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SCIENCE

What Is a Fair Price for Oil?

The current militancy of the Organization of Petroleum Exporting Countries is of special concern to western Europe and Japan. A key ingredient in their prosperity has been the availability of large quantities of cheap energy, mainly in the form of petroleum and its products. Western Europe and Japan have inferior supplies of coal, and nuclear energy accounts for only a tiny fraction of their needs. Sharply increased costs for oil or a scarcity of it will be a burden to them.

Petroleum has been found in all the continents and in most of the continental slopes. Recent discoveries of oil on the north slope of Alaska, in the North Sea, off western Africa, and off southern Australia have drawn press attention. These pools, though useful, are dwarfed by those in the Persian Gulf. There an ideal combination of geological events has led to the accumulation of enormous quantities of readily accessible petroleum. With less than 2,500 wells, the Persian Gulf states in 1969 produced more oil (nearly 4,600 million barrels) than did the United States with about 538,000 wells. Oil reserves in the Middle East amount to around 300,000 million barrels (46,000 million cubic meters), about ten times those of the United States exclusive of Alaska.

The oil of the Persian Gulf states accumulated as a result of events that took place over a time span of more than 100 million years. It represents a major source of income for the oil exporting countries, and its exhaustion in the future would probably return many of them to primitive poverty. Under such circumstances, what is a fair price for oil?

In real life, such matters are decided not on the basis of abstract considerations but on an interplay of technology, economics, and politics. Most of the world's petroleum was discovered and is being produced by American companies, with the British and Dutch also important participants.

In the Persian Gulf, the bare cost of production is tiny—about 10 cents per barrel (42 U.S. gallons per barrel). Profits are large, and most of them go to the producing countries. The producing countries naturally seek to expand their take by increased taxes and prices, and they are tempted to expropriate the oil concessions.

During the past decade, however, the bargaining position of the exporting countries was poor. They did not cooperate effectively. They did not have sufficient technical and financial resources to operate the oil fields efficiently, nor did they have tanker fleets, refineries, and distributing networks. Mainly through American initiative, additional oil fields were discovered and developed in Libya and West Africa. This new oil on the market exerted a depressing force on prices. During the decade of the sixties, the cost of oil remained stationary and, in constant dollars, declined. Attracted to this cheap energy source, western Europe and Japan adapted their industries to its use, and their oil consumption and dependency increased rapidly. The bargaining position has recently changed drastically, largely as a result of tough actions by Libya. The other producing countries, seeing that they can win, are cooperating as never before; they can demand sharply higher prices for their oil and get them. They can engage in oil diplomacy. In the long run, excessive pressure would be unwise. But, since most people are interested mainly in the here and now, we can expect a continuing series of crises and confrontations and much higher prices for oil, both here and elsewhere, which will result in crash programs to develop alternative energy sources.—PHILIP H. ABELSON