## CARBON TAXES; NORWEGIAN EXPERIENCES

## (Ministry of Environment, 1995)

On January 1, 1991, a specific CO<sub>2</sub>-tax was introduced in Norway. The rates are high compared to similar taxes that are introduced or proposed by other countries and the EU; up to equivalents of 55 dollars pr ton of CO<sub>2</sub>. Certain changes in rates and bases have been made since the introduction, due partly to environmental concerns but mainly due to the competetiveness of Norwegian industry. Roughly 60 per cent of Norwegian CO<sub>2</sub> emissions face CO<sub>2</sub> taxes while around 40 per cent is exempted at this stage

From 1989 to 1992, precipitation levels were high and there were large supplies of cheap hydropower. This, combined with lower economic activity and the introduction of CO<sub>2</sub>-taxes, kept CO<sub>2</sub>-emissions below the 1989 level. In 1993, emissions reached about the same level as in 1989, and in 1994 they increased further.

The development of Norwegian CO<sub>2</sub> taxes may illustrate the problem of a small open economy trying to be in the fore-front in applying economic instruments for environmental protection. A unilaterally introduced tax for a global purpose is under political pressure as long as other countries do not follow suit.

## Status of the CO<sub>2</sub>-tax

CO<sub>2</sub> taxes were introduced in Norway in 1991, and they are high compared to those in other countries. Such taxes of different scope and magnitude have to date only been introduced in Denmark, Finland, Holland and Sweden. Other countries have "green taxes" with different names.

Developments in Norway are shown in Table 1.

Table 1. Developments in the levels of Norwegian CO<sub>2</sub> taxes

	1991	1992	1993	1994	1995
Gasoline	0.60 NOK/litre	0.80 NOK/litre		0.82 NOK/litre	0.83 NOK/litre
Autodiesel etc.	0.30 NOK/litre		0.40 NOK/litre	0.41 NOK/litre*	0.415 NOK/litre
Gas in the North Sea	0.60 NOK/Sm3	0.80 NOK/Sm3		0.82 NOK/Sm3	0.83 NOK/Sm3
Oil in the North Sea	0.60 NOK/litre	0.80 NOK/litre		0.82 NOK/litre	0.83 NOK/litre
Mineral Oil	0.30 NOK/litre	0.30 NOK/litre	0.40 NOK/litre	0.41 NOK/litre	0.415 NOK/litre
Coal		0.30 NOK/kg	0.40 NOK/kg	0.41 NOK/kg	0.415 NOK/kg

<sup>\*</sup> Caused by change in taxation system for autodiesel vehicles. Source: Norwegian Ministry of Finance

As one can see, there has been little change since 1992. The main reason may be, aside from economic conditions in Norway, developments or lack of developments in other countries. Thus, in reality there is a limit to how much a small, open economy can be in front of others.