


Economic Survey 4/93



Economic Trends

Statistics Norway

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Economic Survey

is published four times a year by the Research Department of Statistics Norway. The issues contain comments and analysis of economic trends in Norway, based on the latest quarterly national accounts data.

Economic Survey no. 1 presents the first set of preliminary national account figures for the previous year.

The publication also contain articles on other topics, selected from the outcome of various projects in the Research Department.

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The current issue of Economic Survey contains a review of current economic trends in Norway and an outlook for 1993 and 1994. The main source of information is the quarterly national account system. The quarterly calculations are carried out on a less detailed level than the annual national accounts. The cut-off date for information used in the publication was 7 December 1993.

Economic Trends has been prepared by the Research Department in Statistics Norway. Please acknowledge the source if quoting from this publication. Inquiries should be directed to Knut Moum or Øystein Olsen.

Main economic developments

- * *Surge in private consumption in third quarter*
- * *Consumer price growth down to 1 1/2 per cent next year?*
- * *Substantial balance of payments surplus, but the oil price creates uncertainty*

After a relatively weak trend in the first half-year, there are several indications that the rate of growth in the Norwegian economy is picking up. Preliminary national accounts figures for the third quarter show a clear-cut upswing both in mainland demand and total output. A central feature of developments so far this year is the quickening growth in household demand. The turnaround started in the housing market, but has now clearly fed through to the consumer goods market. In the light of this we have revised our estimate of growth in private consumption from 1992 to 1993 upwards to almost 2 per cent.

The new favourable developments are related to the sharp drop in interest rates in the Norwegian economy. Private financial institutions' lending rates will fall by about 4 percentage points this year, and are likely to continue to fall next year. In the light of this and the financial consolidation that households have undergone in preceding years, private consumption could rise by more than 3 per cent in 1994.

Thus far it appears that the favourable interest rate trend has had a negligible impact on investment in commerce and industry, and mainland sector investment as a whole will show a decline in 1993. In the case of manufacturing, there is reason to expect that new investment projects will be deferred until there are clear-cut signals of increased demand and higher prices. Growth in export-oriented manufacturing industry is still inhibited by very sluggish market growth, reflecting the severe recession among many of Norway's main trading partners. However, there is still reason to expect an international upturn next year. This, together with a further rise in mainland demand, will lead to stronger growth in mainland sectors in 1994 than in 1993.

Despite the growth in output, it appears at this juncture that unemployment will remain at the cur-

rent high level. Hence developments in the labour market are unlikely to result in pressure on wages and prices next year. Given stable conditions in the foreign exchange market, imported price inflation will also abate, and the rise in consumer prices may subside to the 1.5 per cent mark.

The completion of major investment projects in the North Sea will generate a new sharp increase in oil and gas production next year. The vigorous escalation of crude oil production in recent years is the main reason why Norway is one of the few countries in Europe to be running a substantial balance of payments surplus. For this year the current account surplus is likely to amount to a good NOK 20 billion, and the surplus will probably continue to increase next year.

The petroleum sector represents an important albeit uncertain source of revenue, both for Norway as a nation and for the central government. If the oil price remains at the current low level or drops further, it will lead to a reduction of the balance of payments surplus, larger deficits on government budgets and a risk of new price impulses stemming from a renewed depreciation of the krone. Such a trend could necessitate a tightening of economic policy which, together with an interest rate increase, may put a brake on the upturn in private demand.

MAIN INDICATORS FOR THE NORWEGIAN ECONOMY

Growth from previous year. Per cent

	1993	1994
GDP	1.9	3.4
Private consumption	1.9	3.2
Unemployment rate ¹⁾	6.1	6.0
Consumer price index	2.3	1.6

1) Level in per cent.

THE INTERNATIONAL ECONOMY

The recession in the OECD area has continued thus far in 1993. GDP for the OECD area as a whole is expected to expand by about 1 per cent from 1992 to 1993. The cyclical picture is particularly weak in Europe, bringing a sharp increase in unemployment in many European countries. Heavy debt and sizeable public budget deficits limit the freedom of manoeuvre in fiscal policy. However, the interest rate fall in Europe may set the stage for a more favourable economic trend in 1994.

Preliminary third-quarter national accounts figures for the USA show vigorous growth in the gross domestic product (GDP). Other indicators also suggest a stronger rate of growth in the US economy. Private consumption in particular is now showing signs of picking up. Housing investment has given a strong impetus to the upturn in the past couple of years, and this segment of demand received a further stimulus through a fall in long interest rates in the first half of this year. In recent months, however, interest rates have started to climb anew, partly as a result of the upturn in the economy. Forecasts point to a short-term interest rate level of close to 4 per cent in the second half of 1994, while long rates will probably remain at just over 6 per cent.

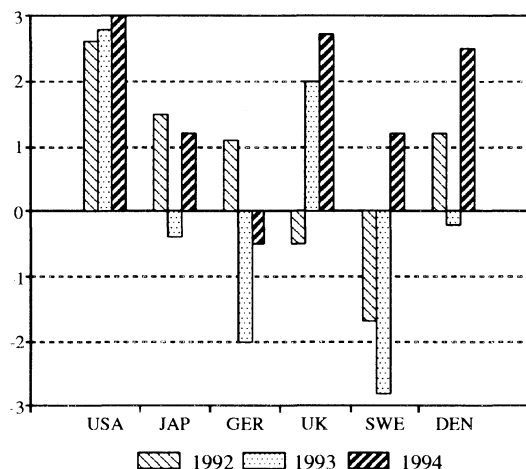
In *Japan* the downturn in the economy appears to be deeper and more protracted than previously expected. The recession is in particular related to the marked lapse in investment demand, after several years of excessive investment and bloated property and wealth values. Household demand for consumer goods has stagnated in the past year, partly as a result of a weak incomes trend and increased uncertainty about the future. In contrast to most other OECD countries, the public sector is

in a strong financial position. Moreover, thanks to record surpluses on the balance of payments, the external account does not act as a brake on the implementation of a more expansionary economic policy. Despite several fiscal policy "packages", most recently this September, the authorities have so far found it difficult to rally around a policy specifically designed to stimulate the economy. Accordingly, GDP growth is expected to pick up only moderately next year, from zero growth this year to about 1 per cent in 1994.

Many of the largest countries in *Europe* are in the throes of the worst depression since World War II, with falling output and a steep rise in unemployment. The recession is closely related to developments in *Germany*. The Bundesbank endeavoured to counteract growing pressure on prices and costs in the wake of the unification in 1990 of the two former German states by tightening monetary policy and raising short interest rates. Since other countries' currencies were linked to the German mark through the EC's Exchange Rate Mechanism (ERM) this led to high interest rates in other member countries, and German policy therefore played a major role in exacerbating the economic situation in Europe. However, after the demise of the ERM and the introduction of wider swing margins in August this year, European countries have got an opportunity to conduct a more independent monetary policy. Thus far, however, many countries apparently still consider it important to maintain a stable exchange rate against the German mark.

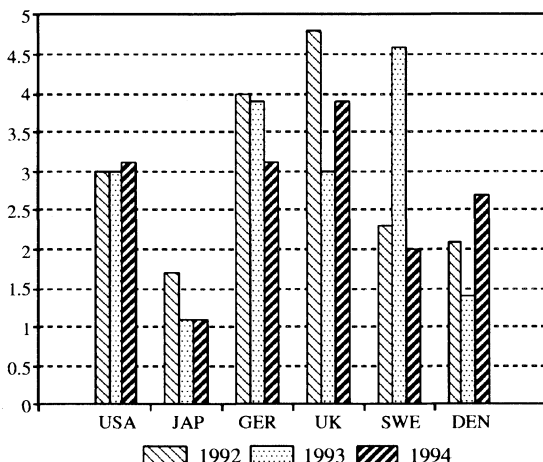
The economic situation in the western German states has deteriorated sharply in 1993, and a 2 per cent contraction in GDP from 1992 now seems

GNP/GDP GROWTH FOR SELECTED COUNTRIES
Per cent



Source: DRI and Statistics Norway.

GROWTH IN CONSUMER PRICES
Per cent



Source: DRI and Statistics Norway.

likely. Concurrently unemployment has risen substantially, and in October this year the unemployment rate had reached 7.6 per cent. In the past year the Bundesbank has pursued a cautious strategy of gradual interest rate reductions. With signs of slowing inflation there is reason to expect a further decline of German rates ahead, probably towards the 4.5 per cent level in the second half of next year. There is wide disagreement among forecasters about the growth prospects for 1994. The effects of the interest rate decline on investment demand are particularly uncertain. GDP growth projections from the major German institutes vary from a negative 0.5 to a positive 1 per cent. In any case, 1994 will be another unusually weak year for the German economy.

Thus far the *United Kingdom* has implemented the most marked re-orientation of monetary policy in an expansionary direction after leaving the ERM in the autumn of 1992. Throughout most of 1993, money market rates have stood at 6 per cent, appreciably below the European average. The low interest rates, together with the upturn in the USA and the stimulus to the export industry ensuing from the depreciation of the pound sterling, has probably been an important reason for the UK economy's current upturn. GDP is expected to increase by 2 per cent this year, and 3 per cent in 1994. Unemployment remains high, more than 10 per cent of the workforce, but there have been certain signs of an improvement in the labour market situation in 1993.

