consumption of fixed capital	81.4	9.5
Indirect taxes, net	73.8	3.4
Factor income	403.7	9.0
Compensation of employees	304.9	11.7
Operating surplus	98.8	1.6
All sectors except oil and shipping (Mainland Norway):		
Gross product	494.9	10.3
Factor income	374.6	11.3
Compensation of employees	292.4	12.4
Operating surplus	82.2	7.3

that the sheltered sector and the building and construction sector have experienced particularly strong growth in factor income. The private services sector and the import-competing sector also appear to have recorded healthy factor income growth, while figures for the export-competing sector have registered a decline in factor income from 1986 to 1987.

Growth in compensation of employees for sectors other than oil and shipping is estimated at 12.4 per cent over the year before. This is 0.7 percentage points higher than the figure for Norway as a whole. The low growth in wage costs in the shipping sector is the primary reason for this difference. Compensation of employees as a share of factor income amount to 78 per cent for Mainland Norway. This is somewhat higher than wage cost shares have been in recent years, but corresponds to the shares in the early 1980s. Following several years in which the difference in wage shares for Mainland Norway and for Norway as a whole deviated considerably, the shares have begun to converge again during the past two years. In 1987 the wage share for Mainland Norway was 2.5 percentage points higher than for Norway as a whole.

The operating surplus for Mainland Norway is estimated at NOK 82.2 billion, a rise of 7.3 per cent from 1986. This is 2 percentage points less than the growth in the operating surplus from 1985 to 1986. If wage cost targets hold true, it would appear that the sheltered sector and the building and construction sector will show an extremely strong increase in their operating surplus compared to the preceding

Growth in Real Disposable Income for Norway

(Percentage change from the preceding year)

	1986	1987
Real disposable income for Norway	-5.7	-0.3
Contributions from:		
Production growth	4.1	1.5
Changes in terms of trade	-9.8	-1.7
Changes in external balance of interest and transfers	0.0	-0.1

year, while in all probability the export-competing sector will show a more modest operating surplus in 1987 than in 1986. The wholesale and retail trade sectors will probably also show a lower operating surplus compared to the previous year.

Disposable Income and Saving in Norway

While Norway's gross domestic product is an expression of the total value added in the country during one year, figures for the national disposable income show how much the country has available to spend on private and public consumption and saving. Disposable income for Norway is derived by deducting capital consumption and net transfers abroad in the form of interest, dividends and grants from the gross domestic product at current prices.

The provisional calculations for 1987 show that the country's real disposable income was NOK 461.7 billion, up 8.3 per cent from the previous year. Deflated by the national account's price index for net domestic use of goods and services, i.e., a price index for consumption and real net investment, this indicates slightly lower real disposable income in 1987 than in 1986. Real disposable income fell by 5.7 per cent in 1987.

Changes in real disposable income can be broken down into contributions from growth in domestic production, changes in the balance of foreign transfers and interest, and changes in the terms of trade (the ratio of export to import prices), respectively.

Deterioration in Norway's terms of trade brought the country's real disposable income down by 1.7 per cent in 1987, compared to nearly 10 per cent the year before, primarily due to the fall in oil prices. Provisional national accounts calculations show a rise in prices on total imports in 1987, while total exports have fallen in price. The price drop in exports can be largely attributed to a substantial reduction in the price of natural gas and the cost of transport services in shipping. However, the terms of trade for traditional goods showed an improvement.

In 1987 growth in domestic production made a 1.5 per cent contribution to the rise in the country's real disposable income, which was 2.6 per cent less than in 1986.

Saving in Norway (disposable income less the value of private and government consumption) increased by NOK 6.5 billion from 1986 to 1987. When deflated by the same price index as for disposable income, real saving in Norway increased by nearly 6 per cent from the previous year. The saving ratio in Norway (saving as a percentage of disposable income) increased from 10.5 per cent in 1986 to 11.1 per cent in 1987.

It should be pointed out that, given the above definition of the national saving ratio, saving is equated with the sum of net real investments (the increase in production capital) and net financial investments (the increase in net assets abroad). Account has not been taken of e.g., petroleum reserves, other natural resources or the foreign debt.

Oil Income

Income from oil and gas production in the North Sea rose rapidly up to 1985, when the value added to the economy, measured as the gross product of oil and gas production, amounted to some NOK 90 billion. Due to the plunge in oil prices, the gross product fell to some NOK 50 billion in 1986. The average price of oil rose somewhat from 1986 to 1987, and production increased. Gas production remained at approximately the same level, but gas prices fell in 1987 as a result of the time lag effect in relation to oil prices. There was thus only a slight rise in the total gross product, which amounted to just under NOK 52 billion in 1987. Norway's oil income is comprised of the gross product of all the oil companies operating on the Norwegian continental shelf less any share dividends which foreign companies may take out of the country.

The additional yield Norway as a nation derives from oil and gas activities, compared with other activities, is often designated the "oil rent". This may be calculated as the share of total production revenue from the production of oil and gas which is obtained above and beyond current production costs and an estimated normal return on invested capital. The method entails disregarding the fact that several input factors utilized in the oil sector, including capital in foreign hands, probably receive a higher return than they would from other enterprises. They can therefore be said to receive, to some extent, part of the oil rent.

If the normal return on invested capital is estimated at 7 per cent, which corresponds to the average rate of return on industrial capital during the last

Oil Income 1977-1987

	Gross product (NOK billion)	Oil rent (NOK billion)	Oil rent as a share of GDP (Per cent)
1977	7.4	2.8	1.5
1978	12.8	7.0	3.0
1979	20.8	13.6	5.5
1980	41.1	31.8	11.0
1981	50.1	36.5	11.0
1982	55.7	37.8	10.5
1983	67.3	48.0	12.0
1984	83.8	59.5	13.0
1985	90.7	63.3	12.5
1986	50.7	17.9	3.5
1987	51.6	16.1	3.0

ten years, preliminary calculations show that the oil rent amounted to almost NOK 17 billion in 1987. This is a decline of nearly NOK 2 billion from the "crisis year" of 1986. In 1987, the oil rent was equivalent to about 3 per cent of GDP. Compared to the peak year of 1985, the oil rent has been reduced by nearly 75 per cent, measured in constant prices and, as a share of GDP, it has fallen by more than 10 percentage points. This means that Norway's "un-earned" per capita income from oil and gas activities has dropped from NOK 16,000 to NOK 4,000, measured in 1987 krone.

The total capital stock in the petroleum production sector was about NOK 150 billion at the end of 1987. The income of private companies and the central government in the form of returns on invested capital, taxes and royalties, roughly NOK 27 billion, thus represented about 18 per cent of the capital stock.

Household Income

Income in the household sector is defined as wages, operating surplus (income from self-employment and estimated yield on home ownership), interest income, transfers (pensions and other social security payments) and other income (share dividends, compensation payments from insurance and transfers from abroad). In the calculation of disposable income, deductions include direct taxes and social security contributions, interest expenses and other expenses. The residual is the household sector's disposable income and it can be used for either private consumption or saving.

To calculate real disposable income, adjustments must be made for price changes to the goods and services on which the disposable income may be

used. Development in the real disposable income of a household will therefore primarily be determined by nominal income trends, tax reforms, interest rates on savings and loans and price trends.

The statistical database for calculating the various components of disposable income for 1987 has not yet been completed such a short time after the year-end, and the estimates are therefore highly uncertain. For 1987, the estimates concerning interest expenses and income are particularly uncertain, and the figures should be viewed very cautiously indeed.

According to provisional estimates for 1987, the growth in disposable income for the household sector amounted to approximately NOK 24 billion, a rise of some 9 per cent from the previous year. Disposable income per household in 1987 is estimated at NOK 173,000, or between NOK 13,000 and NOK 14,000 more than in 1986.

The household sector's share of Norway's disposable income was 62.3 per cent in 1987. This was moderately higher than in 1986, when the share was 61.8 per cent.

When deflated by the national accounts price index for private consumption, the household sector's disposable income increased by 1.1 per cent from

Estimated Contribution to The Growth in Real Disposable Income For Households

(NOK billion)

	1986	1987
Income	435.8	489.0
Wages and employers' contribution to social security, etc.	272.8	--
Operating surplus	46.9	--
Interest income	27.8	--
Transfers	81.5	--
Other income	6.8	--
Expenses	172.3	201.4
Direct taxes and social security contributions	126.1	--
Interest expenses	41.3	--
Other expenses	4.9	--
Disposable income	263.5	287.6
Growth in real disposable income (percentage growth from previous year)	2.0	1.1
Growth in real disposable income per household (percentage growth from previous year)	1.3	0.4

1986 to 1987, compared to 2 per cent from 1985 to 1986. Computed per household, real disposable income thus rose by 0.4 per cent from 1986 to 1987, while it rose by 1.3 per cent the previous year.

The household sector's wage and salary incomes are estimated to have grown by between NOK 15,000 and NOK 16,000 per household, a rise of nearly 10 per cent. That segment of enterprises' operating surpluses which accrues to households appears to have expanded, though less than wage income when measured in percentages. Social security disbursements (transfers) per household have, in contrast with 1986, shown a higher percentage growth than wages, and average growth is estimated at just under 11 per cent. Average household interest income is estimated at some NOK 21,000 in 1987. This represents an increase of more than 25 per cent over the previous year. The figures indicate that higher interest rates account for about half the increase in interest income.

Interest expenses appear to have recorded slightly lower percentage growth than interest income. Calculated per household, interest expenses rose from about NOK 25,000 in 1986 to slightly more than NOK 31,000 in 1987, a rise of nearly 25 per cent. Allowing for possible error in the preliminary estimates, it appears that the growth in average household interest expenses has fallen back slightly. A per household interest increase in 1987 of nearly 25 per cent is 10 percentage points less than the increase from 1985 to 1986. Between 35 and 40 per cent of the expansion in interest expenses may be due to higher interest rates.

Ordinary income and capital taxes increased by an average of 14 per cent per household in 1987. This is slightly higher than the year before.

The household sector's saving ratio is estimated at about -3 per cent in 1987, compared to -6.2 per cent in 1986. It is emphasized that there is considerable uncertainty attached to a residually determined item like saving.

Consumption

Following two years of vigorous growth in total consumption (private and general government) the tide has turned, and provisional national accounts estimates show a decline in volume from 1986 to 1987 of 0.7 per cent, compared to a rise of 5.1 per cent from 1985 to 1986. This is the first time since 1950 that total consumption has declined from the year before.

Measured as a share of GDP at current prices, total consumption corresponded to 73.4 per cent in 1987, compared to 74 per cent in 1986. Despite the fact that the consumption share edged down somewhat from 1986 to 1987, we must look all the way back to 1977 to find consumption shares as high as these.

