## Petroleum operations in the Norwegian economy

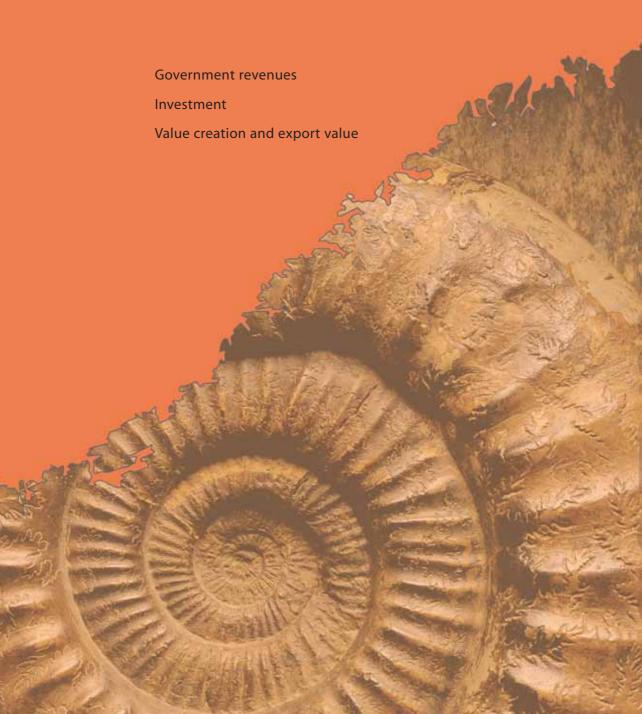




Figure 4.1 Macroeconomic indicators for the petroleum sector (Source: Statistics Norway/Ministry of Finance)

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Norwegian oil and gas production has increased substantially over the past three decades, and Norway ranks today as the world's third largest exporter of crude after Saudi Arabia and Russia<sup>1</sup>. The oil industry now accounts for a substantial share of the Norwegian economy. Petroleum production and pipeline transport create substantial revenues for licensees and the government.

Through its demand for goods and services, this sector also generates substantial activity in land-based industry. The petroleum business has thereby been a prime mover in developing such sectors as mechanical engineering and associated service industries.

The share of the petroleum sector in Norway's gross domestic product, exports, total government revenues and capital expenditure has been substantial since the mid-1970s. See figure 4.1. These shares came in 2003 to 18.8, 45.9, 24.8 and 24.6 per cent respectively. The principal reasons for these high shares in recent years are a combination of high oil prices and high production.

The industry accounts for about three per cent of total Norwegian employment, or roughly 76 000 jobs. For more details on the employment effect, see chapter 11.

## Government revenues

Securing high government revenues from petroleum operations is an important objective of Norwegian policies for this sector. The most important instruments for generating such revenues are the company-based tax regime1 and the field-byfield arrangement of the State's Direct Financial Interest (SDFI).

This is illustrated in figure 4.2, which shows net cash flow to the government from petroleum activities (taxes and fees, net SDFI cash flow and dividend paid by Statoil) in 1971-2003.

Preliminary figures indicate that paid taxes and fees for 2003 totalled NOK 97.1 bn. This represents the second highest annual figure since petroleum production began on the NCS. See table 4.3. Net cash flow from the SDFI totalled NOK 67.5 bn in the same year.

Table 4.4 shows net cash flow and investment for the SDFI over time. Net revenue from the sale of SDFI assets in 2001 and 2002 is included in the figures for these years.

The table illustrates that the SDFI is a crucial aspect of the oil industry for the government.

As shown, the petroleum sector generates substantial value every year for the Norwegian government and community. Over more than 30 years of production, the offshore sector has generated an income for the government in the order of NOK 1 700 bn in current value.

This has been achieved despite heavy investment during the period, which will yield a return for many years to come.

Roughly NOK 800 bn of these revenues have been placed in the Government Petroleum Fund, with the remainder used to meet current government expenditures.

These major revenues have been generated from the realisation of about 29 per cent of Norway's estimated resources. Remaining resources accordingly represent a large potential for further

<sup>&</sup>lt;sup>1</sup> Source: Petroleum Economics Ltd, for 2003

4

Figure 4.2 Net cash flow to the state from petroleum operations \*2003 estimate (Source: National accounts and state budget)

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

	1994	1995	1996	1997	1998	1999	2000	2001	2002	2003*
Gross product	114.2	121.6	167.5	183.1	131.6	178.6	341.6	327.8	280.1	295.5
Export value	108.6	115.5	159.8	167.4	122.9	164.9	312.2	320.1	280.4	296.8
Accrued investment	53.6	47.9	51.3	62.2	80.3	68.2	59.7	59.8	59.0	65.1
Employment (thousands)	22.5	21.7	22.1	24.1	24.9	24.7	23.6	26.7	27.6	27.0

(Sources: Statistics Norway, Ministry of Finance)

\* estimate

Table 4.2 Petroleum operations in the Norwegian economy.

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	1994	1995	1996	1997	1998	1999	2000	2001	2002	2003
Share of gross product	13.1	13.1	16.3	16.5	11.6	14.5	23.2	21.5	18.4	18.8
Share of export value	32.6	32.4	38.1	36.3	28.8	33.9	45.5	45.9	44.8	45.9
Share of total employmen	nt 1.1	1.0	1.0	1.1	1.1	1.1	1.0	1.2	1.2	1.2

(Source: Statistics Norway)

\* estimate

value creation by the sector, to the benefit of both government and industry. Revenues from produced resources give an indication of what the remaining resource base is worth.