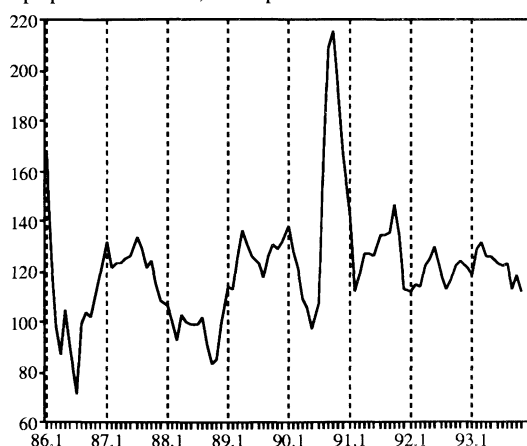
Sweden is in the midst of a deep economic crisis. The gross domestic product (GDP) will probably fall by almost 3 per cent from 1992 to 1993, and this is the third successive year of negative GDP growth. The sharp deterioration in the Swedish economy is a result of a marked lapse in domestic demand. Private consumption is set to fall by about

5 per cent in 1993. The decline in housing investment is even more marked, with an estimated 20 per cent reduction this year, and almost 50 per cent next year. The bright spot in the Swedish economy is the export sector which received a sharp boost from the depreciation of the Swedish krona after its release from the ECU in the autumn of 1992. The vigorous growth of exports is expected to lead to increased manufacturing investment in 1994. Thanks to strong growth in exports and a weak import trend, a current account deficit of the order of 2 per cent of GDP in 1992 will probably be replaced by an equally large surplus in 1994.

In *Denmark* the government has presented new forecasts, pointing towards a clear-cut economic upswing in 1994. According to the government's projections the main driving force behind this upturn will be domestic demand, stimulated partly by the package of economic measures presented in May this year. This contained a tax reform which will contribute to strong growth in household real disposable income from 1993 to 1994. An acceleration of public investment projects will provide a further substantial impetus to growth.

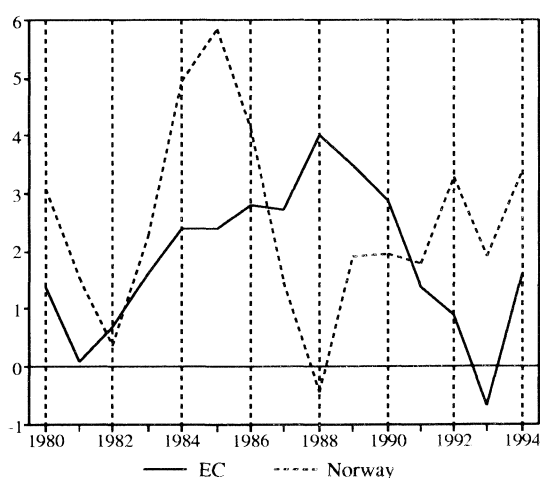
Oil prices subsided during the autumn to a level close to USD 14 p/b. The fall is related to a relatively substantial surplus supply in the third quarter of this year, both as a result of weak demand, particularly in the OECD area, and increased production, for instance in the North Sea. OPEC failed to agree on reduced output in the first quarter of 1994 at its last meeting. Intimations of a resumption of Iraqi exports contributed to the latest price fall. Uncertainty remains high in this regard. However, a cold winter and curtailments announced in Russian oil exports could fairly rapidly bring up prices from the current low level.

PRICE ON CRUDE OIL
Spotprice Brent Blend, NOK per barrel



Source: Statistics Norway.

GDP GROWTH, NORWAY AND EC
Annual rates



Source: Statistics Norway.

THE NORWEGIAN ECONOMY

Recent trends

According to preliminary quarterly national accounts (QNA) figures, mainland demand grew by a good 2.5 per cent (seasonally adjusted) from the second to the third quarter this year. This is the strongest quarterly upswing since the mid-1980s. Total consumption rose by 3 per cent, while mainland investment showed approximately no change from the previous quarter. Third quarter QNA figures indicate that the substantial interest rate decline since the start of the year has now begun to feed through to real demand: housing investment, for example, grew for the first time since the turn of the year 1987/88, with house prices having risen since early this year. Accrued oil investment also rose appreciably in the third quarter. According to Statistics Norway's latest survey, such investment will peak in 1993 and fall off somewhat next year.

Traditional exports declined somewhat in the third quarter of this year following a clear-cut increase from the first to the second quarter. The decline is attributable to a marked fall in exports of refined oil products. Traditional exports apart from energy goods showed growth both in the second and third quarter, but the level through the first three quarters of the year was only marginally higher than in the same period of last year. The weak development of this portion of traditional exports is due to the intensified cyclical downturn among Norway's main trading partners. Furthermore, maintenance work at the Statfjord Field caused a fall in petroleum exports from the second to the third quarter. This, together with a decline in exports of ships and platforms contributed to a reduction of slightly more than 2 per cent in total exports from the second to third quarter.

Both total imports and exports of traditional goods have shown relatively marked swings around a weakly rising trend in recent years. Despite a marked increase in the second and third quarter imports so far this year are only about 3 per cent higher than the level in the first three quarters of last year. Just over two-thirds of this increase is directly attributable to oil activity, being related to growth in oil investment.

Mainland Norway GDP expanded by 1.5 per cent (seasonally adjusted) in the third quarter of this year, somewhat less than the expansion in mainland demand. This difference in expansion rates is due to the weak trend in traditional exports and the relatively strong growth in imports. There was a marked increase in output in the primary industries and power supply, while manufacturing output rose

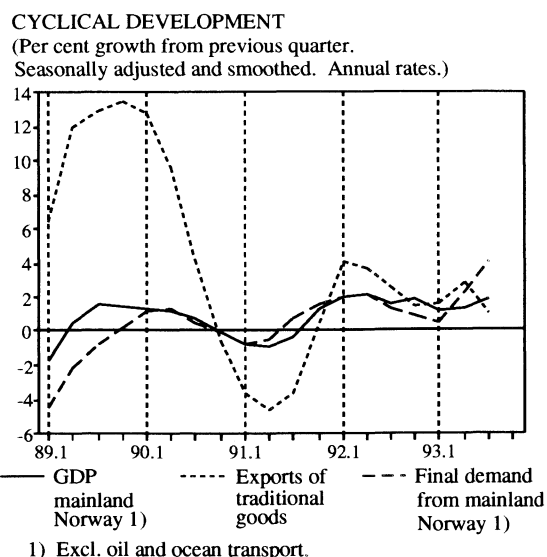
in line with the average. Service industries and the construction sector recorded a weak performance. The strong growth in oil production meant that total GDP expanded more than mainland GDP.

In keeping with the signs of a turnaround in the mainland economy, the development over the past five to six quarters indicates that the decline in employment has come to a halt, and the number of employees showed mild growth (seasonally adjusted) both in the second and third quarter of this year. Unemployment, which rose markedly from 1991 to 1992, also shows clear signs of levelling off.

The year-on-year rate of growth in the consumer price index was 2.0 per cent in October, down from 2.3 per cent in the third quarter. As a result of the depreciation of the krone after it was floated in December last year, price inflation on imported consumer goods has exceeded average price inflation so far in 1993. Food prices have for their part contributed to pulling down the average price rise. As a result of the interest rate fall, housing rentals are also serving to moderate the rate of price increase.

At the end of the third quarter, average bank deposit and lending rates were about 4 percentage points lower than at the end of the fourth quarter last year. Interest rates in other financial institutions have also fallen substantially, but somewhat less than the fall in bank interest rates owing in part to fixed interest rate agreements.

The current balance showed a surplus of NOK 14.8 billion for the first three quarters of the year, about NOK 2 billion more than in the same period



Source: Statistics Norway.

MACROECONOMIC INDICATORS

Growth from previous period unless otherwise noted. Per cent

	1992	Seasonally adjusted			
		92.4	93.1	93.2	93.3
Demand and output					
Private consumption	1.8	1.3	-1.2	1.3	2.7
Public consumption	4.6	0.5	1.6	-2.3	3.8
Gross fixed investment	-3.0	1.9	0.7	-3.6	27.2
-mainland Norway	0.8	9.3	-15.6	8.6	-0.2
-accrued petroleum investments ¹⁾	8.6	6.2	13.1	-1.8	77.8
Final domestic demand from mainland Norway ²⁾	2.3	2.3	-2.8	1.3	2.6
Export	6.1	2.8	-3.9	6.3	-2.3
-crude oil and natural gas	10.8	1.8	-3.0	7.6	-4.8
- traditional goods	4.1	-0.4	-2.4	5.7	-1.9
Import	2.2	-0.1	-1.5	5.0	8.9
- traditional goods	4.2	-3.0	-2.9	1.4	8.0
Gross domestic products	3.3	1.7	-1.4	0.5	2.6
- mainland Norway	2.0	2.7	-0.9	-0.1	1.5
Labour market³⁾					
Man-hours worked	-0.4	0.2	1.2	0.2	-0.1
Employed persons	-0.3	-0.2	-0.2	0.2	0.3
Unemployment rate, level	5.9	5.9	5.9	6.2	6.1
Prices					
Consumer Price Index ⁴⁾	2.3	2.2	2.5	2.5	2.2
Export prices, traditional goods	-6.7	-0.7	1.6	0.6	-0.8
Import prices, traditional goods	-1.9	0.5	1.4	-0.4	0.4
Balance of payment (unadjusted, level)					
Current balance, bill. NOK	17.8	4.8	5.2	6.9	2.8
Memorandum items (unadjusted, level):					
Eurokrone rate (3 month)	11.5	13.5	9.5	7.4	6.2
Average lending rate ⁵⁾	13.6	13.5	13.2	11.9	10.6
Crude oil price, NOK (Spotprice Brent Blend)	119.6	122.5	126.5	124.9	119.5
Effective exchange rate on NOK (1992=100)	100.0	100.1	101.6	102.3	104.4

1) Growth from previous year.