Private consumption fell by 1.9 per cent in 1987, while preliminary figures indicate an increase in general government consumption of 2.7 per cent in volume. This offers a contrast to the past three years, when private consumption growth outstripped government consumption. 1987 is the first year since 1978 and the second since 1950 in which there has been a decline in private consumption.

Measured as a share of GDP in current prices, private consumption is estimated at 53.0 per cent in 1987, a decidedly higher share than in the years 1980-1985, but 1.2 per cent lower than the share in 1986. In the 1980-1985 period, the private consumption share varied between 46.6 per cent and 49.1 per cent.

Measured as a share of GDP in current prices, general government consumption totaled 20.5 per cent in 1987, the highest level recorded since 1950. In 1986 this share was 19.8 per cent.

General Government Consumption

According to preliminary figures, general government consumption increased by 2.7 per cent in constant prices from 1986 to 1987, compared to 3.1 per cent growth from 1985 to 1986.

Municipal consumption rose by an estimated 2.1 per cent from 1986 to 1987, 0.7 percentage points less than the year before. In spite of the reduction in working hours, local government activity increased, measured as the number of man-hours worked, recorded on an annual basis. According to provisional estimates, the number of persons employed in the municipal sector increased by approximately 3.5 per cent, in addition to an increase in the use of overtime hours in 1987.

Growth in non-military consumption is estimated at 2.4 per cent in 1987, compared to 5.0 per cent the year before. Military consumption is assumed to

Private Sector and General Government Consumption

(Percentage change in volume from previous year*)

	Private consumption	Public consumption	Total consumption
1981	0.9	6.1	2.3
1982	1.7	4.0	2.4
1983	1.5	4.6	2.4
1984	2.7	2.5	2.6
1985	10.3	3.4	8.3
1986	5.8	3.1	5.1
1987	-1.9	2.7	-0.7

* Please note that the rates of growth in volume in all tables are based on constant 1986 prices. Previously published growth rates for 1986 and the years before are based on constant 1980 prices.

have increased by 5.5 per cent in 1987, while 1986 growth totaled 1.7 per cent. Military consumption also includes expenses related to civil emergency preparedness; inter alia costs in connection with storing oil, a program implemented to help stabilize oil prices in 1987.

Private Sector Consumption

Following vigorous growth in private sector consumption in 1985 and 1986, provisional national accounts figures show a decline of about 2 per cent in the volume of consumption in 1987. It was the considerable decline in the consumption of goods, particularly durable goods, which accounted for this decline, while the consumption of services maintained roughly the same growth rate as the year before. Towards the end of 1987, however, the decline in the rate of consumption showed signs of tapering off. This may be an indication that the floor of the consumption cycle has nearly been reached.

At the same time as consumption was scaled down, households' real disposable incomes rose by more than 1 per cent in 1987. This meant that the household saving ratio rose from its low 1986 level of about -6 per cent to roughly -3 per cent in 1987. The reduction in consumption was therefore not sufficient to ensure a positive saving ratio. As in 1985 and 1986, household indebtedness thus increased in 1987.

Private Sector Consumption

(Percentage change in volume from previous year)

	1986	1987
Goods	5.5	- 5.5
- durable consumer goods	6.9	-19.3
- other goods	5.1	- 1.7
Services	5.3	5.1
- housing	5.4	4.1
- other services	5.3	5.6
Specified consumption	5.5	- 2.4
- Norwegians' consumption abroad	10.6	5.9
- Non-residents' consumption in Norway	5.5	1.7
Private sector consumption	5.8	- 1.9

Investment

Gross fixed-capital formation amounted to approximately NOK 151 billion in 1987. This represented nearly 27 per cent of gross domestic product, slightly less than the 1986 share, which was the highest in 5 years. By way of comparison, the average share in the OECD area has been about 20 per cent, although there are sizeable variations from country to country.

By volume, gross fixed capital formation dropped by nearly 4 per cent from 1986 to 1987, compared to an increase of 24 per cent from 1985 to 1986. The volume of gross investments, excluding investments in oil and shipping, dropped by 2.1 per cent from the extremely high growth rate in 1986 of 14.4 per cent. Investments in oil and shipping fell back by 9 per cent in 1987.

The provisional national accounts figures indicate an increase in total stocks in 1987. The entire increase was accounted for by ordinary stocks, while the stocks of goods in progress were reduced as a result of the towing out of the Gullfaks B and Oseberg B platforms. Gross investments including movements in stocks fell by just under 4 per cent from 1986 to 1987.

Investment in oil production and pipeline transport fell in 1987, following buoyant growth in 1986. Several years of large-scale negative gross investment in shipping and oil drilling were turned around in the latter half of 1987. Despite positive gross investment in the second half of the year, however, investment figures remained negative for the year as a whole.

The upturn in investments in 1987 is ascribable to the establishment of NIS (the Norwegian International Ship Register), which led to a sharp reduction

Gross Fixed Formation by Economic Sector

(Percentage change in volume from previous year*)

	1986	1987
Primary industries	0.4	-15.3
Production and pipeline transport of crude oil and natural gas	70.3	-15.7
Mining	16.7	-41.8
Manufacturing	37.5	7.2
Sheltered	21.1	13.3
Export-competing	65.8	16.4
Import-competing	24.7	-6.0
Electricity supply	-10.2	-6.5
Building and construction	2.8	-5.2
Wholesale and retail trade	13.4	-3.8
Shipping and oil drilling	1	1
Transport and communications	26.4	-21.6
Other private services (incl. dwellings and commercial buildings)	11.3	1.9
General government services	16.3	3.1
Total gross investment	23.8	-3.7
- excluding oil and shipping	14.4	-2.1

* Please note that volume growth rates for 1986 and 1987 in all tables in the "Economic Survey" are based on constant 1986 prices. Previously published growth rates for 1986 are based on constant 1980 prices.

¹ Due to the registration of Norwegian ships abroad and the registration of ships in Norway, it is difficult to arrive at percentage change.

in ship sales and in the registration of existing Norwegian tonnage abroad. Towards the end of the year there was also a substantial influx of ships into NIS.

Gross investment in manufacturing increased in 1987, but this growth was notably lower than in 1986. Investment rose in both sheltered and export-competing sectors, and due to the activities at Mongstad, investment growth was especially high in the refinery sector. Conversely, investment in the import-competing sector were lower in 1987 than in 1986.

Gross investment in general government rose from 1986 to 1987. Compared to the year before, however, growth was appreciably lower in 1987. Investment in the mining sector fell off sharply, while investment in the power supply sector fell for the sixth consecutive year.

Estimates for other sectors are highly uncertain. Provisional figures indicate a distinct reduction from 1986 to 1987, with the exception of the category other private services, which showed moderate growth in investments in 1987.

Gross Fixed Formation by Type

(Percentage change in volume from previous year*)

	1986	1987
Investment in oil activities	87.6	-17.8
Housing	9.1	-0.3
Other building and construction	10.9	2.4
Ships and boats	1	1
Other transport equipment	23.9	-23.9
Machinery, equipment, etc.	13.3	-1.7
Total	23.8	-3.7

¹ Due to changes in the registration of ships, the percentages are difficult to interpret.

Investment in Oil Activities

According to provisional national accounts figures, gross investment in oil production and pipeline transport fell from NOK 36.5 billion in 1986 to NOK 30.7 billion in 1987 (measured in 1986 prices). This implies a 15.7 per cent decrease in volume. Gross investment in oil activities usually varies widely from year to year as the national accounts include oil platforms as gross fixed capital formation at the time they are towed out to the field. (See the comment on investment concepts.) In 1986, both the Gullfaks A platform and the water injection platform on Ekofisk were towed out, while the Gullfaks B and Oseberg B platforms were towed out in 1987.

Figures for incurred investment costs reflect the current level of investment activity better than gross investment figures. According to the Central Bureau of Statistic's investment survey in the fourth quarter of 1987, the incurred investment costs for oil production and pipeline transport increased from NOK 33.2 billion in 1986 to NOK 35.1 billion in 1987, representing a 5.7 per cent increase in value. The largest part of the incurred investment costs can be traced back to the production sector, a total of NOK 34.3 billion in 1987. Investment costs for field development were the largest item, totalling 61 per cent of the investments in the production sector.

In 1987 approval was only granted for the development of two smaller fields, Gyda and Veslefrikk, but a number of larger fields were declared commercial and are presently being considered by the Ministry of Petroleum and Energy. Investment in oil activities has been extremely high for several years, and the oil companies are so interested in developing such a large number of fields that the Ministry is considering the introduction of a new priority scheme for the development of new fields. A ceiling

Investment Concepts — Oil Activities*Incurred investment costs:*

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. Reporting to the Central Bureau of Statistics is part of the operators' cost control routines. Incurred investment costs are only given in actual values (current prices).

Gross fixed capital formation:

In contrast to the building and construction sector, where fixed capital formation is figured as the work progresses, in the national accounts investment in oil platforms is counted at the time and with the capital value they have when they are towed out to the field. Incurred investment costs for an oil platform are counted as changes in work in progress (i.e., changes in stocks) until the platform is placed on the field. For the field development sub-group, there will therefore normally be significant deviations between incurred investment costs and gross fixed capital formation in the same period.

of NOK 25 billion in field investments has been mentioned. If the Ministry of Petroleum and Energy were now to approve several major investment projects, these projects' peak activity levels would probably be concurrent with the investment peak for the Troll-Sleipner projects. This would result in an investment boom in the oil sector and put a great deal of pressure on the Norwegian economy.

Incurred investment costs for field development amounted to NOK 20.9 billion in 1987, a decline in value of 4.2 per cent from the previous year. The cost of goods totalled NOK 10.4 billion, nearly 50 per cent of the costs of development. The cost of goods was reduced by 16 per cent in value from 1986. In contrast, the cost of services, which amounted to 44 per cent of field development costs, increased by nearly 12 per cent in value. This was because expenditure on goods is especially high in the middle of the field development project, while various services dominate the initial and concluding phases. The field development projects that have cost the most in 1987 are Oseberg A and B and Gullfaks C, which are all now nearing completion. Other major development projects such as Troll/Sleipner are, on the other hand, still in the starting phase.

Exploration costs totalled NOK 5 billion in 1987, a decline in value of about 25 per cent from the year before. This decline is reflected in the number of drilling vessel days, perhaps the most accurate measure of exploration activities. Change in the number

of meters drilled was less marked, having recorded a decline of 11 per cent. 36 exploration holes were drilled in 1987, the same number as in 1986.

Owing to the jacking up of platforms in the Ekofisk area in the summer of 1987, investment in fields in operation rose to a total of NOK 6.2 billion. This was substantially higher than the NOK 2 billion annual level that has remained relatively unchanged in recent years. The NOK 2 billion each year have mainly been related to investment costs in connection with wildcat drilling. The efforts to secure the Ekofisk facilities continue, meaning that the estimate for investment in fields in operation in 1988 may be as high as NOK 4 million.

