

# 7

## Sales of Norwegian-produced petroleum

Sales of crude oil

Norwegian oil sales in an international perspective

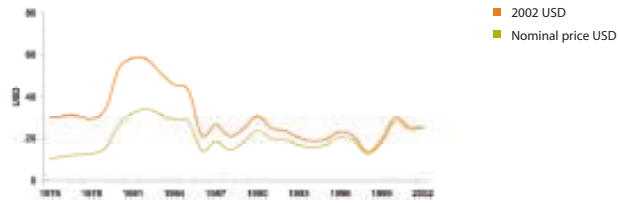
Production regulation

Sales of natural gas liquids (NGL)

Dry gas sales

Refining





**Figure 7.1** Price of Norwegian crude oil 1975–2002.  
(Source: MPE)

### Sales of crude oil

A governing principle of Norwegian policies on petroleum sales is that these will be made by commercial companies on the basis of commercial criteria within a general framework determined by the authorities. This means that producers on the NCS sell crude oil on market terms.

Oil is piped to terminals on land or loaded offshore into ships. Its price will depend on the situation in the oil market and the quality of crude involved. Crude oil prices are usually set in relation to a reference quality in the spot market. Oil from Britain’s Brent field serves as a reference crude for the North Sea basin. The average price of Brent Blend in 2002 was USD 25, an increase of almost USD 0.60 from 2001.

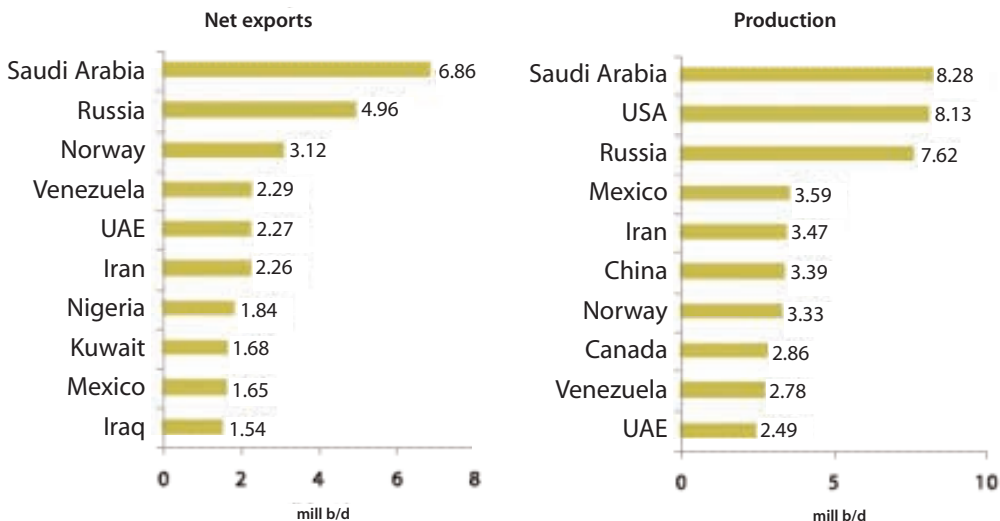
For commercial and technical reasons, vari-

ous crudes are often marketed as a single blend. Both oil quality and flexibility in loading and storage affect the price obtained.

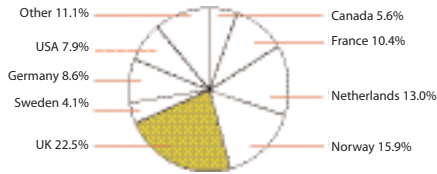
The Norwegian authorities set a norm price on the basis of sales by the companies for calculating tax. See chapter 3. Figure 7.1 shows price trends for Norwegian crude since 1975, specified as the average norm price. Figure 7.2 shows shipments of Norwegian crude in 2002 by the first recipient nation.

### Norwegian oil sales in an international perspective

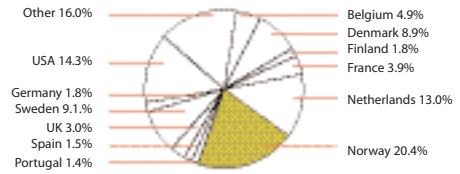
Daily Norwegian offshore production averaged 3.3 mill barrels of oil (including NGL) in 2002, and Norway ranked seventh among the world’s leading oil producers. Crude output was more or less



**Figure 7.3** Production and net export of crude oil, incl NGL/condensate 2001.  
(Source: Petroleum Economics Limited)



**Figure 7.2 Shipments of Norwegian crude oil 2002\*.**  
Total: 184.3 mill scm oe.  
(Source: NPD) \*to first recipient



**Figure 7.4 Sale of Norwegian NGL 2002\*.** Total: 16.4 mill scm oe.  
(Source: NPD) \*to first recipient

unchanged from 2001. The NCS accounts for 4.3 per cent of total world production.

Since Norway consumes some 200 000 barrels of petroleum products per day, its net exports of crude oil and petroleum products (including NGL) totalled about 3.1 mill b/d (including NGL/condensate). This puts Norway in third place after Saudi Arabia and Russia among the world's leading net crude exporters.

### Production regulation

Norway reduced its oil production by 150 000 b/d from 1 January to 30 June 2002. This restriction applied proportionately to oil-producing fields.