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

3) Based on monthly figures, seasonally adjusted.

4) Percentage change from previous year.

5) Private financial institutions.

last year. The entire increase in the surplus can be traced back to reduced deficits on the interest and transfers balance.

Prospects

Projections for macroeconomic developments in Norway for the rest of 1993 and for 1994 have been made using Statistics Norway's macroeconomic quarterly model, KVARTS, based on quarterly national accounts figures up to the third quarter inclusive. The estimates for this year and the next are well in line with the projections presented in the

September issue of Economic Review, but the growth in domestic final use and production have been revised upwards somewhat. High growth in accrued investment in the petroleum sector in 1993 will be replaced by a moderate downturn in 1994. However, mainland demand will pick up in 1994 after a more modest increase from 1992 to 1993. Impetus to growth from the foreign sector is also expected to be stronger next year. Even so, unemployment will remain at about the same level as in 1992. Moderate wage growth, the reduction in payroll tax as from 1 January 1993 and a steep interest rate fall mean that the rise in consumer prices in

1993 will not be higher than in 1992, despite increased value-added tax and somewhat higher growth in import prices. For 1994 our calculations indicate that price inflation will be further reduced to 1.6 per cent in 1994.

Exchange and interest rates

The weak prospects for the German economy suggest that short rates in Germany will continue to fall in 1994, thereby further pulling down interest rates in other European countries. With price inflation in Norway lower than in the ECU area and the prospect of a continued buoyant current balance, Norwegian money market rates are set to stay below German rates, and thereby decline towards the 4 per cent mark towards the end of 1994. In keeping with this trend, financial institutions' lending and deposit rates will continue to fall. The fall is put at some 4 percentage points for this year, and slightly less than 2 percentage points next year.

A further decline in European interest rates in 1994 is expected to lead to a further moderate appreciation of the dollar against European currencies. With a stable krone exchange rate against the ECU from 1 December this year to the end of 1994, this will contribute to a fall of slightly more than 3 per cent in the current year, and of about 1 per cent next year.

Upswing in international market growth in 1994

Estimates of economic activity in several of Norway's main trading partners have recently been revised down. In keeping with this we base our calculations on the expectation of a fall of almost 1 per cent in demand for Norwegian exports. The

turnaround to GDP growth among our trading partners in 1994 will be reflected in a marked increase in imports of goods to these countries, and the growth in Norway's export markets may reach about 4.5 per cent next year.

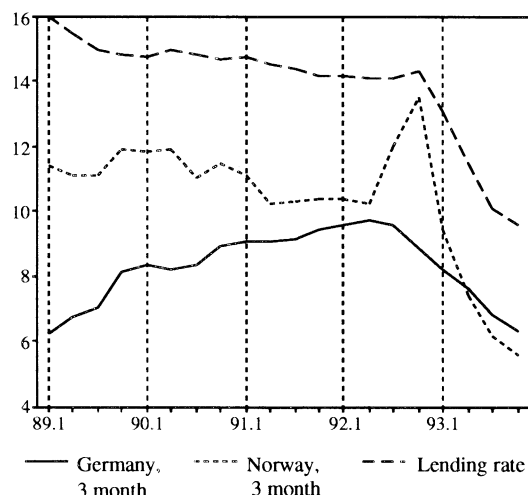
The price of crude oil is assumed to fall from an average of USD 19.5 p/b in 1992 to USD 17.4 in 1993. With the prospect of mild growth in demand for crude oil in the period ahead and a reduced supply from non-OPEC countries, the forecasts are based on a rapid oil price rise from the current low level of about USD 14 p/b to USD 17 p/b next year. Given our exchange rate assumptions this entails an estimated oil price of slightly more than NOK 123 p/b in 1993, rising to a good NOK 127 p/b in 1994.

International price inflation is expected to remain low for the rest of 1993. The fact that prices of many imported consumer goods nevertheless show a clear-cut increase from 1992 to 1993 is attributable to the depreciation of the Norwegian krone. Given the assumption of a constant krone exchange rate against the ECU in 1994, prices of many imported goods will rise less next year than this year. However, with an international cyclical upturn commodity prices are expected to increase in 1994. This explains why prices of total traditional imports are expected to show stronger growth than this year.

Petroleum sector

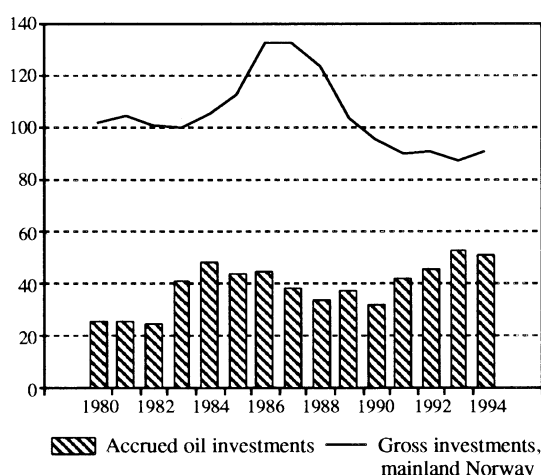
Accrued petroleum investment is expected to increase by just over 17 per cent from 1992 to 1993. Several major investment projects will be completed in 1994. Consequently investment expenditure on field development will be reduced. All told, we therefore assume a fall of about 4 per cent in oil investment next year. Petroleum production will

3 MONTH EURO RATES AND AVERAGE LENDING RATES IN PRIVATE FINANCIAL INSTITUTIONS



Source: Bank of Norway and Statistics Norway (4th Q 1993).

ACCRUED OIL INVESTMENTS AND INVESTMENTS IN MAINLAND NORWAY. NOK Billion 1991



Source: Statistics Norway.

continue to increase as a result of the high level of investment of recent years. In our calculations we estimate a 3 per cent increase in oil and gas output in 1993 and a good 8 per cent in 1994. As in recent years, the growth in 1993 is due to a further stepping-up of oil production. Production of natural gas is expected to pick up next year, and increase at about the same pace as oil production.

Economic policy

Our estimates for general government income and expenditures are based on the Revised National

Budget for 1994. In 1994 we have assumed 2.3 per cent growth in public consumption, approximately unchanged real tax rates and a somewhat lower real increase in indirect taxes than in preceding years. Gross central government investment is estimated to fall by just over 20 per cent in 1993, but half of this is due to the fact that Statsbygg (Directorate of Public Construction and Property) and the Civil Aviation Administration are no longer regarded as government institutions. Total public sector investment will decrease by just over 10 per cent compared with 1992. For 1994 we assume an increase of about 2 per cent in public sector investment.

MACROECONOMIC INDICATORS

Percentage change from previous year unless otherwise noted

	1992 Accounts	1993			1994		
		SSB	NB ¹⁾	FD ²⁾	SSB	NB ¹⁾	FD ²⁾
Demand and output							
Private consumption	1.8	1.9	1	1.0	3.2	2 3/4	2.3
Public consumption	4.6	2.7	3	3.1	2.3	2 1/4	2.3
Gross fixed investment	-3.0	5.4	3 1/2	2.3	3.8	1 1/4	-0.6
-mainland Norway	0.8	-3.5	-2 3/4	-4.6	4.3	3	2.2
-accrued petroleum investments	8.6	17	9	14	-4.0	-5 1/2	-6
Final domestic demand from mainland Norway ³⁾	2.3	1.3	1.7	0.6	3.1	1.7	2.3
Export	6.1	0.5	1/4	2.4	4.9	5 3/4	3.9
-crude oil and natural gas	10.8	6.4	4 1/4	7.0	7.4	11 3/4	9.2
-traditional goods	4.1	0.7	2 1/2	3.0	4.3	3 3/4	3.5
Import	2.2	2.5	1/4	2.3	4.7	3 3/4	1.5
-traditional goods	4.2	0.3	-	0.0	3.2	-	3.0
Gross domestic products	3.3	1.9	1 3/4	1.8	3.4	3 1/2	2.8
-mainland Norway	2.0	1.8	1 1/2	1.3	2.3	2 1/4	1.9
Labour market							
Employed persons	-0.3	-0.1	1/2	0.2	0.8	3/4	0.8
Unemployment rate, level	5.9	6.1	6	6	6.0	6	6
Prices and wages							
Wages per man-hour	2.9	2.8	2 3/4	2 3/4	2.6	2 1/2	2
Consumer Price Index	2.3	2.3	2	2.3	1.6	2	1 1/2
Export prices, traditional goods	-6.7	1.0	-1/2	0.5	3.4	2	2.0
Import prices, traditional goods	-1.9	0.1	3	2.5	2.0	3	2.0
Balance of payment							
Current balance, bill. NOK	17.8	21.1	20.0	25.8	34.2	29	36.0
Memorandum items							
Eurokrone rate (level)	11.8	7.3	-	-	4.7	-	-
Average lending rate ⁴⁾	13.5	11.4	-	-	8.5	-	-
Crude oil price, NOK ⁵⁾	121	123	119	124	127	125	120
Export market growth	3.7	-0.7			4.5		
Effective exchange rate on NOK	1.2	-3.2			-1.0		

1) NB: Forecast according to Bank of Norway, December 1993.