Incurred investment costs in the pipeline transport sector were NOK 0.7 billion in 1987. These costs will remain low until the work on the Troll-Sleipner-Zeebrugge pipeline begins in the early 1990s.

Estimates reported to the Central Bureau of Statistics for the fourth quarter of 1987 with respect to incurred investment costs for production and pipeline transport in 1988 amount to NOK 34.1 billion, a decline in value of 2.7 per cent from the year before. The estimate shows a decrease for all subgroups except field development, where a value increase of 11.5 per cent has been projected.

Actual and Estimated Incurred Investment Costs in Oil Production and Pipeline Transport

(NOK billion, current prices)

	1986	1987 ¹	1988 ¹
Production of crude oil and natural gas	32.7	34.3	33.5
Exploration	6.7	5.0	4.6
Field development	21.8	20.9	23.3
Goods	12.3	10.4	11.4
Services	8.2	9.2	10.1
Wildcat drilling	1.3	1.4	1.9
Fields in operation	2.3	6.2	4.0
Goods	0.5	1.5	1.0
Services	0.7	3.7	1.4
Wildcat drilling	1.1	1.1	1.5
Land-based activities ²	1.8	2.2	1.7
Pipeline transport	0.5	0.7	0.6
Total	33.2	35.1	34.1

¹ Estimated according to the Bureau's investment statistics from the fourth quarter of 1987.

² Includes office buildings, bases and terminal facilities on land.

Balance of Payments

Norway's balance of payments improved from 1986 to 1987. Stagnation and reduction in the domestic use of goods and services, in private consumption in particular, and a considerable scaling down of stocks of imported goods led to a visible decline in the volume of imports. The devaluation of the Norwegian krone in May 1986 helped to lower the volume of imports by reducing the market shares of imported goods. A build-up of stocks of goods abroad strengthened export growth through 1987 and contributed to a rise in prices for important traditional exports. Other important events related to Norway's balance of payments in 1987 were the stabilization of the price of crude oil at a higher level after the sharp fall in 1986, a further decline in the price of natural gas and a considerable reduction in the net export of used ships.

Current External Balance

Provisional estimates show a deficit in Norway's current external account of NOK 28.1 billion in 1987, which is NOK 4.7 billion less than the preceding year. Excluding the export and import of used ships, the deficit for 1987 was NOK 33.8 billion, compared to NOK 42.6 billion the preceding year. The deficit in the current account increased through the year due to the reduced net export of used ships, lower natural gas prices and a new upswing in imports. Although the deficits in 1986 and 1987 were very large in nominal terms, as a share of the gross domestic product they were lower than in the mid-1970s. However, the deficits in the 1970s were due to the huge investments made in oil activities, which have brought major returns in foreign exchange income during the 1980s.

The balance of goods and services showed a deficit of NOK 12.1 billion in 1987. This was NOK 5.5 billion less than in 1986, and may be ascribed to the improvement in the balance of trade for traditional goods. The deficit in net interest and transfers amounted to NOK 16.0 billion in 1987, a slight deterioration from the year before.

The deficit in the balance of trade for traditional goods, which had increased sharply in recent years, decreased by NOK 11.5 billion from 1986 to 1987. The deficit is estimated at NOK 59.8 billion in 1987. The terms of trade (the ratio of import prices to export prices) for traditional goods did not change much from 1986 to 1987 (0.9 per cent). However, there was definite improvement in the terms of trade during 1987, and from the second half of 1986 to the second half of 1987, there was a rise of 4.5 per cent. The improvement was largely due

Net Foreign Debt at Year-end NOK billion

	1986	1987
Central government sector	5.7	–
Local government sector	10.5	–
Norges Bank	–90.4	–
Other finance institutions	63.0	–
Shipping and oil activities	48.8	–
Other Norwegian sectors	42.9	–
Total	80.5	92.0

to favourable international price trends for refined petroleum products in the wake of higher crude oil prices, higher aluminum prices and higher prices for fresh and frozen fish.

The net export of ships and oil platforms (incl. repairs) declined by NOK 0.8 billion from 1986 to 1987. This reflects the fact that the registration of Norwegian ships abroad, which had become quite common in recent years, was halted in the second half of 1987. The establishment of the Norwegian International Ship Register (NIS) on 1 July, 1987 certainly had something to do with this. Towards the end of the year, there were also a number of Norwegian ships under foreign flags which chose to re-register in NIS.

At the end of 1986, Norway's net foreign debt amounted to 15.6 per cent of the gross domestic product. This was a clear increase compared with 1985, when the share was 9.7 per cent. Corrected for the deficit in the current account for 1987 for the readjustment of assets and debt as a result of foreign currency fluctuations in 1987, the net increase in foreign debt in 1987 appears to amount to approximately NOK 11.5 billion. Net foreign debt amounted to roughly NOK 92 billion at the end of 1987, equalling 16.5 per cent of the gross domestic product.

Exports

Norwegian exports increased in value by 3.1 per cent from 1986 to 1987, compared to a decrease of 17.6 per cent from 1985 to 1986, following the plunge in oil prices. There were signs of some tapering off in the growth rate towards the end of the year. The increase in value is due to a rise in the volume of exports, which can be ascribed inter alia to the build up of stocks of raw materials abroad and to an increase in market shares for Norwegian exports of traditional merchandise on the markets of Norway's

Norway's Current Account of The Balance of Payments¹

(NOK billion)

	1986	1987	Change	Volume	Price
Balance of goods and services	-17608	-12123	15485	15117	-9631
– crude oil and natural gas	51244	51226	-18	8104	-8122
– ships and oil platforms (incl. repairs)	3084	2333	-751	-1803	1052
– traditional goods	-71236	-59763	11473	13423	-1950
– services	-700	-5919	-5219	-4608	-611
Balance of interest and transfers	-15227	-15982	-755	-	-
Current external balance	-32835	-28105	4730	-	-
Current external balance, excluding export/import of used ships	-42620	-33816	8804	-	-

¹ Categorization of the various groups of goods and services deviates from the categorization used in the annual national accounts and balance of payments. November and December 1987 are partially based on estimates.

Statistical basis for the discussion of the current external balance

Estimates for the current account are based on published figures for the balance of payments for the first ten months of 1987, trade statistics for the entire year, and an estimate for November and December regarding goods and services outside the trade statistics and for the balance of net interest and transfers. According to the trade statistics for December, preliminary figures for the export and import of goods, excluding ships and oil platforms, showed a sharp rise in the value of both exports and imports. This must be viewed in the context of the transition to a new customs declaration and a new customs and statistical nomenclature introduced on 1 January, 1988. Normally there would be a certain amount of carry-over from one month to the next in the number of customs declarations received for registration. Because of the transition to the new system this form of carry-over had to be avoided in connection with the transition to the new year. Consequently, the deadline for sending in declarations for goods that cleared customs in December was severely reduced. This is no doubt one of the main reasons for the steep increase in export and import figures for this period. It was therefore decided that the export and import figures should be reduced by NOK 2.5 and 2.2 million, respectively. This affects the estimates for gross exports and gross imports for the fourth quarter and for 1987 as a whole, but does not have any significant effect on the current account. However, adjustments in the export and import figures do mean that the estimate regarding the deficit in the current external account for 1987 is more uncertain than is usually the case. The January, 1988 figures will be adjusted upwards as the figures for December, 1987 and January, 1988 will show normal development without any change in the trade statistics' customs declaration and the customs and statistical nomenclature. Adjustment of export and import values will also be carried out when the first provisional figures concerning the 1987 balance of payments are published in March and in the annual national accounts which will be published in late April/early May. This will subsequently affect the balance of payments figures for January 1988 and the first quarter in the quarterly national accounts.

Exports by Sector of Origin

	NOK million	Percentage change from previous year					
		Value		Volume		Price	
	1987	1986	1987	1986	1987	1986	1987
Traditional goods	70,450	6.4	13.0	-0.0	7.3	-6.4	5.3
Primary industry goods	3,727	13.8	36.1	32.5	19.4	-14.2	14.0
Sheltered industry goods	10,410	1.4	11.3	-8.1	0.2	10.3	11.1
Export-competing goods	39,395	-14.9	13.1	-3.6	10.7	-11.7	2.2
Import-competing goods	25,705	6.1	10.7	8.5	3.4	-2.1	7.0
Electric power	214	-76.0	24.5	-69.3	56.6	-21.8	-20.5
Crude oil and natural gas	53,623	-37.8	1.0	4.8	15.2	-40.7	-12.3
Ships and platforms (incl. repairs)	11,921	0.3	-6.0	-6.7	-16.9	7.5	13.2
Services	55,076	-6.8	-5.0	-5.0	-5.4	-1.9	0.4
Total exports	200,070	-17.6	3.1	-0.8	4.1	-16.9	-1.0

Imports by Sector of Origin

	NOK million	Percentage change from previous year					
		Value		Volume		Price	
	1987	1986	1987	1986	1987	1986	1987
Traditional goods	139,213	15.0	-1.7	13.9	-5.8	1.0	4.4
Primary industry goods	5,442	15.1	-6.4	12.6	0.8	2.2	-7.1
Sheltered industry goods	7,304	18.6	8.5	14.9	5.9	3.2	2.4
Export-competing goods	23,580	-4.8	-3.8	8.0	-4.2	-11.8	0.4
Import-competing goods	94,696	20.3	1.7	15.7	-4.2	3.9	6.2
Transport equipment	7,997	26.3	-27.3	11.6	33.2	13.1	8.8
Electric power	194	-14.1	-52.2	38.4	-26.3	-37.9	-35.2
Crude oil	2,397	-32.7	30.8	37.8	-2.9	-51.2	34.6
Ships and platforms (incl. repairs)	9,588	14.2	-0.1	8.9	-3.6	4.9	3.6
Services	60,995	-2.4	4.0	-2.1	2.5	-0.3	1.4
Total imports	212,193	8.9	0.3	8.9	-3.4	0.0	3.8

most important trading partners. Higher demand for raw materials in newly industrialized countries, and from the building and construction sector and the automotive industry in general, helped to boost the prices of raw materials in 1987. Anticipation of continued price rises may have been one of the reasons that the importers of raw materials in other countries built up their stocks of imports. Published figures for the export of goods to Norway's most important trading partners for the first three quarters of 1987 showed that the export of metals (except for iron and steel) and goods made of metal increased substantially to countries with important automotive industries such as Sweden, France and the Netherlands. Larger market shares may be ascribed to the devaluation of the krone in May 1986, which initially helped Norwegian manufacturers to adjust to the export markets. A devaluation generally affords the domestic producer a chance to increase his prices at the same time as it facilitates a decrease in the price to be paid by the foreign buyer. All in all, there was a weak negative trend in the price of Norway's total exports in NOK as a result of the fall in natural gas prices, while traditional goods recorded a relatively marked rise in prices.

