Chapter 10

Exploiting the United Kingdom’s Oil Reserves

This last part of the book gives four examples of practical issues in which the principles developed in earlier chapters are relevant to policy decisions. In the following three chapters the cases quoted have all been subject to lengthy discussion, and in two instances to official reports, so that they can be examined to shed some light on how Government may view the decisions and compromises it has to make. The subject of this chapter, however, is a less well established one, so that in this case the discussion takes the form mainly of posing questions rather than suggesting solutions.

The discovery of extensive oil reserves beneath the North Sea has revolutionised the United Kingdom’s pattern of fuel supply, and has changed, at least for a couple of decades, the constraints which have traditionally surrounded this sector of the economy. The coincidence of these finds with the rapidly rising world price of oil in the early 1970s, which made their exploitation commercially viable, seemed providential. But as with any endowment they bring with them responsibilities to use the reserves to the best advantage of U.K. citizens and their descendants, and the solution of these considerations is not altogether straightforward. Probably the most important decision to be made is the optimum time and rate of its use, and in this
form the problem highlights several issues already discussed, including the most appropriate rate of discount, the difficulty of allowing for the divergence of private and social costs and how to deal with uncertainty.

To illustrate the relevance of these factors a brief review of the history of North Sea operations may be helpful. Licences to explore and exploit sections of the North Sea were originally granted in the expectation that the chief discovery would be gas; the exploring companies (usually oil consortia) were granted licences for a nominal fee, according to how fast they intended to explore and on the understanding that all gas found (except when intended for certain chemical processes) should be offered to the Gas Council (now the British Gas Corporation). However, the discovery of commercial quantities of oil, which is retailed chiefly through private companies, raised a slightly different issue. For whereas the gas industry, as a monopsonist buyer from the North Sea and monopolist retailer, can set its own price for gas discoveries (as long as it covers the costs of exploitation and normal profit to induce the drilling companies to continue operations) in selling direct to retailers, the chief determinant of oil price is 'what the market will pay'. In a competitive industry with a perfectly elastic supply of factors of production no problem arises since supply and demand are in equilibrium at a price which ensures equality between consumers’ marginal utility and cost of production. But two factors in North Sea oil operations frustrate such an equilibrium. There is in any case only a limited amount of oil available so that there is likely to be an economic rent accruing to those fortunate enough to be able to exploit it; and the high risks and heavy capital expenditure required exclude many small firms from the market. Production constraints imposed by a particular tax regime, weather conditions and the need for good oil-field practice also yield economic rents to some producers. This means that the system is not perfectly competitive, and there is no market mechanism which will ensure that the rate of depletion and equilibrium price of oil will maximise welfare in the fuel market or in the wider community. Hence arises the need for Government intervention and policy in this area.

One problem in determining the best approach is that any fuel policy is intimately involved with general economic development. The main determinant of demand for energy is the general level of economic activity, since this affects both the needs of industry and the disposable incomes of private citizens. Similarly there cannot be a large increase in industrial activity unless there are adequate fuel