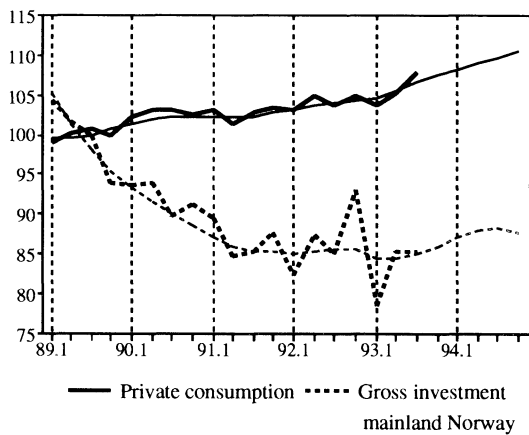
2) FD: Forecast according to Ministry of Finance. National Budget Proposal 1993.

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

4) Private financial institutions.

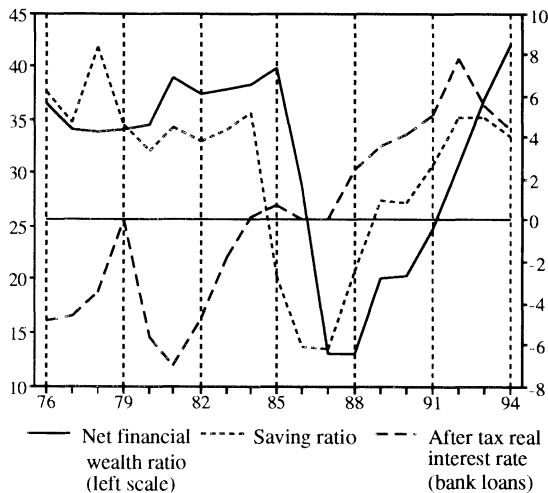
5) Average Norwegian oil production.

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



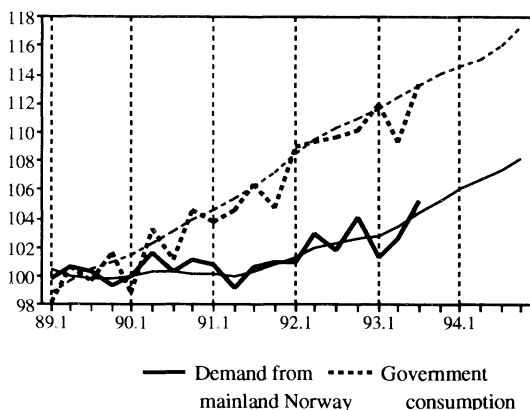
Source: CBS

NET WEALTH RATIO, SAVING RATIO AND AFTER TAX REAL INTEREST RATE 1976 - 1994



Source: Bank of Norway and Statistics Norway.

DEMAND FROM MAINLAND NORWAY AND GOVERNMENT CONSUMPTION
1989=100. Seasonally adjusted (QNA)
Seasonally adjusted and smoothed (KVARTS)



Source: Statistics Norway

Slower wage and price inflation in 1994

A 2.3 per cent rise in consumer prices from 1992 to 1993 now appears likely, i.e. the same estimate as presented in our previous economic survey. The reduction of payroll tax and re-introduction of consumer subsidies on some farm produce have pushed down price inflation. Keen competition in consumer goods markets has probably prevented the increase in value-added tax and the depreciation of the Norwegian krone from being fully passed on to domestic consumer prices. The rate of increase of consumer prices next year is put at 1.6 per cent, which is appreciably lower than our estimate in the previous economic survey. Moderate increases in indirect taxes as well as a stronger fall in interest rates - and thereby in housing rentals - than previously assumed, are important factors behind the low price inflation projected in 1994. Seen in isolation, a lower inflation rate for imported consumer goods will also push price inflation down somewhat compared with previous projections.

Experience shows that, as a partial effect, payroll tax reductions lead to increased hourly wage rates. With a slower rate of domestic price increase, weak productivity growth and persistent high unemployment, growth in hourly wage rates is nevertheless expected to prove somewhat lower in 1994 than in 1993.

Moderate rise in mainland demand

Output growth and falling interest rates are expected to generate some upswing in mainland Norway investments from the first to the second half of 1993, and according to our calculations the upswing will continue in 1994. Whereas our growth projection for manufacturing investment next year is much the same as in our previous economic survey, it now appears that the trend in 1993 will be weaker than previously indicated.

Manufacturing investment is expected to show negligible change from 1992 to 1994. However, our projection for 1994 is substantially higher than that implied by Statistics Norway's investment survey from September this year. Hence, based on manufacturing industry's current investment plans for 1994, our projections must be said to be optimistic.

Housing investment appears to have passed the trough, but because of the negative carry-over we will nevertheless see a decline of almost 5 per cent from 1992 to 1993. According to our calculations, housing investment is set to grow about 10 per cent in 1994. Several years of growth in household incomes and the marked drop in real interest rates in the current year are important factors behind the increased demand for dwellings. The turnaround in the housing market has also been reflected in the

incipient recovery of housing prices early in the year. With a further decline in interest rates prices will continue to rise in 1994.

The growth in household real disposable income is projected at about 2 per cent both in 1993 and 1994. The halving of incomes growth from 1992 is mainly attributable to lower growth in public sector benefits and higher tax payments. Growth in net assets entails that net interest income will make a positive contribution to household incomes both this year and next.

The household sector has been in a net lending position in recent years. The incipient rise in house prices entails that total household wealth is now increasing following several years of decline. This increase in wealth and an annual 1-1 1/2 percentage point decline in real interest rates will bring growth in private consumption up from this year's 1.9 per cent to 3.2 per cent next year. The household saving ratio will accordingly remain at about last year's level of 5 per cent this year, and subside towards the 4 per cent mark in 1994. Despite growing from 1993 to 1994, household real investment will remain at a low level in the projection period. Consequently saving will continue to be in the form of financial investment, and household net assets will thereby show further expansion.

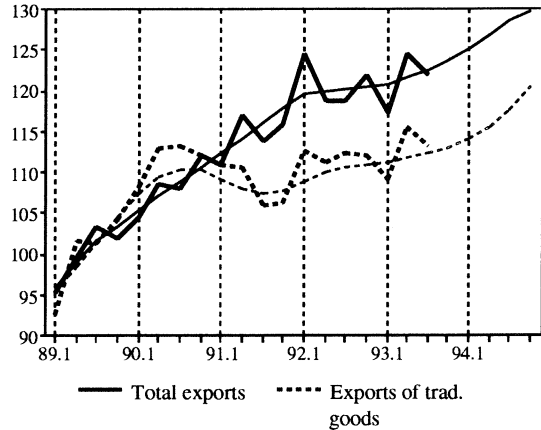
Export growth in 1994

Owing to weak expansion in Norway's export markets, the growth in volume of traditional exports will be very moderate this year. Next year, however, higher demand from Norway's export markets and rising commodity prices will generate appreciably stronger growth in traditional exports, viz. just over 4 per cent. Parts of Norwegian export industry will utilise the international upturn to raise their prices, but the increase in prices is now expected to come somewhat later than assumed in the previous economic survey. As a result of vigorous growth in exports of crude oil and natural gas, as well as higher freight earnings in foreign trade, the growth in total exports of goods and services could reach almost 5 per cent next year, after attaining a figure of 0.5 per cent this year.