Export of crude oil and natural gas

Exports of crude oil and natural gas increased in value by 1.0 per cent from 1986 to 1987, compared to a decline of 37.8 per cent from 1985 to 1986 as a result of the plunge in crude oil and natural gas prices in 1986. The increase in value is due to a marked increase in the volume of exports, while the prices of crude oil and natural gas, viewed together, continued to fall. The price of crude oil has been on the rise since the end of 1986, but the fourth quarter showed signs of a weaker trend due to a simultaneous fall in the dollar price of crude oil and the exchange rate of the US dollar. The price of petroleum in Norwegian kroner for the fourth quarter was, however, still 5.5 percentage points about the average for 1986. The fall in natural gas prices from 1985 to 1986 was definitely less than in crude oil prices, but natural gas prices continued to fall throughout 1987. With a view to long-term contracts for deliveries of natural gas and prices, natural gas prices are closely linked to crude oil prices, although there is a considerable time lag involved.

Imports

Total imports rose by 0.3 per cent in value from 1986 to 1987. A 3.4 per cent reduction in volume was offset by a 3.8 per cent rise in prices. The decline in the volume of imports, which began in the third quarter of 1986 and lasted until the summer of

1987, was largely due to the fact that Norway used up stocks already on hand. Other important factors included the decline in private sector consumption and a reorientation of investment away from import-intensive projects, as well as a reduction in sales to the import-intensive oil and gas sector. Lower market shares for several categories of imports also helped to reduce total imports considerably. This may be viewed in connection with the general rise in import prices following the devaluation in 1986, which resulted in a certain shift in demand away from imported goods. During the second half of the year, however, imports rebounded, rising in volume once again. Combined with a levelling off in the decline of certain components of domestic demand, the strong growth in exports contributed to the upswing in import volume through the export sector's considerable raw material requirements. Following the devaluation in May 1986, price trends were reversed, tapering off in the first half of 1987 and actually falling in the second half. In isolation, a decrease in import prices has a positive effect on the balance of goods and services since it means that we pay less for any given volume of imports. However, reduced import prices could influence domestic demand and stimulate import shares once more. The net effect of such an import trend, measured in NOK, would therefore be uncertain and would depend on which of the two effects were the stronger.

Economic Perspectives

In 1987 Norway once again spent far more than the nation produced. The balance of payments deficit amounted to NOK 28 billion, despite a decline in private sector consumption and investment and substantial growth in exports. The tempo of price and wage rises continued to outstrip rates in competing countries, and Norway splurged by granting itself a considerably shorter work week. For better or for worse, Norway's economy certainly ran its own race.

The imbalances in Norway's economy may be traced back to economic developments from 1984 to 1986 and to the plunge in oil prices in the winter of 1986, which had a major impact on revenues. In 1985 the oil rent, i.e., the money derived by Norway from oil and gas production, represented a per capita income of NOK 16,000. In 1987 this unearned income had decreased to some NOK 4,000 per capita. However, growth in domestic demand, particularly in private sector consumption, has been so powerful since 1984 that even if Norway had had an export income from oil and gas production as large as that in 1985, the current account for 1987 would just barely have balanced. This indicates that Norway's economy was getting off track even before the drop in oil prices, and that a reorientation of economic policy was called for in any case. But one key question here is how quickly such imbalances will affect private sector behaviour: In this context the structure of Norwegian industry and trade and its significance for price and wage formation will be decisive.

The harvest method — the production of natural resources and output based on these resources — has traditionally played a key role in Norway's economy. Growth in natural resource-based industry has formed the cornerstone of income growth for Norway as a nation and for the individual wage-earner. However, Norway's traditional resource-based industry faces limited expansion possibilities and uncertain market prognoses.

Consequently, it will be difficult to base any continued income expansion on this sector alone. This is also true of the oil sector. Even at today's crude oil prices, however, the profits to be reaped from oil and gas production are substantially higher than returns from other production activities. Norway's tremendous reserves of natural gas also open new possibilities for the domestic use of gas or for the export of gas or power. There is thus reason to expect that petroleum will continue to be a source of considerable income for Norway as a nation for many years to come. But with a view to the prevailing uncertainty as to prices, it is important not to project

any appreciable increase in coming years in the income to be derived from the present level of activity.

Since the harvest method as a source of further growth in affluence appears to have its limits, Norway is confronted by considerable challenges. The most important, and probably the most difficult, will be to adjust price and income formation to the new realities. Until the mid-1970s, export-oriented industries based on raw materials paid the highest wages. Substantial growth in these industries encouraged a gradual scaling down of low production industries. At the same time Norway conquered its balance of payments problems. Due to the income derived from oil, sheltered industry could pay the highest wages. This was because oil revenues were integrated into the economy. Now that this process has been carried through to the end, price and income formation must once again be directly regulated by consideration for the balance of payments. The drop in oil prices entails that Norway is being forced to reverse parts of the process because the sheltered sector has become too large and unwieldy and the wage levels there are too high in relation to the country's revenues. This means that both the level and growth in prices and incomes in the time to come must be adjusted to the competitive situation in those sectors that Norway relies on to restore sustainability in its balance of payments. These sectors can only to a limited extent be based on Norway's special resource base or on market dominance, i.e., they must be based on know-how and expertise and the provision of services.

This situation calls for changes in several areas. Large parts of Norwegian industry must be placed in competition with foreign industry in order to bring costs down. At the same time, Norway needs to increase productivity and the more efficient utilization of resources in those sectors of the Norwegian economy that will continue to be sheltered from foreign competition. The public sector should not be exempted from this brand of readjustment. For many years the central and local government sectors have absorbed a growing share of the country's labour resources. This may have served to improve the standard of public services, and may thus be the result of a conscious assignment of priorities. But Norway's economic situation now demands that general government activities also endeavour to step up efficiency in order to achieve the goals set for such public services. If Norway is to achieve a sheltered sector with a wage level adjusted to the country's new income situation and with a level of efficiency that will help to solve its balance of payments problems, it must keep the level of domestic demand down. And last, but not least, various forms of private monopolies and cartels must be strictly limited, while at

the same time direct public support to industry and indirect support to the sheltered sector, such as in forms of import regulation, are scaled down.

An industrial and competitive policy such as that outlined above, supported by strict regulation of demand, clearly entails the threat of rising unemployment. Experience from other countries shows that it is possible, evidently on a permanent basis, to have a substantially higher level of unemployment than Norway has experienced thus far. The most important objective of the economic policy is therefore to quickly adjust wage and price formation to the new realities confronting Norway and to actively help to facilitate the adjustments called for. If Norway does not succeed in this, it faces further austerity measures, with high unemployment as the inevitable result.

The formulation of credit policy and the conditions in the credit market will be key factors in the work to promote readjustment. The transition to a credit system governed by market forces at the end of 1983 took place because it was becoming increasingly more difficult to manage the traditional channels which governed credit flows and interest rates. At the beginning of 1988, little remains of the expectations many people had of the most comprehensive reform in economic channels in recent years. Deregulation came at a very unfortunate point in time, i.e., at the start-up of a cyclical upturn, making possible the powerful growth we recorded in consumption and investment. We are still struggling with the after-effects of this rampant growth. Further, experience has shown that such a deregulation does not necessarily result in an improvement in the allocation of capital from a socio-economic perspective. The monetary and credit systems have also required the investment of extensive resources.

This does not mean that it is possible or even desirable to return to the previous system of regulation. The credit market and credit policy must now, more than ever, serve to channel resources from "old" to "new" activities. One major contribution in this direction would be to further the tax reforms initiated in 1987, so that the returns on various forms of capital would be more equal with a view to taxation. Finally, a policy that would bring price and wage growth under control, thus promoting confidence in the Norwegian krone, would remove both the need for and possibility of a high, sensitive interest rate in Norway.

It is not likely that 1987 will go down in history as an exceptional year for Norway's economy. There are indications that the problems and challenges confronting the country will remain for several years. If Norway hesitates, and waits too long to correct the large-scale imbalances in the economy,

it will pay a high price in the form of extremely high interest payments abroad and a substantially higher level of unemployment. In such case a debt crisis would not only hit many individual households, but also the country as a whole.

Outlook for 1988 and 1989 — A Model Based Projection

This annex is a presentation of predictions concerning macroeconomic development in Norway in the coming two years. The calculations are based on the Central Bureau of Statistics' quarterly model KVARTS. The primary objective of the calculations is to illustrate a possible economic course in order to gain a more clear image of the challenges confronting Norway in the coming years. The calculations indicate that even if wage and price expansion are brought down to the same level as its trading partners, Norway will continue to record a large-scale deficit in its external balance in the years to come.

According to the projection, for the next few years Norway's economy will be dominated by the following conditions:

- Low international economic growth and inflation mean that Norway will not receive much help to solve her large scale external balance deficit problems.
- The calculations indicate continues stagnation and a decline in consumption and gross investment in Mainland Norway. With little or no growth in demand at home or abroad, Norway will be entering a phase of stagnation accompanied by slightly declining output. The expected high rise in costs in 1988 means that manufacturing will lose market shares. This trend will not be reversed until 1989.
- Today's pressed labour market will in the next few years be replaced by a relatively high rate of unemployment, by Norwegian standards.
- A lower level of economic activity, combined with the fact that the after-effects of the devaluation and shortening of working hours will wear off, will lead to more moderate wage and price growth in 1988 and 1989.

General international conditions

The average OECD growth rate picked up in 1987, in spite of the fact that the large imbalances in international trade in goods and services indicated the distinct possibility of weaker international growth in the coming years. The plunge in the stock market in October 1987 may be a signal that these expectations had an impact on the market. The dramatic drop in the market may in itself have negative ramifications in the future.

According to the OECD's prognoses in December 1987, output growth in industrialized countries will visibly deteriorate in the coming two-year period. For the OECD area as a whole, the growth rate is expected to fall from 2.75 per cent in 1987 to 2.25 per cent in 1988 and, subsequently, to just 1.75 per cent in 1989. Growth is expected to be particularly weak in Western Europe, while it is expected to remain relatively high in Japan as a result of the country's fairly expansive economic policy. There is reason to believe that Norway's main trading partners will experience a lower growth rate than the OECD average. This lower rate will probably help to curb price rises, which showed signs of sharpening in 1987.