Established by the Storting in 1990, the Government Petroleum Fund received its first true transfers in 1996. 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, plus the fund's administrative costs.

The fund serves two purposes. It 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 dealing with the financial challenges presented by an ageing population.

The fund totalled NOK 845 bn at 31 December 2003. This corresponds to about 54 per cent of gross domestic product. NOK 104 bn was transferred to the fund from the Ministry of Finance in 2003.

## Investment

Total investment in the petroleum sector was about NOK 25-30 bn annually from 1985-90, and increased substantially thereafter. Since 1992, it has been above NOK 40 billion per year, and peaked in 1998 at roughly NOK 70 bn. Spending remains high, and came to NOK 62 bn in 2003. See figure 4.3.



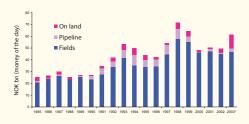
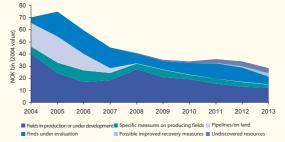


Figure 4.3 Investment 1985–2003 (Source: Statistics Norway)



Figur 4.4 Estimates for future investment in fields and pipelines 2004–2013 (Source: MPE/NPD)

Table 4.3 Paid taxes and fees, NOK bn (2004 value)

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1994	1995	1996	1997	1998	1999	2000	2001	2002	2003*	
7.2	9.0	11.2	17.3	10.0	6.0	23.4	43.4	33.6	37.4	
10.3	12.3	14.6	21.8	12.1	6.7	35.1	67.4	54.2	61.4	
7.6	6.7	7.1	6.9	4.1	3.5	3.7	2.6	1.4	0.8	
0.2	0.6	1.3	0.7	0.6	0.6	0.1	1.0	0.5	0.5	
3.0	2.9	3.1	3.4	3.5	3.5	3.2	3.0	3.1	3.1	
28.3	31.6	37.3	50.1	30.3	20.3	65.5	117.5	92.7	102.9	
	7.2 10.3 7.6 0.2 3.0	7.2 9.0 10.3 12.3 7.6 6.7 0.2 0.6 3.0 2.9	7.2 9.0 11.2 10.3 12.3 14.6 7.6 6.7 7.1 0.2 0.6 1.3 3.0 2.9 3.1	7.2 9.0 11.2 17.3   10.3 12.3 14.6 21.8   7.6 6.7 7.1 6.9   0.2 0.6 1.3 0.7   3.0 2.9 3.1 3.4	7.2     9.0     11.2     17.3     10.0       10.3     12.3     14.6     21.8     12.1       7.6     6.7     7.1     6.9     4.1       0.2     0.6     1.3     0.7     0.6       3.0     2.9     3.1     3.4     3.5	7.2 9.0 11.2 17.3 10.0 6.0   10.3 12.3 14.6 21.8 12.1 6.7   7.6 6.7 7.1 6.9 4.1 3.5   0.2 0.6 1.3 0.7 0.6 0.6   3.0 2.9 3.1 3.4 3.5 3.5	7.2 9.0 11.2 17.3 10.0 6.0 23.4   10.3 12.3 14.6 21.8 12.1 6.7 35.1   7.6 6.7 7.1 6.9 4.1 3.5 3.7   0.2 0.6 1.3 0.7 0.6 0.6 0.1   3.0 2.9 3.1 3.4 3.5 3.5 3.2	7.2 9.0 11.2 17.3 10.0 6.0 23.4 43.4   10.3 12.3 14.6 21.8 12.1 6.7 35.1 67.4   7.6 6.7 7.1 6.9 4.1 3.5 3.7 2.6   0.2 0.6 1.3 0.7 0.6 0.6 0.1 1.0   3.0 2.9 3.1 3.4 3.5 3.5 3.2 3.0	7.2 9.0 11.2 17.3 10.0 6.0 23.4 43.4 33.6   10.3 12.3 14.6 21.8 12.1 6.7 35.1 67.4 54.2   7.6 6.7 7.1 6.9 4.1 3.5 3.7 2.6 1.4   0.2 0.6 1.3 0.7 0.6 0.6 0.1 1.0 0.5   3.0 2.9 3.1 3.4 3.5 3.5 3.2 3.0 3.1	

Table 4.4 Key figures for SDFI, NOK bn (2004 value)

1994 1995 1996 1997 1998 1999 2000 2001 2002 2003\* Investment 30.6 24.2 18.9 22.7 32.8 24.2 17.4 13.2 16.5 29.9 Net cash flow 0.0 10.6 39.5 45.1 16.0 27.9 104.8 131.4 77.3 68.5

(Sources: Statistics Norway/ Ministry of Finance)

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\* estimate

\* estimate

Capital spending is expected to increase substantially from 2003 to 2004-05. The individual projects involving the highest investment in the time to come are Snøhvit and Ormen Lange. In addition come several smaller fields under development, as well as a large number of projects to improve recovery from existing fields.

## Value creation and export value

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. No other industry in Norway comes close to petroleum for value creation, which was roughly twice as high for this sector in 2003 as for all manufacturing combined and 61 times higher than fishing, catching and fish farming.

The value of petroleum-sector exports is also significantly higher than foreign sales by other Norwegian industries. It is 34 times greater than fishing, catching and fish farming exports combined. And petroleum-sector exports earn about 70 per cent more for Norway than manufactured products.