Moderate GDP expansion both in 1993 and 1994

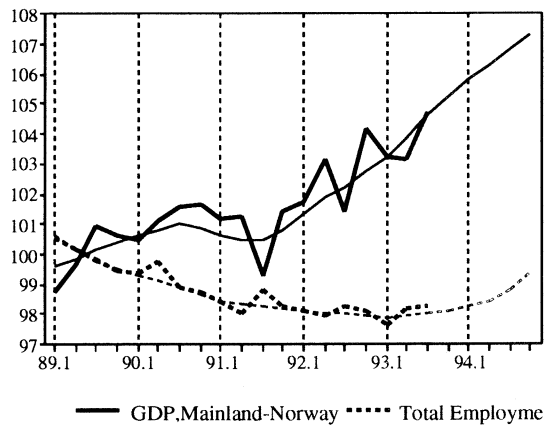
Investment in the petroleum sector is a driving force behind activity in mainland Norway in the current year. Output growth in industry catering for the off-shore sector is therefore very high in 1993, as in 1992. Developments over the year indicate that private and public sector consumption will also contribute to growth in Norway's output in 1993, but mainly in the sheltered sector. Output continues

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



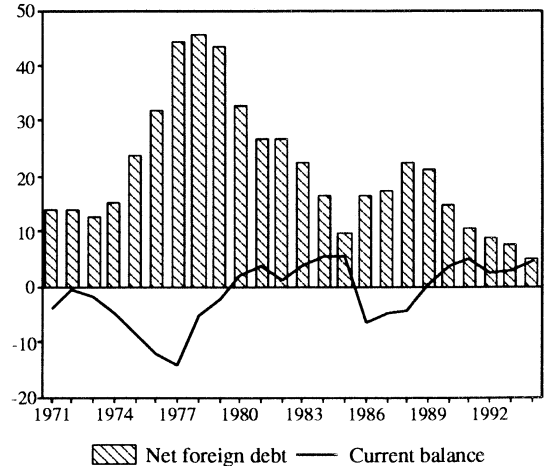
Source: Statistics Norway

GROSS DOMESTIC PRODUCT AND EMPLOYMENT
1989=100. Seasonally adjusted (QNA)
Seasonally adjusted and smoothed (KVARTS)



Source: Statistics Norway

CURRENT BALANCE AND FOREIGN DEBT
Per cent of GDP



Source: Statistics Norway.

to fall in the construction industry as a result of the decline in mainland investment. However, a more positive development is expected in 1994, partly because of the expected upswing in housing investment. The weak expansion in export markets has so far curbed output growth in export-oriented manufacturing and foreign trade, but output in these sectors too could grow at a faster rate in 1994 in keeping with improved market prospects. The fall in petroleum sector investment next year will, however, bring a contraction of manufacturing industry's aggregate gross product. Output elsewhere in commerce and industry is in general expected to expand at a slightly faster rate than in 1993, entailing that output growth in mainland sectors will pick up somewhat from 1993 to 1994. According to our calculations mainland Norway GDP will expand by just under 2 per cent in 1993 and just over 2.0 per cent next year. However, oil and gas production and foreign trade output are assumed to surge in 1994, bringing GDP expansion to the 3.4 per cent mark.

Small changes in unemployment in 1993 and 1994

Given continued moderate expansion of the Norwegian economy, the situation in the labour market will not change substantially from 1992 to 1993. According to our projections, the unemployment rate will remain at about 6 per cent both in 1993 and 1994. It now appears that the decline in the workforce that has lasted since 1988 may have come to a halt and that the supply of labour will increase somewhat in the coming period. Our calculations indicate a mild increase in the supply of labour in 1993, which however is appreciably lower than the

underlying demographic factors alone suggest (15-20,000 persons assuming no change in occupational frequency by age and sex). In 1994 the supply of labour will be more in line with the population trend. This entails that unemployment is unlikely to fall significantly, despite almost 1 per cent employment growth from 1993 to 1994.

Rising balance of payments surplus

The current account surplus for 1993 is put at NOK 21 billion, i.e. an increase of about NOK 3 billion on 1992. The trade surplus will expand in 1993 as a result of higher exports of crude oil and natural gas, while reduced interest payments to foreign recipients will lead to a reduction of net interest and transfers in both 1993 and 1994. Oil and gas output will show a further increase next year, and we have as mentioned assumed higher petroleum prices in Norwegian kroner in 1994 than in 1993. This, together with a cyclical improvement in the terms of trade, entails a substantial improvement in the current account. We now project a current account surplus of NOK 34 billion for 1994. The appreciable downward revision of the surplus compared with the figure set out in the previous economic survey is mainly attributable to lower prices of both petroleum and traditional Norwegian exports than previously assumed. The present 1994 oil price projection of just over NOK 127 p/b continues to represent a substantial uncertain factor for our current account estimate. According to the Ministry of Finance a NOK 10 reduction in the oil price will lower the value of Norwegian crude oil and natural gas exports by almost NOK 9 billion.

NORWAY: TRENDS IN SELECTED MACROECONOMIC VARIABLES

Percentage volume changes in 1991 prices¹⁾

	Billion 1991-NOK		Growth from the same period previous year						
	1992	1992	92.1	92.2	92.3	92.4	93.1	93.2	93.3
Private consumption.....	355.9	1.8	0.7	3.6	0.9	1.9	0.5	-0.1	4.1
Goods.....	218.8	1.4	0.1	2.8	0.1	2.4	-0.3	-0.3	5.0
Services.....	125.7	1.6	0.6	2.7	2.0	1.0	1.4	0.9	2.9
Norwegian consumption abroad.....	23.9	9.2	15.1	14.0	9.0	0.8	1.0	0.9	4.9
-Non-residents' consumption.....	12.5	6.9	16.3	-3.8	13.7	-0.2	-3.2	7.9	7.0
Government consumption.....	154.2	4.6	5.4	4.5	3.1	5.3	2.8	-0.2	3.7
Central government.....	61.5	5.3	4.1	5.1	3.5	8.0	3.3	-5.1	4.7
Civilian.....	38.9	7.6	9.9	9.6	1.5	9.7	5.8	1.0	8.7
Military.....	22.6	1.6	-7.7	-2.5	7.4	6.1	-2.9	-16.7	-2.5
Local government.....	92.7	4.1	6.2	4.1	2.8	3.2	2.6	3.2	3.0
Gross fixed capital formation.....	131.5	3.5	-21.1	40.2	-6.0	-3.2	5.9	-20.9	98.7
Oil and shipping.....	41.1	10.1	-60.7	108.1	-19.8	-31.7	76.6	-36.4	423.8
Mainland Norway.....	90.4	0.8	-6.3	1.6	-0.8	7.0	-5.2	-2.8	-0.5
Manufacturing and mining.....	13.5	-0.4	-13.5	-12.9	5.3	16.6	-2.0	7.3	-3.5
Production of other goods.....	12.0	0.9	7.5	0.1	5.6	-6.4	-8.8	-0.4	-5.1
Other services.....	64.9	1.0	-6.8	5.3	-3.4	7.6	-5.2	-5.2	1.3
Stocks (contribution to GDP growth) ⁴⁾ ..	-6.3	-1.2	1.1	-7.3	2.5	-1.1	2.1	2.5	-11.3
Ships and oil platforms in progress (contribution to GDP growth) ⁴⁾	3.2	-1.0	0.1	-6.1	2.0	0.0	1.6	4.1	-10.9
Other stocks (contribution to GDP growth) ³⁾⁴⁾	9.4	-0.2	1.0	1.2	0.5	-1.1	0.5	-1.7	-0.4
Final domestic use of goods and services -gross capital formation in oil and shipping (incl. stocks) ²⁾	635.4	1.5	-1.1	3.7	2.8	0.5	4.2	-3.5	8.2
-demand from mainland Norway.....	44.3	-6.4	-41.6	19.3	19.2	21.4	80.8	-11.8	78.8
-demand from mainland Norway.....	600.5	2.3	0.8	3.6	1.2	3.6	0.3	-0.5	3.3
Export.....	326.4	6.1	13.8	1.3	4.5	5.5	6.3	4.9	2.9
Traditional goods.....	117.1	4.1	4.6	-0.2	6.4	5.9	-3.7	3.7	0.6
Crude oil and natural gas.....	107.2	10.8	13.5	7.0	15.9	7.6	-0.7	7.1	1.6
Ships and oil platforms.....	14.9	4.8	208.1	-24.4	-50.8	0.4	-49.7	45.8	55.7
Services.....	87.3	3.8	8.7	1.8	1.7	3.3	-5.2	-1.9	2.3
Total use of goods and services.....	961.8	3.0	3.7	2.9	3.4	2.1	0.5	-0.7	6.4
Imports.....	252.5	2.2	5.2	3.7	3.8	-3.4	-0.3	-3.9	12.8
Traditional goods.....	156.9	4.2	7.9	-1.3	11.0	0.6	-3.1	-1.5	3.4
Crude oil.....	1.0	-32.7	-39.6	-47.5	71.3	-47.3	64.7	-25.4	16.5
Ships and oil platforms.....	10.8	-40.6	-61.3	-8.0	-45.9	-52.2	69.0	-13.4	182.8
Services.....	83.7	9.0	16.5	19.1	-0.1	3.0	-0.8	-5.6	14.4
Gross domestic product (GDP).....	709.3	3.3	3.2	2.6	3.2	4.1	0.8	0.5	4.1
-Mainland Norway.....	574.8	2.0	1.8	1.8	0.9	3.2	1.2	0.2	4.1
Oil activities and shipping.....	134.5	9.4	9.3	6.2	14.5	8.0	-1.3	2.1	4.3
Mainland industry.....	531.0	1.7	1.6	1.3	0.7	3.0	1.1	0.1	3.6
Manufacturing and mining.....	96.0	1.8	4.3	-0.6	2.6	1.2	0.1	0.6	2.8
Production of other goods.....	72.1	1.4	-3.7	5.0	-4.0	10.1	1.2	-3.4	8.1
Other services.....	362.8	1.7	2.0	1.3	1.4	2.0	1.3	0.5	2.8
Correction items (contribution to GDP growth) ⁴⁾⁵⁾	43.9	0.3	0.3	0.5	0.2	0.4	0.2	0.1	0.6

¹⁾ Notes. see "Technical comments".