Economic policy

Estimates of the public sector's use of goods and services in 1988 are based on figures from the Revised National Budget, except for the figures for public sector gross investment, where growth estimates have been raised a few percentage points. Employment will expand by 0.3 per cent in 1988 and 1.7 per cent in 1989. Changes in accounting procedures from 1987 to 1988 will help to pull the level of public sector consumption down by 0.8 per cent and push private sector consumption up by 0.3 per cent. These corrections have been integrated into the annual estimates in the main table, but not into the figures showing quarterly development. Transfers are expected to increase by some 8 per cent from 1987 to 1988, while direct taxes will increase somewhat more quickly than total nominal household incomes. In 1989 growth in transfers is estimated at 7 per cent and it is expected that the average level of taxation will remain more or less unchanged. Indirect taxes will rise somewhat owing to reductions in subsidies and increases in excises on alcohol, tobacco and petrol. Government negotiated or regulated prices are expected to increase at the same pace as the general consumer price index or somewhat more quickly.

In 1987 interest rates were influenced by the fact that the interest level was used as an instrument

to stabilize the exchange rate of the krone. Given the fairly free movement of capital between Norway and other countries, the interest level in Norway will largely be determined by interest rates abroad, adjusted for fluctuations in foreign exchange rates. In the short-term anticipation of exchange rate fluctuations will also play a part. Credit market participants will demand a large interest rate difference between Norway and abroad as long as price and wage growth in Norway are so high that a devaluation seems to be necessary to ensure the competitiveness of its industry apart from the oil sector. It therefore appears that it is the rate of price and cost growth in Norway which must bear the brunt of the blame for high interest rates.

In our reference scenarios based on highly uncertain figures, we have assumed that there will be no significant decrease in interest rates before the end of 1988, and that the decrease will continue in 1989 as Norway's rate of inflation begins to approach that of her main trading partners. However, this presupposes that the nominal interest rate in Norway stabilizes at about one percentage point higher than in other countries, in order to ensure the financing of the current balance deficit in the years to come.

Oil and shipping

Market trends in coming years will probably be influenced by the tremendous unused capacity of OPEC, so Norway cannot expect any particular rise in oil prices. However, please note that the projections presuppose that OPEC will remain intact and will therefore prevent any appreciable nominal drop in crude oil prices. For 1988 and 1989 prices are estimated to remain at \$18.50 and \$19 per barrel, respectively. These estimates assume that incurred investment costs in oil activities will remain relatively high. However, estimates for 1988 and 1989 in constant prices are slightly lower than the 1987 level. It is assumed that oil production will increase by less than 5 per cent in 1988 and by about 15 per cent in 1989. The estimates are based on the assumption that the 7.5 per cent production limit is maintained. With a view to gas production, estimates assume a reduction of 10 per cent both years.

Freight revenues in the shipping sector have fallen off considerably in recent years, partly because of a reduction in prices, but primarily because so many Norwegian ships have been registered abroad. This trend seems to have been turned around, and it is assumed that there will be a significant increase in gross freight by volume in 1989. In 1987 the registration of Norwegian ships abroad represented nearly NOK 6 billion. 1988 projections show a comparable net increase in the registration of ships in NIS (ap-

prox. NOK 6 billion). This will bring down the current balance by NOK 12 billion from 1987 to 1988. It will also contribute to boosting the figures for gross fixed capital formation strongly in 1988, following the decrease in 1987. For 1989 it is projected that the import of new and used ships will be approximately equal to the country's export of used ships.

Other domestic demand

The calculations assume that there will be a decline in private sector consumption in 1988. The saving ratio for households is provisionally estimated at -3 per cent in 1987. In the calculations we have assumed that the saving ratio will rise to -1 per cent in 1988 and up to 1 per cent in 1989. Considering that household credit finances a large part of housing investment, this means that households will increase their net indebtedness both years. Due to the assumption concerning a continued high rate of interest in 1988, the calculations project only 1/2 per cent growth in real disposable household income on an annual basis. As stated above, the nominal interest rate is expected to decrease in 1989. This would have a positive effect on growth in real disposable household income, which, according to the calculations would grow by more than 2 per cent. Given a saving ratio increase of roughly the same magnitude, consumption would remain largely unchanged from 1988 to 1989. Investments in Mainland Norway are expected to decrease through 1988 and then to stabilize in early 1989 at a level some 5 per cent lower than the 1987 level. A decline in industrial investment is the main cause of the decrease, a situation closely connected with the completion of the Mongstad refinery in 1988. If we exclude investment in the refinery, investment in industry will fall by a volume of 6 per cent in 1988 and a total volume of 19 per cent in 1989. Housing investment will drop off somewhat in 1988, but will be on the rise again in 1989 due to more expansion in household incomes and lower interest rates. Investment in the service sector will remain high and change little in the 1988-89 period.

Exports and imports

If we exclude the registration of Norwegian ships abroad, our calculations indicate no changes in the total volume of exports from 1987 to 1988. Traditional exports will rise slightly, but this contribution is almost exclusively due to the sizeable positive carry-over remaining at the end of 1987. Total exports of crude oil and natural gas are expected to push down figures for 1988, due to reductions in the export of gas. The total volume of services exported is expected to remain unchanged from 1987.

From the end of 1988, the projections indicate a new upturn in total exports, ascribable in part to the expected sharp growth in oil production. However, a share of the extra petroleum produced is expected to be refined at Mongstad, which should be in operation by the end of 1988. In spite of the fact that the figures include substantially larger exports of crude oil, traditional exports will show only modest growth by the end of 1989. At that time it is expected that growth in Norway's export markets will pick up, and that price and cost growth in Norway will be at the same level as in competing countries, meaning that Norway's competitiveness will no longer be deteriorating.

Traditional imports (calculated without imported crude oil) will show a fairly steady trend in development. A continued weak or even declining level of domestic demand will help to keep imports down, while a certain loss of market shares on the home market will have the opposite effect.

Production and employment

Following slight growth in production from Mainland Norway in 1987, the calculations project a slight decline in 1988 and 1989. In view of the uncertainty tied to such calculations, we must conclude that production will not change much in the next two years. Industrial output, which rose by about 1.5 per cent in 1987, will rise by about 1/2 per cent in 1988, and then drop by some 3 per cent in 1989. This may be ascribed to the effects of generally low growth, and especially to the decline in investment in 1988. A projected sharp rise in the price of Norwegian goods compared to foreign goods, which will result in the loss of market shares, will contribute to this. Building and construction sector activities will experience a steady decline of roughly 2 per cent per year, while the sharp drop in wholesale and retail trade in 1987 indicates only minor changes in the next few years. In contrast, the private service sector must be prepared to record lower output in the coming years, according to the calculations.

Although the number of man-hours worked did not change appreciably in 1987, but the number of people employed increased by almost 2 per cent due to the shortening of the work week. In 1988 the number of man-hours for wage-earners will fall by some 1 per cent, implying that the productivity of the Mainland's economy will rise by about 1 per cent. Measured in percentages, employment will fall somewhat less than the man-hours worked, partly because the scope of overtime work will be reduced somewhat over the next two years. Average working time will thus decline slightly even though there will be no formal reduction in working hours. In

Figures And Prospects For Norway's Economy

(Percentage change from the previous year)

Reference categories	1987	1988	1989
Product market			
Private final consumption expenditure ¹	-1.9	-1	0
Private govt. consumption expenditure ¹	2.7	0	2.75
Gross fixed capital formation	-3.7	7.5	-6
- Mainland Norway	-2.1	-3	-2
Domestic use	-1.5	1	-1.5
- Demand from Mainland Norway	-1.0	-1	.25
Exports	4.1	-3	3
- Traditional exports	7.3	1.75	1
Imports	-3.4	1.25	-2.75
- Traditional imports	-5.8	.25	-.25
GDP	1.3	-.75	1
- Mainland Norway	0.4	-.25	0
Labour market			
Man-hours worked, wage-earners	0.5	-1.25	-.50
Employed wage-earners	2.7	.50	0
Unemployment rate, level	2	2.5	3.25
Prices and wages			
Hourly wage growth	11.4	7	5
Consumer price index	8.7	5.75	4.5
Private consumption deflator	8.0	5.5	4.5
Export prices	-1.0	1.25	3.5
- Traditional exports	5.3	5	2.75
Import prices	3.8	2.5	3
- Traditional imports	4.4	3.25	3
Incomes and saving			
Household saving ratio, level	-3.0	-1	1
Real disposable household income	1.1	.5	2.25
Real disposable national income	-0.3	-3	0
Current account (in NOK billion)	-28.1	-43.75	-34

¹ Private final consumption expenditure figures have been adjusted upwards by some 1/4 per cent and public final consumption expenditure figures are adjusted downwards by some 3/4 per cent as a result of changes in accounting procedures.

1989, however, growth in employment and man-hours worked will be more parallel. The Mainland economy will record weak positive growth in productivity in 1989, while growth will be negative for the manufacturing sector as a result of a strong decrease in production.

Unemployment, which reached a record low in the autumn of 1987, will rise considerably in the coming two-year period, according to the calculations. It is estimated that unemployment (as defined in the Central Bureau of Statistics' Labour Market Survey) will reach 2.5 per cent in 1988, increasing to more than 3 per cent in 1989. Given this rise in unemployment, only moderate growth can be expected in the labour force in the next few years.

Price and wage trends

The model-based calculations determine changes in wages on the basis of growth in consumer prices, productivity and import prices as well as on the unemployment rate. Lower price and productivity growth therefore result in lower wage growth. Higher unemployment also contributes to this, but since it takes time for the full effects to be felt, wage growth projections continue to be high for the first half of 1988. Based on the ratios shown in the model, wage growth will amount to an average of 7 per cent from 1987 to 1988, compared to nearly 11 per cent the year before. As the inflation rate falls and unemployment rises, wage growth will drop to about 6 per cent in 1989. Wage growth in industry is expected to be slightly below average in 1988 and 1989, while the opposite was the case in 1987.

Estimates of price trends in 1988 and 1989 do not differ significantly from those presented in *Economic Survey No. 7, 1986*. The estimates for consumer price growth in 1988 have been adjusted upwards by slightly less than one percentage point as a consequence of subsequently adopted changes in excise taxes.

The projected price trends are marked by a gradual decline in the inflation rate through 1988 and an annual rise in consumer prices of 5.5–6 per cent. In 1989 the average inflation rate should drop to about 4.5 per cent, but show a slight tendency to increase through the year. This is because the effects on inflation of lower wage growth and import prices, as well as more idle industrial capacity, will have been exhausted, and a certain upturn in domestic demand will result in a certain rise in prices even though wage growth continues to decline.

We have also made projections based on the Government's goal of a 5 per cent limit on wage growth in 1988. We have also assumed that the growth rate of some government-regulated prices

will be adjusted downwards. In addition we have assumed that the interest rate will be reduced by one percentage point from the beginning of the second quarter of this year, as an incomes policy measure. If this scenario were to prove true, the calculations show that price growth would be reduced by more than 1/2 per cent in 1988. The real economic development trend in 1988 would not be changed a great deal though, as lower wage and price growth, in conjunction with a lower interest rate, would result in unchanged private sector consumption. Competitiveness would improve somewhat in 1988, but Norway will have to wait until 1989 and the early 1990s before the lower wage growth in 1988 will have any reducing effect on the balance of payments deficit.

