



4 Petroleum operations in the Norwegian economy

Investment

Other key figures



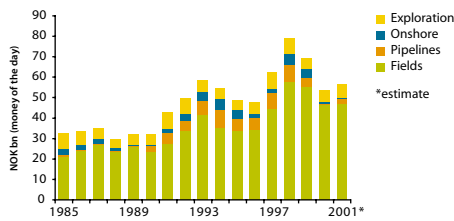


Figure 4.1 Accrued investment 1985-2001.
(Source: Statistics Norway)

Petroleum production and pipeline transport create substantial revenues for licensees and the state. At the same time, development and operation consume considerable resources.

This chapter presents an overview of resources utilised and value added in production and pipeline transport.

Investment

Investment in the petroleum sector totalled about NOK 30 bn per year from 1985 to 1990. It has since increased substantially, and was particularly high in 1993 and in 1997-99.

These peaks reflect both heavy investment in new fields and spending on gas pipelines to continental Europe.

Figure 4.1 shows capital spending in the petroleum sector by exploration, land-based petroleum operations, pipelines and fields.

The following fields and projects on the NCS were under development at 31 December 2001: Grane, Tune, Kvitebjørn, Valhall water injection, Valhall flanks, Fram West, Kristin (Halten Bank West), Mikkel, Sigyn and Vale.

As oil and gas fields are depleted and production ceases, spending will be needed on abandonment or alternative use of installations.

Estimated annual investment in the petroleum sector until 2010 is shown in figure 4.2.

Other key figures

Figures in tables 4.1 and 4.2 are taken from the national accounts or other publicly available statistics, and are based on the definitions applied by Statistics Norway.

The figures exclude value creation and resource utilisation in drilling and exploration, the supplies industry, refining and petrochemicals.

Gross product

Gross product is an expression for value creation in a sector during a year, and equals the value of gross production less the value of commodities employed for production. The gross domestic product (GDP) sums the gross product of all sectors.

Export value

This figure is calculated at the Norwegian border. The value of gas exports is calculated at the boundary of Norway's continental shelf. Oil exports are valued at the loading buoy for shuttle tankers and at the continental shelf boundary for pipeline transport. The export value of pipeline services is the transport value in Norwegian-owned pipe-lines from Norway's continental shelf to foreign terminals.

Accrued investment

Total accrued investment represents overall capital spending on production and pipeline transport, and

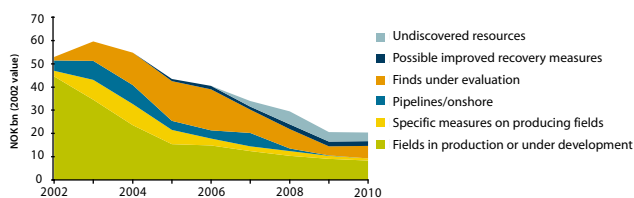


Figure 4.2 Estimates for future investment in fields and pipelines 2002-2010. (Source: MPE/NPD)

Table 4.1 Key economic figures for the petroleum sector, NOK bn (money of the day).

	1993	1994	1995	1996	1997	1998	1999	2000	2001*
Gross product	106.8	111.5	118.6	163.3	177.0	125.7	175.5	337.3	318.5
Export value	105.7	108.5	115.4	160.1	167.4	122.9	164.8	312.0	306.9
Accrued investment	57.6	54.7	48.6	47.9	62.5	79.2	69.1	53.6	56.9
Employment (thousands)	18.1	17.8	17.6	16.7	16.5	15.8	16.3	15.2	14.9

(Source: Statistics Norway)

* estimate

Table 4.2 Petroleum operations in the Norwegian economy.

	1993	1994	1995	1996	1997	1998	1999	2000	2001*
Share of gross product	13.3	13.2	13.1	16.5	16.7	12.0	15.4	24.4	22.6
Share of export value	33.5	32.6	32.7	38.6	37.4	29.9	35.3	47.0	45.1
Share of total employment	0.9	0.9	0.8	0.8	0.7	0.7	0.7	0.7	0.6

(Source: Statistics Norway)

* estimate

includes exploration costs and investment on land directly related to petroleum operations.

Norwegian petroleum operations account for a substantial proportion of overall investment in the country. Capital spending by this sector represented about 30 per cent of the total for main-land Norway in 1984-90. This proportion was substantially higher in the early 1990s, and came to about 65 per cent in 1993.

The big increase reflects not only heavier investment by the petroleum industry but also lower spending in other sectors.

Investment in mainland Norway has increased in recent years, and petroleum-related spending corresponded to just over 24 per cent of the mainland figure in 2001.

Employment

The direct employment effect of crude oil/natural gas production and pipeline transport is relatively small, accounting for less than one per cent of total jobs in Norway. When indirect effects are included, the impact is higher than table 4.1 indicates. See also chapter 6 on industry, employment and technology development.

Total wealth in the petroleum sector

Total wealth in the petroleum sector is calculated as the net present value of estimated future net cash flow from this industry.

The 2002 national planning budget puts the figure at roughly NOK 2 400 bn in 2002 value, with about NOK 2 100 bn representing the state's share.

A real discount rate of four per cent has been applied in the calculation.

Considerable uncertainty attaches to such calculations, which utilise estimates for future prices, exchange rates, inflation rates, production profiles and resources. Choice of discount rate will also influence the outcome.

Government Petroleum Fund

Established by an Act of 1990, the Government Petroleum Fund received its first transfers in 1996 for fiscal 1995. Its income represents the central government's net cash flow from petroleum activities, as well as the return on fund investments.

Expenditures comprise an annual transfer to the Ministry of Finance corresponding to the amount of petroleum revenues applied in the fiscal budget to cover the non-oil deficit.

Capital in the fund acts as a buffer which provides greater room for manoeuvre in economic policy should oil prices or activity in the mainland economy decline, and serves as an instrument for coping with the financial challenges presented by an ageing population and declining oil revenues.

The fund totalled NOK 618 bn at 31 December 2001. This corresponds to about 42 per cent of gross domestic product. The value of the fund increased by about NOK 232 bn from 31 December 2000.