NORWAY: TRENDS IN SELECTED MACROECONOMIC VARIABLES
 Percentage volume changes in 1991 prices¹⁾

	Billion	Growth from previous quarter,							
	1991-NOK	seasonally adjusted							
	1992	1992	92.1	92.2	92.3	92.4	93.1	93.2	93.3
Private consumption	355.9	1.8	-0.2	1.9	-1.3	1.3	-1.2	1.3	2.7
Goods	218.8	1.4	0.1	1.4	-1.4	2.1	-2.3	1.5	3.7
Services	125.7	1.6	-0.8	2.3	0.1	-0.9	0.3	1.4	1.9
Norwegian consumption abroad	23.9	9.2	0.2	0.8	-0.1	-0.4	0.9	0.8	3.5
-Non-residents' consumption	12.5	6.9	0.5	-3.3	15.3	-10.7	-2.0	7.0	13.6
Government consumption	154.2	4.6	4.1	0.4	0.2	0.5	1.6	-2.3	3.8
Central government	61.5	5.3	7.5	1.3	0.2	-0.8	2.0	-6.4	9.9
Civilian	38.9	7.6	13.3	-0.1	-2.7	-0.2	8.8	-4.3	4.7
Military	22.6	1.6	-1.7	3.8	5.4	-1.7	-9.3	-10.6	21.0
Local government	92.7	4.1	1.9	-0.3	0.2	1.3	1.3	0.4	0.1
Gross fixed capital formation	131.5	3.5	-17.9	46.3	-28.1	9.1	-1.1	7.8	66.4
Oil and shipping	41.1	10.1	-45.7	210.9	-63.5	8.3	52.9	6.0	207.1
Mainland Norway	90.4	0.8	-6.0	5.9	-2.5	9.3	-15.6	8.6	-0.2
Manufacturing and mining	13.5	-0.4	-0.4	-2.5	8.7	8.7	-14.5	8.5	-2.2
Production of other goods	12.0	0.9	-3.0	0.5	7.9	-10.4	-4.5	8.2	2.0
Other services	64.9	1.0	-7.7	8.7	-6.5	13.6	-17.6	8.8	-0.2
Stocks (contribution to GDP growth) ⁴⁾	-6.3	-1.2	-1.7	-1.5	3.8	-1.8	0.3	-2.0	-7.4
Ships and oil platforms in progress (contribution to GDP growth) ⁴⁾	3.2	-1.0	-0.8	-3.1	3.7	0.2	1.1	-2.8	-8.6
Other stocks (contribution to GDP growth) ³⁾⁴⁾	-9.4	-0.2	0.9	-0.7	-0.6	-0.7	2.2	-2.6	0.7
Final domestic use of goods and services -gross capital formation in oil and shipping (incl. stocks) ²⁾	635.4	1.5	-4.7	7.5	-3.2	0.5	-0.1	-0.6	7.7
-demand from mainland Norway	44.3	-6.4	-41.3	67.3	-27.7	8.6	49.9	-26.7	52.1
-demand from mainland Norway	600.5	2.3	-0.1	2.0	-1.1	2.3	-2.8	1.3	2.6
Export	326.4	6.1	7.6	-4.6	-0.2	2.8	-3.9	6.3	-2.3
Traditional goods	117.1	4.1	5.9	-1.1	1.1	-0.4	-2.4	5.7	-1.9
Crude oil and natural gas	107.2	10.8	5.1	0.1	0.7	1.8	-3.0	7.6	-4.8
Ships and oil platforms	14.9	4.8	47.7	-48.8	-25.5	78.2	-25.9	48.2	-20.3
Services	87.3	3.8	5.3	-3.2	0.7	0.7	-2.9	-0.1	4.2
Total use of goods and services	961.8	3.0	-0.7	3.2	-2.2	1.3	-1.4	1.7	4.3
Imports	252.5	2.2	-5.8	9.4	-6.8	-0.1	-1.5	5.0	8.9
Traditional goods	156.9	4.2	-0.6	0.2	3.5	-3.0	-2.9	1.4	8.0
Crude oil	1.0	-32.7	-50.5	91.9	-18.2	-32.1	54.7	-13.0	27.7
Ships and oil platforms	10.8	-40.6	-72.0	204.3	-59.8	38.0	1.3	53.9	31.5
Services	83.7	9.0	3.6	11.2	-13.1	2.5	0.4	5.8	6.0
Gross domestic product (GDP)	709.3	3.3	1.2	1.1	-0.4	1.7	-1.4	0.5	2.6
-Mainland Norway	574.8	2.0	0.3	1.4	-1.6	2.7	-0.9	-0.1	1.5
Oil activities and shipping	134.5	9.4	5.4	-0.1	4.8	-2.3	-3.3	3.2	7.2
Mainland industry	531.0	1.7	0.1	1.3	-1.8	2.6	-0.4	-0.2	1.2
Manufacturing and mining	96.0	1.8	-0.3	0.9	-0.6	-0.9	1.5	0.6	1.6
Production of other goods	72.1	1.4	0.5	4.9	-3.4	7.1	-6.3	0.3	4.2
Other services	362.8	1.7	0.2	0.7	-1.8	2.6	0.4	-0.6	0.4
Correction items (contribution to GDP growth) ⁴⁾⁵⁾	43.9	0.3	0.2	0.1	0.0	0.3	-0.5	0.1	0.4

¹⁾ Notes. see "Technical comments".

NORWAY: PRICE INDICES FOR SELECTED MACROECONOMIC VARIABLES

	Percentage change from the same period the previous year					Growth from previous quarter, seasonally adjusted. Per cent			
	1992	92.4	93.1	93.2	93.3	92.4	93.1	93.2	93.3
Private consumption	2.6	2.4	2.6	2.4	2.2	0.6	0.6	0.5	0.3
Government consumption	2.0	1.3	0.4	1.1	0.7	0.1	0.0	0.8	-0.2
Gross fixed capital formation	2.1	2.5	4.0	2.8	2.8	1.6	1.6	-0.3	-0.2
- mainland Norway	0.6	0.5	-0.1	0.5	1.5	0.5	-0.3	0.6	0.8
Final domestic use of goods and services . .	2.4	2.2	2.2	2.3	1.8	-0.4	2.8	0.4	-0.5
- demand from mainland Norway	2.1	1.8	1.7	1.8	1.7	0.5	0.4	0.6	0.2
Export	-7.2	-4.1	5.0	3.3	5.0	2.9	2.7	-0.7	-0.0
- traditional merchandise exports	-6.7	-4.2	0.8	1.0	0.8	-0.7	1.6	0.6	-0.8
Total use of goods and services	-0.9	0.1	3.3	2.5	2.9	0.6	2.8	-0.1	-0.1
Imports	-0.3	-0.7	2.3	1.8	4.7	1.4	2.6	-0.8	1.5
- traditional merchandise imports	-1.9	-3.0	-1.1	-0.7	1.7	0.5	1.4	-0.4	0.4
Gross domestic product (GDP)	-1.1	0.4	3.7	2.7	2.2	0.3	2.9	0.2	-0.8
- mainland Norway	1.6	2.1	1.8	2.3	1.0	-0.1	0.9	0.8	-0.1

TECHNICAL COMMENTS ON THE QUARTERLY ACCOUNTS FIGURES

Footnotes: 2) Including ships, oil platforms and platform modules in progress. 3) Excluding ships, oil platforms and platform modules in progress. 4) Contributions to GDP growth are calculated as the difference between corresponding figures calculated as a percentage of GDP. 5) Corrected for free bank services and certain excises.

Quarterly calculations: The calculations are made on a less detailed level than the calculations for the annual national accounts, and are based on more simplified procedures. The quarterly national accounts figures for the years up to and including 1991 have been reconciled against the most recently published annual accounts figures.