Norway's aim is to promote stability and predictability in the oil market and to maintain a reasonably high oil price. This will strengthen the basis for investments in the Norwegian petroleum sector. Experience in recent years shows that a low oil price, even for a short period, has negative consequences for exploration and development of new fields on the NCS. Stability and predictability in the market will help to secure a stable level of activity.

Norwegian production regulation will be a temporary measure in response to an extraordinary market situation, and not a permanent element of the country's market policy.

### Sales of natural gas liquids (NGL)

NGL comprises ethane, propane, normal butane, isobutane and condensate. See figure 7.5. Roughly 19.6 million scm oe of NGL was produced from the NCS in 2002, including some 9.1 million scm oe in the

form of condensate and 10.5 million scm oe as NGL. NGL output was about 13 per cent higher than in 2001.

The European market for liquefied petroleum gases (LPG – propane and butanes) can be divided into three main segments: heating (industrial and household fuels), petrochemicals and automotive fuel (directly, blended with petrol or converted by alkylation to high-octane products).

Heating constitutes about 60 per cent of the total market, with petrochemical production accounting for about 30 per cent and automotive fuels for the remaining 10 per cent.

Demand for LPG from the heating market is high in the six winter months, which drives up the price. That makes these products less attractive as an alternative to naphtha in petrochemicals during the winter season. Figure 7.4 shows shipments of Norwegian NGL to the first recipient in 2002.

### Dry gas sales

European consumption of dry gas has grown strongly in recent decades, also at the expense of other energy bearers – primarily oil and coal. Europe used about 490 bn scm of natural gas in 2002<sup>1</sup>. The biggest consumer nations are the UK, Germany, Italy, the Netherlands and France.

Dry gas is used in various sectors. Households and service industries primarily consume it for heating, while it serves as both energy source and raw material for manufacturing industry.

<sup>1</sup> Source: International Energy Agency. One scm corresponds here to 40 MJ. Europe is defined as OECD Europe.

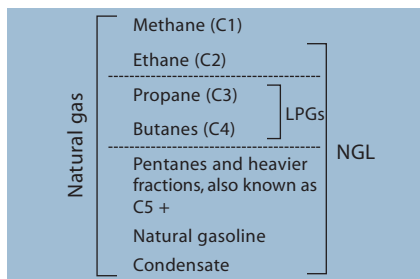


Figure 7.5 Definition of natural gas. (Source: MPE)

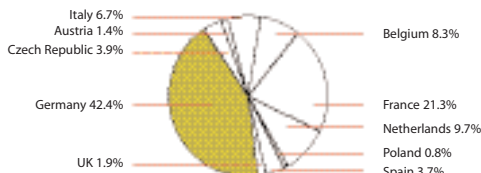


Figure 7.6 Norwegian dry gas exports 2002. Total: 64.2 bn scm (Source: NPD)

7

Norwegian dry gas exports totalled 64.2 bn scm in 2002, an increase of roughly 22 per cent from 2001. The country is an important gas supplier to Europe, with its deliveries accounting for some 11 per cent of total European gas consumption. This makes Norway the third largest gas exporter to Europe, and the fourth biggest on a world basis. Figure 7.6 shows estimated gas exports by recipient country.

Norway's gas exports in 2002 represented some two per cent of world consumption, which is roughly 2 400 bn scm.

Each licensee is responsible for marketing its own gas under production permits issued by the Norwegian authorities.

From 1986 to 2001, Norway's gas sales were negotiated by the Gas Negotiating Committee (GFU), which comprised Statoil (chair), Norsk Hydro and Saga Petroleum (until Hydro acquired Saga).

The GFU was permanently discontinued in 2002.

### Dry gas agreements

Gas from Frigg was sold under a contract with British Gas signed in 1973. Four different agreements for gas deliveries from the Ekofisk area were concluded in 1973 and 1975 with a buyer group comprising Germany's Ruhrgas, Dutch Gasunie, Belgium's Distrigaz and Gaz de France. The gas in Statfjord, Heimdal and Gullfaks phase I was also sold to European buyers in 1981.

The sales agreement for gas from the Troll field was signed in 1986 with Germany's Ruhrgas, Thyssengas and BEB as well as Distrigaz, Gasunie and Gaz de France. Gas was later also sold to Austria, Spain, Italy, the Czech Republic

and Poland. The largest Norwegian buyer is the methanol plant at Tjeldbergodden.

In 2001, the first gas sales contract was signed with a country outside Europe, and part of the output from Snøhvit is due to be delivered to the USA.

Only a small proportion of Norwegian offshore gas is delivered under contracts lasting less than year. Most is supplied on long-term agreements.

### Gas transport

Norwegian offshore gas is piped through the world's largest offshore gas transport system, extending more than 6 000 kilometres from the NCS to mainland Norway, the UK and continental Europe. When Snøhvit comes on stream, its gas will be piped ashore, liquefied and shipped away by LNG carrier.

### Refining

Norway's refining sector embraces two refineries: the Mongstad facility close to Bergen, and the Esso plant at Slagen near Oslo. Their annual capacity totals about 300 000 b/d. Mongstad has roughly twice the capacity of the Slagen plant.

The two refineries buy crude oil from and sell products to the world market, and not all their feedstock is necessarily produced on the NCS. Some 80-90 per cent of their products are sold on long-term contracts. About 30 per cent of the output is consumed by the domestic market, and the rest is exported. Remaining domestic consumption of oil products, amounting to some 100 000 b/d, is covered by foreign refineries.