1^a
NATIONAL ACCOUNTS FOR NORWAY

TABLE A1. GROSS DOMESTIC PRODUCT BY KIND OF ECONOMIC ACTIVITY. 1) 2)
At constant 1986-prices. Million kroner

	1986*	1987*	-----1986-----				-----1987-----			
			1st quarter	2nd quarter	3rd quarter	4th quarter	1st quarter	2nd quarter	3rd quarter	4th quarter
Gross domestic product .	516021	522900	124725	126020	128897	136379	127957	126199	129482	139262
Industries	440727	445718	106195	107075	110171	117285	109088	106644	110295	119691
Agriculture, hunting, forestry and fishing etc.	19074	..	3346	2349	9266	4114	3833	2279	10123	..
Production and pipe- line transport of crude petroleum and natural gas	55681	64039	14770	10901	13890	16119	16586	15455	13728	18270
Mining and quarrying .	1558	1471	344	437	356	422	359	386	339	387
Manufacturing	79264	80683	19705	20285	18334	20940	20906	19904	18636	21238
Sheltered manu- facturing	24575	25032	5814	6377	5915	6469	6131	6247	5999	6655
Food, beverages and tobacco	15755	16028	3591	4143	3875	4146	3772	4068	3946	4242
Printing and publishing	8820	9004	2223	2234	2040	2323	2359	2180	2053	2413
Export-oriented manufacturing	13664	14484	3498	3504	3232	3430	3689	3609	3430	3756
Paper and paper products	3061	3046	761	782	718	800	807	753	738	749
Industrial chemicals	3544	3719	923	931	844	847	940	942	870	968
Petroleum refining	2393	2811	627	648	547	571	679	692	675	765
Metals	4665	4907	1186	1143	1123	1213	1264	1223	1146	1274
Import-competing manufacturing	41024	41167	10393	10404	9187	11041	11085	10047	9208	10827
Textiles, wearing apparel and foot- wear	2080	1927	542	540	453	546	547	482	406	492
Wood and wood pro- ducts, furniture and fixtures	6380	6297	1566	1635	1443	1736	1701	1516	1385	1694
Chemical and mineral products .	8733	8914	2130	2221	2086	2297	2273	2179	2154	2307
Building of ships and oil platforms	5832	5667	1589	1519	1249	1476	1556	1425	1275	1411
Other manufac- turing goods	17998	18362	4566	4489	3956	4987	5007	4444	3989	4922
Electricity supply ...	23190	24973	7251	5124	4613	6202	7894	5387	4648	7045
Construction	30424	30862	6860	7371	7730	8464	7121	7333	7854	8554
Wholesale and retail trade	66626	63925	14926	17476	15792	18432	14813	15877	15468	17767
Water transport and oil well drilling	14108	..	3600	4022	3539	2947	2555	2649	2590	..
Transport, storage and communication	31462	..	7308	7681	7901	8572	7559	7946	8152	..
Dwellings	19513	20321	4828	4857	4893	4936	5026	5060	5096	5138
Other private ser- vices	88809	..	21115	22391	22314	22989	22379	22819	23675	..
Correction sectors ...	11019	..	2143	4182	1544	3150	58	1550	-16	..
Producers of government services	75294	77182	18530	18945	18726	19094	18869	19555	19187	19571

- 1) For the 4th quarter of 1987 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.

2*
NATIONAL ACCOUNTS FOR NORWAY

TABLE A2. EXPENDITURE ON GROSS DOMESTIC PRODUCT. 1)
At constant 1986-prices. Million kroner

	1986*	1987*	-----1986-----				-----1987-----			
			1st quarter	2nd quarter	3rd quarter	4th quarter	1st quarter	2nd quarter	3rd quarter	4th quarter
Gross domestic product .	516021	522900	124725	126020	128897	136379	127957	126199	129482	139262
Final domestic use of goods and services	533629	525381	126008	136108	134353	137160	124426	125295	134574	141087
Private final consumption expenditure	279795	274411	66041	70268	68427	75059	65011	67277	68281	73843
Specified domestic consumption	268552	262185	63876	67578	64908	72191	62838	64447	64033	70867
Direct purchases abroad, net.....	11243	12226	2165	2690	3519	2868	2172	2829	4248	2976
Government final consumption	102092	104825	24282	25081	25047	27682	25415	25970	25710	27730
Central government .	39277	40682	8578	9377	9344	11978	9379	9934	9674	11694
Civilian	23992	..	5501	5893	6159	6440	5768	6269	6024	..
Military	15285	..	3077	3484	3185	5539	3612	3665	3650	..
Local government ...	62814	64143	15704	15704	15704	15704	16036	16036	16036	16036
Gross capital formation	151742	146146	35684	40760	40878	34419	34000	32049	40583	39514
Gross fixed capital formation	142154	136890	25965	51511	30979	33698	26361	28239	44125	38164
Investment in oil activity	36175	29751	3925	22616	4219	5415	2995	4581	16533	5642
Buildings and other construction	66170	..	14972	15678	17074	18446	15502	15717	17255	..
Ships and boats ..	-3439	..	-1782	1443	-905	-2195	-951	-1671	743	..
Other transport equipment	13810	..	2717	3846	3582	3666	2428	2727	2626	..
Other machinery and equipment	29438	..	6133	7928	7009	8367	6387	6886	6969	..
Increase in stocks .	9588	9256	9720	-10752	9899	721	7639	3809	-3542	1349
Oil platforms in progress	-3519	..	3866	-13021	2269	3367	2784	3211	-8474	..
Exports	194046	202000	49445	45799	46312	52490	51673	50625	46808	52894
- Imports	211654	204481	50728	55888	51768	53270	48142	49720	51901	54718

1) See footnote 1, 2 in table A1.

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TABLE A3. PRIVATE FINAL CONSUMPTION EXPENDITURE. 1)
At constant 1986-prices. Million kroner

	1986*	1987*	-----1986-----				-----1987-----			
			1st quarter	2nd quarter	3rd quarter	4th quarter	1st quarter	2nd quarter	3rd quarter	4th quarter
Private final consumption expenditure	279795	274411	66041	70268	68427	75059	65011	67277	68281	73843
Specified domestic consumption	268552	262185	63876	67578	64908	72191	62838	64447	64033	70867
Food	52869	51346	11957	13115	13049	14749	11670	12857	12702	14117
Beverages and tobacco	16946	17590	3730	4407	3823	4986	3585	4516	4346	5143
Clothing and foot- wear	21969	19566	4380	5519	5123	6947	4380	4732	4426	6029
Rent, power and fuel	45900	47330	12912	10681	10173	12134	13447	10991	10488	12404
Furniture, furnish- ings and household equipment	21866	21531	4744	5092	5232	6798	4968	4906	5138	6519
Medical care and health expenses	9846	10372	2583	2402	2364	2498	2653	2561	2513	2645
Transport and commu- nication	47152	41758	11819	13838	11138	10358	10103	11079	10504	10073
Recreation, enter- tainment, education and cultural services	23411	23086	5403	5560	5867	6581	5488	5438	5575	6586
Other goods and ser- vices	28595	29606	6350	6965	8139	7141	6544	7368	8342	7352
Correction items	11243	12226	2165	2690	3519	2868	2172	2829	4248	2976
Direct purchases abroad by resident households	19125	..	3896	4710	6177	4342	3823	4647	7175	..
Direct purchases in Norway by non- resident households	-7883	..	-1731	-2020	-2658	-1474	-1651	-1818	-2927	..

1) See footnote 1, 2 in table A1.

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TABLE A4. GROSS FIXED CAPITAL FORMATION BY KIND OF ECONOMIC ACTIVITY. 1)
At constant 1986-prices. Million kroner

	1986*	1987*	-----1986-----				-----1987-----			
			1st quarter	2nd quarter	3rd quarter	4th quarter	1st quarter	2nd quarter	3rd quarter	4th quarter
Gross fixed capital formation	142154	136890	25965	51511	30979	33698	26361	28239	44125	38164
Industries	126076	120319	22157	47643	26903	29372	22159	24104	40015	34041
Agriculture, hunting, forestry and fishing etc.	6686	..	1292	1983	1822	1589	1018	1613	1608	..
Production and pipeline transport of crude petroleum and natural gas	36476	30734	4436	22801	4610	4629	3329	4453	16870	6083
Mining and quarrying ..	498	289	69	108	122	199	76	68	68	77
Manufacturing	17057	18282	3456	4023	4481	5097	3791	3998	4463	6029
Sheltered manufacturing	3706	4200	721	883	869	1234	923	1094	912	1270
Food, beverages and tobacco	2549	2867	532	637	610	771	622	691	648	906
Printing and publishing	1157	1333	189	246	259	463	301	404	264	364
Export-oriented manufacturing	6836	7960	1253	1605	1803	2174	1669	1315	1959	3016
Paper and paper products	1060	1432	164	260	311	326	222	200	332	678
Industrial chemicals	799	689	137	225	181	258	141	164	206	177
Petroleum refining	1900	4426	316	225	599	760	871	544	1145	1866
Metals	3076	1412	637	895	713	831	434	406	276	296
Import-competing manufacturing	6515	6122	1481	1535	1809	1689	1199	1589	1592	1742
Textiles, wearing apparel and footwear	242	177	54	70	60	59	34	36	56	50
Wood and wood products, furniture and fixtures	854	969	168	211	215	260	176	246	271	276
Chemical and mineral products ..	1954	1810	455	493	625	381	317	408	532	553
Building of ships and oil platforms	711	533	192	185	186	148	114	167	117	135
Other manufacturing goods	2754	2634	612	576	724	842	559	732	616	727
Electricity supply ...	7220	6749	1347	1571	1806	2496	1396	1317	1705	2331
Construction	2058	..	514	514	515	516	489	487	488	..
Oil well drilling	2128	784	-43	835	14	1322	-80	448	391	25
Wholesale and retail trade	7082	..	1756	1761	1777	1789	1711	1694	1710	..
Water transport	-4560	..	-2088	1172	-1185	-2460	-1193	-1907	425	..
Transport, storage and communication	12133	..	2181	3377	3064	3512	2032	2434	2170	..
Dwellings.....	25034	24956	5845	5848	6524	6818	5883	5796	6472	6805
Other private services (incl. commercial buildings)	14264	..	3394	3651	3355	3864	3707	3703	3646	..
Producers of government services	16078	16570	3808	3868	4076	4326	4202	4136	4110	4123

1) See footnote 1, 2 in table A1.