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

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

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

NORWAY: REVISIONS OF UNDERLYING TREND

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

Publ.		89.4	90.1	90.2	90.3	90.4	91.1	91.2	91.3	91.4	92.1	92.2	92.3	92.4	93.1	93.2	93.3
GDP mainland Norway																	
Sept.	-90	1	1	3													
Dec.	-90	1	2	3	3												
Feb.	-91	1	1	2	2	2											
June	-91	1	1	1	1	0	-1										
Sept.	-91	1	1	1	1	0	0	-1									
Dec.	-91	1	1	1	1	0	0	-1	-1								
Feb.	-92	1	1	1	1	0	0	0	0	1							
June	-92	2	2	2	1	1	0	-1	-1	0	1						
Sept.	-92	2	2	2	1	0	0	-1	-1	0	2	3					
Dec.	-92	2	2	2	1	0	0	-1	0	0	1	1	0				
Feb.	-93	2	2	2	1	0	0	-1	0	1	2	2	1	-1			
June	-93	2	2	1	1	0	-1	-1	-1	1	2	2	2	2	0		
Sept.	-93	2	2	1	1	0	-1	-1	-1	1	2	2	2	2	0	-1	
Dec.	-93	2	2	1	1	0	-1	-1	-1	1	2	2	2	2	1	1	2

Final demand from mainland Norway																	
Sept.	-90	1	2	3													
Dec.	-90	0	1	2	2												
Feb.	-91	1	1	2	2	2											
June	-91	0	1	1	0	0	-2										
Sept.	-91	0	1	1	0	-1	-2	-3									
Dec.	-91	0	1	1	0	-1	-2	-2	0								
Feb.	-92	0	1	1	0	-1	-1	0	3	4							
June	-92	0	1	1	1	0	0	0	2	2	2						
Sept.	-92	0	1	1	1	0	0	0	1	2	2	3					
Dec.	-92	0	1	1	1	0	0	0	1	2	2	2	1				
Feb.	-93	0	1	1	1	0	0	0	1	2	2	2	1	0			
June	-93	0	1	1	1	0	-1	-1	1	2	2	3	2	1	-1		
Sept.	-93	0	1	1	1	0	-1	-1	1	2	2	2	2	1	-1	-1	
Dec.	-93	0	1	1	1	0	-1	-1	1	2	2	2	1	1	1	2	4

COMMENTS ON THE REVISIONS

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

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

Economic policy calendar, 1993

September

6. An agreement to merge the car manufacturers Volvo and Renault is signed. Thirty-five per cent of the shares in the new Volvo-Renault group is to be owned directly and indirectly by Volvo, while the French state is to hold the remaining 65 per cent. The agreement must be approved by the two groups' general meetings (see 2 December).

9. The German Bundesbank lowers its discount rate from 6.75 to 6.25 per cent. Concurrently the signal rate on loans to private banks - the Lombard rate - is lowered from 7.75 to 7.25 per cent.

10. Kværner Energy A/S is given a contract for delivery of turbines to a power station in Venezuela. The plant will be one of the world's largest hydro-power installations, at a cost of just over NOK 10 billion. The deliveries from Kværner will add up to about NOK 1.1 billion.

13. The Centre Party makes a strong showing at the general election. The Labour Party also advances and remains in government.

21. The Russian president, Boris Yeltsin, dissolves the national assembly and imposes direct presidential rule.

27. The OPEC countries establish their overall production quota for the fourth quarter of this year at 24.5 million barrels per day. This entails an increase on the quota set for the third quarter, but is below these countries' actual output.

27. Janne Carlzon steps down as SAS supremo, and is replaced by the Norwegian, Jan Reinås, who will act in the top position until he takes over as group managing director of Norske Skog in April 1994.

28. Kværner Energy A/S is awarded a contract worth NOK 250 million for delivery of a heat power station to Silkeborg Kraftvarmeværk in Denmark.

October

1. A new tax is introduced on derv. The tax is NOK 2.25 per litre, and replaces the previous "mileage" charge. Mineral oil not subject to the derv tax will be coloured using a red dye.

1. The new gas terminal at Zeebrugge in Belgium opens, enabling gas to be delivered via the Zeepipe pipeline under the Troll agreement.

3. Russian police and military units storm "The White House" where the leadership of the national assembly have entrenched themselves together with armed groups. Vice-President Rutskoi and the leader of the Russian People's Congress, Khasbulatov, surrender after a brief but intense firefight.

7. Jens Stoltenberg succeeds Finn Kristensen as Industry Minister. Concurrently Nils Totland supersedes Oddny Aleksandersen as Government Administration Minister.

8. Norway submits position papers on agriculture at the negotiations with the EC. They propose that the EC establish new support arrangements for agriculture in northerly areas.

12. A ruling of the German constitutional court establishes that the Maastricht Treaty does not conflict with the German constitution, thereby enabling Germany to ratify the Treaty - the last EC country to do so. The court emphasises that Germany can withdraw from the European Union if the terms and conditions for participation change.

13. The Government presents the government budget proposal for 1994. The budget proposal entails a deficit of NOK 46.4 billion before loan transactions. The deficit for the entire central government administration, corrected for investment in government enterprises, is NOK 28.3 billion - an increase of NOK 1 billion on 1993.

18. The Kværner enterprises Kværner Egersund and Kværner Installasjon, plus Aker Stord, are awarded contracts of almost NOK 2 billion in connection with the Sleipner Vest development. The orders provide employment for almost 1000 persons in the two enterprises up to spring 1996.

19. Oil production at the Draugen field on Haltenbanken comes on stream, thereby initiating production north of the 62nd parallel.

21. The German Bundesbank lowers its discount rate from 6.25 to 5.75 per cent. The Lombard rate is lowered by the same margin to 6.75 per cent.

24. The Norwegian firm of architects, Snøhetta, sign a contract to plan the new library "Bibliotechia Alexandria" in Egypt. The building is costed at more than NOK 800 million, of which Snøhetta's involvement measures some NOK 95 million.

26. Norges Bank lowers its interest rate on bank deposits with Norges Bank (deposit rate) from 5.5 to 5 per cent. The overnight rate is lowered by the same margin, to 7 per cent.

November

1. The Maastricht Treaty takes effect. An immediate effect is that EU nationals will be entitled to vote in elections to the EU parliament regardless of which member country they happen to be in.

6. The Labour Part and the Christian Democratic Party agree on main points of the government budget for 1994. The budget agreement entails a tightening of wealth tax totalling NOK 800 million, partly as a result of restrictions in the so-called "65 per cent rule". Expenditure related to, say, financing academic studies and development aid co-operation, is raised compared with the government's original proposal.

11. In the finance debate in the Storting (parliament), finance minister Sigbjørn Johnsen announces the gradual removal of the investment tax. This will entail a revenue loss of about NOK 4 billion for the State over a seven-year period. The government aims at raising other direct and indirect taxes to replace the revenue accruing from the investment tax.

11. SAS submits plans to reduce costs by a total of NOK 2.5 billion. Among the proposed measures is a reduction in scheduled services, particularly in Sweden, and sales of 17 aircraft. In Norway SAS will close operations at Kjevik airport outside Kristiansand, while the airline aims at increasing the number of flights between Oslo and Stavanger.

12. Norway submits a new position paper on fisheries at the EC negotiations. A central demand in the new paper is that Norwegian authorities should continue to establish catch quotas north of the 62nd parallel. Furthermore, Norway wants responsibility for administering fishery resources in the Barents Sea together with Russia.

16. Kværner Florø is to build two chemical tankers for the Bergen shipping company Storli. The ships are estimated to cost just over NOK 1 billion, and will be delivered in 1996.

17. Leaks are discovered in one of the oil storage tanks at the Draugen platform. However, investiga-

tions suggest that the leaks are not serious. The platform was built by Norwegian Contractors.

17. UNI Storebrand announces its operating result for the first nine months of 1993. The profit of NOK 3.8 billion is the largest in the history of the company.

17. The US Congress approves the North American free trade agreement, NAFTA, between the USA, Canada and Mexico.

18. Norges Bank lowers its deposit rate from 5 to 4.75 per cent. The overnight rate is lowered by the same margin, to 6.75 per cent.

19. The EU Commission adopts a minimum price of NOK 32 per kilo for imported Norwegian salmon. The resolution is effective for a provisional three-month period.

21. At a press conference the SAS leadership shelves the so-called Alcazar Agreement - the planned merger of SAS, KLM, Swissair and Austrian Airlines. A main cause of the breakdown of negotiations is disagreement about the US airline partner.

22. Fosen Mekaniske Verksted in Sør-Trøndelag is awarded a contract for the construction of two combined passenger ferries/cargo ships for the Greek shipping company Minoan Lines. The order is worth NOK 1.3 billion all told.

24. The OPEC countries decide to maintain their fourth quarter 1993 quotas until further notice, entailing total production of 24.5 million barrels per day. The market responds immediately by lowering the spot price from about USD 15.5 p/b to close to USD 14 p/b.

29. The Storting levies a basic tax of 70 øre on non-returnable packaging. Concurrently the Storting asks the Government to extend dispensation from the electricity tax to apply to the fishfarming industry.

December

2. Pehr Gyllenhammer and other members of the Volvo group board step down after strong opposition from the group management and shareholders to the merger agreement with Renault (see 6 September). The Vovlo-Renault agreement is put in cold storage.

2. The state and the fishermen's national organisation agree a general ceiling of NOK 155 million for government transfers for the fisheries in 1994.

New Research Reports

DISCUSSION PAPER

Ingvild Svendsen:

TESTING THE RATIONAL EXPECTATIONS HYPOTHESIS. USING NORWEGIAN MICROECONOMIC DATA

Discussion Paper no. 90, 1993. 64 pages.

The rational expectations hypothesis (REH) is tested directly using Norwegian microeconomic data on firms' expectations of the prices of own products in domestic and export markets and expectations of demand for own products in domestic and export markets. The data are taken from a survey of firms in manufacturing and mining. The data are qualitative and the tests have been carried out by the use of loglinear probability models and various measures of association. Three different tests are run, with differing results on behalf of the REH; the general conclusion is, however, a rejection of the REH.

Einar Bowitz, Asbjørn Rødseth and Erik Storm:

FISCAL EXPANSION, THE BUDGET DEFICIT AND THE ECONOMY: NORWAY 1988-91

Discussion Paper no. 91, 1993. 25 pages.

From 1989 fiscal policy in Norway has been expansionary. With the aid of the econometric model MODAG we estimate the size of the change in policy from 1988 to 1991, its final effect on the central government budget, and its effect on the economy. We also assess the effects on the budget of cyclical factors and structural change. These appear to be more important for the increase in the deficit than activist policy. The budgetary costs of the extra jobs created by the activist part of the policy seem high.

Tor Jakob Klette:

IS PRICE EQUAL TO MARGINAL COSTS? AN INTEGRATED STUDY OF PRICE-COST MARGINS AND SCALE ECONOMIES AMONG NORWEGIAN MANUFACTURING ESTABLISHMENTS 1975-90

Discussion Paper no. 93, 1993. 56 pages.

This paper presents an integrated study of price-cost margins and scale economies. The model is estimated on the basis of a comprehensive data set for individual establishments covering almost the whole Norwegian manufacturing sector over the period 1975-90. For most manufacturing industries prices significantly exceed marginal costs. However, the price cost margins are fairly small (1.06-1.16) compared to other findings by Hall (1988) and others. There is a tendency for larger firms to obtain

a higher markup. None of the samples reveals significant scale economies, while 7 out of 20 samples exhibit moderate decreasing returns.

Kjersti-Gro Lindquist:

EMPIRICAL MODELLING OF NORWEGIAN EXPORTS: A DISAGGREGATED APPROACH

Discussion Paper no. 100, 1993. 37 pages.

Using annual observations, export equations for ten commodities are estimated, of which eight are manufactured goods. Important differences across commodities regarding both long-run elasticities and dynamics are revealed. Both Armington equations, assuming differentiated products and monopolistic competition, and equations consistent with price taking behaviour (the small open economy case) are estimated. The small open economy approach is assumed particularly promising for raw materials and intermediate goods, but the data supports the price taking hypothesis only for metals. The merits of using alternative empirical proxies for world demand and competitors' prices in the Armington model are also investigated. The paper concludes that both careful modelling of the dynamics and the choice of explanatory variables are important for the encompassing properties and the estimated long-run elasticities. In addition, inference about competitiveness in trading industries depends critically on the choice of variables describing foreign markets.

Anne-Sofie Jore, Terje Skjerpen and Anders Rygh Swensen:

TESTING FOR PURCHASING POWER PARITY AND INTEREST RATE PARITIES ON NORWEGIAN DATA

Discussion Paper no. 101, 1993. 38 pages.

In this paper we are investigating the cointegrated relationships within a VAR-model containing the Norwegian inflation rate, the foreign inflation rate, the depreciation, the Norwegian short run interest rate and the foreign short run interest rate (quarterly data). Since we were unable to obtain a well-behaved equation for the change in the depreciation, we have chosen to treat the change in the depreciation as a weakly exogenous variable (with respect to the long run parameters). This is implemented by conditioning on the depreciation. Under this assumption, the residuals in the remaining equations are reasonably well-behaved. From an economic point of view our main aim is to test whether the Uncovered Interest rate Parity (UIP), the Purchasing Power Parity (PPP) and the Real Interest Rate Parity (RIRP) are contained in the cointegra-

ting space. In the maintained model we conduct structural hypotheses under two different values for the cointegrating rank. When the cointegrating rank is set to two the PPP and the UIP hypotheses are easily rejected, whereas we cannot reject the RIRP at the 5 percent significance level. These results are somewhat modified when the cointegrating rank alternatively is set to three.

Asbjørn Aaheim and Karine Nyborg:
"GREEN NATIONAL PRODUCT": GOOD INTENSIONS, POOR DEVICE?

Discussion Paper no. 103, 1993. 18 pages.

Quite a few economists have recently suggested that net national product should be adjusted for the value of environmental damages. One of the aims of such corrections is to establish a national income measure which is closer to the Hicksian concept of income.

The purpose of this paper is to illuminate some of the difficulties one encounters when the correcting formulae derived from simple theoretical models are transferred to applied national accounting. In particular, the paper is concerned with the question of whether a corrected national income measure will actually provide relevant information for policy formation purposes.

It is shown that "green national product" will be very difficult to interpret. In general, it may not give any indications of the necessity of imposing stronger environmental policy actions. Nor does it indicate the hypothetical state of the economy after a change in environmental efforts.

Knut H. Alfsen, Hugo Birkelund and Morten Aaserud:

SECONDARY BENEFITS OF THE EC CARBON/ENERGY TAX

Discussion Paper no. 104, 1993. 35 pages.

Emissions of CO₂, SO₂ and NO_x are all closely linked to burning of fossil fuels. Here we report on simulations done by linking a Sectoral European Energy Model (SEEM) covering energy demand in nine Western European countries with the emission-transportation-deposition model RAINS developed by IIASA. The study analyses emissions of CO₂, SO₂ and NO_x, and deposition of sulphur and nitrogen in year 2000 under four different energy scenarios. Two different sets of future behavioural patterns for the thermal electric power production sector is considered. In one regime, called the plan efficient regime, the sector is assumed to follow official plans with regard to investment in new capacity. In the other regime, called the cost efficient regime, the power sector is assumed to behave in a cost minimising manner. The effects of the proposed EC carbon/energy tax are studied under

both regimes, giving a rise to altogether four scenarios. In both regimes the effect of the EC tax is to reduce emissions by between 6 and 10 per cent in year 2000 relative to the scenarios without the tax. A change of regime, from the regulated plan efficient regime to the market based cost efficient regime, will by itself reduce emissions of CO₂ and NO_x by approximately 3 per cent, while SO₂ emissions are reduced by 13 percent.

Although the emission reductions may seem modest, they are shown to have a sizeable effect on the technological abatement costs of reaching targets like those prescribed in the Sophia protocol on the stabilisation of NO_x emissions, and the Helsinki protocol on SO₂ emission reductions.

NOTATER

Tom Eek, Jan Erik Sivertsen, Tor Skoglund and Knut Ø. Sørensen:

ECONOMIC ACCOUNTS AT REGIONAL LEVEL: METHODS AND DATA FOR NORWAY

Notater 93/35, 1993. 55 pages.

Knut H. Alfsen:

DEMAND FOR COMMERCIAL AND OWN TRANSPORT SERVICES IN PRODUCTION SECTORS

Notater 93/39, 1993. 17 pages.

REPRINTS

Olav Bjerkholt and Eystein Gjelsvik:
COMMON CARRIAGE FOR NATURAL GAS: THE PRODUCERS' PERSPECTIVE
REPRINTS 64, 1993
ISBN 82-00-21435-4
ISSN 0800-7500

Reprint from Einar Hope and Steinar Strøm (eds.) Energy Markets and Environmental Issues: A European Perspective. Scandinavian University Press 1992.

T.Ø. Kobila:
A CLASS OF SOLVABLE STOCHASTIC INVESTMENT PROBLEMS INVOLVING SINGULAR CONTROLS
REPRINTS 65, 1993
ISSN 0800-7500

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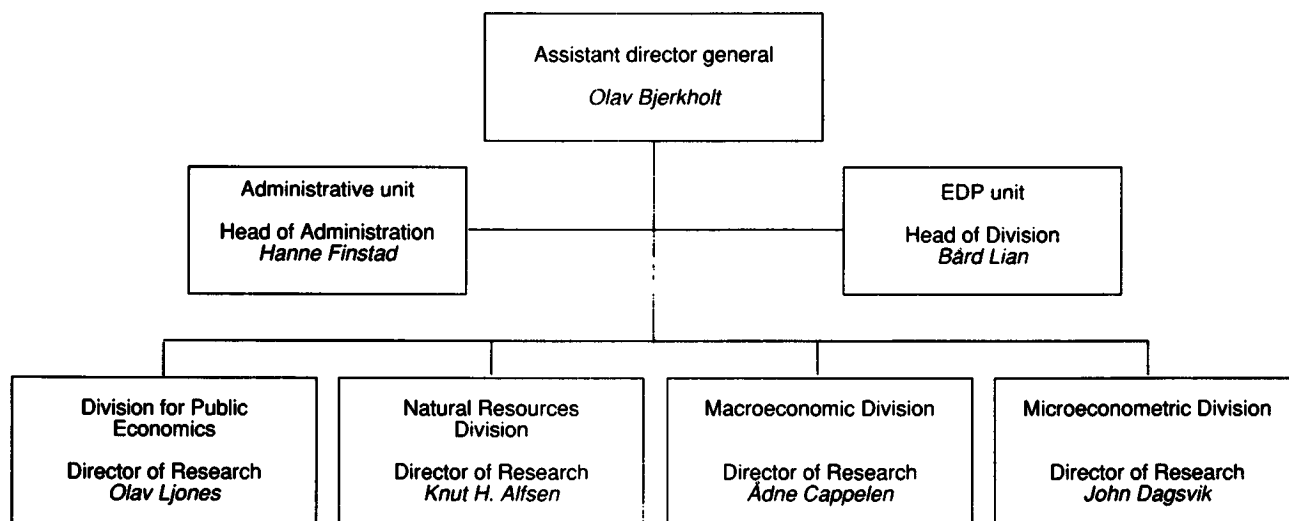
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
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