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NATIONAL ACCOUNTS FOR NORWAY

TABLE A5. EXPORTS. 1)
At constant 1986-prices. Million kroner

	1986*	1987*	-----1986-----				-----1987-----			
			1st quarter	2nd quarter	3rd quarter	4th quarter	1st quarter	2nd quarter	3rd quarter	4th quarter
Exports, total	194046	202000	49445	45799	46312	52490	51673	50625	46808	52894
Agricultural commodities and commodities from forestry and fishing ...										
	2739	3270	563	731	602	843	782	909	682	897
Crude petroleum	28526	33715	7043	5463	7406	8614	8107	8504	7939	9166
Natural gas	24551	27415	7117	4886	5560	6988	7593	6561	4908	8353
Commodities from mining and quarrying										
	1443	1503	320	413	318	392	332	394	373	403
Manufacturing goods	67867	72936	16958	17503	15948	17458	17978	17884	17541	19533
Delivered from										
Sheltered manufacturing										
Foods, beverages and tobacco										
	9227	9227	2105	2606	2225	2291	2023	2333	2194	2677
Commodities from printing and pub- lishing										
	127	143	32	29	32	34	36	33	36	37
Export-oriented manu- facturing										
	33385	37047	8353	8749	7967	8316	9224	9162	9089	9572
Paper and paper products										
	6791	6921	1683	1732	1670	1706	1833	1732	1721	1635
Industrial chemicals										
	5942	6517	1559	1540	1435	1408	1704	1710	1477	1625
Refined petroleum products										
	3601	4880	769	1032	863	936	1147	1169	1296	1269
Metals										
	17051	18729	4342	4445	4000	4266	4540	4551	4594	5043
Import-competing manufacturing										
	25128	26519	6468	6119	5724	6817	6695	6355	6222	7246
Textiles, wearing apparel and footwear										
	1583	1622	358	369	395	461	399	374	360	490
Wood and wood pro- ducts, furniture and fixtures										
	1086	1142	270	278	229	309	271	294	246	332
Chemical and mineral products										
	7034	7400	1642	1748	1699	1945	1781	1952	1712	1956
Ships and oil plat- forms, new (incl. repairs)										
	1904	2495	733	317	418	436	680	436	661	718
Other manufacturing goods										
	13522	13859	3465	3407	2983	3666	3565	3300	3243	3750
Ships and oil platforms etc, second-hand										
	10778	8039	3194	1859	1829	3897	3736	3053	676	573
Electricity										
	172	270	35	31	81	26	112	42	42	73
Oil and gas exploration and drilling (incl. leasing of oil drilling rigs)										
	777	..	194	157	231	196	149	98	75	..
Gross receipts from shipping										
	31989	..	8187	8314	7562	7926	6890	7121	7285	..
Direct exports of services in relation to oil activities										
	882	..	243	162	228	250	247	227	210	..
Pipeline services										
	3034	..	869	608	693	864	940	841	638	..
Direct purchases in Norway by non-resident households										
	7883	..	1731	2020	2658	1474	1651	1818	2927	..
Other services										
	13406	..	2992	3654	3197	3563	3155	3170	3509	..

1) See footnote 1, 2 in table A1.

NATIONAL ACCOUNTS FOR NORWAY

TABLE A6. IMPORTS. 1)

At constant 1986-prices. Million kroner

	1986*	1987*	1986				1987			
			1st quarter	2nd quarter	3rd quarter	4th quarter	1st quarter	2nd quarter	3rd quarter	4th quarter
Imports, total	211654	204481	50728	55888	51768	53270	48142	49720	51901	54718
Agricultural commodities										
from forestry and fishing	5813	5859	1575	1493	1154	1590	1683	1520	1202	1454
Crude petroleum	1833	1781	314	984	452	83	307	360	558	556
Commodities from mining and quarrying	1856	1861	468	455	496	436	463	434	506	458
Manufacturing goods	132071	127175	32093	34890	31012	34076	30783	30895	30414	35082
Delivered from:										
Sheltered manufacturing	6734	7134	1474	1642	1667	1950	1713	1668	1721	2033
Foods, beverages and tobacco	5069	5305	1103	1254	1210	1501	1254	1275	1223	1553
Commodities from printing and publishing	1665	1829	371	388	457	449	460	392	498	480
Export-oriented manu- facturing	22661	21627	5610	5618	5449	5984	5438	5347	5050	5792
Paper and paper products	3381	3462	805	892	806	879	869	846	806	941
Industrial chemicals	5745	5967	1394	1398	1457	1497	1500	1481	1430	1556
Refined petroleum ..	3576	2813	795	719	880	1181	762	660	742	650
Metals	9958	9385	2617	2609	2306	2427	2308	2359	2073	2646
Import-competing manu- facturing	102677	98414	25010	27630	23895	26142	23632	23881	23644	27258
Textiles, wearing apparel and footwear	14306	14306	3660	3451	3825	3370	3647	3002	3830	3827
Woods and wood products, furniture and fixtures	6093	6128	1418	1537	1348	1791	1408	1470	1425	1825
Chemical and mineral products	23518	23881	5460	6189	5709	6161	5752	5690	5769	6670
Ships and oil plat- forms (incl. repairs)	9598	9252	3047	2925	1515	2111	1892	2198	2290	2871
Other manufacturing goods	49162	44846	11425	13529	11498	12710	10933	11520	10330	12064
Transport equipment etc. (non-competing)	11003	7353	2761	3428	2670	2145	2066	2019	1536	1732
Electricity	407	300	29	187	51	140	13	45	132	110
Various imports of goods and services in relation to oil activities	2657	..	570	521	827	739	577	867	1230	..
Gross expenditure for shipping (excl. repairs)	21267	..	5557	5257	4872	5580	4895	5198	5409	..
Direct purchases abroad by resident households .	19125	..	3896	4710	6177	4342	3823	4647	7175	..
Other services	15621	..	3464	3962	4056	4139	3531	3736	3738	..

1) See footnote 1, 2 in table A1.

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TABLE A7: GROSS DOMESTIC PRODUCT BY KIND OF ECONOMIC ACTIVITY. 1)

Million kroner

	1986*	1987*	-----1986-----				-----1987-----			
			1st quarter	2nd quarter	3rd quarter	4th quarter	1st quarter	2nd quarter	3rd quarter	4th quarter
Gross domestic product .	516021	559133	123785	123623	129378	139235	134129	133782	140536	150686
Industries	440727	474655	106309	105210	110032	119175	113784	112387	119376	129108
Agriculture, hunting, forestry and fishing etc.	19074	..	3435	1957	8952	4730	3979	2215	9964	..
Production and pipe- line transport of crude petroleum and natural gas	55681	56713	18887	10433	11913	14448	15531	13624	12839	14719
Mining and quarrying .	1558	1548	347	424	363	425	392	397	368	392
Manufacturing	79263	89341	18118	20160	18796	22190	21368	21568	21307	25099
Sheltered manu- facturing	24575	29791	5254	6200	6087	7035	6670	7531	7312	8277
Food, beverages and tobacco.....	15755	19102	3214	3971	4003	4568	4081	4908	4805	5308
Printing and publishing	8820	10689	2040	2229	2084	2468	2589	2623	2507	2969
Export-oriented manufacturing	13664	12542	3263	3796	3388	3217	3069	2905	3081	3487
Paper and paper products	3061	3122	701	760	753	847	833	777	747	765
Industrial chemicals	3544	3680	905	982	829	260	221	216	128	358
Petroleum refining	2393	923	566	952	615	260	221	216	128	358
Metals	4665	4816	1091	1102	1190	1282	1179	990	1293	1355
Import-competing manufacturing.....	41024	47009	9601	10163	9321	11938	11630	11131	10914	13335
Textiles, wearing apparel and foot- wear	2080	2240	489	537	417	638	710	526	421	583
Wood and wood pro- ducts, furniture and fixtures	6380	7069	1431	1588	1513	1849	1784	1665	1636	1983
Chemical and mineral products .	8733	9371	2149	2174	2061	2349	2248	2272	2258	2594
Building of ships and oil platforms	5832	7384	1464	1476	1307	1585	1873	1838	1701	1972
Other manufac- turing goods	17998	20945	4068	4389	4023	5518	5015	4830	4897	6203
Electricity supply ...	23190	26741	7206	5120	4612	6252	8421	5787	5010	7522
Construction	30424	37994	6311	7335	7851	8928	8141	8884	9949	11020
Wholesale and retail trade	66625	72425	14349	17190	15930	19157	16109	17920	17781	20615
Water transport and oil well drilling	14108	..	3272	3944	3764	3128	2320	2328	2267	..
Transport, storage and communication	31462	..	7129	7722	7928	8683	7949	8506	8603	..
Dwellings	19513	21475	4739	4837	4929	5009	5165	5324	5429	5558
Other private ser- vices	88809	..	20012	21846	22941	24011	23985	24960	26678	..
Correction sectors ...	11019	..	2505	4244	2054	2216	425	875	-818	..
Producers of government services	75294	84478	17476	18413	19346	20060	20345	21395	21160	21579

1) See footnote 1, 2 in table A1.

NATIONAL ACCOUNTS FOR NORWAY

TABLE A8: EXPENDITURE ON GROSS DOMESTIC PRODUCT. 1)
Million kroner

	1986*	1987*	-----1986-----				-----1987-----			
			1st quarter	2nd quarter	3rd quarter	4th quarter	1st quarter	2nd quarter	3rd quarter	4th quarter
Gross domestic product .	516021	559133	123785	123623	129378	139235	134129	133782	140536	150686
Final domestic use of goods and services	533629	571247	121431	133556	136475	142166	132962	135794	146798	155693
Private final consump- tion expenditure	279795	296250	63809	69190	69366	77431	68998	72218	73887	81147
Specified domestic consumption	268552	283841	61764	66540	65830	74419	66699	69372	69720	78050
Direct purchases abroad, net.	11243	12410	2045	2651	3536	3012	2299	2847	4166	3097
Government final consumption	102092	114398	23084	24453	25703	28853	27287	28333	28273	30505
Central government .	39277	43874	8155	9148	9549	12424	10025	10725	10470	12654
Civilian	23992	..	5228	5753	6308	6703	6174	6769	6547	..
Military	15285	..	2927	3395	3242	5722	3851	3955	3923	..
Local government . . .	62814	70524	14928	15304	16154	16428	17262	17608	17803	17851
Gross capital forma- tion	151742	160598	34539	39914	41406	35882	36677	35242	44638	44041
Gross fixed capital formation	142153	150609	25223	50689	31338	34904	28456	30802	48991	42361
Investment in oil activity	36174	32071	4022	22353	4254	5546	3126	4689	18235	6021
Buildings and other construction .	66170	..	14308	15508	17252	19102	17147	17573	19659	..
Ships and boats . .	-3439	..	-1550	1317	-970	-2236	-1334	-1978	788	..
Other transport equipment	13810	..	2567	3761	3649	3833	2636	2980	2814	..
Other machinery and equipment	29438	..	5876	7750	7153	8659	6880	7537	7495	..
Increase in stocks .	9589	9989	9317	-10775	10069	978	8221	4441	-4353	1680
Oil platforms in progress	-3519	..	3639	-12889	2278	3453	3057	3564	-9601	..
Exports	194046	200080	51816	44896	45340	51993	51529	50025	47347	51178
- Imports	211653	212193	49463	54829	52437	54924	50362	52037	53609	56185

1) See footnote 1, 2 in table A1.

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TABLE A9: PRIVATE FINAL CONSUMPTION EXPENDITURE. 1)
Million kroner

	1986*	1987*	-----1986-----				-----1987-----			
			1st quarter	2nd quarter	3rd quarter	4th quarter	1st quarter	2nd quarter	3rd quarter	4th quarter
Private final consumption expenditure	279795	296250	63809	69190	69366	77431	68998	72218	73887	81147
Specified domestic consumption	268552	283841	61764	66540	65830	74419	66699	69372	69720	78050
Food	52869	54593	11457	12861	13281	15271	12307	13489	13584	15213
Beverages and tobacco	16946	19430	3615	4351	3883	5097	3927	4952	4780	5771
Clothing and foot- wear	21969	21354	4136	5459	5071	7303	4558	5162	4779	6855
Rent, power and fuel	45900	50814	12834	10630	10206	12230	14188	11762	11342	13522
Furniture, furnish- ings and household equipment	21865	23368	4581	5008	5287	6990	5271	5294	5600	7203
Medical care and health expences	9846	10934	2504	2378	2399	2565	2754	2693	2666	2822
Transport and commu- nication	47151	46112	11317	13541	11452	10842	10950	12204	11671	11287
Recreation, enter- tainment, education and cultural service	23411	24816	5266	5488	5932	6725	5755	5814	6060	7187
Other goods and ser- vices	28594	32420	6055	6825	8319	7396	6989	8002	9239	8190
Correction items	11243	12410	2045	2651	3536	3012	2299	2847	4166	3097
Direct purchases abroad by resident households	19125	..	3713	4631	6244	4537	4056	4810	7376	..
Direct purchases in Norway by non- resident households	-7882	..	-1668	-1981	-2709	-1526	-1757	-1963	-3210	..

1) See footnote 1, 2 in table A1.

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TABLE A10. GROSS FIXED CAPITAL FORMATION BY KIND OF ECONOMIC ACTIVITY. 1)
Million kroner

	1986*	1987*	-----1986-----				-----1987-----			
			1st quarter	2nd quarter	3rd quarter	4th quarter	1st quarter	2nd quarter	3rd quarter	4th quarter
Gross fixed capital formation	142153	150609	25223	50689	31338	34904	28456	30802	48991	42361
Industries	126075	132062	21579	46868	27208	30420	23833	26196	44359	37674
Agriculture, hunting, forestry and fishing etc.	6686	..	1239	1949	1853	1645	1086	1770	1776	..
Production and pipeline transport of crude petroleum and natural gas	36475	33192	4518	22554	4661	4743	3496	4572	18603	6522
Mining and quarrying ..	497	317	65	105	123	205	83	75	75	85
Manufacturing	17057	20099	3299	3937	4549	5273	4129	4411	4928	6632
Sheltered manufacturing	3706	4611	687	863	881	1275	1006	1206	1005	1393
Food, beverages and tobacco	2549	3150	508	624	619	798	679	762	715	994
Printing and publishing	1157	1460	179	239	262	478	327	444	290	399
Export-oriented manufacturing	6836	8775	1193	1568	1828	2246	1819	1454	2175	3327
Paper and paper products	1060	1546	155	254	316	336	241	220	359	725
Industrial chemicals	799	752	130	220	183	266	154	181	227	191
Petroleum refining	1900	4933	298	217	603	783	953	606	1287	2087
Metals	3076	1543	610	878	727	861	471	447	302	324
Import-competing manufacturing	6515	6714	1418	1506	1840	1751	1303	1750	1748	1912
Textiles, wearing apparel and footwear	242	194	52	69	61	61	37	39	62	56
Wood and wood products, furniture and fixtures	854	1066	161	206	218	269	191	271	299	304
Chemical and mineral products ..	1954	1980	437	485	636	396	344	450	583	603
Building of ships and oil platforms	711	583	184	182	190	154	123	183	128	149
Other manufacturing goods	2754	2891	584	564	735	871	608	807	677	800
Electricity supply ...	7220	7523	1280	1539	1823	2579	1533	1460	1910	2619
Construction	2058	..	491	505	525	536	532	536	533	..
Oil well drilling	2128	844	-44	807	6	1359	-90	472	436	28
Wholesale and retail trade	7082	..	1675	1726	1815	1867	1852	1851	1834	..
Water transport	-4560	..	-1845	1052	-1258	-2509	-1574	-2226	440	..
Transport, storage and communication	12133	..	2064	3304	3113	3652	2217	2680	2369	..
Dwellings.....	25034	28204	5588	5787	6596	7064	6495	6482	7373	7854
Other private services (incl. commercial buildings)	14265	..	3250	3604	3404	4007	4076	4112	4081	..
Producers of government services	16078	18547	3644	3821	4130	4484	4623	4606	4632	4687

1) See footnote 1, 2 in table A1.

NATIONAL ACCOUNTS FOR NORWAY

TABLE A11. EXTERNAL CURRENT ACCOUNT. 1)

Million kroner

	1986*	1987*	-----1986-----				-----1987-----			
			1st quarter	2nd quarter	3rd quarter	4th quarter	1st quarter	2nd quarter	3rd quarter	4th quarter
Export surplus of goods and services	-17608	-12113	2353	-9933	-7097	-2931	1168	-2012	-6262	-5007
Exports of goods and services	194046	200080	51816	44896	45340	51993	51529	50025	47347	51178
Imports of goods and services	211653	212193	49463	54829	52437	54924	50362	52037	53609	56185
Net interest and trans- fers from abroad	-15227	-15982	-3503	-4604	-3282	-3838	-3743	-4404	-3494	-4341
Interest, dividends etc., net	-9337	..	-2286	-3427	-1947	-1677	-2281	-2932	-2102	..
Transfers, net	-5890	..	-1217	-1177	-1335	-2161	-1462	-1472	-1392	..
Surplus on current account	-32835	-28095	-1150	-14537	-10379	-6769	-2575	-6416	-9756	-9348

1) See footnote 1, 2 in table A1.

TABLE A12. DISPOSABLE INCOME FOR NORWAY. 1)

Million kroner

	1986*	1987*	-----1986-----				-----1987-----			
			1st quarter	2nd quarter	3rd quarter	4th quarter	1st quarter	2nd quarter	3rd quarter	4th quarter
Gross domestic product	516021	559133	123785	123623	129378	139235	134129	133782	140536	150686
- Interest, dividends etc. to abroad, net	9337	..	2286	3427	1947	1677	2281	2932	2102	..
Gross national income	506684	..	121499	120196	127431	137558	131848	130850	138434	..
- Consumption of fixed capital	74337	81397	16798	18162	19237	20140	19186	19769	20901	21542
National income	432347	..	104700	102034	108195	117418	112663	111081	117533	..
- Transfers to abroad, net	5890	..	1217	1177	1335	2161	1462	1472	1392	..
Disposable income for Norway	426457	461754	103483	100857	106860	115257	111201	109609	116141	124803
Disposable real income for Norway 2)	426457	424710	107398	102806	105153	111101	104162	101090	106528	112930

1) See footnote 1, in 2 table A1.


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

NATIONAL ACCOUNTS FOR NORWAY

TABLE A13. EXPORTS. 1)
Million kroner

	1986*	1987*	-----1986-----				-----1987-----			
			1st quarter	2nd quarter	3rd quarter	4th quarter	1st quarter	2nd quarter	3rd quarter	4th quarter
Exports, total	194046	200080	51816	44896	45340	51993	51529	50025	47347	51178
Agricultural commodities and commodities from forestry and fishing ...										
	2739	3727	606	717	587	828	816	1114	779	1017
Crude petroleum	28526	37158	9543	4854	5858	8271	9032	9370	9087	9669
Natural gas	24551	16465	8076	5199	5483	5793	5463	3851	2752	4399
Commodities from mining and quarrying										
	1443	1587	320	404	323	397	355	411	405	417
Manufacturing goods	67866	76710	16712	17029	16099	18026	18584	18540	18599	20987
Delivered from										
Sheltered manufacturing										
Foods, beverages and tobacco	9353	10410	1969	2419	2323	2642	2272	2652	2525	2961
Commodities from printing and pub- lishing	9227	10253	1940	2391	2290	2607	2234	2617	2483	2919
Export-oriented manu- facturing	127	156	30	28	33	36	38	35	41	42
Paper and paper products	33385	37808	8542	8675	7928	8241	9316	9130	9431	9932
Industrial chemicals	6791	7387	1601	1693	1725	1773	1956	1840	1840	1752
Refined petroleum products	5941	6675	1574	1524	1418	1425	1710	1714	1531	1719
Metals	3601	4675	1134	1051	698	717	1076	1114	1251	1234
Import-competing manufacturing	17051	19070	4233	4407	4086	4326	4574	4461	4808	5227
Textiles, wearing apparel and footwear	25128	28492	6201	5935	5849	7143	6996	6759	6644	8094
Wood and wood pro- ducts, furniture and fixtures	1583	1697	354	373	384	471	422	390	383	502
Chemical and mineral products	1086	1246	248	275	238	325	290	316	274	365
Ships and oil plat- forms, new (incl. [repairs	7034	7735	1723	1762	1652	1897	1804	2019	1751	2160
Other manufacturing goods	1904	2788	712	315	427	451	742	489	743	814
Ships and oil platforms etc, second-hand	13522	15028	3165	3210	3147	4000	3738	3545	3492	4253
Electricity	10778	9133	2912	1961	1918	3988	4226	3476	775	657
Oil and gas exploration and drilling (incl. leasing of oil drilling rigs)	172	214	51	28	68	26	97	39	29	50
Gross receipts from shipping	777	..	231	168	218	160	121	74	61	..
Direct exports of services in relation to oil activities	31989	..	7636	8210	7882	8261	6552	6765	6921	..
Pipeline services	882	..	231	159	231	261	262	240	221	..
Direct purchases in Norway by non-resident households	3034	..	975	607	682	770	940	766	626	..
Other services	7882	..	1668	1981	2709	1526	1757	1963	3210	..
	13406	..	2857	3580	3283	3686	3323	3412	3878	..

1) See footnote 1, 2 in table A1.



Økonomiske analyser

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